

<b>Letter I38</b>	<b>Claire Perricelli</b> 10/16/2017
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- I38-1 The comment expresses concern with adequate regulation of cannabis. This comment is noted and will be provided to the Planning Commission and Board of Supervisors for their consideration during review/consideration of the project.
- I38-2 The comment request the County establish regulations that includes protection of watersheds from impacts resulting from cannabis operations. The reader is referred to Master Response 5 for a detailed discussion of the DEIR's evaluation of water resource impacts to the County's watersheds.
- I38-3 The comment requests a cumulative environmental analysis that includes unpermitted operations and the impacts to watersheds. The reader is referred to Master Response 1 for a detailed discussion of DEIR's consideration of unpermitted cannabis operations and Master Response 5 for further discussion of the DEIR's evaluation of water resource impacts to the County's watersheds.
- I38-4 The comment recommends that permitted cultivation be limited to 10,000 square feet for the largest parcel. This comment is noted. This comment reflects a proposed change to the ordinance and does not address environmental issues evaluated in the EIR.
- I38-5 The comment includes concern with enforcement. The reader is referred to Master Response 6 for a detailed discussion of improvements to the County's code enforcement activities.
- I38-6 The comment includes conclusory remarks. The comment is noted and will be provided to the Planning Commission and Board of Supervisors for their consideration during review/consideration of the project.

**From:** Amy Gustin  
**To:** Planning Clerk  
**Subject:** comments on cannabis EIR and new ordinance  
**Date:** Monday, October 16, 2017 12:58:31 PM

Dear Director Ford and colleagues:

It must be reiterated that allowing new grows is completely irresponsible. California already grows at least five times more marijuana than it consumes. Why would you sacrifice any more of Humboldt's forest habitat, when there is no market for any additional marijuana? The harm to wildlife and habitat cannot be mitigated, yet this is not reflected in the EIR and proposed changes.

139-1

#### HOW HUMBOLDT MARIJUANA HARMS WILDLIFE AND DEGRADES HABITAT QUALITY:

Land clearing in forest habitat, for marijuana cultivation, reduces animal populations and species diversity. It fundamentally degrades the quality of a significant portion of the remaining habitat. While some of the ecological impacts of marijuana cultivation have been addressed, the effects of land clearing on terrestrial animals has not yet received the attention it deserves. Wildlife biologists Scott Bauer and Mourad Gabriel both refer to the issue of land clearing in forest habitat, as part of the problem, but their main focus is on water use and rodenticides. It is time to look at the impacts of land clearing.

Humboldt County has some of the best wildlife habitat left on the coast of California, and gives refuge to many species that have dwindled in numbers elsewhere, due to habitat loss from development. The land where marijuana is being cultivated in Humboldt, has the same wildlife values that we find in our parks and National Forests. It is just as damaging to cultivate marijuana in Humboldt's forest habitat, as it is to cultivate in the National Forests. As of yet, California's marijuana regulations have ignored this damaging impact.

When a grower decides to cultivate marijuana in forest habitat, the first act is to clear the desired area of all the native vegetation. All of the trees are chopped down, and the shrubs and herbaceous plants removed. Then the land is bulldozed to remove the roots and level the steep ground. This is a very destructive act, in and of itself. For many animals, that area was the sum total of their home range. Animals that are too small or too slow to flee the onslaught are killed. Babies in the den or nest are also at risk. Land clearing also harms the soil ecology and destroys native earthworms.

139-2

These marijuana clearcuts were formerly an integrated part of the forest habitat. Now these scars on the land are holes in the habitat. To understand the impact, look at it from an animal's perspective. That hole is in the home range of a number of different animals. A home range is the area an animal travels to find what they need to survive and reproduce. It is where they find food, water, denning and resting spots, and potential mates. The clearcut held vegetation, insects and rodents, that were food for many other animals. It also held denning and nesting sites. Now there is a significant deficit in the home range of many animals. To compensate for the decline in food availability, many animals will need to enlarge their home range. Since all of the available land has been utilized prior to the marijuana clearcut, this enlargement has a ripple effect. Other animals have to enlarge their home range as well. With larger home ranges, only a smaller population can be sustained. Keep in mind that there has been a huge growth in the number and size of these clearcuts in the last decade, from around 4,000 to 12,000. Also keep in mind that enlarging a home range means that an animal has to expend more energy just to survive.

This reduction in food availability, is exacerbated by marijuana cultivators war on woodrats. Woodrats are native rodents that are an important prey species for many carnivores, including weasels, ringtails, foxes, bobcats, numerous owl species, and even mountain lions. Woodrats are attracted to marijuana plants that grow in their home range. Most cultivators try to kill woodrats

preemptively. Rodenticides are obviously the most damaging method, but traps and cats have a negative impact as well, by reducing the number of prey species available to native carnivores. A reduction in prey species leads to enlarged home ranges.

In addition to decreasing populations of animals, these marijuana clearcuts degrade the quality of a significant portion of the remaining forest habitat. This negatively impacts animal diversity. The area around the clearcut is impacted in every direction out for a hundred meters, or about the same distance as a football field. This area has been turned into edge habitat. Edge habitat is not as prime as forest interior habitat. It is sunnier, drier, warmer, and windier. Edge habitat experiences more dramatic environmental fluctuations than the forest interior. When wind and sun dry out the forest edge habitat, it reduces the abundance and diversity of insects and other invertebrates. These are important food species for many animals.

Forest interior habitat is sheltered from the influences at the edge. It is moister, and gives more protection from predators as it has more complex vegetation structure. Larger trees and snags provide food and denning sites for numerous species. Forest interior is important habitat for many species. Many songbirds, especially those that nest on or near the ground, need the protection found in forest interior habitat. Some of the species that are associated with forest interior habitat are douglas squirrels, Humboldt flying squirrels, townsend chipmunks, northern spotted owls, northern saw whet owls and pileated woodpeckers. The Pacific fisher and Humboldt marten depend on forest interior habitat. They need the canopy cover and brushy undergrowth that protects them from larger predators, while providing excellent habitat for the rodents that they hunt.

Why is this important? Because we are in the midst of the largest extinction event since the Cretaceous Extinction that wiped out the dinosaurs. Since 1970, the Earth lost 58% of its biodiversity, according to the Living Planet Report of 2016. Here in California, we rank #1 in the United States, for species diversity, but also #2 for species at risk, and #3 for extinctions. We must do better. Many species in California are in decline. It is a mistake to wait until a species is critically endangered before we act to protect them. Since habitat loss is the leading cause of extinctions, protecting quality wildlife habitat, such as the forest habitat of Humboldt County, needs to be a priority. Humboldt holds great promise as an area that fosters animal abundance and diversity, but only if we act to correct the harm of the greenrush, by shrinking the industry. Humboldt needs to show environmental leadership, and limit the size and number of grows that it will permit in Humboldt's forest habitat.

Additionally, noise is a major issue. Generators should not be allowed on off the grid grows. Also, grows on rural dirt roads should not be permitted. These are residential neighborhoods, yet they are treated as industrial.

Forever

Amy Gustin, Habitat

October 16, 2017

139-2  
cont

139-3

<b>Letter I39</b>	<b>Amy Gustin</b> 10/16/2017
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- I39-1      The comment states opposition to allowing new cultivation and asserts that the DEIR does not address the impacts wildlife and habitat.
- DEIR Section 3.4, “Biological Resources,” provides a detailed description of current vegetation and natural habitat conditions in the County, as well as a description of wildlife species that are known to occur or have potential to occur in the County. This section identifies significant impacts to wildlife and habitat and includes 18 mitigation measures that would reduce wildlife and habitat impacts to a less than significant level. Mitigation measures have been refined based on CDFW input on the DEIR (see responses to Comment Letter S1). This section, beginning on page 3.4-1 of the DEIR, presents adequate research and data that was used to determine the level of significance, and provides reference to consulted resources.
- I39-2      The comment discusses cannabis cultivation and operation impacts to wildlife and habitat. The commenter is referred to Section 3.4, “Biological Resources,” of the DEIR, where impacts wildlife and habitat within the County from implementation of the proposed ordinance are fully analyzed. The proposed ordinance would prohibit new commercial cannabis operations from occurring on public land (e.g., state and national parks, Six Rivers National Forest), TPZ-zoned areas, and General Plan designated Timberland areas that contain a substantial portion of the County forest habitat areas. The DEIR does acknowledge the impacts of existing unpermitted cannabis cultivation on biological resources on DEIR page 3.4-59.
- I39-3      The comment includes concerns with noise associated with cannabis cultivation activities from generators and recommends that cultivation not be allowed on rural dirt roads.
- The commenter is referred to Master Response 3 for further discussion on noise impacts from generators. The majority of the County’s rural roadway system is not paved, and the County considers such a restriction on cultivation sites to be infeasible.



**From:** "%Name%"  
**To:** [Lazar, Steve](#)  
**Subject:** Comments for Cannabis Cultivation DEIR  
**Date:** Monday, October 16, 2017 9:19:38 AM

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Letter  
I40

Name:	Craig Tucker
E-mail:	<a href="mailto:scraigtucker@gmail.com">scraigtucker@gmail.com</a>

Steve Lazar, Senior Planner  
Humboldt County Planning & Building Department  
3015 H Street  
Eureka, CA 95501  
Via email

Dear Mr. Lazar:

Humboldt County has an important opportunity before it to establish meaningful regulations to protect our watersheds from the significant impacts of the commercial cannabis industry. I support using science and reality-based evidence to inform regulations that maintain and protect healthy rivers.

I40-1

I request that Humboldt County analyze and disclose the cumulative impacts of cannabis cultivation on a watershed level. Un-permitted operations, which currently far outnumber permitted ones, must be included in this analysis, as required by the California Environmental Quality Act.

I40-2

I also recommend that the size of permitted operations be limited to 10,000 square feet for the largest parcels.

I40-3

With only three staff members assigned to code enforcement, Humboldt County does not have the resources to enforce the ordinance, let alone enforce penalties for violators. The lack of resources dedicated to this issue sends a strong message that the county has little interest in actually protecting our watershed.

I40-4

Humboldt County has long been the leader of the, until now, illicit marijuana industry. With full legalization on the horizon, we must rise to the occasion and also become a leader in the transition to a more transparent and sustainable cannabis industry.

I40-5

Thank you,

<b>Letter I40</b>	<b>Craig Tucker</b> 10/16/2017
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- I40-1      The comment request the County establish regulations that includes protection of watersheds from impacts resulting from cannabis operations. The reader is referred to Master Response 5 for a detailed discussion of the DEIR's evaluation of water resource impacts to the County's watersheds.
- I40-2      The comment requests a cumulative environmental analysis that includes unpermitted operations and the impacts to watersheds. The reader is referred to Master Response 1 for a detailed discussion of DEIR's consideration of unpermitted cannabis operations and Master Response 5 for further discussion of the DEIR's evaluation of water resource impacts to the County's watersheds.
- I40-3      The comment recommends that permitted cultivation be limited to 10,000 square feet for the largest parcel. This comment is noted.
- I40-4      The comment includes concern with enforcement. The reader is referred to Master Response 6 for a detailed discussion of improvements to the County's code enforcement activities.
- I40-5      The comment includes conclusory remarks. The comment is noted and will be provided to the Planning Commission and Board of Supervisors for their consideration during review/consideration of the project.

**From:** "%Name%"  
**To:** [Lazar, Steve](#)  
**Subject:** Comments for Cannabis Cultivation DEIR  
**Date:** Monday, October 16, 2017 7:44:20 AM

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Letter  
I41

Name:	Curtis Berrien
E-mail:	Curt@berrienobrien.com
Your Comments:	While legalizing cannabis may be good for the county, it continues to threaten our precious environment and our Eel river watershed unless stringent and scientific data based regulations are applied to growers. The transition period to legalization is our only chance to thoroughly study environmental requirements for "grows." Furthermore, new tax revenue from the cannabis industry should be sufficient to fund enforcement ranks from their current paltry level to one that is up to the enforcement task. Please take the opportunity to take these actions for the environment and the community while we still can.

I41-1

Steve Lazar, Senior Planner  
Humboldt County Planning & Building Department  
3015 H Street  
Eureka, CA 95501  
Via email

Dear Mr. Lazar:

Humboldt County has an important opportunity before it to establish meaningful regulations to protect our watersheds from the significant impacts of the commercial cannabis industry. I support using science and reality-based evidence to inform regulations that maintain and protect healthy rivers.

I41-2

I request that Humboldt County analyze and disclose the cumulative impacts of cannabis cultivation on a watershed level. Un-permitted operations, which currently far outnumber permitted ones, must be included in this analysis, as required by the California Environmental Quality Act.

I41-3

I also recommend that the size of permitted operations be limited to 10,000 square feet for the largest parcels.

I41-4

With only three staff members assigned to code enforcement, Humboldt County does not have the resources to enforce the ordinance, let alone enforce penalties for violators. The lack of resources dedicated to this issue sends a strong message that the county has little interest in actually protecting our watershed.

I41-5

Humboldt County has long been the leader of the, until now, illicit marijuana industry. With full legalization on the horizon, we must rise to the occasion and also become a leader in the transition to a more transparent and sustainable cannabis industry.

I41-6

Thank you,

<b>Letter I41</b>	<b>Curtis Berrien</b> 10/16/2017
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- I41-1      The comment includes concern with watershed impacts and enforcement efforts by the County. The reader is referred to Master Response 5 for a detailed discussion of watershed impacts and Master Response 6 for description of the County's improvements to code enforcement activities.
  
- I41-2      The comment request the County establish regulations that includes protection of watersheds from impacts resulting from cannabis operations. The reader is referred to Master Response 5 for a detailed discussion of the DEIR's evaluation of water resource impacts to the County's watersheds.
  
- I41-3      The comment requests a cumulative environmental analysis that includes unpermitted operations and the impacts to watersheds. The reader is referred to Master Response 1 for a detailed discussion of DEIR's consideration of unpermitted cannabis operations and Master Response 5 for further discussion of the DEIR's evaluation of water resource impacts to the County's watersheds.
  
- I41-4      The comment recommends that permitted cultivation be limited to 10,000 square feet for the largest parcel. This comment is noted. This comment reflects a proposed change to the ordinance and does not address environmental issues evaluated in the EIR.
  
- I41-5      The comment includes concern with enforcement. The reader is referred to Master Response 6 for a detailed discussion of improvements to the County's code enforcement activities.
  
- I41-6      The comment includes conclusory remarks. The comment is noted and will be provided to the Planning Commission and Board of Supervisors for their consideration during review/consideration of the project.

**From:** "Cynthia Hammond"  
**To:** Lazar, Steve  
**Subject:** Comments for Cannabis Cultivation DEIR  
**Date:** Monday, October 16, 2017 6:01:11 PM

Name:	Cynthia Hammond
E-mail:	cynthiahammond118@gmail.com
Your Comments:	I am extremely concerned about the cumulative environmental impact of allowing 1000's of large marijuana grows in Humboldt. This does not appear to be adequately addressed in the DEIR. I support a maximum size of 10000 square feet and I share the skepticism of many who can't imagine effective code enforcement with such a small County staff. Thank you for listening.

I42-1

Steve Lazar, Senior Planner  
Humboldt County Planning & Building Department  
3015 H Street  
Eureka, CA 95501  
Via email

Dear Mr. Lazar:

Humboldt County has an important opportunity before it to establish meaningful regulations to protect our watersheds from the significant impacts of the commercial cannabis industry. I support using science and reality-based evidence to inform regulations that maintain and protect healthy rivers.

I42-2

I request that Humboldt County analyze and disclose the cumulative impacts of cannabis cultivation on a watershed level. Un-permitted operations, which currently far outnumber permitted ones, must be included in this analysis, as required by the California Environmental Quality Act.

I42-3

I also recommend that the size of permitted operations be limited to 10,000 square feet for the largest parcels.

I42-4

With only three staff members assigned to code enforcement, Humboldt County does not have the resources to enforce the ordinance, let alone enforce penalties for violators. The lack of resources dedicated to this issue sends a strong message that the county has little interest in actually protecting our watershed.

I42-5

Humboldt County has long been the leader of the, until now, illicit marijuana industry. With full legalization on the horizon, we must rise to the occasion and also become a leader in the transition to a more transparent and sustainable cannabis industry.

I42-6

Thank you,



<b>Letter I42</b>	<b>Cynthia Hammond</b> 10/16/2017
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- I42-1      The comment asserts that cumulative impacts of cannabis operations were not adequately addressed in the Draft EIR. The comment also asserts that the cultivation areas should be limited to 10,000 square feet and questions the County's ability to conduct effective code enforcement.
- As identified on DEIR page 2-29, the DEIR impact analysis is based on the consideration that 1,012 new commercial cannabis cultivation sites may be permitted under the proposed ordinance. This assumption is used in the project impact analysis in DEIR Sections 3.1 through 3.14 and the cumulative impact analysis in Chapter 4, "Cumulative Impacts." The comment letter provides no technical analysis or information that demonstrates that counters the analysis in the DEIR. The reader is referred to Master Response 6 for description of the County's improvements to code enforcement activities.
- I42-2      The comment request the County establish regulations that includes protection of watersheds from impacts resulting from cannabis operations. The reader is referred to Master Response 5 for a detailed discussion of the DEIR's evaluation of water resource impacts to the County's watersheds.
- I42-3      The comment requests a cumulative environmental analysis that includes unpermitted operations and the impacts to watersheds. The reader is referred to Master Response 1 for a detailed discussion of DEIR's consideration of unpermitted cannabis operations and Master Response 5 for further discussion of the DEIR's evaluation of water resource impacts to the County's watersheds.
- I42-4      The comment recommends that permitted cultivation be limited to 10,000 square feet for the largest parcel. This comment is noted. This comment reflects a proposed change to the ordinance and does not address environmental issues evaluated in the EIR.
- I42-5      The comment includes concern with enforcement. The reader is referred to Master Response 6 for a detailed discussion of improvements to the County's code enforcement activities.
- I42-6      The comment includes conclusory remarks. The comment is noted and will be provided to the Planning Commission and Board of Supervisors for their consideration during review/consideration of the project.

**From:** [dan kelley](#)  
**To:** [Lazar, Steve](#)  
**Subject:** Halt Further Expansion of Marijuana Cultivation in Humboldt County  
**Date:** Monday, October 16, 2017 1:21:58 PM

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Please stop all further expansion of marijuana cultivation in Humboldt County until you are able to achieve adequate regulatory compliance and control of existing sites. I cannot imagine the purpose of county agencies who regulate and control land use, if it is not to prevent the exact problem we are facing: law-abiding, tax-paying citizens are being held hostage to outrageous increases in truck traffic, inequitable water grabs, soil contamination, noise and light pollution and horrible smells. Humboldt does not allow any industry (eg. dairy, logging, fisheries, health care, etc) or any other business to expand in such an unchecked manner.

I43-1

Dan Kelley  
1926 Quail Hill Rd. #92  
Hydesville, CA 95547  
206.550.1675

<b>Letter I43</b>	<b>Dan Kelley</b> 10/16/2017
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- I43-1      The comment includes opposition of expansion of the cannabis industry. The comment also includes concerns regarding traffic, water, soil contamination, noise, light pollution, and odor. Evaluation of impacts involving these topics can be found in the following DEIR sections, respectively: 3.12, "Transportation and Circulation," 3.8, "Hydrology and Water Quality," 3.7, "Hazards and Hazardous Materials," 3.10, "Noise," 3.1, "Aesthetics," and 3.3, "Air Quality and Greenhouse Gases." Additionally, Master Responses 5, 3, and 4, respectively provide further discussion of impacts related to water resources, noise and generator use, and odors associated with cannabis activities to be permitted under the proposed ordinance.

**From:** "%Name%"  
**To:** Lazar, Steve  
**Subject:** Comments for Cannabis Cultivation DEIR  
**Date:** Monday, October 16, 2017 1:37:45 PM

Name:	Daniel Kowalski
E-mail:	dank8@me.com
Your Comments:	<p>Steve Lazar, Senior Planner  Humboldt County Planning &amp; Building Department  3015 H Street  Eureka, CA 95501  Via email  Dear Mr. Lazar:</p> <p>Humboldt County has an important opportunity before it to establish meaningful regulations to protect our watersheds from the significant impacts of the commercial cannabis industry. I support using science and reality-based evidence to inform regulations that maintain and protect healthy rivers.</p> <p>I request that Humboldt County analyze and disclose the cumulative impacts of cannabis cultivation on a watershed level. Un-permitted operations, which currently far outnumber permitted ones, must be included in this analysis, as required by the California Environmental Quality Act.</p> <p>I also recommend that the size of permitted operations be limited to 10,000 square feet for the largest parcels.</p> <p>With only three staff members assigned to code enforcement, Humboldt County does not have the resources to enforce the ordinance, let alone enforce penalties for violators. The lack of resources dedicated to this issue sends a strong message that the county has little interest in actually protecting our watershed.</p> <p>Humboldt County has long been the leader of the, until now, illicit marijuana industry. With full legalization on the horizon, we must rise to the occasion and also become a leader in the transition to a more transparent and sustainable cannabis industry.</p> <p>Thank you,</p>

I44-1

I44-2

I44-3

I44-4

I44-5

Steve Lazar, Senior Planner  
Humboldt County Planning & Building Department  
3015 H Street  
Eureka, CA 95501  
Via email

Dear Mr. Lazar:

Humboldt County has an important opportunity before it to establish meaningful regulations to protect our watersheds from the significant impacts of the commercial cannabis industry. I support using science and reality-based evidence to inform regulations that maintain and protect healthy rivers.

I request that Humboldt County analyze and disclose the cumulative impacts of cannabis cultivation on a watershed level. Un-permitted operations, which currently far outnumber permitted ones, must be included in this analysis, as required by the California Environmental Quality Act.

I also recommend that the size of permitted operations be limited to 10,000 square feet for the largest parcels.

With only three staff members assigned to code enforcement, Humboldt County does not have the resources to enforce the ordinance, let alone enforce penalties for violators. The lack of resources dedicated to this issue sends a strong message that the county has little interest in actually protecting our watershed.

Humboldt County has long been the leader of the, until now, illicit marijuana industry. With full legalization on the horizon, we must rise to the occasion and also become a leader in the transition to a more transparent and sustainable cannabis industry.

Thank you,

I44-6



<b>Letter I44</b>	<b>Daniel Kowalski</b> 10/16/2017
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- I44-1 The comment request the County establish regulations that includes protection of watersheds from impacts resulting from cannabis operations. The reader is referred to Master Response 5 for a detailed discussion of the DEIR's evaluation of water resource impacts to the County's watersheds.
- I44-2 The comment requests a cumulative environmental analysis that includes unpermitted operations and the impacts to watersheds. The reader is referred to Master Response 1 for a detailed discussion of DEIR's consideration of unpermitted cannabis operations and Master Response 5 for further discussion of the DEIR's evaluation of water resource impacts to the County's watersheds.
- I44-3 The comment recommends that permitted cultivation be limited to 10,000 square feet for the largest parcel. This comment is noted. This comment reflects a proposed change to the ordinance and does not address environmental issues evaluated in the EIR.
- I44-4 The comment includes concern with enforcement. The reader is referred to Master Response 6 for a detailed discussion of improvements to the County's code enforcement activities.
- I44-5 The comment includes conclusory remarks. The comment is noted and will be provided to the Planning Commission and Board of Supervisors for their consideration during review/consideration of the project.
- I44-6 The comment repeats the comments provided in I44-1 through I44-5. The reader is referred to Response to Comment I44-1 through I44-5.

**From:** "DAVID HERR"  
**To:** Lazar, Steve  
**Subject:** Comments for Cannabis Cultivation DEIR  
**Date:** Monday, October 16, 2017 3:43:12 PM

Letter  
I45

Name:	DAVID HERR
E-mail:	dherr10@gmail.com

Steve Lazar, Senior Planner  
Humboldt County Planning & Building Department  
3015 H Street  
Eureka, CA 95501  
Via email

Dear Mr. Lazar:

Humboldt County has an important opportunity before it to establish meaningful regulations to protect our watersheds from the significant impacts of the commercial cannabis industry. I support using science and reality-based evidence to inform regulations that maintain and protect healthy rivers.

I45-1

I request that Humboldt County analyze and disclose the cumulative impacts of cannabis cultivation on a watershed level. Un-permitted operations, which currently far outnumber permitted ones, must be included in this analysis, as required by the California Environmental Quality Act.

I45-2

I also recommend that the size of permitted operations be limited to 10,000 square feet for the largest parcels.

I45-3

With only three staff members assigned to code enforcement, Humboldt County does not have the resources to enforce the ordinance, let alone enforce penalties for violators. The lack of resources dedicated to this issue sends a strong message that the county has little interest in actually protecting our watershed.

I45-4

Humboldt County has long been the leader of the, until now, illicit marijuana industry. With full legalization on the horizon, we must rise to the occasion and also become a leader in the transition to a more transparent and sustainable cannabis industry.

I45-5

Thank you,

<b>Letter I45</b>	<b>David Herr</b> 10/16/2017
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- I45-1      The comment request the County establish regulations that includes protection of watersheds from impacts resulting from cannabis operations. The reader is referred to Master Response 5 for a detailed discussion of the DEIR's evaluation of water resource impacts to the County's watersheds.
- I45-2      The comment requests a cumulative environmental analysis that includes unpermitted operations and the impacts to watersheds. The reader is referred to Master Response 1 for a detailed discussion of DEIR's consideration of unpermitted cannabis operations and Master Response 5 for further discussion of the DEIR's evaluation of water resource impacts to the County's watersheds.
- I45-3      The comment recommends that permitted cultivation be limited to 10,000 square feet for the largest parcel. This comment is noted. This comment reflects a proposed change to the ordinance and does not address environmental issues evaluated in the EIR.
- I45-4      The comment includes concern with enforcement. The reader is referred to Master Response 6 for a detailed discussion of improvements to the County's code enforcement activities.
- I45-5      The comment includes conclusory remarks. The comment is noted and will be provided to the Planning Commission and Board of Supervisors for their consideration during review/consideration of the project.

**From:** "Eric Forsman"  
**To:** [Lazar, Steve](#)  
**Subject:** Comments for Cannabis Cultivation DEIR  
**Date:** Monday, October 16, 2017 5:01:05 PM

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Letter  
I46

Name:	Eric Forsman
E-mail:	Ericlforsman@gmail.com
Your Comments:	I stand with Friends of the Eel River.

I I46-1

Steve Lazar, Senior Planner  
Humboldt County Planning & Building Department  
3015 H Street  
Eureka, CA 95501  
Via email

Dear Mr. Lazar:

Humboldt County has an important opportunity before it to establish meaningful regulations to protect our watersheds from the significant impacts of the commercial cannabis industry. I support using science and reality-based evidence to inform regulations that maintain and protect healthy rivers.

I I46-2

I request that Humboldt County analyze and disclose the cumulative impacts of cannabis cultivation on a watershed level. Un-permitted operations, which currently far outnumber permitted ones, must be included in this analysis, as required by the California Environmental Quality Act.

I I46-3

I also recommend that the size of permitted operations be limited to 10,000 square feet for the largest parcels.

I I46-4

With only three staff members assigned to code enforcement, Humboldt County does not have the resources to enforce the ordinance, let alone enforce penalties for violators. The lack of resources dedicated to this issue sends a strong message that the county has little interest in actually protecting our watershed.

I I46-5

Humboldt County has long been the leader of the, until now, illicit marijuana industry. With full legalization on the horizon, we must rise to the occasion and also become a leader in the transition to a more transparent and sustainable cannabis industry.

I I46-6

Thank you,

<b>Letter I46</b>	<b>Eric Forsman</b> 10/16/2017
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- I46-1 The comment expresses support with the Friends of Eel River Organization. The comment is noted. Response to comments from the Friends of the Eel River are provided for Comment Letter 04.
- I46-2 The comment request the County establish regulations that includes protection of watersheds from impacts resulting from cannabis operations. The reader is referred to Master Response 5 for a detailed discussion of the DEIR's evaluation of water resource impacts to the County's watersheds.
- I46-3 The comment requests a cumulative environmental analysis that includes unpermitted operations and the impacts to watersheds. The reader is referred to Master Response 1 for a detailed discussion of DEIR's consideration of unpermitted cannabis operations and Master Response 5 for further discussion of the DEIR's evaluation of water resource impacts to the County's watersheds.
- I46-4 The comment recommends that permitted cultivation be limited to 10,000 square feet for the largest parcel. This comment is noted. This comment reflects a proposed change to the ordinance and does not address environmental issues evaluated in the EIR.
- I46-5 The comment includes concern with enforcement. The reader is referred to Master Response 6 for a detailed discussion of improvements to the County's code enforcement activities.
- I46-6 The comment includes conclusory remarks. The comment is noted and will be provided to the Planning Commission and Board of Supervisors for their consideration during review/consideration of the project.



**From:** "Frank Emerson"  
**To:** Lazar, Steve  
**Subject:** Comments for Cannabis Cultivation DEIR  
**Date:** Monday, October 16, 2017 3:57:00 PM

Letter  
147

Name:	Frank Emerson
E-mail:	fshfndr@comcast.net
Your Comments:	Industrial production of cannabis crops in the sensitive watersheds of Humboldt County is not sustainable nor "organic". Increasing water diversions from fish bearing streams is exactly what causes the listing of Salmonid species to the Endangered Species Act, and prevents recovery of said listed species. Valuable fisheries that support thousands of jobs are at risk from increased cannabis cultivation and Govt should be very cautious about permitting new industry that may be liable for ESA violations. Please limit this industry before it becomes too large to manage and destroys our rivers.

I 147-1

Steve Lazar, Senior Planner  
Humboldt County Planning & Building Department  
3015 H Street  
Eureka, CA 95501  
Via email

Dear Mr. Lazar:

Humboldt County has an important opportunity before it to establish meaningful regulations to protect our watersheds from the significant impacts of the commercial cannabis industry. I support using science and reality-based evidence to inform regulations that maintain and protect healthy rivers.

I 147-2

I request that Humboldt County analyze and disclose the cumulative impacts of cannabis cultivation on a watershed level. Un-permitted operations, which currently far outnumber permitted ones, must be included in this analysis, as required by the California Environmental Quality Act.

I 147-3

I also recommend that the size of permitted operations be limited to 10,000 square feet for the largest parcels.

I 147-4

With only three staff members assigned to code enforcement, Humboldt County does not have the resources to enforce the ordinance, let alone enforce penalties for violators. The lack of resources dedicated to this issue sends a strong message that the county has little interest in actually protecting our watershed.

I 147-5

Humboldt County has long been the leader of the, until now, illicit marijuana industry. With full legalization on the horizon, we must rise to the occasion and also become a leader in the transition to a more transparent and sustainable cannabis industry.

I 147-6

Thank you,

<b>Letter I47</b>	<b>Frank Emerson</b> 10/16/2017
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- I47-1      The comment provides concern with water resources, including water diversions from fish bearing streams. The reader is referred to Master Response 5 for further evidence that water quality and surface water flow impacts would be mitigated through compliance with the State Water Board Policy in concert with DEIR Mitigation Measure 3.8-5. The State Water Board Policy's flow standards and diversion requirements were developed to protect fish spawning, migration, and rearing for endangered anadromous salmonids, and flows to needed to maintain natural flow variability within each watershed.
- I47-2      The comment request the County establish regulations that includes protection of watersheds from impacts resulting from cannabis operations. The reader is referred to Master Response 5 for a detailed discussion of the DEIR's evaluation of water resource impacts to the County's watersheds.
- I47-3      The comment requests a cumulative environmental analysis that includes unpermitted operations and the impacts to watersheds. The reader is referred to Master Response 1 for a detailed discussion of DEIR's consideration of unpermitted cannabis operations and Master Response 5 for further discussion of the DEIR's evaluation of water resource impacts to the County's watersheds.
- I47-4      The comment recommends that permitted cultivation be limited to 10,000 square feet for the largest parcel. This comment is noted. This comment reflects a proposed change to the ordinance and does not address environmental issues evaluated in the EIR.
- I47-5      The comment includes concern with enforcement. The reader is referred to Master Response 6 for a detailed discussion of improvements to the County's code enforcement activities.
- I47-6      The comment includes conclusory remarks. The comment is noted and will be provided to the Planning Commission and Board of Supervisors for their consideration during review/consideration of the project.

**From:** "%Name%"  
**To:** Lazar, Steve  
**Subject:** Comments for Cannabis Cultivation DEIR  
**Date:** Monday, October 16, 2017 8:48:21 AM

Name:	Hollie Hall
E-mail:	hollierhall@gmail.com
Your Comments:	<p>Hello Steve,</p> <p>I believe that cumulative impacts of cannabis cultivation can be mitigated in manner's not addressed by the EIR. For example:</p> <ol style="list-style-type: none"> <li>1. Create a permitting scheme that limits permitting of new cultivation to that square footage retired by existing cultivation, until existing cultivation is either permitted or restored.</li> <li>2. Cease the allowance of generator operated, mixed-light 'diesel grows'. Just last week the planning commission voted to grant a permit to a mixed-light off the grid farm. The farm has 2-years to reduce use of the generator. Generator powered, mixed-light 'diesel grows' have no place in a sustainable cannabis community.</li> </ol> <p>Thank-you for taking on the difficult task of creating regulations that protect our environment, economy, and culture.</p> <p>Hollie Hall, PdD</p>

I48-1

I48-2

I48-3

Steve Lazar, Senior Planner  
Humboldt County Planning & Building Department  
3015 H Street  
Eureka, CA 95501  
Via email

Dear Mr. Lazar:

Humboldt County has an important opportunity before it to establish meaningful regulations to protect our watersheds from the significant impacts of the commercial cannabis industry. I support using science and reality-based evidence to inform regulations that maintain and protect healthy rivers.

I48-4

I request that Humboldt County analyze and disclose the cumulative impacts of cannabis cultivation on a watershed level. Un-permitted operations, which currently far outnumber permitted ones, must be included in this analysis, as required by the California Environmental Quality Act.

I48-5

I also recommend that the size of permitted operations be limited to 10,000 square feet for the largest parcels.

I48-6

With only three staff members assigned to code enforcement, Humboldt County does not have the resources to enforce the ordinance, let alone enforce penalties for violators. The lack of resources dedicated to this issue sends a strong message that the county has little interest in actually protecting our watershed.

I48-7

Humboldt County has long been the leader of the, until now, illicit marijuana industry. With full legalization on the horizon, we must rise to the occasion and also become a leader in the transition to a more transparent and sustainable cannabis industry.

I 148-8

Thank you,

<b>Letter I48</b>	<b>Hollie Hall</b> 10/16/2017
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- I48-1      The comment includes suggested mitigation that commenter expresses was otherwise not presented within the DEIR that consists of would limit new cultivation to existing cultivation that would be retired and restored.
- The comment is noted and will be provided to the Planning Commission and Board of Supervisors for their consideration during review/consideration of the project. The DEIR does include mitigation measures that would mitigate significant environmental impacts except for project and cumulative particulate matter emissions, project and cumulative objectional odor impacts, and project and cumulative impacts to public water systems. While this suggested mitigation measure would have the potential to offset new operational particulate matter emissions from roadway dust, it would not eliminate the potential for significant objectionable odor and public water system impacts. The feasibility of this mitigation measure is unknown as it would require existing cannabis operations to be willing to retire and restore cultivation sites. No information is available to determine if enough existing cannabis operations would be willing to participate in such a program to offset the estimated 283.35 acres of new commercial cannabis cultivation anticipated under the proposed ordinance.
- It should be noted that at the time of the preparation of this Final EIR the County was considering modifications to the proposed ordinance that would establish a cap to limit the extent of permitted commercial cannabis operations in the County.
- I48-2      The comment suggests that generator-operated grows not be permitted within the County, further adding that these operations are not sustainable. The comment is noted and will be provided to the Planning Commission and Board of Supervisors for their consideration during review/consideration of the project.
- I48-3      The comment includes conclusory remarks. The comment is noted.
- I48-4      The comment request the County establish regulations that includes protection of watersheds from impacts resulting from cannabis operations. The reader is referred to Master Response 5 for a detailed discussion of the DEIR's evaluation of water resource impacts to the County's watersheds.
- I48-5      The comment requests a cumulative environmental analysis that includes unpermitted operations and the impacts to watersheds. The reader is referred to Master Response 1 for a detailed discussion of DEIR's consideration of unpermitted cannabis operations and Master Response 5 for further discussion of the DEIR's evaluation of water resource impacts to the County's watersheds.
- I48-6      The comment recommends that permitted cultivation be limited to 10,000 square feet for the largest parcel. This comment is noted. This comment reflects a proposed change to the ordinance and does not address environmental issues evaluated in the EIR.
- I48-7      The comment includes concern with enforcement. The reader is referred to Master Response 6 for a detailed discussion of improvements to the County's code enforcement activities.



I48-8

The comment includes conclusory remarks. The comment is noted and will be provided to the Planning Commission and Board of Supervisors for their consideration during review/consideration of the project.

**From:** "%Name%"  
**To:** Lazar, Steve  
**Subject:** Comments for Cannabis Cultivation DEIR  
**Date:** Monday, October 16, 2017 12:18:23 PM

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<b>Name:</b>	Jeff Mckay
<b>E-mail:</b>	Beyourowncoach@sbcglobal.net

Steve Lazar, Senior Planner  
Humboldt County Planning & Building Department  
3015 H Street  
Eureka, CA 95501  
Via email

Dear Mr. Lazar:

Humboldt County has an important opportunity before it to establish meaningful regulations to protect our watersheds from the significant impacts of the commercial cannabis industry. I support using science and reality-based evidence to inform regulations that maintain and protect healthy rivers.

I49-1

I request that Humboldt County analyze and disclose the cumulative impacts of cannabis cultivation on a watershed level. Un-permitted operations, which currently far outnumber permitted ones, must be included in this analysis, as required by the California Environmental Quality Act.

I49-2

I also recommend that the size of permitted operations be limited to 10,000 square feet for the largest parcels.

I49-3

With only three staff members assigned to code enforcement, Humboldt County does not have the resources to enforce the ordinance, let alone enforce penalties for violators. The lack of resources dedicated to this issue sends a strong message that the county has little interest in actually protecting our watershed.

I49-4

Humboldt County has long been the leader of the, until now, illicit marijuana industry. With full legalization on the horizon, we must rise to the occasion and also become a leader in the transition to a more transparent and sustainable cannabis industry.

I49-5

Thank you,

<b>Letter I49</b>	<b>Jeff Mckay</b> 10/16/2017
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- I49-1      The comment request the County establish regulations that includes protection of watersheds from impacts resulting from cannabis operations. The reader is referred to Master Response 5 for a detailed discussion of the DEIR's evaluation of water resource impacts to the County's watersheds.
- I49-2      The comment requests a cumulative environmental analysis that includes unpermitted operations and the impacts to watersheds. The reader is referred to Master Response 1 for a detailed discussion of DEIR's consideration of unpermitted cannabis operations and Master Response 5 for further discussion of the DEIR's evaluation of water resource impacts to the County's watersheds.
- I49-3      The comment recommends that permitted cultivation be limited to 10,000 square feet for the largest parcel. This comment is noted. This comment reflects a proposed change to the ordinance and does not address environmental issues evaluated in the EIR.
- I49-4      The comment includes concern with enforcement. The reader is referred to Master Response 6 for a detailed discussion of improvements to the County's code enforcement activities.
- I49-5      The comment includes conclusory remarks. The comment is noted and will be provided to the Planning Commission and Board of Supervisors for their consideration during review/consideration of the project.

**From:** "%Name%"  
**To:** Lazar, Steve  
**Subject:** Comments for Cannabis Cultivation DEIR  
**Date:** Monday, October 16, 2017 8:55:39 AM

Name:	Jerry Martien
E-mail:	jerrymartien@gmail.com
Your Comments:	Humboldt County has so far favored the lax regulation of resources that has enriched and empowered a few individuals in ranching and timber and impoverished the land and people. Unless the planning department, its commissioners, and the board of supervisors get serious about the marijuana regulatory process, we are going to end up with more of the same environmental damage, depleted watersheds and diminished salmon runs, and a few more wealthy good old boys and girls.

I50-1

Steve Lazar, Senior Planner  
Humboldt County Planning & Building Department  
3015 H Street  
Eureka, CA 95501  
Via email

Dear Mr. Lazar:

Humboldt County has an important opportunity before it to establish meaningful regulations to protect our watersheds from the significant impacts of the commercial cannabis industry. I support using science and reality-based evidence to inform regulations that maintain and protect healthy rivers.

I50-2

I request that Humboldt County analyze and disclose the cumulative impacts of cannabis cultivation on a watershed level. Un-permitted operations, which currently far outnumber permitted ones, must be included in this analysis, as required by the California Environmental Quality Act.

I50-3

I also recommend that the size of permitted operations be limited to 10,000 square feet for the largest parcels.

I50-4

With only three staff members assigned to code enforcement, Humboldt County does not have the resources to enforce the ordinance, let alone enforce penalties for violators. The lack of resources dedicated to this issue sends a strong message that the county has little interest in actually protecting our watershed.

I50-5

Humboldt County has long been the leader of the, until now, illicit marijuana industry. With full legalization on the horizon, we must rise to the occasion and also become a leader in the transition to a more transparent and sustainable cannabis industry.

I50-6

Thank you,

<b>Letter I50</b>	<b>Jerry Martien</b> 10/16/2017
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- I50-1      The comment states that lax regulation of cannabis have impacted the County and that the County should get serious about regulating cannabis to avoid more environmental impacts to watersheds.
- The reader is referred to Master Response 5 for a detailed discussion of the DEIR's evaluation of water resource impacts to the County's watersheds and fishery resources. The reader is also referred to Master Response 6 for a detailed discussion of improvements to the County's code enforcement activities.
- I50-2      The comment request the County establish regulations that includes protection of watersheds from impacts resulting from cannabis operations. The reader is referred to Master Response 5 for a detailed discussion of the DEIR's evaluation of water resource impacts to the County's watersheds.
- I50-3      The comment requests a cumulative environmental analysis that includes unpermitted operations and the impacts to watersheds. The reader is referred to Master Response 1 for a detailed discussion of DEIR's consideration of unpermitted cannabis operations and Master Response 5 for further discussion of the DEIR's evaluation of water resource impacts to the County's watersheds.
- I50-4      The comment recommends that permitted cultivation be limited to 10,000 square feet for the largest parcel. This comment is noted. This comment reflects a proposed change to the ordinance and does not address environmental issues evaluated in the EIR.
- I50-5      The comment includes concern with enforcement. The reader is referred to Master Response 6 for a detailed discussion of improvements to the County's code enforcement activities.
- I50-6      The comment includes conclusory remarks. The comment is noted and will be provided to the Planning Commission and Board of Supervisors for their consideration during review/consideration of the project.

**From:** "%Name%"  
**To:** Lazar, Steve  
**Subject:** Comments for Cannabis Cultivation DEIR  
**Date:** Monday, October 16, 2017 11:48:24 AM

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Letter  
I51

Name:	Jim and Francene Rizza
E-mail:	jrizza@suddenlink.net
Your Comments:	It's time that we really look at the impact that grows are doing; be they legal or otherwise. We have property out on Highway 36 and could go on for quite awhile about the changes that have been brought about by cultivation of marijuana: light, sound, space, water, garbage, and vibes.....just overall presence has been a negative. Only to get worse....

I51-1

Steve Lazar, Senior Planner  
Humboldt County Planning & Building Department  
3015 H Street  
Eureka, CA 95501  
Via email

Dear Mr. Lazar:

Humboldt County has an important opportunity before it to establish meaningful regulations to protect our watersheds from the significant impacts of the commercial cannabis industry. I support using science and reality-based evidence to inform regulations that maintain and protect healthy rivers.

I51-2

I request that Humboldt County analyze and disclose the cumulative impacts of cannabis cultivation on a watershed level. Un-permitted operations, which currently far outnumber permitted ones, must be included in this analysis, as required by the California Environmental Quality Act.

I51-3

I also recommend that the size of permitted operations be limited to 10,000 square feet for the largest parcels.

I51-4

With only three staff members assigned to code enforcement, Humboldt County does not have the resources to enforce the ordinance, let alone enforce penalties for violators. The lack of resources dedicated to this issue sends a strong message that the county has little interest in actually protecting our watershed.

I51-5

Humboldt County has long been the leader of the, until now, illicit marijuana industry. With full legalization on the horizon, we must rise to the occasion and also become a leader in the transition to a more transparent and sustainable cannabis industry.

I51-6

Thank you,

<b>Letter I51</b>	<b>Jim and Francene Rizza</b> 10/16/2017
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- I51-1      The comment expresses concern with negative impacts associated with cannabis operations, including, light, sound, space, water, garbage, and vibes. Further evaluation and analysis of these impacts can be found in the following DEIR Sections, respectively: 3.1, "Aesthetics," 3.10, "Noise," 3.9, "Land Use and Planning," 3.8, "Hydrology and Water Quality," and 3.13, "Utilities and Service Systems." For additional discussion regarding noise and water resource impacts, the reader is referred to Master Responses 3 and 5.
- I51-2      The comment request the County establish regulations that includes protection of watersheds from impacts resulting from cannabis operations. The reader is referred to Master Response 5 for a detailed discussion of the DEIR's evaluation of water resource impacts to the County's watersheds.
- I51-3      The comment requests a cumulative environmental analysis that includes unpermitted operations and the impacts to watersheds. The reader is referred to Master Response 1 for a detailed discussion of DEIR's consideration of unpermitted cannabis operations and Master Response 5 for further discussion of the DEIR's evaluation of water resource impacts to the County's watersheds.
- I51-4      The comment recommends that permitted cultivation be limited to 10,000 square feet for the largest parcel. This comment is noted. This comment reflects a proposed change to the ordinance and does not address environmental issues evaluated in the EIR.
- I51-5      The comment includes concern with enforcement. The reader is referred to Master Response 6 for a detailed discussion of improvements to the County's code enforcement activities.
- I51-6      The comment includes conclusory remarks. The comment is noted and will be provided to the Planning Commission and Board of Supervisors for their consideration during review/consideration of the project.

**From:** [Jim Ferguson](#)  
**To:** [Lazar, Steve](#)  
**Subject:** DEIR comments  
**Date:** Monday, October 16, 2017 3:10:26 PM

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Letter  
152

Steve:

I have been trying to download the PDF of the DEIR, etc. from the County website since Saturday to no avail. Since my browser can get everything else on the web, I have to assume it is a problem on your end. The header says: "Waiting for ..."

I 152-1

Since I can not quote chapter and verse because of this lack of a copy, I will limit myself to more general terms based on what I have heard on KMUD and/or read in the papers or online websites.

1. There is a real lack of rules and guidelines for the protection of wildlife in the permitting of grows much less legal remedies or financial consequences.
2. Ditto in relation to impact on quality of life - i.e. lights visible at night, generator noise, traffic on rural/residential roads, etc. and what there is does not begin to address the problems.
3. The requirements in relation to fire danger and issues like water storage solely for fire fighting and suppression.
4. The fines that do exist in the document are grossly less than they need to be.
5. There is no real attempt to address the grows that do not come into compliance with the ordinance and what will be done to address that issue.

I 152-2

I 152-3

I 152-4

I 152-5

I 152-6

I am sure there were more issues but this will have to suffice.

Sincerely,

Jim Ferguson  
707-223-4475.



<b>Letter I52</b>	<b>Jim Ferguson</b> 10/16/2017
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I52-1 The comment states technical trouble accessing the DEIR and advises that comments are based on topics from other media outlets. The comment is noted. The Notice of Availability for the DEIR identified that the DEIR was also available for review at the County Planning and Building Department and at the County Main Library.

I52-2 The comment asserts that there is a real lack of rules and guidelines for the protection of wildlife or identification of remedies.

DEIR Section 3.4, "Biological Resources," provides a detailed description of current vegetation and natural habitat conditions in the County, as well as a description of wildlife species that are known to occur or have potential to occur in the County. This section identifies significant impacts to wildlife and habitat and includes 18 mitigation measures that would reduce wildlife and habitat impacts to a less than significant level. Mitigation measures have been refined based on CDFW input on the DEIR (see responses to Comment Letter S1). The proposed ordinance includes annual inspections for permit renewals that may require corrective actions, permit suspension, or financial penalties for noncompliance.

I52-3 The comment includes concern with lighting, generator noise, and traffic. The reader is referred to the analysis provided in DEIR Sections 3.1, "Aesthetics," 3.10, "Noise," and 3.12, "Transportation and Circulation," of the Draft EIR where these issues are addressed. The proposed ordinance requires that artificial lighting used for mixed-light cultivation or nurseries in a greenhouse be prohibited from allowing any light from escaping the structure between sunset and sunrise as well as shielding for a security lighting (see DEIR page 3.1-18). Generator noise is addressed on DEIR page 3.10-10 that identifies compliance with proposed ordinance requires that generator noise be attenuated to not increase existing ambient noise levels at the parcel boundaries beyond 3dB. The reader is also referred to Master Response 3 for a discussion of issues concerning generator noise and the modifications to the proposed ordinance's noise standards since release of the DEIR.

As identified on DEIR page 3.12-13, the existing and new commercial cannabis operations under the proposed ordinance would be required to obtain access to a roadway system that is equivalent or exceeds the County's Category 4 road standard. The Category 4 road standard provides 18 to 20-foot wide travel lanes, 2-foot wide bladed shoulders (as required by the County), 25 to 40-mile per hour design speed, and sight distance requirements for safe passage. The County has determined that the Category 4 road standard is adequate to accommodate commercial cannabis operation traffic volumes and vehicle types (e.g., passenger vehicles, small trucks, large service trucks). In addition, commercial cannabis operations would be required to join or establish road maintenance associations for the funding of on-going maintenance.

I52-4 The comment includes concern with fire danger and adequate water supply fire suppression. Fire hazard impacts are addressed in the DEIR on pages 3.7-19 through 3.7-20 and pages 3.11-9 and 3.11-10. The DEIR identifies that commercial cannabis activities permitted by the proposed ordinance are also subject to the California Fire Code, which includes safety measures to minimize the threat of wildfire. Title 14 of the California Code of Regulations (CCR) sets forth the minimum development standards for emergency access, fuel modification, setback, signage, and water supply, which help prevent damage to structures or people by reducing wildfire hazards. In addition, Humboldt County applies standards to proposed development within the State Responsibility Areas (SRA) to reduce the risk of fire.

These standards are a locally adopted alternative version of the state's SRA Fire Safe Regulations (Humboldt County Code Title III, Div 11) as authorized by Section 4290 of the Public Resources Code, and have been approved by CAL FIRE as meeting or exceeding state regulations. New development in the SRA is subject to Fire Safe regulations, and the appropriate clearance of vegetation around such development is inspected by CAL FIRE and potentially by Humboldt County with other improvements at the time of construction. Licensed facilities under the proposed ordinance would be required to have certification that they comply with building, electrical, and fire codes, which would require installation of fire suppression systems, where appropriate.

I52-5 The comment asserts that fines are grossly less than they need to be. The reader is referred to Master Response 6 for a discussion of increases to County fines for code violations.

I52-6 The comment asserts that there is no attempt to address cannabis operations that do not come into compliance.

This concern is noted. While these existing environmental conditions of unpermitted cannabis cultivation operations were disclosed as part of the baseline condition in the DEIR, CEQA is not intended to conduct environmental review and mitigate these conditions. State CEQA Guidelines Section 15125(a) identifies that the baseline physical conditions are the basis by which a lead agency determines whether an impact of the project is significant. Published case law has identified that baseline conditions include unpermitted and/or harmful activities that have occurred prior to the project. In *Center for Biological Diversity v. Department of Fish and Wildlife* (2015) 234 Cal.App.4th 214 (183 Cal.Rptr.3d 736], the Fourth Appellate District upheld the baseline conditions and ruled that the baseline condition must reflect the physical conditions at the time the environmental analysis begins even if the current conditions includes unauthorized and even environmental harmful conditions that never received environmental review.

The County believes that regulating cannabis operations will result in permitting of “good” operations—ones that comply with regulations—and the eventual eradication of illegal operators who choose to avoid or ignore the permitting process. The County has addressed enhanced enforcement as a separate project with amendments to its Code Enforcement program. (Ordinance No. 2576, June 27, 2017 and Ordinance No. 2585, November 7, 2017) designed to eliminate delays that hindered effective enforcement, and substantially increase administrative civil penalties. The Code Enforcement Unit is engaged in the initial implementation of the enhanced enforcement program (see Master Response 6).

**From:** "%Name%"  
**To:** Lazar, Steve  
**Subject:** Comments for Cannabis Cultivation DEIR  
**Date:** Monday, October 16, 2017 7:13:20 AM

<b>Name:</b>	John Pielaszczyk
<b>E-mail:</b>	john.p@sonic.net

Steve Lazar, Senior Planner  
Humboldt County Planning & Building Department  
3015 H Street  
Eureka, CA 95501  
Via email

Dear Mr. Lazar:

Humboldt County has an important opportunity before it to establish meaningful regulations to protect our watersheds from the significant impacts of the commercial cannabis industry. I support using science and reality-based evidence to inform regulations that maintain and protect healthy rivers.

I53-1

I request that Humboldt County analyze and disclose the cumulative impacts of cannabis cultivation on a watershed level. Un-permitted operations, which currently far outnumber permitted ones, must be included in this analysis, as required by the California Environmental Quality Act.

I53-2

I also recommend that the size of permitted operations be limited to 10,000 square feet for the largest parcels.

I53-3

With only three staff members assigned to code enforcement, Humboldt County does not have the resources to enforce the ordinance, let alone enforce penalties for violators. The lack of resources dedicated to this issue sends a strong message that the county has little interest in actually protecting our watershed.

I53-4

Humboldt County has long been the leader of the, until now, illicit marijuana industry. With full legalization on the horizon, we must rise to the occasion and also become a leader in the transition to a more transparent and sustainable cannabis industry.

I53-5

Thank you,

<b>Letter I53</b>	<b>John Pielaszczyk</b> 10/16/2017
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- I53-1      The comment request the County establish regulations that includes protection of watersheds from impacts resulting from cannabis operations. The reader is referred to Master Response 5 for a detailed discussion of the DEIR's evaluation of water resource impacts to the County's watersheds.
- I53-2      The comment requests a cumulative environmental analysis that includes unpermitted operations and the impacts to watersheds. The reader is referred to Master Response 1 for a detailed discussion of DEIR's consideration of unpermitted cannabis operations and Master Response 5 for further discussion of the DEIR's evaluation of water resource impacts to the County's watersheds.
- I53-3      The comment recommends that permitted cultivation be limited to 10,000 square feet for the largest parcel. This comment is noted. This comment reflects a proposed change to the ordinance and does not address environmental issues evaluated in the EIR.
- I53-4      The comment includes concern with enforcement. The reader is referred to Master Response 6 for a detailed discussion of improvements to the County's code enforcement activities.
- I53-5      The comment includes conclusory remarks. The comment is noted and will be provided to the Planning Commission and Board of Supervisors for their consideration during review/consideration of the project.

**From:** "john stokes"  
**To:** Lazar, Steve  
**Subject:** Comments for Cannabis Cultivation DEIR  
**Date:** Monday, October 16, 2017 5:50:55 PM

Name:	john stokes
E-mail:	gadumma@msn.com
Your Comments:	the lack of enforcement is a huge problem here, folks-- your regulations mean nothing to 90% of the (illegal and unpermitted) growers.

I54-1

Steve Lazar, Senior Planner  
Humboldt County Planning & Building Department  
3015 H Street  
Eureka, CA 95501  
Via email

Dear Mr. Lazar:

Humboldt County has an important opportunity before it to establish meaningful regulations to protect our watersheds from the significant impacts of the commercial cannabis industry. I support using science and reality-based evidence to inform regulations that maintain and protect healthy rivers.

I54-2

I request that Humboldt County analyze and disclose the cumulative impacts of cannabis cultivation on a watershed level. Un-permitted operations, which currently far outnumber permitted ones, must be included in this analysis, as required by the California Environmental Quality Act.

I54-3

I also recommend that the size of permitted operations be limited to 10,000 square feet for the largest parcels.

I54-4

With only three staff members assigned to code enforcement, Humboldt County does not have the resources to enforce the ordinance, let alone enforce penalties for violators. The lack of resources dedicated to this issue sends a strong message that the county has little interest in actually protecting our watershed.

I54-5

Humboldt County has long been the leader of the, until now, illicit marijuana industry. With full legalization on the horizon, we must rise to the occasion and also become a leader in the transition to a more transparent and sustainable cannabis industry.

I54-6

Thank you,

<b>Letter I54</b>	<b>John Stokes</b> 10/16/2017
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- I54-1 The comment expresses concern with enforcement and unpermitted/illegal grows. The reader is referred to Master Response 6 a detailed discussion of improvements to the County's code enforcement activities.
- I54-2 The comment request the County establish regulations that includes protection of watersheds from impacts resulting from cannabis operations. The reader is referred to Master Response 5 for a detailed discussion of the DEIR's evaluation of water resource impacts to the County's watersheds.
- I54-3 The comment requests a cumulative environmental analysis that includes unpermitted operations and the impacts to watersheds. The reader is referred to Master Response 1 for a detailed discussion of DEIR's consideration of unpermitted cannabis operations and Master Response 5 for further discussion of the DEIR's evaluation of water resource impacts to the County's watersheds.
- I54-4 The comment recommends that permitted cultivation be limited to 10,000 square feet for the largest parcel. This comment is noted. This comment reflects a proposed change to the ordinance and does not address environmental issues evaluated in the EIR.
- I54-5 The comment includes concern with enforcement. The reader is referred to Master Response 6 for a detailed discussion of improvements to the County's code enforcement activities.
- I54-6 The comment includes conclusory remarks. The comment is noted and will be provided to the Planning Commission and Board of Supervisors for their consideration during review/consideration of the project.

**From:** [Kate](#)  
**To:** [Lazar, Steve](#)  
**Subject:** marijuana cultivation meeting  
**Date:** Monday, October 16, 2017 5:37:39 PM

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Letter  
I55

I encourage the Humboldt County Planning and Building Department to stop all further expansion regarding marijuana cultivation until they achieve adequate regulatory compliance and control of existing sites. I sincerely cannot imagine the purpose of county agencies who regulate and control land use, if it is not to prevent the exact problem we are facing: law-abiding, tax-paying citizens are being held hostage to outrageous increases in truck traffic, inequitable water grabs, soil contamination, noise and light pollution and horrible smells. The county does not allow the dairy industry, the logging industry, fisheries, health care or any other business to expand in an unchecked manner, and marijuana should not be allowed to do so either.

I55-1

Thank you for your consideration.  
-Kate Estlin, MD

<b>Letter I55</b>	<b>Kate Estlin</b> 10/16/2017
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- I55-1      The comment includes opposition of expansion of the cannabis industry. The comment also includes concerns regarding truck traffic, water, soil contamination, noise, light pollution, and odor. Evaluation of impacts involving these topics can be found in the following DEIR sections, respectively: 3.12, "Transportation and Circulation," 3.8, "Hydrology and Water Quality," 3.7, "Hazards and Hazardous Materials," 3.10, "Noise," 3.1, "Aesthetics," and 3.3, "Air Quality and Greenhouse Gases." Additionally, Master Responses 5, 3, and 4, respectively provide further discussion of impacts related to water resources, noise and generator use, and odors associated with cannabis activities to be permitted under the proposed ordinance.



**From:** [Ruth Hoke](#)  
**To:** [Lazar, Steve](#); [Ruth Hoke](#)  
**Subject:** Marijuana operation moratorium  
**Date:** Monday, October 16, 2017 12:12:41 PM

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Letter  
156

Dear Mr Lazar:

We are writing to encourage the Department to put on hold all further permitting of marijuana grows until appropriate regulations are drafted and enforceable regarding the preservation of our water resources as well as natural lands and wildlife and reduction/elimination of noise and odor pollution. We are also concerned about the safety of our roads and trails.

I56-1

Sincerely,  
Kathryn R. Hoke  
George L. Hurlburt  
6447 Highway 36  
Carlotta CA 95528  
(707)851-3052

<b>Letter I56</b>	<b>Kathryn Hoke and George Hurlburt</b> 10/16/2017
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- I56-1      The comment expresses concern with impacts to water resources, natural lands, wildlife and reduction/elimination of noise and odor pollution. The commenter is referred to DEIR Sections, 3.8 “Hydrology and Water Quality,” 3.2, “Agricultural and Forest Resources,” 3.3, “Biological Resources,” 3.10, “Noise,” and 3.3, “Air Quality and Greenhouse Gas Emissions,” respectively, where these impacts are evaluated. Additionally, impacts to water resources, noise, and odor, are further discussed in Master Responses 5, 3, and 4, respectively.

Comments on Draft Environmental Impact Report  
SCH# 2017042022

October 15, 2017

**To:** Steve Lazar  
Humboldt County Planning and Building Department

**From:** Kim Cabrera

**RE:** Comments on Draft Environmental Impact Report - SCH# 2017042022

Having read the draft EIR I have some issues that I hope will be addressed in future updates to this document.

**1. Arborimus pomo (Sonoma tree vole)**

The EIR mentions the Sonoma tree vole (pages 27, 227 etc.). I am pleased to see that this species, as well as *Arborimus albipes*, is mentioned and is being considered in this process. I do have concerns about the wording in the EIR though. The document mentions that *Arborimus pomo* is found in old-growth habitats and outlines measures to protect said habitats. (Mitigation measure 3.4-1j in Table ES-1) However, I have documented *Arborimus pomo* presence in second-growth habitats many times (See my local observations for this species recorded on iNaturalist.) Since the species does appear to occur quite commonly in second-growth habitat, I think that this should be added to the protection measures outlined in the EIR. The locations where I have found active and old nests are all in southern Humboldt County, and all in second-growth habitat. In Oregon, the related red tree vole is very important in the diet of the spotted owl. Thus, this habitat needs to be protected from disturbance so that this species can continue to thrive in the area. This leads into my second comment.

I57-1

**2. Ambient Noise Levels**

Some of us have had the experience of camping in a campground next to a behemoth RV whose occupants insist on running their generator all day and most of the night. The equivalent experience is happening to our local wildlife who are being exposed to continuous noise levels from generators being run at grow sites in the hills. Noise pollution also has documented adverse effects on human beings. The increased stress caused by high decibel noise needs to be mitigated. No noise from generators should be allowed to extend beyond the site at all. In Mitigation Measure 3.4-1f, the level given is no more than 90 decibels above ambient conditions. I believe human hearing is permanently damaged by exposure to 90 decibels or more. But, many wildlife species have way more sensitive hearing than humans. This level should be lowered to significantly less than 90 decibels, perhaps on the order of 50 decibels or less. We need to prevent noise impacts to humans, but also to the wildlife whose home humans are invading with these agricultural operations. This leads into my next comment.

I57-2

### **3. Ambient Light Levels**

Another issue faced by wildlife is light pollution from mixed light growing operations. The increase in nighttime light in the local hills has been documented by several long-time residents. Light pollution negatively affects wildlife including bats, insects, and migratory animals, to name a few. There really should be no light emitted at night above ambient levels by these mixed-light grow operations. There is no need for it and it's costly to other species. Not to mention that it has an effect on other residents of those locations, as well as native plants. No lighting should be allowed to emit from these grow operations at night.

I57-3

### **4. Water Resources**

It is well-documented that the watersheds in the area are being negatively affected by water that is being diverted to these grow operations. This affects us all. But, the main ones who lose are the wildlife and fish. There needs to be more enforcement of this so that the rivers will not dry up by the end of summer, leaving them stagnant and algae-filled. I have personally documented (on video) numerous wildlife species using a tiny seep on the side of a trail as a water source at the end of summer, because there is no other water available to them. It is heartbreaking to watch flying squirrels digging into the mud in order to obtain a little water from a wet spot on a trail. The diversion of surface water means that much less water percolates down and refreshes the aquifers, which means less water in springs and streams. We need to very seriously work on stopping the diversion of water to these massive grow operations so that the rivers, streams, springs and seeps will all flow again with life-giving water for the wildlife.

I57-4

The other noticeable effect of the lower water levels is the presence in the water of "swimmer's itch" and other things that make swimming in the river near the end of summer a risky business. I have stopped swimming in the Eel River after I noticed that my skin was burning after being in the water during the summer of 2015. No one knows what chemicals are running off into the water from these illegal grow sites. Fertilizers, pesticides, motor oil, and more, are probably found in the water. Nor do we fully understand the impact of such on the fish and other wildlife that live in the river. I have noticed a lack of egg masses of the foothill yellow-legged frog (*Rana boylei*) in the stretch of river near my home since about 2011. That was the last time I saw egg masses in spring on this part of the river. No EIR is perfect, but water quality is one of the single most important issues that this one can address.

### **5. Poisons and Wildlife**

The poisons used at these grow sites have a documented negative effect on wildlife. The poisons themselves kill uncountable wildlife, and the litter left behind in the form of packaging is also detrimental to wildlife. Anticoagulant rodenticides, even the second generation ones, should be banned completely due to their propensity to bioaccumulate up the food chain. Yet, the EIR states that proper licensed use of these poisons would be allowed and would have a less than significant impact. I think we really need to readdress this issue. Those poisons are not safe to use in any quantity. Nor should they be applied in these grow sites. What about using rodent traps instead? There are boxes designed to admit the rodents without allowing them to escape. These would be more effective and less costly to the

I57-5

wildlife in the long run. Allowing untrained personnel at a grow site to apply rodenticide is not appropriate. How will this be enforced? Who will determine if those applying these rodenticides are licensed and are using the material in a legal manner?

I 157-5  
cont

**6. Effects on Wildlife Movement Corridors**

Fragmentation of habitat is occurring in the area due to the growth of these large growing operations in habitats inappropriate for such activities. Assessment of wildlife movement on the landscape should be part of this planning process to prevent these new agricultural operations from causing further habitat fragmentation for our native species, some of which are already threatened due to habitat loss and other factors. Any cannabis growing operations that are permitted should only be placed in locations that will not adversely affect the wildlife already present on the land. We need to particularly pay attention to any identified sensitive species, such as fishers, martens, badgers, and many others. Any activities that produce noise should be limited during the nesting season of sensitive bird species to prevent nest failure. Roads built should not cut off any heavily-use wildlife passageways. I am pleased to see that Mitigation 3.4-4 does address this. But, there needs to be very close monitoring of this.

I 157-6

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In my opinion, the hills of Humboldt are not an appropriate location to allow large cannabis grows. This activity would be more appropriate, and less damaging to the environment, if it was done in an already-developed agricultural location, such as the Central Valley of California, which has infrastructure in place and is on a major transportation corridor. If this activity must be allowed to continue in Humboldt County, first and foremost the wildlife and environment needs to be protected.

I 157-7

Thank you for your consideration,  
  
Kim Cabrera  
  
Redway, CA

<b>Letter I57</b>	<b>Kim Carbrera</b> 10/16/2017
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- I57-1      The comment provides input on the Sonoma tree vole and identifies that the species does occur in second-growth forest habitats and that second-growth forest habitats should be protected.
- DEIR page 3.4-40 identifies that this species occurs in forest conditions throughout the County and is not exclusive to old growth forest habitats. The proposed ordinance would prohibit new commercial cannabis operations from occurring on public land (e.g., state and national parks, Six Rivers National Forest), TPZ-zoned areas, and General Plan designated Timberland areas that contain a substantial portion of the County forest habitat areas. These restrictions and the protection of sensitive habitat communities under DEIR Mitigation Measure 3.4-4 would provide adequate habitat protection for this species. No additional mitigation measures are recommended.
- I57-2      The comment expresses concern regarding wildlife noise exposure from generator noise and recommends additional noise standards beyond DEIR Mitigation Measure 3.4-1f.
- Under the proposed ordinance cultivation sites using generators would be required to submit documentation demonstrating compliance with the noise standards (no increase in existing ambient noise levels at the property line of the site beyond 3dB), including: a site plan detailing the location of the generator, property lines, and nearby forested areas, existing ambient noise levels at the property line using current noise measurements (excluding generators) during typical periods of use, details on the design of any structure(s) or equipment used to attenuate noise, as well as details on the location and characteristics of any landscaping, natural features, or other measures that serve to attenuate generator noise levels at nearby property lines or habitat.
- DEIR Mitigation Measure 3.4-1f (now 3.4-1h) noise standards are based on the USFWS 2006 *Transmittal of Guidance: Estimating the Effects of Auditory and Visual Disturbance to Northern Spotted Owls and Marbled Murrelets in Northwestern California*. These noise standards are restrictions on increases to existing ambient noise conditions. This mitigation measure would be applied in combination with the requirements of the proposed ordinance. As identified on DEIR page 3.4-65, the maximum noise level from a generator is estimated at 84 decibels and would be further attenuated through compliance with the proposed ordinance's noise standards.
- I57-3      The comment expresses concern regarding the impact of nighttime lighting on wildlife. The proposed ordinance requires that artificial lighting used for mixed-light cultivation or nurseries in a greenhouse be prohibited from allowing any light from escaping the structure between sunset and sunrise as well as shielding for a security lighting (see DEIR page 3.1-18). Implementation of this standard would avoid adverse lighting impacts on wildlife species (see DEIR page 3.4-66).
- I57-4      The comment states that watersheds are being negatively impacted by water diversions from cannabis operations and pollution in runoff.
- The DEIR analysis acknowledges that cannabis irrigation could result in a significant decrease in watershed flows during low flow conditions (see DEIR pages 3.8-44 and 3.8-45). Implementation of Mitigation Measure 3.8-5 in compliance with State Water Board Policy would require that all cannabis cultivation surface water and groundwater diversions comply



with the numeric flows and aquatic base flows that have been established by watershed under the Policy in consultation with CDFW. The proposed ordinance would prohibit new commercial cannabis cultivation in the forested areas of the upper watersheds and limit it to non-forested areas generally in the lower portions of the watersheds where the USGS gages used in the implementation of the State Water Board Policy exist. The State Water Board Policy's flow standards and diversion requirements were developed to protect fish spawning, migration, and rearing for endangered anadromous salmonids, and flows to needed to maintain natural flow variability within each watershed for aquatic resources. The State Water Board Policy also includes water quality requirements for mitigate runoff from cannabis cultivation operations. The reader is referred to Master Response 5 for further details on water diversion restriction and water quality requirements of the State Water Board Policy.

- I57-5           The comment identifies the existing wildlife impact of the use of poisons on cannabis cultivation sites and recommends that use of poisons (specifically anticoagulant rodenticides) be readdressed in the EIR.

The existing impacts of pesticide use on wildlife from illegal cannabis cultivation is identified on DEIR page 3.4-59. Attachment A of the State Water Board Policy identifies that the use of agricultural chemicals inconsistently with product labeling, storage instructions, or Department of Pesticide Regulation (DPR) requirements for pesticide applications is prohibited (Standard 10 under "Fertilizers, Pesticides, and Petroleum Products"). This requirement would apply to all permitted commercial cannabis operations. In 2014, DPR banned purchase, possession, and use of rodenticide baits that contain the active ingredients brodifacoum, bromodialone, difenacoum, and difethialone (DPR 2017). These are second generation anticoagulant rodenticides.

- I57-6           The comment expresses concern regarding impacts to wildlife movement and does identify that DEIR Mitigation 3.4-4 addresses this. The comment requests monitoring of this issue.

The DEIR describes wildlife movement in the County on DEIR page 3.4-54 and identifies essential connectivity areas in DEIR Exhibit 3.4-7. The DEIR identifies potential impacts to aquatic and terrestrial corridors on DEIR pages 3.4-75 through 3.4-77. Implementation of Mitigation Measure 3.8-5 in concert with the State Water Policy (water diversion restrictions), Mitigation Measure 3.4-5 (wetland protection measures), and Mitigation Measure 3.4-6b (retention of fisher and Humboldt marten habitat features) would mitigate this impact to a less-than-significant level. The proposed ordinance would also prohibit new commercial cannabis operations from occurring on public land (e.g., state and national parks, Six Rivers National Forest), TPZ-zoned areas, and General Plan designated Timberland areas that contain a substantial portion of the County forest habitat areas. These restrictions and the protection of sensitive habitat communities under DEIR Mitigation Measure 3.4-4 would provide adequate habitat for wildlife movement.

Should the proposed ordinance be adopted, the County would be required to adopt a mitigation monitoring and reporting program that would identify how the mitigation measures would be implemented by the ordinance with each commercial cannabis application request.

- I57-7           The comment states that cannabis cultivation is not appropriate for the hills of Humboldt and that wildlife and the environment needs to be protected.

This comment is noted. The DEIR discloses the significant environmental impacts of the implementation of the proposed ordinance and identifies mitigation measures to reduce these impacts in DEIR Sections 3.1 through 3.14 and Chapter 4, "Cumulative Impacts."

**From:** "%Name%"  
**To:** Lazar, Steve  
**Subject:** Comments for Cannabis Cultivation DEIR  
**Date:** Monday, October 16, 2017 10:24:22 AM

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<b>Name:</b>	Kyle Haines
<b>E-mail:</b>	kyleghaines@gmail.com

Steve Lazar, Senior Planner  
Humboldt County Planning & Building Department  
3015 H Street  
Eureka, CA 95501  
Via email

Dear Mr. Lazar:

Humboldt County has an important opportunity before it to establish meaningful regulations to protect our watersheds from the significant impacts of the commercial cannabis industry. I support using science and reality-based evidence to inform regulations that maintain and protect healthy rivers.

I58-1

I request that Humboldt County analyze and disclose the cumulative impacts of cannabis cultivation on a watershed level. Un-permitted operations, which currently far outnumber permitted ones, must be included in this analysis, as required by the California Environmental Quality Act.

I58-2

I also recommend that the size of permitted operations be limited to 10,000 square feet for the largest parcels.

I58-3

With only three staff members assigned to code enforcement, Humboldt County does not have the resources to enforce the ordinance, let alone enforce penalties for violators. The lack of resources dedicated to this issue sends a strong message that the county has little interest in actually protecting our watershed.

I58-4

Humboldt County has long been the leader of the, until now, illicit marijuana industry. With full legalization on the horizon, we must rise to the occasion and also become a leader in the transition to a more transparent and sustainable cannabis industry.

I58-5

Thank you,



<b>Letter I58</b>	<b>Kyle Haines</b> 10/16/2017
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- I58-1      The comment request the County establish regulations that includes protection of watersheds from impacts resulting from cannabis operations. The reader is referred to Master Response 5 for a detailed discussion of the DEIR's evaluation of water resource impacts to the County's watersheds.
- I58-2      The comment requests a cumulative environmental analysis that includes unpermitted operations and the impacts to watersheds. The reader is referred to Master Response 1 for a detailed discussion of DEIR's consideration of unpermitted cannabis operations and Master Response 5 for further discussion of the DEIR's evaluation of water resource impacts to the County's watersheds.
- I58-3      The comment recommends that permitted cultivation be limited to 10,000 square feet for the largest parcel. This comment is noted. This comment reflects a proposed change to the ordinance and does not address environmental issues evaluated in the EIR.
- I58-4      The comment includes concern with enforcement. The reader is referred to Master Response 6 for a detailed discussion of improvements to the County's code enforcement activities.
- I58-5      The comment includes conclusory remarks. The comment is noted and will be provided to the Planning Commission and Board of Supervisors for their consideration during review/consideration of the project.

**From:** Jeff and Marisa St John  
**To:** Lazar, Steve  
**Cc:** Ford, John; Fennell, Estelle; Wilson, Mike; Bohn, Rex; Sundberg, Ryan; Bass, Virginia  
**Subject:** Public Comment: EIR, Ordinance, and Zoning Change  
**Date:** Monday, October 16, 2017 1:03:29 PM

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Humboldt County Planning and Building Department

Attention: Steve Lazar, Senior Planner, 3015 H Street, Eureka, CA 95501

Telephone: (707) 268-3741 Fax: (707) 268-3792

Email: slazar@co.humboldt.ca.us

RE: Public Comment Related to Proposed Marijuana Cultivation Ordinance Change  
(<http://www.humboldt.gov/DocumentCenter/Home/View/60896>), Humboldt EIR Final  
Version (<http://www.humboldt.gov/DocumentCenter/Home/View/60897>), and Titlow Hill  
Area Proposed Zoning Change and its Upcoming EIR (BoS 9/5/17 Agenda Item 17-2308  
<https://humboldt.legistar.com/LegislationDetail.aspx?ID=3144489&GUID=6334D69D-5539-49B2-8FF6-32878CCEEF6E&Options=&Search=> )

There are three inter-related documents that can significantly and negatively impact the property rights of non-marijuana industry residents and visitors, as well as the environment . It seems to be difficult to impossible to adequately comment on them when all three are in process (none finalized, nor approved by the County, and highly contested by those not in the marijuana industry).

159-1

The County has had a long history of claiming mitigations (see General Plan from 1984) and writing laws, yet not funding, staffing, or otherwise following through to make them happen. At this time, it appears that this General Plan Update, Proposed Marijuana Ordinance, and proposed Titlow Hill Area Zoning Changes and EIR will be no different.

159-2

I echo the comments and concerns of EPIC, California Native Plant Society, The Buckeye, and other pro-environment organizations, as well as others concerned with their quality of life, and submit additional comments (some expressed over the last decade in other public comment arenas).

159-3

The “project” being the entire Humboldt County doesn’t seem reasonable, especially since there are areas of with dense marijuana operations (ex. Titlow Hill, Eel River, etc.) that do not fall into the general statements made in this EIR. Also, there are proposed zoning changes in the Titlow Hill area where environmental impacts have yet to be determined and the proposed marijuana ordinance changes appear to favor the marijuana operators and their agent.

I59-4

The quantity and size of marijuana operations (including illegal: buildings, grading, lighting, etc.) in the Titlow Hill area has only increased since 2002 (especially in the last few years). The number of year-round residents seems to have stayed steady (maybe no more than five families over the over 5,000+ acres – the people whose property rights are most impacted, including results of fires, road erosion, thefts, and other events that the marijuana operators cause by their actions or inactions) and the daily / seasonal people (parcel owners/leasers and their employees/contractors) going home (somewhere else) each night and no way for them to monitor what happens on their properties, nor help in emergency situations, nor concern for their neighbors’ or environment’s wellbeing.

I59-5

ORDINANCE AMENDING PROVISIONS OF TITLE III OF THE HUMBOLDT COUNTY  
CODE RELATING TO THE COMMERCIAL CULTIVATION, PROCESSING,  
MANUFACTURING, DISTRIBUTION, TESTING, AND SALE OF CANNABIS FOR  
MEDICINAL OR ADULT USE

1. “These regulations are intended to ensure the public health, safety and welfare of residents...” – We can’t enjoy our property due to: odors, packs of dogs attacking our pets and livestock, threats to harm us, thefts, property damage, fear of robbery / murder due by those looking for drugs/money, etc. These regulations and proposed changes do not seem to meet its basic intentions.

I59-6

2. 55.4.3.9 “...not permitted on General Agriculture use type” – How many parcels, in what areas, and how much acreage is impacted? Why are other land use types excluded?

I59-7

3. 55.4.4.4 existing cultivations sites are defined by the timeframe of “January 1, 2006 – December 31, 2015.” How are cultivations prior to “January 1, 2006” and after “December 31, 2015” defined? What regulations do they need to follow?

I59-8

4. 55.4.5.3.3 There appears to be no penalty for “starting and expanding sites “ when there are no applications – “resolve the violations and proceed with processing of the

I59-9

applications.”	I 159-9 cont
5. 55.4.5.4 – Why is a “Cannabis Cooperative Association” excluded from the maximum of four allotted permits? Why are they different from any other business designation? What is the impact?	I 159-10
6. 55.4.5.4.2 – Why are multiple types excluded from the maximum of four allotted permits? What is the impact?	I 159-11
7. 55.4.5.4.4 – Why are Cannabis Support Facilities excluded from the maximum of four allotted permits? What is the impact?	I 159-12
8. 55.4.6.4 Slope should be only for naturally occurring sites, not due to grading or other man-made changes. Also, 15% should be already high and there should be no exceptions for increasing the slope for any reason.	I 159-13
9. 55.4.12.18 – Why do the Road Performance Standards seem to deviate from the SRA? Why aren’t SRA or already existing standards for roads or anything else not just referenced here?	I 159-14
10. 55.4.12.18 – The cost of improvement and maintenance to the Road Performance Standards shall be solely the responsibility of the marijuana operators. Also, individual existing property owners shall not be required to meet those Road Performance Standards and shall not be negatively impacted by that refusal (new owners after January 1, 2000 shall adhere to those standards).	I 159-15
11. 55.4.12.4d – There appears to be two different timeframes “within fourteen (10) calendar days.” Is it ten (10) days?	I 159-16
12. 5.5.4.13 – Why is the County singling out marijuana production for “Humboldt Artisanal Branding?” Other businesses appear to have had to create, pay for, and maintain their own marketing efforts.	I 159-17
13. Where is a matrix / grid that links the EIR mitigations to these regulations?	I 159-18
EIR	
1. If the EIR states that there are items that can’t be or are difficult to be mitigated, why isn’t the County recommending fewer marijuana operations, over fewer acres, in fewer areas (estimated now to be up to 15,000 in the EIR, up from 10,000+)?	I 159-19
To be even more transparent and easier to comment for those not paid to review and comment, it is suggested that the County:	I 159-20

1. State the County's response in the Summary of Impacts and Mitigation Measures in the Draft EIR for the Amendments to Humboldt County Code Regulating Commercial Cannabis Activities (State Clearinghouse # 2017042009) Summary of NOP Comments grid (not just point someone to the section)

I59-20  
cont

2. Cross-reference the Summary of Impacts and Mitigation Measures in the Draft EIR for the Amendments to Humboldt County Code Regulating Commercial Cannabis Activities (State Clearinghouse # 2017042009) to the ORDINANCE AMENDING PROVISIONS OF TITLE III OF THE HUMBOLDT COUNTY CODE RELATING TO THE COMMERCIAL CULTIVATION, PROCESSING, MANUFACTURING, DISTRIBUTION, TESTING, AND SALE OF CANNABIS FOR MEDICINAL OR ADULT USE

I59-21

3. Clearly state the positive and negative impacts to residents, as well as marijuana operators, for each of the proposed changes and mitigations.

I59-22

The cost of application, licenses, taxes, and compliance should be irrelevant to the marijuana operators since they have demonstrated that they can afford properties whose costs have been hyper-inflated and haven't been paying taxes and other costs of doing business. They may also be hiding their marijuana operations behind long-time legitimate businesses like local wineries that are licensed by the US government, state, and local governments.

I59-23

Lastly, the References section seems to have no citations from states who have already legalized the cultivation, production, and use of recreational marijuana. Wouldn't it be reasonable to understand what actually happens in addition to possible and probable impacts before making decisions for Humboldt County?

I59-24

Sincerely,

Marisa St John

22522 State Hwy 299

Blue Lake, CA 95525

Cc:

Board of Supervisors

Building and Planning Director

<b>Letter I59</b>	<b>Marisa St John</b> 10/16/2017
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- I59-1      The comment includes the opinion that the cannabis industry bring negative property rights impacts to non-cannabis industry citizens, visitors, and the environment.
- The DEIR discloses the significant environmental impacts of the implementation of the proposed ordinance and identifies mitigation measures to reduce these impacts in DEIR Sections 3.1 through 3.14 and Chapter 4, “Cumulative Impacts.” Economic and social effects are not treated as significant effects on the environment under CEQA (see CEQA Guidelines Section 15131[a]).
- This comment is noted and will be provided to the Planning Commission and Board of Supervisors for their consideration during review/consideration of the project.
- I59-2      The comment asserts that the County does not enforce mitigations and other requirements. The reader is referred to Master Response 6 for a detailed discussion of improvements to the County’s code enforcement activities.
- I59-3      The comment includes support for other organizations, such as EPIC, California Native Plant Society, and The Buckeye, and the concerns/comments that they have submitted. The comment is noted. Responses to DEIR comments submitted by EPIC are responded to under Comment Letter O8 and DEIR comments submitted by the Buckeye are responded to under Comment Letter O9.
- I59-4      The comment expresses concern with the proposed ordinance, encompassing the entire county and appears to assert that the EIR does not address Titlow Hill, Eel River, and other areas. The comment also asserts that the environmental impacts of the proposed zoning changes in the Titlow Hill area have not been determined.
- The DEIR provides a programmatic environmental impact analysis of the implementation of the proposed ordinance county-wide. Existing environmental conditions and impacts to the Eel River water resources are documented in DEIR Section 3.8, “Hydrology and Water Quality.” The DEIR does not evaluate the environmental impacts of any change in zoning designations in the Titlow Hill area because the proposed ordinance would not alter any zoning designations.
- I59-5      The comment includes concerns with grading, lighting, fire, crime, and erosion resulting from existing cannabis operations. This comment is noted. The reader is referred to Master Response 1 for a further discussion of the DEIR disclosure of the environmental effects of existing unpermitted cannabis operations.
- I59-6      The comment asserts that the proposed ordinance does not meet its basic intentions. This comment is noted and will be provided to the Planning Commission and Board of Supervisors for their consideration during review/consideration of the project.
- I59-7      The comment questions the provisions of the proposed ordinance Section 55.4.3.9. DEIR Chapter 2, “Project Description,” assumes that the County could have 1,012 new commercial cannabis cultivation sites from implementation of the proposed ordinance. It is not known what the typical size of the individual cultivation sites would occur. As identified in this section of the proposed ordinance cannabis is considered a specialty crop and an agricultural product.



- I59-8 The comment questions the provisions of the proposed ordinance Section 55.4.4.4. Cultivation sites created before 2006 and after 2015 treated as new cultivation sites under the proposed ordinance.
- I59-9 The comment questions the provisions of the proposed ordinance Section 55.4.5.3.3. Cannabis cultivation sites that do not have a permit application would be treated similar to illegal cannabis operations and would be subject to code enforcement activities and fines. The reader is referred to Master Response 6 for a further discussion on improvements to County code enforcement activities.
- I59-10 The comment questions the provisions of the proposed ordinance Section 55.4.5.4. The proposed ordinance no longer excludes those cannabis cooperative associations from permit requirements. This comment reflects a proposed change to the ordinance and does not address environmental issues evaluated in the EIR.
- I59-11 The comment questions the provisions of the proposed ordinance Section 55.4.5.4.2. The proposed ordinance no longer limits permits. It now includes limits for cultivation area (maximum of four acres). This comment reflects a proposed change to the ordinance and does not address environmental issues evaluated in the EIR.
- I59-12 The comment questions the provisions of the proposed ordinance Section 55.4.5.4.4. The proposed ordinance no longer limits permits. It now includes limits for cultivation area (maximum of four acres). This comment reflects a proposed change to the ordinance and does not address environmental issues evaluated in the EIR.
- I59-13 The comment questions the provisions of the proposed ordinance Section 55.4.6.4. The County is considering this requested change as part of revisions to the proposed ordinance. The reader is referred to DEIR Section 3.6, "Geology and Soils," for a discussion of applicable grading and geologic stability requirements of the County,
- I59-14 The comment questions the provisions of the proposed ordinance Section 55.4.12.18 regarding its consistency with SRA requirements. The proposed ordinance "Road Performance Standards" are consistent with SRA requirements where required by state law. They are tailored to better fit the context of permitting cannabis activities which is beyond the scope of the SRA requirements. The reader is referred to DEIR Section 3.7, "Hazards and Hazardous Materials," and 3.11, "Public Services," for a further discussion of fire hazards and SRA provisions.
- I59-15 The comment questions the provisions of the proposed ordinance Section 55.4.12.18 regarding the cost of improvements and maintenance of roads. The proposed ordinance reflects this requested change. This comment reflects a proposed change to the ordinance and does not address environmental issues evaluated in the EIR.
- I59-16 The comment questions the provisions of the proposed ordinance Section 55.4.12.4d. The proposed ordinance has been revised to reflect a timeframe of ten working days under this section. This comment reflects a proposed change to the ordinance and does not address environmental issues evaluated in the EIR.
- I59-17 The comment questions the provisions of the proposed ordinance Section 55.4.13. The County is considering this requested change as part of revisions to the proposed ordinance. This comment reflects a proposed change to the ordinance and does not address environmental issues evaluated in the EIR.



- I59-18 The comment asks why there is no matrix/grid that links the EIR mitigation measures to the regulations. Each DEIR mitigation measure identifies how it would be incorporated into the proposed ordinance or its implementation. Should the proposed ordinance be adopted, the DEIR mitigation measures will be incorporated in the ordinance or incorporated in implementation programs associated with the ordinance.
- I59-19 The comment asks why the County is not recommending reductions in commercial cannabis operations based on the impact conclusions of the DEIR.
- The DEIR does identify alternatives 1, 3, 4, and 5 that each would restrict the extent of new commercial cannabis operations in the County (see DEIR Chapter 6, “Alternatives”).
- I59-20 The comment appears suggest that the County should identify the response to NOP comments that were received.
- State CEQA Guidelines Sections 15082, 15083, and 15084 identify that the purpose of receiving NOP comments are to help define the appropriate scope and content of the DEIR. State CEQA Guidelines Section 15084 specifically requires lead agencies to consider all information comment received in the preparation of a DEIR. Thus, the intent of the NOP comments to provide input on the scope of the analysis in the DEIR and is not intended to be a comment-response dialogue that occurs at the Final EIR stage of the CEQA EIR process. DEIR Table 1-1 provides a summary of the NOP comments (complete copies of the NOP comments are provided in Appendix A of the DEIR) and identification of where the environmental issues are addressed in the DEIR consistent with CEQA.
- I59-21 The comment requests a cross-reference of the DEIR impacts and mitigation measures to the proposed ordinance.
- Each DEIR mitigation measure identifies how it would be incorporated into the proposed ordinance or its implementation. Should the proposed ordinance be adopted, the DEIR mitigation measures will be incorporated in the ordinance or incorporated in implementation programs associated with the ordinance.
- I59-22 The comment requests identification of positive and negative impacts to residents and cannabis operations for each proposed change and mitigations.
- The DEIR Table ES-1 discloses each significant environmental impact from implementation of the proposed ordinance and whether implementation of the mitigation measure would reduce the impact to a less-than-significant level. CEQA does not require an EIR define whether the impact conclusions are positive or negative for residents or cannabis operators.
- I59-23 The comment states that the costs of compliance with the proposed ordinance should be irrelevant to operators. This comment is noted.
- I59-24 The comment states that the DEIR provides no citations to studies of cannabis programs from other states to determine probable impacts.
- The DEIR is focused on the environmental impacts that would occur in the County and uses technical studies and information on the environment that is specific to the County. The DEIR also uses technical information from the state that has been developed as part of the state regulations for commercial cannabis operations. No other state uses an environmental compliance law that is comparable to CEQA. Thus, other state reports on cannabis operations was not useful in the preparation of this DEIR.

**From:** "%Name%"  
**To:** [Lazar, Steve](#)  
**Subject:** Comments for Cannabis Cultivation DEIR  
**Date:** Monday, October 16, 2017 9:59:24 AM

Letter  
I60

Name:	Monica Balwinski
E-mail:	monicatsndogs@gmail.com
Your Comments:	<p>Dear Mr. Lazar:</p> <p>Humboldt County has an important opportunity before it to establish meaningful regulations to protect our watersheds from the significant impacts of the commercial cannabis industry. I support using science and reality-based evidence to inform regulations that maintain and protect healthy rivers.</p> <p>I request that Humboldt County analyze and disclose the cumulative impacts of cannabis cultivation on a watershed level. Un-permitted operations, which currently far outnumber permitted ones, must be included in this analysis, as required by the California Environmental Quality Act.</p> <p>I also recommend that the size of permitted operations be limited to 10,000 square feet for the</p>

I60-1

I60-2

I60-3

Steve Lazar, Senior Planner  
 Humboldt County Planning & Building Department  
 3015 H Street  
 Eureka, CA 95501  
 Via email

Dear Mr. Lazar:

Humboldt County has an important opportunity before it to establish meaningful regulations to protect our watersheds from the significant impacts of the commercial cannabis industry. I support using science and reality-based evidence to inform regulations that maintain and protect healthy rivers.

I60-4

I request that Humboldt County analyze and disclose the cumulative impacts of cannabis cultivation on a watershed level. Un-permitted operations, which currently far outnumber permitted ones, must be included in this analysis, as required by the California Environmental Quality Act.

I60-5

I also recommend that the size of permitted operations be limited to 10,000 square feet for the largest parcels.

I60-6

With only three staff members assigned to code enforcement, Humboldt County does not have the resources to enforce the ordinance, let alone enforce penalties for violators. The lack of resources dedicated to this issue sends a strong message that the county has little interest in actually protecting our watershed.

I60-7

Humboldt County has long been the leader of the, until now, illicit marijuana industry. With full

I60-8

legalization on the horizon, we must rise to the occasion and also become a leader in the transition to a more transparent and sustainable cannabis industry.

I 160-8  
cont

Thank you,

<b>Letter I60</b>	<b>Monica Baldwinski</b> 10/16/2017
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- I60-1 The comment request the County establish regulations that includes protection of watersheds from impacts resulting from cannabis operations. The reader is referred to Master Response 5 for a detailed discussion of the DEIR's evaluation of water resource impacts to the County's watersheds.
- I60-2 The comment requests a cumulative environmental analysis that includes unpermitted operations and the impacts to watersheds. The reader is referred to Master Response 1 for a detailed discussion of DEIR's consideration of unpermitted cannabis operations and Master Response 5 for further discussion of the DEIR's evaluation of water resource impacts to the County's watersheds.
- I60-3 The comment recommends that permitted cultivation be limited to 10,000 square feet for the largest parcel. This comment is noted. This comment reflects a proposed change to the ordinance and does not address environmental issues evaluated in the EIR.
- I60-4 The comment request the County establish regulations that includes protection of watersheds from impacts resulting from cannabis operations. The reader is referred to Master Response 5 for a detailed discussion of the DEIR's evaluation of water resource impacts to the County's watersheds.
- I60-5 The comment requests a cumulative environmental analysis that includes unpermitted operations and the impacts to watersheds. The reader is referred to Master Response 1 for a detailed discussion of DEIR's consideration of unpermitted cannabis operations and Master Response 5 for further discussion of the DEIR's evaluation of water resource impacts to the County's watersheds.
- I60-6 The comment recommends that permitted cultivation be limited to 10,000 square feet for the largest parcel. This comment is noted. This comment reflects a proposed change to the ordinance and does not address environmental issues evaluated in the EIR.
- I60-7 The comment includes concern with enforcement. The reader is referred to Master Response 6 for a detailed discussion of improvements to the County's code enforcement activities.
- I60-8 The comment includes conclusory remarks. The comment is noted and will be provided to the Planning Commission and Board of Supervisors for their consideration during review/consideration of the project.

**From:** [Noel J. Krahforst](#)  
**To:** [Lazar, Steve](#); [Sundberg, Ryan](#)  
**Subject:** Black market loophole and delayed code enforcement  
**Date:** Monday, October 16, 2017 11:29:05 AM

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Steve Lazar  
Humboldt County Planning & Building Department  
3015 H Street  
Eureka, CA 95501

Please remove the loophole that allows code enforcement to ignore illegal grows if a complaint is withdrawn. My neighbors correctly suspected me of reporting their illegal grow this spring, pressured me for weeks to drop my complaint, and persuaded code enforcement officer Jeff Conner to offer me that option.

I declined to drop my complaint, but this and other delays initiated by the grower and their attorney, and a lack of timely follow-through by code enforcement, effectively prevented any enforcement action before harvest.

Please fix this complaint withdrawal loophole that can potentially subject citizens to threats, bribes, or worse, and only benefits black market growers.

Please ask Jeff Conner why an investigation once begun can't be completed in a timely manner using existing enforcement tools. The message sent to the growers (why go legal?) and to the surrounding neighborhood (why bother complaining?) has been clear.

I61-1

Noel Krahforst  
Willow Creek

<b>Letter I61</b>	<b>Noel Krahforst</b> 10/16/2017
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- I61-1      The comment requests that the loophole that allows code enforcement to ignore illegal grows if a compliant is withdrawn. The County is considering this requested change as part of revisions to the proposed ordinance. The reader is referred to Master Response 6 for a discussion of County code enforcement activities addressed cannabis issues.

**From:** Pat Farmer  
**To:** Lazar, Steve  
**Subject:** Cannabis ordinance comments  
**Date:** Monday, October 16, 2017 11:36:09 AM

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As a property owner in a rural residential area of Humboldt county I implore the county Planning and Building Department to **stop expansion of cannabis cultivation sites until adequate compliance and control of existing grows can be achieved.** The environmental impact of existing cultivation sites has resulted in substantial degradation of watersheds, and clear but un-quantified contamination of land with pesticides, rodenticides, and fungicides. The inability to adequately control the marijuana industry has resulted in enormous damage to our beautiful county, threatens our health, and puts our tourist industry in jeopardy.

I62-1

I sincerely cannot imagine the purpose of county agencies who regulate and control land use, if it is not to prevent the exact problem we are facing: law-abiding, tax-paying citizens are being held hostage to outrageous increases in truck traffic, inequitable water grabs, soil contamination, noise and light pollution and horrible smells. The county does not allow the dairy industry, the logging industry, the hospitals, or any other business to expand in an unchecked manner.

I62-2

Decisions made now have critical repercussions for Humboldt's future. Stop expansion. Control existing. Re-visit the need for additional cannabis grow sites after those more fundamental concerns are addressed.

I62-3

Sincerely,

Pat Farmer, RN, DNP  
Family Nurse Practitioner

<b>Letter I62</b>	<b>Pat Farmer</b> 10/16/2017
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- I62-1      The comment requests that the County stop expansion of cannabis cultivation sites until existing cannabis cultivation sites can be controlled. The comment identifies concerns with impacts to watersheds and contamination of lands from existing cannabis cultivation.
- The reader is referred to Master Response 1 for a further discussion of the DEIR's disclosure of the environmental effects of existing unpermitted cannabis operations and Master Response 6 for a detailed discussion of improvements to the County's code enforcement activities. The DEIR does programmatically evaluate the environmental impacts of existing commercial cannabis operations that intend to comply with County standards under the proposed ordinance and/or propose to retire existing cultivation sites, remediate existing cultivation site, or relocate to new properties. While these operations are existing and part of the environmental baseline condition, compliance with the proposed ordinance may involve new actions that would modify their operations, which may include restoration of habitat, roadway improvements, expansion or reconfiguration of their operations, installation of water quality controls, and modification to water supply facilities. This EIR programmatically evaluates the environmental impacts of these possible actions. (see DEIR page 2-28)
- I62-2      The comment states that the purpose of the County is to prevent impacts from cannabis activities that include truck traffic, water, soil contamination, noise, light pollution, and odor.
- Evaluation of impacts involving these topics can be found in the following DEIR sections, respectively: 3.12, "Transportation and Circulation," 3.8, "Hydrology and Water Quality," 3.7, "Hazards and Hazardous Materials," 3.10, "Noise," 3.1, "Aesthetics," and 3.3, "Air Quality and Greenhouse Gases." Additionally, Master Responses 5, 3, and 4, respectively provide further discussion of impacts related to water resources, noise and generator use, and odors associated with cannabis activities to be permitted under the proposed ordinance.
- I62-3      The comment requests that the County stop expansion of cannabis cultivation sites until existing cannabis cultivation sites can be controlled and re-visit the need for cannabis.
- The comment is noted and will be provided to the Planning Commission and Board of Supervisors for their consideration during review/consideration of the project. The reader is referred to Master Response 6 for a discussion of County code enforcement activities addressed cannabis issues.



**From:** "%Name%"  
**To:** [Lazar, Steve](#)  
**Subject:** Comments for Cannabis Cultivation DEIR  
**Date:** Monday, October 16, 2017 7:40:06 AM

Name:	Robert Torre
E-mail:	R.torre@comcast.net
Your Comments:	There needs regulation of cannibus farming in humboldt county

I I63-1

Steve Lazar, Senior Planner  
Humboldt County Planning & Building Department  
3015 H Street  
Eureka, CA 95501  
Via email

Dear Mr. Lazar:

Humboldt County has an important opportunity before it to establish meaningful regulations to protect our watersheds from the significant impacts of the commercial cannabis industry. I support using science and reality-based evidence to inform regulations that maintain and protect healthy rivers.

I I63-2

I request that Humboldt County analyze and disclose the cumulative impacts of cannabis cultivation on a watershed level. Un-permitted operations, which currently far outnumber permitted ones, must be included in this analysis, as required by the California Environmental Quality Act.

I I63-3

I also recommend that the size of permitted operations be limited to 10,000 square feet for the largest parcels.

I I63-4

With only three staff members assigned to code enforcement, Humboldt County does not have the resources to enforce the ordinance, let alone enforce penalties for violators. The lack of resources dedicated to this issue sends a strong message that the county has little interest in actually protecting our watershed.

I I63-5

Humboldt County has long been the leader of the, until now, illicit marijuana industry. With full legalization on the horizon, we must rise to the occasion and also become a leader in the transition to a more transparent and sustainable cannabis industry.

I I63-6

Thank you,

<b>Letter I63</b>	<b>Robert Torre</b> 10/16/2017
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- I63-1      The comment states the need for cannabis regulation within the County. The comment is noted
- I63-2      The comment request the County establish regulations that includes protection of watersheds from impacts resulting from cannabis operations. The reader is referred to Master Response 5 for a detailed discussion of the DEIR's evaluation of water resource impacts to the County's watersheds.
- I63-3      The comment requests a cumulative environmental analysis that includes unpermitted operations and the impacts to watersheds. The reader is referred to Master Response 1 for a detailed discussion of DEIR's consideration of unpermitted cannabis operations and Master Response 5 for further discussion of the DEIR's evaluation of water resource impacts to the County's watersheds.
- I63-4      The comment recommends that permitted cultivation be limited to 10,000 square feet for the largest parcel. This comment is noted. This comment reflects a proposed change to the ordinance and does not address environmental issues evaluated in the EIR.
- I63-5      The comment includes concern with enforcement. The reader is referred to Master Response 6 for a detailed discussion of improvements to the County's code enforcement activities.
- I63-6      The comment includes conclusory remarks. The comment is noted and will be provided to the Planning Commission and Board of Supervisors for their consideration during review/consideration of the project.

**From:** "%Name%"  
**To:** [Lazar, Steve](#)  
**Subject:** Comments for Cannabis Cultivation DEIR  
**Date:** Monday, October 16, 2017 9:33:24 AM

Name:	Rudy Ramp
E-mail:	rampturn@tidepool.com
Your Comments:	I see limiting the size of permitted operations for the largest parcels to 10,000 sqft as the highest priority.

I I64-1

Steve Lazar, Senior Planner  
Humboldt County Planning & Building Department  
3015 H Street  
Eureka, CA 95501  
Via email

Dear Mr. Lazar:

Humboldt County has an important opportunity before it to establish meaningful regulations to protect our watersheds from the significant impacts of the commercial cannabis industry. I support using science and reality-based evidence to inform regulations that maintain and protect healthy rivers.

I I64-2

I request that Humboldt County analyze and disclose the cumulative impacts of cannabis cultivation on a watershed level. Un-permitted operations, which currently far outnumber permitted ones, must be included in this analysis, as required by the California Environmental Quality Act.

I I64-3

I also recommend that the size of permitted operations be limited to 10,000 square feet for the largest parcels.

I I64-4

With only three staff members assigned to code enforcement, Humboldt County does not have the resources to enforce the ordinance, let alone enforce penalties for violators. The lack of resources dedicated to this issue sends a strong message that the county has little interest in actually protecting our watershed.

I I64-5

Humboldt County has long been the leader of the, until now, illicit marijuana industry. With full legalization on the horizon, we must rise to the occasion and also become a leader in the transition to a more transparent and sustainable cannabis industry.

I I64-6

Thank you,

<b>Letter I64</b>	<b>Rudy Ramp</b> 10/16/2017
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- I64-1      The comment recommends that permitted cultivation be limited to 10,000 square feet for the largest parcel. This comment is noted. This comment reflects a proposed change to the ordinance and does not address environmental issues evaluated in the EIR.
- I64-2      The comment request the County establish regulations that includes protection of watersheds from impacts resulting from cannabis operations. The reader is referred to Master Response 5 for a detailed discussion of the DEIR's evaluation of water resource impacts to the County's watersheds.
- I64-3      The comment requests a cumulative environmental analysis that includes unpermitted operations and the impacts to watersheds. The reader is referred to Master Response 1 for a detailed discussion of DEIR's consideration of unpermitted cannabis operations and Master Response 5 for further discussion of the DEIR's evaluation of water resource impacts to the County's watersheds.
- I64-4      The comment recommends that permitted cultivation be limited to 10,000 square feet for the largest parcel. This comment is noted. This comment reflects a proposed change to the ordinance and does not address environmental issues evaluated in the EIR.
- I64-5      The comment includes concern with enforcement. The reader is referred to Master Response 6 for a detailed discussion of improvements to the County's code enforcement activities.
- I64-6      The comment includes conclusory remarks. The comment is noted and will be provided to the Planning Commission and Board of Supervisors for their consideration during review/consideration of the project.

**From:** "%Name%"  
**To:** [Lazar, Steve](#)  
**Subject:** Comments for Cannabis Cultivation DEIR  
**Date:** Monday, October 16, 2017 9:07:45 AM

Name:	Sandra Tilles
E-mail:	sandyt@wildblue.net
Your Comments:	I think the largest grows should be 5,000 sq. feet or less. I agree that only former existing grows should be permitted at this time. Please include a cottage industry option with fewer regulations and fees. We need to keep our families in Humboldt.

I65-1

Steve Lazar, Senior Planner  
Humboldt County Planning & Building Department  
3015 H Street  
Eureka, CA 95501  
Via email

Dear Mr. Lazar:

Humboldt County has an important opportunity before it to establish meaningful regulations to protect our watersheds from the significant impacts of the commercial cannabis industry. I support using science and reality-based evidence to inform regulations that maintain and protect healthy rivers.

I65-2

I request that Humboldt County analyze and disclose the cumulative impacts of cannabis cultivation on a watershed level. Un-permitted operations, which currently far outnumber permitted ones, must be included in this analysis, as required by the California Environmental Quality Act.

I65-3

I also recommend that the size of permitted operations be limited to 10,000 square feet for the largest parcels.

I65-4

With only three staff members assigned to code enforcement, Humboldt County does not have the resources to enforce the ordinance, let alone enforce penalties for violators. The lack of resources dedicated to this issue sends a strong message that the county has little interest in actually protecting our watershed.

I65-5

Humboldt County has long been the leader of the, until now, illicit marijuana industry. With full legalization on the horizon, we must rise to the occasion and also become a leader in the transition to a more transparent and sustainable cannabis industry.

I65-6

Thank you,

<b>Letter I65</b>	<b>Sandra Tilles</b> 10/16/2017
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- I65-1      The comment recommends that permitted cultivation be limited to 5,000 square feet and that only former existing grows be permitted at this time. The comment also suggests that the cottage industry option be included with fewer regulations and fees. This comment reflects a proposed change to the ordinance and does not address environmental issues evaluated in the EIR.
- The comment is noted and will be provided to the Planning Commission and Board of Supervisors for their consideration during review/consideration of the project.
- I65-2      The comment request the County establish regulations that includes protection of watersheds from impacts resulting from cannabis operations. The reader is referred to Master Response 5 for a detailed discussion of the DEIR's evaluation of water resource impacts to the County's watersheds.
- I65-3      The comment requests a cumulative environmental analysis that includes unpermitted operations and the impacts to watersheds. The reader is referred to Master Response 1 for a detailed discussion of DEIR's consideration of unpermitted cannabis operations and Master Response 5 for further discussion of the DEIR's evaluation of water resource impacts to the County's watersheds.
- I65-4      The comment recommends that permitted cultivation be limited to 10,000 square feet for the largest parcel. This comment is noted. This comment reflects a proposed change to the ordinance and does not address environmental issues evaluated in the EIR.
- I65-5      The comment includes concern with enforcement. The reader is referred to Master Response 6 for a detailed discussion of improvements to the County's code enforcement activities.
- I65-6      The comment includes conclusory remarks. The comment is noted and will be provided to the Planning Commission and Board of Supervisors for their consideration during review/consideration of the project.

**From:** "Seth Zuckerman"  
**To:** Lazar, Steve  
**Subject:** Comments for Cannabis Cultivation DEIR  
**Date:** Monday, October 16, 2017 2:36:23 PM

Name:	Seth Zuckerman
E-mail:	szuckerman@igc.org
Your Comments:	<p>As a landowner in rural Humboldt County and someone who has been active in watershed restoration and management there since the early 1990s, I am keenly aware that there is only so much impact -- particularly in terms of sediment input and water withdrawal -- that our watersheds can withstand. In an environment where enforcement resources are apt to be stretched thin, it is essential to take a conservative approach to allowing the impacts from this, as much as from any large-scale industrial enterprise.</p> <p>I urge the board to restrict permitted cannabis grows to no more than 10,000 square feet per parcel, a limitation that will be easy to verify with the limited regulatory staff available to the county. We are counting on you to protect the public trust values of our county!</p> <p>Thank you,</p> <p>Seth Zuckerman, Petrolia landowner</p>

I66-1

I66-2

Steve Lazar, Senior Planner  
Humboldt County Planning & Building Department  
3015 H Street  
Eureka, CA 95501  
Via email

Dear Mr. Lazar:

Humboldt County has an important opportunity before it to establish meaningful regulations to protect our watersheds from the significant impacts of the commercial cannabis industry. I support using science and reality-based evidence to inform regulations that maintain and protect healthy rivers.

I66-3

I request that Humboldt County analyze and disclose the cumulative impacts of cannabis cultivation on a watershed level. Un-permitted operations, which currently far outnumber permitted ones, must be included in this analysis, as required by the California Environmental Quality Act.

I66-4

I also recommend that the size of permitted operations be limited to 10,000 square feet for the largest parcels.

I66-5

With only three staff members assigned to code enforcement, Humboldt County does not have the resources to enforce the ordinance, let alone enforce penalties for violators. The lack of resources dedicated to this issue sends a strong message that the county has little interest in actually protecting our watershed.

I66-6

Humboldt County has long been the leader of the, until now, illicit marijuana industry. With full legalization on the horizon, we must rise to the occasion and also become a leader in the transition to a more transparent and sustainable cannabis industry.

Thank you,

I66-7

<b>Letter I66</b>	<b>Seth Zuckerman</b> 10/16/2017
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- I66-1      The comment identifies concerns with impacts to watersheds and proper enforcement. The reader is referred to Master Response 5 for a detailed discussion of the DEIR evaluation of watershed impacts and the recent adoption of the State Water Board Policy that provides additional watershed protections. The reader is also referred to Master Response 6 for a detailed discussion of improvements to the County's code enforcement activities.
- I66-2      The comment recommends that permitted cultivation be limited to 10,000 square feet per parcel. This comment is noted. This comment reflects a proposed change to the ordinance and does not address environmental issues evaluated in the EIR.
- I66-3      The comment request the County establish regulations that includes protection of watersheds from impacts resulting from cannabis operations. The reader is referred to Master Response 5 for a detailed discussion of the DEIR's evaluation of water resource impacts to the County's watersheds.
- I66-4      The comment requests a cumulative environmental analysis that includes unpermitted operations and the impacts to watersheds. The reader is referred to Master Response 1 for a detailed discussion of DEIR's consideration of unpermitted cannabis operations and Master Response 5 for further discussion of the DEIR's evaluation of water resource impacts to the County's watersheds.
- I66-5      The comment recommends that permitted cultivation be limited to 10,000 square feet for the largest parcel. This comment is noted. This comment reflects a proposed change to the ordinance and does not address environmental issues evaluated in the EIR.
- I66-6      The comment includes concern with enforcement. The reader is referred to Master Response 6 for a detailed discussion of improvements to the County's code enforcement activities.
- I66-7      The comment includes conclusory remarks. The comment is noted and will be provided to the Planning Commission and Board of Supervisors for their consideration during review/consideration of the project.



**From:** "%Name%"  
**To:** Lazar, Steve  
**Subject:** Comments for Cannabis Cultivation DEIR  
**Date:** Monday, October 16, 2017 1:33:22 PM

<b>Name:</b>	Thomas Wheeler
<b>E-mail:</b>	tom@wildcalifornia.org

Steve Lazar, Senior Planner  
Humboldt County Planning & Building Department  
3015 H Street  
Eureka, CA 95501  
Via email

Dear Mr. Lazar:

Humboldt County has an important opportunity before it to establish meaningful regulations to protect our watersheds from the significant impacts of the commercial cannabis industry. I support using science and reality-based evidence to inform regulations that maintain and protect healthy rivers.

I67-1

I request that Humboldt County analyze and disclose the cumulative impacts of cannabis cultivation on a watershed level. Un-permitted operations, which currently far outnumber permitted ones, must be included in this analysis, as required by the California Environmental Quality Act.

I67-2

I also recommend that the size of permitted operations be limited to 10,000 square feet for the largest parcels.

I67-3

With only three staff members assigned to code enforcement, Humboldt County does not have the resources to enforce the ordinance, let alone enforce penalties for violators. The lack of resources dedicated to this issue sends a strong message that the county has little interest in actually protecting our watershed.

I67-4

Humboldt County has long been the leader of the, until now, illicit marijuana industry. With full legalization on the horizon, we must rise to the occasion and also become a leader in the transition to a more transparent and sustainable cannabis industry.

I67-5

Thank you,

<b>Letter I67</b>	<b>Thomas Wheeler</b> 10/16/2017
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- I67-1      The comment request the County establish regulations that includes protection of watersheds from impacts resulting from cannabis operations. The reader is referred to Master Response 5 for a detailed discussion of the DEIR's evaluation of water resource impacts to the County's watersheds.
- I67-2      The comment requests a cumulative environmental analysis that includes unpermitted operations and the impacts to watersheds. The reader is referred to Master Response 1 for a detailed discussion of DEIR's consideration of unpermitted cannabis operations and Master Response 5 for further discussion of the DEIR's evaluation of water resource impacts to the County's watersheds.
- I67-3      The comment recommends that permitted cultivation be limited to 10,000 square feet for the largest parcel. This comment is noted. This comment reflects a proposed change to the ordinance and does not address environmental issues evaluated in the EIR.
- I67-4      The comment includes concern with enforcement. The reader is referred to Master Response 6 for a detailed discussion of improvements to the County's code enforcement activities.
- I67-5      The comment includes conclusory remarks. The comment is noted and will be provided to the Planning Commission and Board of Supervisors for their consideration during review/consideration of the project.

**From:** [Tim Talbert](#)  
**To:** [Lazar, Steve](#)  
**Subject:** Marijuana Grow Permits  
**Date:** Monday, October 16, 2017 9:16:37 AM

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Letter  
I68

Hello, my wife and I would like to express our desire that marijuana grow permits include provisions that the grow does not adversely affect neighbors and the community, including environmental degradation, increased traffic, water supply overuse, and smell.

I  
I68-1

Tim Talbert  
Pat Farmer

<b>Letter I68</b>	<b>Pat Farmer</b> 10/16/2017
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I68-1

The comment recommends that cannabis activities only be permitted where they will not adversely affect neighbors and the community through environmental degradation, increased traffic, water supply overuse, and odors.

This comment is noted. The reader is referred to the following DEIR Sections where these topics are evaluated: Section 3.12, "Transportation and Circulation," 3.13, "Utilities and Service Systems," and 3.3, "Air Quality and Greenhouse Gas Emissions." Additionally, Master Response 4 includes further discussion regarding cannabis-related odors.

**From:** "Tory Starr"  
**To:** [Lazar, Steve](#)  
**Subject:** Comments for Cannabis Cultivation DEIR  
**Date:** Monday, October 16, 2017 9:20:55 PM

Name:	Tory Starr
E-mail:	Torystarr59@gmail.com
Your Comments:	We appreciate your thoughtful consideration of the management of our most precious resource, our water. Thank you

I69-1

Steve Lazar, Senior Planner  
Humboldt County Planning & Building Department  
3015 H Street  
Eureka, CA 95501  
Via email

Dear Mr. Lazar:

Humboldt County has an important opportunity before it to establish meaningful regulations to protect our watersheds from the significant impacts of the commercial cannabis industry. I support using science and reality-based evidence to inform regulations that maintain and protect healthy rivers.

I69-2

I request that Humboldt County analyze and disclose the cumulative impacts of cannabis cultivation on a watershed level. Un-permitted operations, which currently far outnumber permitted ones, must be included in this analysis, as required by the California Environmental Quality Act.

I69-3

I also recommend that the size of permitted operations be limited to 10,000 square feet for the largest parcels.

I69-4

With only three staff members assigned to code enforcement, Humboldt County does not have the resources to enforce the ordinance, let alone enforce penalties for violators. The lack of resources dedicated to this issue sends a strong message that the county has little interest in actually protecting our watershed.

I69-5

Humboldt County has long been the leader of the, until now, illicit marijuana industry. With full legalization on the horizon, we must rise to the occasion and also become a leader in the transition to a more transparent and sustainable cannabis industry.

I69-6

Thank you,

<b>Letter I69</b>	<b>Tory Starr</b> 10/16/2017
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- I69-1      The comment requests that the County consider management of the County's water. This comment is noted. Water resource impacts are addressed in DEIR Section 3.8, "Hydrology and Water Quality." The reader is referred to Master Response 5 for a detailed discussion of the recent adoption of the State Water Board Policy that provides additional water resource protections.
- I69-2      The comment request the County establish regulations that includes protection of watersheds from impacts resulting from cannabis operations. The reader is referred to Master Response 5 for a detailed discussion of the DEIR's evaluation of water resource impacts to the County's watersheds.
- I69-3      The comment requests a cumulative environmental analysis that includes unpermitted operations and the impacts to watersheds. The reader is referred to Master Response 1 for a detailed discussion of DEIR's consideration of unpermitted cannabis operations and Master Response 5 for further discussion of the DEIR's evaluation of water resource impacts to the County's watersheds.
- I69-4      The comment recommends that permitted cultivation be limited to 10,000 square feet for the largest parcel. This comment is noted. This comment reflects a proposed change to the ordinance and does not address environmental issues evaluated in the EIR.
- I69-5      The comment includes concern with enforcement. The reader is referred to Master Response 6 for a detailed discussion of improvements to the County's code enforcement activities.
- I69-6      The comment includes conclusory remarks. The comment is noted and will be provided to the Planning Commission and Board of Supervisors for their consideration during review/consideration of the project.

**From:** [Uri Driscoll](#)  
**To:** [Lazar, Steve](#)  
**Subject:** Marijuana  
**Date:** Monday, October 16, 2017 1:26:06 PM

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Letter  
170

Steve

Please consider this comment in support of NOT permitting additional marijuana grows until sufficient enforcement capabilities are identified and fully funded

I 170-1

Thank you  
Uri

Sent from my iPhone

<b>Letter I70</b>	<b>Uri Driscoll</b> 10/16/2017
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- I70-1      The comment identifies opposition to the proposed ordinance until sufficient enforcement is provided. The reader is referred to Master Response 6 for a detailed discussion of improvements to the County's code enforcement activities. The County is considering this requested change as part of revisions to the proposed ordinance.



From: Thomas Grover [mailto:grovert58@yahoo.com]

Sent: Tuesday, October 17, 2017 9:18 AM

To: Ford, John

Subject: rainwater definition for cann ord

I tried to send this to planning commission but my printer is not working.  
Please forward.

Dear Commissioners:

I made reference to the state Rainwater Capture Act of 2010.

This is a summary of the definition of rainwater as defined by the State of California. The act also specifies "from any structure" is allowed without a permit.

Please change the definition you are using to be compliant with state regulations .

#### Summary of the Act

Prior to enactment of the Act, the SWRCB required all would-be appropriators to apply for and obtain a permit to appropriate water from any source, including water falling in the form of precipitation. Under the Act, however, the use of rainwater - defined as "precipitation on any public or private parcel that has not entered an offsite storm drain system or channel, a flood channel, or any other stream channel, and has not been previously been put to beneficial use" - is not subject to the California Water Code's SWRCB permit requirement [California Water Code §§ 1200 et seq.]

171-1

<b>Letter I71</b>	<b>Thomas Grover</b> 10/16/2017
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- I71-1      The comment requests a text change to the proposed ordinance’s definition of rainwater capture. The County is considering this requested change as part of revisions to the proposed ordinance. This comment reflects a proposed change to the ordinance and does not address environmental issues evaluated in the EIR.

**From:** "Gary Falxa"  
**To:** Lazar, Steve  
**Subject:** Comments for Cannabis Cultivation DEIR  
**Date:** Tuesday, October 17, 2017 6:56:20 AM

Name:	Gary Falxa
E-mail:	garyfalxa@gmail.com
Your Comments:	<p>I have lived and worked in Humboldt County for almost 20 years, as a wildlife biologist. During this time I have witnessed first-hand the many negative impacts of the marijuana "gold-rush" that has descended upon our county and adjacent counties. I am concerned both about the severe environmental impacts and the societal impacts of marijuana growing. The environmental impacts include those associated with unregulated and rampant land-clearing, grading, roads, light and fuel-pollution, water diversions and chemical use by marijuana grows. Societal impacts include the attraction to our region of criminal individuals and groups looking to make quick and easy money growing marijuana on private and public lands. Despite any good intentions, our local regulatory and law enforcement agencies are clearly unable to effectively enforce laws and regulations relevant to the thousands of grow operations scattered throughout the county.</p> <p>I believe that the only reasonable solution to address these impacts and are the recommendations in this letter. In truth I recommend that permitted operations be limited to less than 10,000 square feet, except on lowland, flat lands already in use for intensive agriculture, such as those in valleys including the lower Eel River and Arcata Bottoms.</p>

172-1

172-2

172-3

Steve Lazar, Senior Planner  
Humboldt County Planning & Building Department  
3015 H Street  
Eureka, CA 95501  
Via email

Dear Mr. Lazar:

Humboldt County has an important opportunity before it to establish meaningful regulations to protect our watersheds from the significant impacts of the commercial cannabis industry. I support using science and reality-based evidence to inform regulations that maintain and protect healthy rivers.

172-4

I request that Humboldt County analyze and disclose the cumulative impacts of cannabis cultivation on a watershed level. Un-permitted operations, which currently far outnumber permitted ones, must be included in this analysis, as required by the California Environmental Quality Act.

172-5

I also recommend that the size of permitted operations be limited to 10,000 square feet for the largest parcels.

172-6

With only three staff members assigned to code enforcement, Humboldt County does not have the resources to enforce the ordinance, let alone enforce penalties for violators. The lack of resources

172-7

dedicated to this issue sends a strong message that the county has little interest in actually protecting our watershed.

I 172-7  
cont

Humboldt County has long been the leader of the, until now, illicit marijuana industry. With full legalization on the horizon, we must rise to the occasion and also become a leader in the transition to a more transparent and sustainable cannabis industry.

I 172-8

Thank you,

<b>Letter I72</b>	<b>Gary Falxa</b> 10/16/2017
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- I72-1      The comment states that existing cannabis activities have resulted in severe impacts including land-clearing, grading, roads, light and fuel-pollution, water diversions, and chemical use by marijuana grows.
- The reader is referred to Master Response 1 for a further discussion of the DEIR's disclosure of the environmental effects of existing unpermitted cannabis operations. The DEIR does programmatically evaluate the environmental impacts of existing commercial cannabis operations that intend to comply with County standards under the proposed ordinance and/or propose to retire existing cultivation sites, remediate existing cultivation site, or relocate to new properties. While these operations are existing and part of the environmental baseline condition, compliance with the proposed ordinance may involve new actions that would modify their operations, which may include restoration of habitat, roadway improvements, expansion or reconfiguration of their operations, installation of water quality controls, and modification to water supply facilities. This EIR programmatically evaluates the environmental impacts of these possible actions. (see DEIR page 2-28)
- The reader is referred to the following sections of the DEIR where these topics are evaluated, respectively: 3.2, "Agriculture and Forest Resources," 3.6, "Geology and Soils," 3.1, "Aesthetics," 3.3, "Air Quality and Greenhouse Gas Emissions," 3.8, "Hydrology and Water Quality," 3.4, "Biological Resources," and 3.7, "Hazards and Hazardous Materials." Additionally, Master Response 5 includes further discussion of impacts to water resources.
- I72-2      The comment identifies concerns with enforcement of law and regulations. The reader is referred to Master Response 6 for a detailed discussion of improvements to the County's code enforcement activities.
- I72-3      The comment recommends that cannabis cultivation be limited to less than 10,000 square feet in size, except in the lowland/flat lands already used for intensive agriculture. This comment reflects a proposed change to the ordinance and does not address environmental issues evaluated in the EIR.
- The comment is noted and will be provided to the Planning Commission and Board of Supervisors for their consideration during review/consideration of the project.
- I72-4      The comment request the County establish regulations that includes protection of watersheds from impacts resulting from cannabis operations. The reader is referred to Master Response 5 for a detailed discussion of the DEIR's evaluation of water resource impacts to the County's watersheds.
- I72-5      The comment requests a cumulative environmental analysis that includes unpermitted operations and the impacts to watersheds. The reader is referred to Master Response 1 for a detailed discussion of DEIR's consideration of unpermitted cannabis operations and Master Response 5 for further discussion of the DEIR's evaluation of water resource impacts to the County's watersheds.
- I72-6      The comment recommends that permitted cultivation be limited to 10,000 square feet for the largest parcel. This comment is noted. This comment reflects a proposed change to the ordinance and does not address environmental issues evaluated in the EIR.

- 172-7 The comment includes concern with enforcement. The reader is referred to Master Response 6 for a detailed discussion of improvements to the County's code enforcement activities.
- 172-8 The comment includes conclusory remarks. The comment is noted and will be provided to the Planning Commission and Board of Supervisors for their consideration during review/consideration of the project.

**From:** "Norm an Dyche"  
**To:** [Lazar, Steve](#)  
**Subject:** Comments for Cannabis Cultivation DEIR  
**Date:** Tuesday, October 17, 2017 2:03:24 AM

Name:	Norm an Dyche
E-mail:	3711nd@suddenlink.net
Your Comments:	It is difficult to believe that the cannabis and its taxes and revenue is above us and our families. Big Buck speaks again, while we at the same time destroy our environment.

173-1

Steve Lazar, Senior Planner  
Humboldt County Planning & Building Department  
3015 H Street  
Eureka, CA 95501  
Via email

Dear Mr. Lazar:

Humboldt County has an important opportunity before it to establish meaningful regulations to protect our watersheds from the significant impacts of the commercial cannabis industry. I support using science and reality-based evidence to inform regulations that maintain and protect healthy rivers.

173-2

I request that Humboldt County analyze and disclose the cumulative impacts of cannabis cultivation on a watershed level. Un-permitted operations, which currently far outnumber permitted ones, must be included in this analysis, as required by the California Environmental Quality Act.

173-3

I also recommend that the size of permitted operations be limited to 10,000 square feet for the largest parcels.

173-4

With only three staff members assigned to code enforcement, Humboldt County does not have the resources to enforce the ordinance, let alone enforce penalties for violators. The lack of resources dedicated to this issue sends a strong message that the county has little interest in actually protecting our watershed.

173-5

Humboldt County has long been the leader of the, until now, illicit marijuana industry. With full legalization on the horizon, we must rise to the occasion and also become a leader in the transition to a more transparent and sustainable cannabis industry.

173-6

Thank you,

<b>Letter I73</b>	<b>Norm an Dyche</b> 10/16/2017
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- I73-1      The comment identifies concerns regarding the proposed ordinance and its impact on the environment.
- This comment is noted. The DEIR discloses the significant environmental impacts of the implementation of the proposed ordinance and identifies mitigation measures to reduce these impacts in DEIR Sections 3.1 through 3.14 and Chapter 4, “Cumulative Impacts.”
- I73-2      The comment request the County establish regulations that includes protection of watersheds from impacts resulting from cannabis operations. The reader is referred to Master Response 5 for a detailed discussion of the DEIR’s evaluation of water resource impacts to the County’s watersheds.
- I73-3      The comment requests a cumulative environmental analysis that includes unpermitted operations and the impacts to watersheds. The reader is referred to Master Response 1 for a detailed discussion of DEIR’s consideration of unpermitted cannabis operations and Master Response 5 for further discussion of the DEIR’s evaluation of water resource impacts to the County’s watersheds.
- I73-4      The comment recommends that permitted cultivation be limited to 10,000 square feet for the largest parcel. This comment is noted. This comment reflects a proposed change to the ordinance and does not address environmental issues evaluated in the EIR.
- I73-5      The comment includes concern with enforcement. The reader is referred to Master Response 6 for a detailed discussion of improvements to the County’s code enforcement activities.
- I73-6      The comment includes conclusory remarks. The comment is noted and will be provided to the Planning Commission and Board of Supervisors for their consideration during review/consideration of the project.



**From:** "Paul Henninger "  
**To:** [Lazar, Steve](#)  
**Subject:** Comments for Cannabis Cultivation DEIR  
**Date:** Tuesday, October 17, 2017 7:21:24 AM

Letter  
174

Name:	Paul Henninger
E-mail:	pauli@asis.com
Your Comments:	Don't let the industrial pot industry deplete our water supply, we need to represent the fish that are floundering in the shallow pools in the lower Eel as well as the profiteers of the pot industry .

174-1

Steve Lazar, Senior Planner  
Humboldt County Planning & Building Department  
3015 H Street  
Eureka, CA 95501  
Via email

Dear Mr. Lazar:

Humboldt County has an important opportunity before it to establish meaningful regulations to protect our watersheds from the significant impacts of the commercial cannabis industry. I support using science and reality-based evidence to inform regulations that maintain and protect healthy rivers.

174-2

I request that Humboldt County analyze and disclose the cumulative impacts of cannabis cultivation on a watershed level. Un-permitted operations, which currently far outnumber permitted ones, must be included in this analysis, as required by the California Environmental Quality Act.

174-3

I also recommend that the size of permitted operations be limited to 10,000 square feet for the largest parcels.

174-4

With only three staff members assigned to code enforcement, Humboldt County does not have the resources to enforce the ordinance, let alone enforce penalties for violators. The lack of resources dedicated to this issue sends a strong message that the county has little interest in actually protecting our watershed.

174-5

Humboldt County has long been the leader of the, until now, illicit marijuana industry. With full legalization on the horizon, we must rise to the occasion and also become a leader in the transition to a more transparent and sustainable cannabis industry.

174-6

Thank you,

<b>Letter I74</b>	<b>Paul Henninger</b> 10/16/2017
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- I74-1 The comment expresses concern with water supply and fishery impacts to the Eel River. As discussed in Master Response 5, the DEIR analysis acknowledges that cannabis irrigation could result in a significant decrease in watershed flows during low flow conditions (see DEIR pages 3.8-44 and 3.8-45). Implementation of Mitigation Measure 3.8-5 in compliance with State Water Board Policy would require that all cannabis cultivation surface water and groundwater diversions comply with the numeric flows and aquatic base flows that have been established by watershed under the Policy in consultation with CDFW. The proposed ordinance would prohibit new commercial cannabis cultivation in the forested areas of the upper watersheds and limit it to non-forested areas generally in the lower portions of the watersheds where the USGS gages used in the implementation of the State Water Board Policy exist. The State Water Board Policy's flow standards and diversion requirements were developed to protect fish spawning, migration, and rearing for endangered anadromous salmonids, and flows to needed to maintain natural flow variability within each watershed.
- I74-2 The comment request the County establish regulations that includes protection of watersheds from impacts resulting from cannabis operations. The reader is referred to Master Response 5 for a detailed discussion of the DEIR's evaluation of water resource impacts to the County's watersheds.
- I74-3 The comment requests a cumulative environmental analysis that includes unpermitted operations and the impacts to watersheds. The reader is referred to Master Response 1 for a detailed discussion of DEIR's consideration of unpermitted cannabis operations and Master Response 5 for further discussion of the DEIR's evaluation of water resource impacts to the County's watersheds.
- I74-4 The comment recommends that permitted cultivation be limited to 10,000 square feet for the largest parcel. This comment is noted. This comment reflects a proposed change to the ordinance and does not address environmental issues evaluated in the EIR.
- I74-5 The comment includes concern with enforcement. The reader is referred to Master Response 6 for a detailed discussion of improvements to the County's code enforcement activities.
- I74-6 The comment includes conclusory remarks. The comment is noted and will be provided to the Planning Commission and Board of Supervisors for their consideration during review/consideration of the project.

## 3 REVISIONS TO THE DEIR

### 3.1 INTRODUCTION

This chapter presents specific text changes made to the DEIR since its publication and public review. These changes are the result of responses to comments on the DEIR identified in Chapter 2, “Responses to Comments.” The changes are presented in the order in which they appear in the original DEIR and are identified by the DEIR page number. Text deletions are shown in ~~strike through~~, and text additions are shown in double underline.

The information contained within this chapter clarifies and expands on information in the DEIR and does not constitute “significant new information” requiring recirculation. (See Public Resources Code Section 21092.1; CEQA Guidelines Section 15088.5.).

### SECTION 3.4, “BIOLOGICAL RESOURCES”

On DEIR page 3.4-34, the third row of the third column in table 3.4-2 is corrected to read:

SC SSC

On DEIR page 3.4-61, under the heading “Special-Status Amphibians,” the text is corrected to read:

Foothill yellow-legged frog is a candidate for listing under the CESA. ~~Foothill yellow-legged frog;~~  
~~Northern red-legged frog, Pacific tailed frog, red-bellied newt, and southern torrent salamander are~~  
all CDFW species of special concern.

On DEIR page 3.4-61, the following text was added:

#### **Mitigation 3.4-1a: Pre-approval biological reconnaissance surveys.**

The following shall be included as performance standards in the proposed ordinance for the protection of special-status wildlife species and habitat from new development related to cannabis activities.

- ▲ Prior to approval of any application for commercial cannabis operations, a biological reconnaissance survey shall be conducted within the proposed development area by a qualified biologist. The qualified biologist shall assess the habitat suitability of the proposed development area for all 35 special-status wildlife species identified as having potential to occur in the County consistent with General Requirement and Prohibition 10 of the Attachment A of the State Water Board Policy.
- ▲ The biologist shall provide a letter report to the project applicant and the County with evidence to support a conclusion as to whether special-status species and sensitive habitats are present or are likely to occur within the proposed development area. If special-status species or sensitive habitats are present, the appropriate mitigation measures from this EIR shall be identified. The County shall require implementation of the mitigation measures as part of the application approval.

On page 3.4-61, the text within “Mitigation 3.4-1a: Special-status amphibian preconstruction surveys” (now Mitigation 3.4-1b) is modified to read:

#### **Mitigation 3.4-1ba: Special-status amphibian preconstruction surveys and relocation.**

The following shall be included as performance standards in the proposed ordinance for the protection of special-status amphibian species from new development related to cannabis activities.

Forty-eight hours prior to proposed new development activities within 200 feet of any SMA or Other Wet Area, a preconstruction survey for special-status amphibians shall be conducted by a qualified biologist. The biologist shall be familiar with the life cycle of foothill yellow-legged frog, northern red-legged frog, Pacific tailed frog, red bellied newt, and southern torrent salamander, and will conduct appropriate surveys for the applicable life stages (i.e., eggs, larvae, adults).

Preconstruction surveys for special-status amphibian species shall be conducted throughout the proposed construction area and a 400-foot buffer around the proposed development area. Surveys shall consist of “walk and turn” surveys of areas beneath surface objects (e.g., rocks, leaf litter, moss mats, coarse woody debris) for newts and salamanders, and visual searches for frogs.

If red bellied newt or southern torrent salamander or special-status frogs are detected during the preconstruction survey, the proposed development area shall be relocated to be no closer than 200 feet from the occurrence(s) measured as a horizontal line perpendicular to, and moving away from, the SMA.

- ▲ If special-status amphibians are detected during the initial biological reconnaissance survey (see Mitigation 3.4-1a) or are determined to be likely to occur, consultation with CDFW shall be initiated to determine whether mitigation measures, such as project design modifications, relocation of the site, relocation of individual animals, or installation of exclusionary fencing, will be necessary and appropriate.
- ▲ Regardless of detection during the initial biological reconnaissance survey, if suitable habitat for special-status amphibians is present within the proposed development area, a qualified biologist familiar with the life cycle of foothill yellow-legged frog, northern red-legged frog, Pacific tailed-frog, red-bellied newt, and southern torrent salamander shall conduct preconstruction surveys of proposed new development activities 48 hours prior to new development activities. Preconstruction surveys for special-status amphibian species shall be conducted throughout the proposed construction area and a 400-foot buffer around the proposed development area. Surveys shall consist of “walk and turn” surveys of areas beneath surface objects (e.g., rocks, leaf litter, moss mats, coarse woody debris) for newts and salamanders, and visual searches for frogs. Preconstruction surveys shall be conducted within the appropriate season to maximize potential for observation for each species, and appropriate surveys will be conducted for the applicable life stages (i.e., eggs, larvae, adults).
- ▲ If special-status amphibians are not detected during the preconstruction survey, then further mitigation is not required.

#### Significance after Mitigation

Implementation of Mitigation Measure 3.4-1a and 3.4-1b would reduce potential impacts on special-status amphibians to a **less-than-significant** level by requiring preconstruction surveys and the protection of special-status frogs, newts, and salamanders from construction-related injury, mortality, or other disturbance when new cannabis facilities are developed near aquatic habitat consistent with General Requirement and Prohibition 10 of the Attachment A of the State Water Board Policy.

On page 3.4-62, the text within “Mitigation 3.4-1b: Western pond turtle preconstruction surveys” (now Mitigation 3.4-1c) is modified to read:

#### **Mitigation 3.4-1**c**: Western pond turtle preconstruction surveys and relocation.**

The following shall be included as a performance standard in the proposed ordinance for the protection of western pond turtle from new development related to cannabis activities.

~~Within 24 hours before beginning proposed new development activities within 200 feet of SMA or Other Wet Area, a qualified biologist shall survey areas of anticipated disturbance for the presence of western pond turtle. If pond turtles are found during the survey the proposed development area shall~~

~~be relocated to be no closer than 200 feet from the occurrence(s) measured as a horizontal line perpendicular to, and moving away from, the SMA.~~

- ▲ If pond turtles are detected during the initial biological reconnaissance survey (see Mitigation 3.4-1a), preconstruction surveys, or are determined to be likely to occur, consultation with CDFW shall be initiated to determine whether additional measures, such as project design modifications, relocation of the site, relocation of individual animals, or installation of exclusionary fencing, will be necessary and appropriate.
- ▲ Regardless of detection during the initial biological reconnaissance survey, if suitable aquatic habitat for western pond turtle is present within the proposed development area, a qualified biologist familiar with the life history of western pond turtle shall conduct preconstruction surveys of proposed new development activities within 200 feet of any SMA or Other Wet Area 24 hours prior to such development activities.
- ▲ If pond turtles are not detected during the preconstruction survey, then further mitigation is not required.

#### **Significance after Mitigation**

Implementation of Mitigation Measure 3.4-1**~~c~~b** would reduce potential impacts on western pond turtle to a **less-than-significant** level by requiring preconstruction surveys and the protection of western pond turtles from cannabis development-related injury, mortality, or other disturbance.

On DEIR page 3.4-62, the following text change is made to the first paragraph under “Nesting Raptors:”

The County contains suitable nesting habitat and many known nesting occurrences for several raptor species, including American peregrine falcon, bald eagle, golden eagle, northern goshawk, northern spotted owl, and white-tailed kite. Peregrine falcon, bald eagle, golden eagle, and white-tailed kite are fully protected under California Fish and Game Code. Bald eagle is also listed as endangered under CESA. Bald and golden eagles are also protected under the Bald and Golden Eagle Protection Act. Northern spotted owl is listed as threatened under ESA and CESA, and is also a CDFW species of special concern. Northern goshawk is a CDFW species of special concern. Suitable nesting habitat for these species includes trees, snags, cliffs, and human-made structures (e.g., utility poles). Critical habitat for northern spotted owl is present within the County (Exhibit 3.4-5). Large portions of this habitat area are in land areas (public lands and areas designated for timber uses) where new commercial cannabis operations would be prohibited under the proposed ordinance.

On page 3.4-63, the text within “Mitigation 3.4-1**~~c~~c**” (now Mitigation 3.4-1d) is modified to read:

#### **Mitigation 3.4-1**~~d~~d**: Nesting raptor preconstruction survey and establishment of protective buffers.**

The following shall be included as performance standards in the proposed ordinance for the protection of nesting raptors from new development related to cannabis activities.

- ▲ To minimize the potential for loss of nesting raptors, tree removal activities shall only occur during the nonbreeding season (September 1-January 31).
- ▲ Prior to removal of any trees, or ground-disturbing activities between February 1 and August 31, a qualified biologist shall conduct preconstruction surveys for nesting raptors, and shall identify active nests within 500 feet of the proposed development area. The surveys shall be conducted between February 1 and August 31.
- ▲ Impacts to nesting raptors, including direct impacts and indirect impacts (e.g., noise, presence of construction crews) shall be avoided by establishing appropriate buffers around active nest sites

identified during preconstruction raptor surveys. The buffer areas shall be protected with construction fencing, and no activity shall occur within the buffer areas until a qualified biologist has determined, in coordination with CDFW, that the young have fledged, the nest is no longer active, or reducing the buffer would not likely result in nest abandonment. CDFW guidelines recommend implementation of a 500-foot buffer for raptors, but the size of the buffer may be adjusted if a qualified biologist and the applicant, in consultation with CDFW, determine that such an adjustment would not be likely to adversely affect the nest. Monitoring of the nest by a qualified biologist during and after construction activities will be required if the activity has potential to adversely affect the nest.

- ▲ Removal of bald and golden eagle nests are prohibited regardless of the occupancy status under the federal Bald and Golden Eagle Protection Act. If bald or golden eagle nests are found during pre-construction surveys, then the nest tree shall not be removed.
- ▲ Trees shall not be removed during the breeding season for nesting raptors unless a survey by a qualified biologist verifies that there is not an active nest in the tree.

#### **Significance after Mitigation**

Implementation of Mitigation Measure 3.4-1c would reduce significant impacts on nesting raptors a **less-than-significant** level because active raptor nests would be avoided and protected from construction activities.

On pages 3.4-64 to 3.4-65, the following text was added:

#### **Northern spotted owl**

Northern spotted owl is listed as threatened under ESA and CESA. Northern spotted owl is known to occur throughout Humboldt County coniferous forests (CNDDDB 2017, eBird 2017). Critical habitat for this species is present within the County (Exhibit 3.4-5). Large portions of this critical habitat area are in land areas (public lands and areas designated for timber uses) where new commercial cannabis operations would be prohibited under the proposed ordinance.

Exhibit 3.4-9 presents the distribution of known occurrences of spotted owls throughout Humboldt County and shows that the majority of occurrences are within areas where new cultivation is prohibited, including public land and land not zoned for cultivation. However, there are some known occurrences located within land zoned for cultivation (Exhibit 3.4-9).

Project implementation associated with potential impacts to habitat and vegetation removal could disturb nesting northern spotted owls if they are present, potentially resulting in nest abandonment, nest failure, or mortality of chicks or eggs. Additionally, human presence associated with construction of cultivation sites, roads, and cultivation activities could result in increased noise and visual disturbance to nesting raptors. CDFW conducted a spatial analysis of existing cannabis cultivation sites and County cannabis permit application data to determine proximity of known and historic northern spotted owl occurrences that could be impacted by noise and visibility of the cultivation. Based on the CDFW's analysis, 53 cannabis projects (sites) have activities within 40 meters of a northern spotted owl activity center, 525 cannabis projects occur within 0.7 mile, and 1184 occur within 1.3 miles (CDFW 2017). The potential loss of northern spotted owls and their nests would be a **potentially significant** impact.

In addition to direct impacts to the species, new cannabis-related development under the proposed ordinance result in the loss or fragmentation of northern spotted owl habitat. This would also be a **potentially significant** impact.



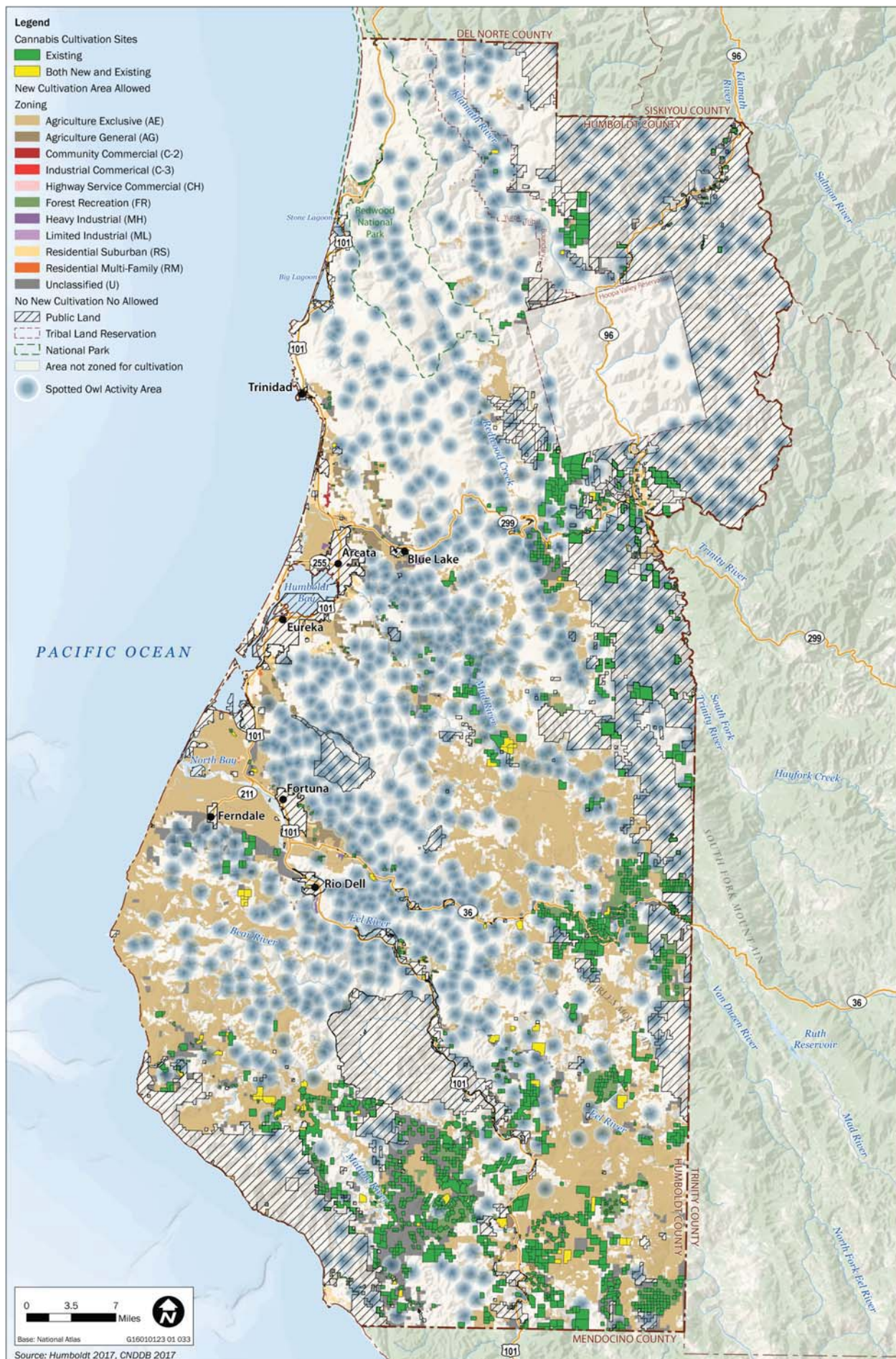


Exhibit 3.4-9

Cultivation Areas and Northern Spotted Owl Observation and Activity Areas





### **Mitigation 3.4-1e: Northern spotted owl preconstruction habitat suitability surveys and determination of presence or absence.**

The following shall be included as performance standards in the proposed ordinance for the protection of northern spotted owl from new development related to cannabis activities.

- ▲ To avoid the potential for loss of northern spotted owl and their nests, or loss or fragmentation of occupied or suitable habitat for northern spotted owl, removal of old growth habitat shall be prohibited, as outlined in Mitigation Measure 3.4-3, Sensitive natural communities, riparian habitat, old growth habitat, and wetland vegetation.
- ▲ If the area of proposed new development activities is within suitable habitat for northern spotted owl (e.g., coniferous forest), and is within 1.3 miles (average species home range) of a known occurrence of northern spotted owl, as determined by a qualified biologist, the following measures shall be followed.
  - Prior to removal of any trees, or ground-disturbing activities adjacent or within suitable nesting, roosting, or foraging habitat (e.g. forest clearings) for spotted owl, a qualified biologist, familiar with the life history of the northern spotted owl, shall conduct preconstruction surveys for nests within a 1.3-mile buffer around the site as described in *Protocol for Surveying Proposed Management Activities that May Impact Northern Spotted Owls* (USFWS 2012). Surveys shall take place between March 1 and August 31. Three complete surveys spaced at least 7 days apart must be completed by June 30. Six complete surveys over the course of 2 years must be completed to determine presence or absence of northern spotted owl.
  - If northern spotted owls are determined to be absent 1.3 miles from the site, then further mitigation is not required.
  - If northern spotted owls are determined to be present within 1.3 miles of the site, then it is presumed that habitat removal could cause harm to northern spotted owl populations in the area, and could result in direct take of northern spotted owls. If northern spotted owls are determined to be present within 1.3 miles of the site, proposed cultivation activities will not be permitted consistent with the General Requirement and Prohibition 4 of the Attachment A of the State Water Board Policy.

#### **Significance after Mitigation**

Implementation of Mitigation Measure 3.4-1e would reduce significant impacts to a **less-than-significant** level because direct take of northern spotted owls and disturbance or fragmentation of northern spotted owl habitat would be avoided through preconstruction surveys and, if found, prohibition of proposed cultivation activities consistent with the State Water Board Policy.

On DEIR pages 3.4-65 through 3.4-68, the mitigation measures are re-numbered as follows:

### **Mitigation 3.4-1fd: Special-status nesting bird surveys and establishment of protective buffers.**

The following shall be included as performance standards in the proposed ordinance for the protection of bank swallow, little willow flycatcher, tricolored blackbird, and western yellow-billed cuckoo from new development related to cannabis activities. This will apply to any commercial cannabis activity that would result in the disturbance or loss of riparian, riverine, mudflat, or grassland habitats.

- ▲ To minimize the potential for disturbance or loss of bank swallow, little willow flycatcher, tricolored blackbird, western snowy plover, western yellow-billed cuckoo, or other bird nests, vegetation removal

activities shall only occur during the nonbreeding season (September 1-January 31). Alteration of or disturbance to suitable river bank habitat (i.e., for bank swallow nests) and mudflat habitat (i.e., for western snowy plover) is prohibited because of limited habitat availability for this species.

- ▲ Prior to removal of any vegetation or any ground disturbance between February 1 and August 31, a qualified biologist shall conduct preconstruction surveys for nests on any structure or vegetation slated for removal, as well as for potential tricolored blackbird nesting habitat. The surveys shall be conducted no more than 14 days before construction commences. If no active nests or bank swallow colonies are found during focused surveys, no further action under this measure will be required. If active nests are located during the preconstruction surveys, the biologist shall notify the Planning Director and CDFW. If deemed necessary by the Planning Director in consultation with CDFW, modifications to the project design to avoid removal of occupied habitat while still achieving project objectives may be required. If the Planning Director determines in consultation with CDFW that avoidance is not feasible or conflicts with project objectives, construction shall be prohibited within a minimum of 100 feet of the nest to avoid disturbance until the nest or colony is no longer active.

#### **Significance after Mitigation**

Implementation of Mitigation Measure 3.4-1fd would reduce significant impacts to a **less-than-significant** level because bank swallow, little willow flycatcher, tricolored blackbird, western snowy plover, western yellow-billed cuckoo, and other bird nests would be avoided and protected from new development related to cannabis activities.

#### **Mitigation 3.4-1ge: Marbled murrelet preconstruction habitat suitability surveys and establishment of protective buffers.**

The following shall be included as performance standards in the proposed ordinance for the protection of marbled murrelet from new development related to cannabis activities.

- ▲ To avoid the potential for loss of or disturbance to marbled murrelet nests and habitat, removal of old growth habitat shall be prohibited, as outlined in Mitigation Measure 3.4-3, Sensitive natural communities, riparian habitat, old growth habitat, and wetland vegetation.
- ▲ Prior to removal of any trees, or ground-disturbing activities adjacent or within suitable habitat for marbled murrelet between April 15 and August 5, a qualified biologist, familiar with the life history of the marbled murrelet, shall conduct preconstruction surveys for nests within a 0.25-mile buffer around the site as described in *Methods for Surveying Marbled Murrelets in Forests: A Revised Protocol for Land Management and Research* (Evans Mack et. al 2003).
- ▲ If marbled murrelets are determined to be absent from the site, then no further mitigation is required.
- ▲ If marbled murrelets are determined to be present within the site, a 0.25-mile buffer will be established around occupied nest sites. No project activity may occur within the 0.25-mile buffer areas until the end of marbled murrelet breeding season (August 6).

#### **Significance after Mitigation**

Implementation of Mitigation Measure 3.4-1ge would reduce significant impacts to a **less-than-significant** level because disturbance of marbled murrelet would be avoided through preconstruction surveys and, if found, establishment of a protective buffer.

#### **Mitigation 3.4-1hf: Generator noise reduction.**

The ordinance requires generators not to increase existing ambient noise levels at the property line of the site beyond 3 dB. In addition, the noise standards shall include the following standards to protect wildlife (USFWS 2006).

- ▲ Project-generated sound must not exceed ambient nesting conditions by 20-25 decibels.
- ▲ Project-generated sound, when added to existing ambient conditions, must not exceed 90 decibels.
- ▲ Time of day adjustment: Marbled murrelet and northern spotted owl are most active during dawn and dusk. Within approximately 2 hours of sunrise and sunset, ambient sound levels are lower than during the middle of the day (by approximately 5-10 decibels). This will be accounted for when determining impacts of project-generated sound.

**Significance after Mitigation**

Implementation of Mitigation Measure 3.4-1~~hf~~<sup>h</sup> would reduce significant impacts to a **less-than-significant** level because project-generated sound would not exceed levels known to result in disturbance to avian forest species, such as marbled murrelet and northern spotted owl. Disturbance to these species would be avoided.

**Mitigation Measure 3.4-1~~ig~~<sup>g</sup>: American badger preconstruction survey and establishment of protective buffers.**

The following shall be included as performance standards in the proposed ordinance for the protection of the American badger from new development related to cannabis activities.

- ▲ Prior to the commencement of construction activities, a qualified wildlife biologist shall conduct surveys of the suitable grassland or agricultural habitats slated for conversion within the site to identify any American badger burrows/dens. These surveys shall be conducted not more than 30 days prior to the start of construction. If occupied burrows are not found, further mitigation shall not be required. If occupied burrows are found, impacts to active badger dens shall be avoided by establishing exclusion zones around all active badger dens, within which construction related activities shall be prohibited until denning activities are complete or the den is abandoned. A qualified biologist shall monitor each den once per week to track the status of the den and to determine when a den area has been cleared for construction.

**Significance after Mitigation**

Implementation of Mitigation Measure 3.4-1~~ig~~<sup>g</sup> would reduce impacts on American badger to a **less-than-significant** level because preconstruction surveys would be conducted and active badger dens would be protected from construction activities.

**Mitigation Measure 3.4-1~~jh~~<sup>h</sup>: Fisher and Humboldt marten preconstruction survey and preservation of active den sites.**

The following shall be included as performance standards in the proposed ordinance for the protection of the fisher and Humboldt marten from new development related to cannabis activities.

- ▲ To minimize the potential for loss of or disturbance to fisher and Humboldt marten habitat and dens, removal of old growth habitat shall be prohibited, as outlined in Mitigation Measure 3.4-3, Sensitive natural communities, riparian habitat, old growth habitat, and wetland vegetation.
- ▲ Prior to commencement of from new development related to cannabis activities occurring within the fisher and Humboldt marten denning season (March 1 to July 31), including tree removal (non-old growth), a qualified wildlife biologist will conduct preconstruction surveys of all suitable habitat within the site, and will identify sightings of individual fishers or martens, as well as potential dens.
- ▲ If individuals or potential or occupied dens are not found, further mitigation will not be required.

- ▲ If fisher or Humboldt marten are identified or if potential dens of these species are located, an appropriate method shall be used by a qualified wildlife biologist to confirm whether a fisher or marten is occupying the den. This may involve use of remote field cameras, track plates, or hair snares. Other devices such as fiber optic scope may be utilized to determine occupancy. If no fisher or marten occupies the potential den, the entrance will be temporarily blocked so that no other animals occupy the area during the construction period but only after it has been fully inspected. The blockage will be removed once construction activities have been completed.
- ▲ If a den is found to be occupied by a fisher or marten, a no-disturbance buffer will be placed around the occupied den location. The no-disturbance buffer will include the den tree (or other structure) plus a suitable buffer as determined by the biologist in coordination with USFWS and CDFW. Construction activities in the no-disturbance buffer will be avoided until the nest is unoccupied as determined by a qualified wildlife biologist in coordination with USFWS and CDFW.

#### Significance after Mitigation

Implementation of Mitigation Measure 3.4-1j~~h~~ would reduce impacts on fisher and Humboldt marten to a **less-than-significant** level because preconstruction surveys would be conducted and active dens would be protected from construction activities.

#### **Mitigation Measure 3.4-1k: Preconstruction bat survey and exclusion.**

The following shall be included as performance standards in the proposed ordinance for the protection of the pallid bat and Townsend's big-eared bat from new development related to cannabis activities.

- ▲ Before commencing any new development related to cannabis activities, a qualified biologist shall conduct surveys for roosting bats. If evidence of bat use is observed, the species and number of bats using the roost shall be determined. Bat detectors may be used to supplement survey efforts. If no evidence of bat roosts is found, then no further study will be required.
- ▲ If pallid bats or Townsend's big-eared bats are found in the surveys, a mitigation program addressing mitigation for the specific occurrence shall be submitted to the Planning Director and CDFW by a qualified biologist subject to the review and approval of the Planning Director in consultation with CDFW. Implementation of the mitigation plan shall be a condition of project approval. At a minimum, the mitigation plan shall establish a 400-foot buffer area around the nest during hibernation or while females in maternity colonies are nursing young.

#### Significance after Mitigation

Implementation of Mitigation Measure 3.4-1k would reduce impacts on special-status bats to a **less-than-significant** level because preconstruction surveys would be conducted and active bat roosts would be protected from new development related to cannabis activities.

#### **Mitigation Measure 3.4-1l: Preconstruction vole survey and relocation.**

The following shall be included as performance standards in the proposed ordinance for the protection of the Sonoma tree vole and white-footed vole from new development related to cannabis activities.

- ▲ To minimize the potential for loss of or disturbance to vole habitat and nests, removal of old growth habitat shall be prohibited, as outlined in Mitigation Measure 3.4-3 Sensitive natural communities, riparian habitat, old growth habitat, and wetland vegetation.
- ▲ Before commencing any tree or other vegetation removal activities, or ground-disturbance, a qualified biologist shall conduct surveys for vole nests (e.g., nest searching within trees on the site, and confirming that nests belong to voles rather than squirrels or birds). If no evidence of vole nests is found, then no further study shall be required. A report summarizing the results of the surveys shall be prepared and submitted to the Planning Director and shall be subject to his review and approval in consultation with CDFW.

- ▲ If occupied trees or nests are identified within 100 feet of the site, the biologist shall determine whether project development activities will adversely affect the voles, based on factors such as noise level of development activities, or line of sight between the tree and the disturbance source. If it is determined that development activities would not affect the voles, then development can proceed without protective measures.
- ▲ If the biologist determines that development activities would likely disturb voles, the proposed area of disturbance shall be relocated a minimum of 200 feet from the nest.

#### **Significance after Mitigation**

Implementation of Mitigation Measure 3.4-1j would reduce impacts on special-status voles to a **less-than-significant** level because preconstruction surveys would be conducted and active vole nests would be protected from new development related to cannabis activities.

On DEIR page 3.4-71, the following text changes are made to Mitigation 3.4-3a:

#### **Mitigation 3.4-3a: Special-status plants.**

The following shall be included as performance standards in the proposed ordinance for the protection of special-status plant species from new development related to cannabis activities.

- ▲ Prior to commencement of new development related to cannabis activities and during the blooming period for the special-status plant species with potential to occur in the site, a qualified botanist will conduct protocol-level surveys for special-status plants in all proposed disturbance areas following survey methods from CDFW's *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CDFW 2009).
- ▲ If special-status plants are not found, the botanist will document the findings in a letter report to USFWS, CDFW, and the applicant and no further mitigation will be required.
- ▲ If special-status plant species are found, a qualified biologist shall consult with CDFW to designate a no-disturbance buffer that will be reflected in the application to the County consistent with General Requirement and Prohibition 10 of the Attachment A of the State Water Board Policy. If the special-status plant species that cannot be avoided, the application will be denied. ~~applicant, as part of its application to the County, shall retain a qualified botanist to consult with CDFW and/or USFWS (as appropriate, depending on species status) to determine the appropriate mitigation measures for direct and indirect impacts through a Mitigation and Monitoring Plan. The applicant shall be responsible for implementing the approved Mitigation and Monitoring Plan to the satisfaction of the Planning Director in consultation with, CDFW, and/or USFWS to achieve a 2:1 replacement ratio of habitat and individuals. Mitigation measures may include preserving and enhancing existing populations, creation of off-site populations on project mitigation sites through seed collection or transplantation, and/or restoring or creating suitable habitat in sufficient quantities to achieve a 2:1 replacement ratio of habitat and individuals.~~
- ~~▲ If relocation efforts are part of the Mitigation and Monitoring Plan, the plan shall include details on the methods to be used, including collection, storage, propagation, receptor site preparation, installation, long-term protection, and management, monitoring and reporting requirements, success criteria, and remedial action responsibilities should the initial effort fail to meet long term monitoring requirements.~~
- ~~▲ Success criteria for preserved and compensatory populations shall include:~~
  - ~~The extent of occupied area and plant density (number of plants per unit area) in compensatory populations will be equal to or greater than the affected occupied habitat.~~



- ~~Compensatory and preserved populations will be self-producing. Populations will be considered self-producing when:~~
  - ~~plants reestablish annually for a minimum of five years with no human intervention such as supplemental seeding; and~~
  - ~~reestablished and preserved habitats contain an occupied area and flower density comparable to existing occupied habitat areas in similar habitat types in the project vicinity.~~

~~If off-site mitigation includes dedication of conservation easements, purchase of mitigation credits, or other off-site conservation measures, the details of these measures shall be included in the mitigation plan, including information on responsible parties for long term management, conservation easement holders, long term management requirements, success criteria such as those listed above and other details, as appropriate to target the preservation of long term viable populations.~~

DEIR pages 3.4-71 and 3.4-72, the following text changes are made to Mitigation Measure 3.4-3b:

### **Mitigation 3.4-3b: Invasive plant species.**

The following shall be included as performance standards in the proposed ordinance to avoid the introduction or spread of plants classified as invasive plant species by the California Invasive Plant Council.

- ▲ The application will include identification of invasive plant species that occur on the site and where they are located. The application will identify specific measures to be employed for the removal of invasive species and on-site management practices. As part of the County's annual inspection areas where invasive plant species were removed will be checked to verify removal. Corrective actions may be required as part of the annual permit renewal if invasive species remain or have returned.
- ▲ All invasive plant species shall be removed from the site using measures appropriate to the species. For example, species that cannot easily re-root, re-sprout, or disperse seeds may be left on site in a debris pile. Species that re-sprout readily (e.g., English ivy) or disperse seeds (e.g., Pampas grass) should be hauled off-site and disposed of appropriately at a landfill site.

Heavy equipment and other machinery shall be inspected for the presence of invasive species prior to on-site use, and shall be cleaned prior to entering the site, to reduce the risk of introducing invasive plant species.

On DEIR page 3.4-72, the following text is added after the third paragraph under Impact 3.4-4:

Approximately 22,175 acres of coastal oak woodland habitat occurs within the County. Oak woodlands are considered under the state Oak Woodlands Conservation Act, which requires the County to determine whether proposed development would result in conversion of oak woodlands that would have a significant adverse effect on the environment. Development of cannabis-related uses under the proposed ordinance could result in removal of oak woodlands if present in a proposed development area.

On page 3.4-73, Mitigation 3.4-4: Sensitive natural communities, riparian habitat, and wetland vegetation was modified to read:

### **Mitigation 3.4-4: Sensitive natural communities, riparian habitat, and wetland vegetation.**

The following shall be included as performance standards in the proposed ordinance for the protection of sensitive natural communities and riparian habitat.

- ▲ For projects that could disturb sensitive natural communities or riparian habitat, the application shall include a report prepared by a qualified biologist that surveys the site for these sensitive resources, including riparian habitat associated with aquatic features; old growth Sitka spruce, Douglas fir, and redwood forests; coastal oak woodlands; special-status fish stream habitats; marsh habitats; and northern foredune grassland near Humboldt Bay and the Mattole River; and coastal terrace prairie within Table Bluff Ecological Reserve.
- ▲ The report shall include requirements that before development activities commence, all sensitive areas identified above shall be flagged or fenced with brightly visible construction flagging and/or fencing under the direction of the qualified biologist to require that grading, excavation, other ground-disturbing activities, and vegetation removal will not occur within these areas. Foot traffic by construction personnel shall also be limited in these areas to prevent the introduction of invasive or weedy species. Periodic inspections during construction shall be conducted by the monitoring biologist to maintain the integrity of exclusion fencing/flagging throughout the period of construction involving ground disturbance.
- ▲ If the report documents that site development would affect the bed, bank, channel, or associated riparian habitat subject to CDFW jurisdiction under Fish and Game Code Section 1602, a Streambed Alteration Notification shall be submitted to CDFW, pursuant to Section 1600 et seq. of the California Fish and Game Code. If proposed activities are determined to be subject to CDFW jurisdiction, the project proponent shall abide by the conditions of any executed agreement prior to the issuance of a grading permit by Humboldt County.
- ▲ Subject to the review and approval of the Planning Director in consultation with CDFW applicants shall compensate for permanent loss of riparian habitat at a minimum of a 2:1 ratio through contributions to a CDFW approved wetland mitigation bank or through the development and implementation of a Compensatory Stream and Riparian Mitigation and Monitoring Plan for creating or restoring in-kind habitat in the surrounding area (such as the proposed ordinance site reconfiguration criteria for existing cultivation sites). If mitigation credits are not available, stream and riparian habitat compensation shall include establishment of riparian vegetation on currently unvegetated bank portions of streams affected by the project and enhancement of existing riparian habitat through removal of nonnative species, where appropriate, and planting additional native riparian plants to increase cover, continuity, and width of the existing riparian corridor along streams in the site and surrounding areas. Construction activities and compensatory mitigation shall be conducted in accordance with the terms of a streambed alteration agreement as required under Section 1602 of the Fish and Game Code as well as the State Water Board Cannabis Cultivation Policy~~the Regional Water Quality Control Board North Coast Region Order R1-2015-0023.~~

The Compensatory Stream and Riparian Mitigation and Monitoring Plan shall include the following:

- identification of compensatory mitigation sites and criteria for selecting these mitigation sites;
- in kind reference habitats for comparison with compensatory riparian habitats (using performance and success criteria) to document success;
- monitoring protocol, including schedule and annual report requirements (Compensatory habitat will be monitored for a minimum of 5 years from completion of mitigation, or human intervention [including recontouring and grading], or until the success criteria identified in the approved mitigation plan have been met, whichever is longer.);
- ecological performance standards, based on the best available science and including specifications for native riparian plant densities, species composition, amount of dead woody vegetation gaps and bare ground, and survivorship; at a minimum, compensatory mitigation planting sites must achieve 80 percent survival of planted riparian trees and shrubs by the end

of the five-year maintenance and monitoring period or dead and dying trees will be replaced and monitoring continued until 80 percent survivorship is achieved;

- corrective measures if performance standards are not met;
- responsible parties for monitoring and preparing reports; and
- responsible parties for receiving and reviewing reports and for verifying success or prescribing implementation or corrective actions.

## SECTION 3.7, “HAZARDS AND HAZARDOUS MATERIALS”

On DEIR page 3.7-3, the following text change is made to the second paragraph:

Under Chapter 6.95, Article 2, operators of stationary sources of hazardous materials are required (if they are deemed an accident risk) to prepare risk management plans, detailing strategies to reduce the risk of accidental hazardous material release, and submit them to the California Environmental Protection Agency and/or the Administrative agency, as per Chapter 6.95, Article 2, Section 25535.1 (b and c). ~~Emergency Management Agency.~~ Cannabis cultivators that store hazardous materials (e.g., pesticides, fuel) exceeding the threshold quantity would be required to prepare an HMBP (California Department of Food and Agriculture 2017).

On DEIR page 3.7-8, the following text change is made to the third paragraph:

Depending on their specific cultivation practices and processes, commercial cannabis cultivators could be considered hazardous waste generators that would be subject to the requirements of the Hazardous Waste Generator Program or other above CUPA programs.

On DEIR page 3.7-8, the following text change is made to the title: “County Health Hazardous Materials Program Local Oversight Program:”

## COUNTY ~~HEALTH HAZARDOUS MATERIALS PROGRAM~~ LOCAL OVERSIGHT PROGRAM

On DEIR page 3.7-14, the following text change is made to the fifth paragraph:

The County ~~Environmental Management Agency~~ Division of Environmental Health conducts inspections of every cultivation site for hazardous materials storage, as well as any hazardous waste disposal. This is done through delegation by CalEPA to the County as the CUPA. The County is responsible through the CUPA program for inspection of all facilities that store hazardous materials or handle hazardous wastes. Regulation of commercial cannabis cultivation and commerce sites provides for fees to support the CUPA program.

## SECTION 3.8, “HYDROLOGY AND WATER QUALITY”

DEIR page 3.8-9 through 3.8-10, the following text changes are made to the discussion titled “State Water Resources Control Board Principles and Guidelines for Cannabis Cultivation.” These changes do not result in any new significant impacts, and in fact provide greater certainty over the control of water quality effects. Recirculation of the DEIR is not warranted.

### State Water Resources Control Board Principles and Guidelines for Cannabis Cultivation

On October 17, 2017, the State Water Resources Control Board (State Water Board) adopted the Cannabis Cultivation Policy – Guidelines for Cannabis Cultivation (Policy). This Policy establishes new requirements for cannabis cultivation activities (including commercial cannabis cultivation in the County) to protect water quality, instream flows, and supercedes the regulations under the North



Coast Regional Water Quality Control Board Order No. 2015-0023. The requirements under this Policy will be incorporated into, and implemented through, the state's permitting process for commercial cannabis under the following regulatory programs:

- ▲ CDFA's CalCannabis Cultivation licensing program;
- ▲ State Water Board's Cannabis General Waste Discharge Requirements for Discharges of Waste Associated with Cannabis Cultivation Activities (Cannabis General Order) or any Waste Discharge Requirements addressing cannabis cultivation activities adopted by a RWQCB;
- ▲ State Water Board's General Water Quality Certification for Cannabis Cultivation Activities;
- ▲ State Water Board's Cannabis Small Irrigation Use Registration; and
- ▲ State Water Board's Water Rights Permitting and Licensing Program.

is developing a policy for water quality control (policy) to establish interim principles and guidelines for cannabis cultivation. The principles and guidelines shall include measures to protect springs, wetlands, and aquatic habitats from negative impacts of cannabis cultivation. Principles and guidelines may include instream flow objectives, limits on diversions, and requirements for screening of diversions and elimination of barriers to fish passage. The principles and guidelines may include requirements that apply to groundwater extractions.

Attachment A of the Policy includes requirements for cannabis cultivation. It establishes that two conditional exemptions under the Cannabis General Order for indoor commercial cultivation activities and outdoor commercial cultivation activities that disturb less than 2,000 square feet. For outdoor commercial cannabis cultivation area greater than 2,000 square feet, the Policy establishes Tier 1 (2,000 square feet to less than one acre) and Tier 2 (equal to or greater than one acre). All outdoor commercial cannabis operations (conditionally exempt, Tier 1, and Tier 2) must comply with applicable water quality requirements set forth in Attachment A of the Policy. Indoor commercial cannabis operations are required to obtain separate waste discharge approvals for any on-site discharge of wastewater (such as to a septic tank and leach field).

The Policy also establishes requirements for water diversion, storage, and use for both surface water and groundwater resources. These requirements include design requirements for fish screens, diversion structures, off-stream storage reservoirs, and storage bladders.

Diversion provisions of the Policy are based on three types of requirements to ensure sufficient instream flows:

- ▲ Dry season forbearance period and limitations on the wet season diversions;
- ▲ Narrative instream flow requirements; and
- ▲ Numeric instream flow requirements during the wet season.

Principles and guidelines in the draft policy include minimum instream flows, forbearance periods, off stream storage requirements, riparian buffers, maximum diversion rates, irrigation conservation measures, and other best management practices. Minimum instream flows and the forbearance periods help maintain natural flow variability and minimize the effects of cannabis cultivation on fisheries and wildlife by protecting water quantity during critical life stages. The riparian buffers, best management practices, and other operational guidelines help maintain healthy riparian corridors and minimize the water quality impacts resulting from cannabis cultivation.

Instream flow requirements during the wet season were established by the State Water Board in consultation with California Department of Fish and Wildlife for the protection of aquatic species life history needs, including endangered anadromous salmonids. Numeric instream flow requirements

(minimum instream flows required to protect aquatic species) are established for each region in the state in Attachment A of the Policy. Aquatic base flows have also been established to address instream flow impacts from groundwater diversions. The aquatic base flow is the set of chemical, physical, and biological conditions that represent limiting conditions for aquatic life in stream environments. Table 3.8-1 provides representative gage stream flow requirements for watersheds in Humboldt County.

Surface water and groundwater diversions for cannabis cultivation operations will be limited in the following manner:

- ▲ Surface water diversions will be prohibited from April 1 to October 31 each year (forbearance period).
- ▲ Surface water diversions may occur from November 1 to March 31 each year subject to the following requirements:
  - Surface water diversions will not occur until the real-time daily average flow is greater than the minimum monthly instream flow requirement at a compliance gage for seven consecutive days or after December 15 when flows are greater than the numeric flow requirement.
  - Surface water diversions must bypass a minimum of 50 percent of the streamflow past the point of diversion as estimated based on the cultivator's visual observation.
- ▲ The State Water Board will monitor instream flows during the dry season and evaluate whether the number or location of groundwater diversions to determine whether imposition of a groundwater forbearance period or other measures. The State Water Board will notify cannabis cultivators the possibility of a groundwater forbearance period or other measures may be imposed to address the low flow condition.

~~The State Water Board policy provides compliance gage instream flow requirements by region. These requirements would require that cannabis cultivators check an online mapping tool to determine if water is available to divert from the parcel's assigned gage (i.e., the real time daily average flow is greater than the Numeric Flow Requirement at the assigned compliance gage). The gage Numeric Instream Flow Requirements provide a threshold for flow rate in cubic feet per second (cfs) for surface water flows and groundwater low flow thresholds (see Appendix E). Table 3.8 1 provides representative gage instream flow requirements for watersheds in Humboldt County included in the Draft Cannabis Cultivation Policy. These numbers are representative of flows from one location within the major watersheds of Humboldt County and are provided as an example. There are two types of flow thresholds, described below.~~

**Numeric Instream Flow Requirements:** ~~The Numeric Instream Flow Requirements (minimum instream flow requirements) ensure that individual and cumulative effects of water diversion and discharge associated with cannabis cultivation do not affect the instream flows needed for fish spawning, migration, and rearing, and the flows needed to maintain natural flow variability.~~

**Groundwater Low Flow Thresholds:** ~~The low flow threshold represents the minimum flow that should be in streams during all water type years to support aquatic ecosystems, including juvenile salmonid migration and rearing and water quality.~~

**Table 3.8-1 Draft Gage Numeric Instream Flow Requirements**

USGS Gage Number	Surface Water						Aquatic Base Flow/Groundwater Low Flow Threshold (cfs)
	Watershed	November (cfs)	December (cfs)	January (cfs)	February (cfs)	March (cfs)	
11469000	Mattole	406	942	1,118	960	769	27
11476500	South Fork Eel	749	1,708	2,125	1,857	1,424	54
11477000	Lower Eel	3,293	7,218	9,280	8,443	6,013	145
11481000	Mad Redwood	641	1,406	1,555	1,453	1,245	57
11530000	Trinity	2,349	3,440	4,712	5,165	4,772	423
11530500	Lower Klamath	9,785	10,162	14,400	13,657	16,450	4,789

Source: SWRCB 2017a

The draft policy was released for public comment in June 2017, and the final policy is anticipated to be brought to the State Water Board for adoption in October 2017. Upon approval, the North Coast RWQCB Order R1 2015 0023, described below, would sunset and cannabis operations would be subject to the State Water Board's policy.

DEIR page 3.8-11 and 3.8-12, the discussion of the North Coast Regional Water Quality Control Board Cannabis Waste Discharge Regulatory Program is deleted:

### **North Coast Regional Water Quality Control Board Cannabis Cultivation Waste Discharge Regulatory Program**

The North Coast RWQCB's Order R1 2015 0023: The Cannabis Cultivation Waste Discharge Regulatory Program (Order R1 2015 0023 or Order) addresses water quality impacts from cannabis cultivation and associated activities or other operations with similar environmental effects on private property in the North Coast Region. The Water Boards are the principal state agencies with primary responsibility for the coordination and control of water quality. Nonpoint source pollution, also known as polluted runoff, is the leading cause of water quality impairments in the North Coast. The majority of the streams in the North Coast are impacted by excess sediment, nutrients, and elevated temperatures. The problems are often associated with poorly planned forest clearing, earth moving activities, and other land use management practices, resulting in polluted stormwater runoff to streams. Dry season surface water diversions intensify these water quality impacts. The regulatory program has several components: A Waiver of Waste Discharge Requirements, Third Party Programs, Inspections, Enforcement, and Education and Outreach.

The Order includes enforceable requirements which cultivators need to become familiar with to ensure their operations do not impact water resources. Below is a summary of primary elements of the Order:

1. A tiered enrollment structure relative to the potential threat to water quality. Tier 1 is a low threat tier based on compliance with defined standard conditions and site characteristics. Tier 2 is a management tier, which requires the development and implementation of a water resource protection plan. Tier 3 is a cleanup tier, which requires the development and implementation of a cleanup and restoration plan.
2. Standard conditions to protect water quality, in conjunction with a list of Best Management Practice (BMP), provide a framework for cultivators to assess their sites for appropriate tiers and determine what management measures are necessary to protect water quality. All BMPs in the

order are considered enforceable conditions under the Order as applicable to a given site. The draft Order includes standard conditions regarding:

- a. ~~Site maintenance, erosion control and drainage features~~
  - b. ~~Stream crossing maintenance and improvement~~
  - c. ~~Stream and wetland buffers~~
  - d. ~~Spoils management~~
  - e. ~~Water storage and use~~
  - f. ~~Irrigation runoff~~
  - g. ~~Fertilizers and soil amendments~~
  - h. ~~Pesticides~~
  - i. ~~Petroleum products and other chemicals~~
  - j. ~~Cultivation related wastes~~
  - k. ~~Refuse and human waste, and~~
  - l. ~~Remediation, cleanup, and restoration activities.~~
3. ~~Associated procedural forms including a notice of intent of enrollment, a monitoring and reporting form, and a checklist for remediation and restoration work in streams or wetlands.~~
  4. ~~General Prohibitions including discharges or threatened discharges to surface waters.~~
  5. ~~A framework for non-governmental third-party programs to assist cultivators with enrollment, compliance activities, and monitoring and reporting.~~
  6. ~~A framework for development and implementation of water resource protection and cleanup and restoration plans.~~

DEIR page 3.8-35, the following text changes are made to Impact 3.8-1:

### **Impact 3.8-1: Construction water quality impacts.**

New and modifications to existing commercial cannabis operations in the County that may occur under the proposed ordinance would require ground-disturbing activities that could result in erosion and sedimentation, leading to degradation of water quality. Construction related to commercial cannabis operations would be subject to compliance with State Water Board Cannabis Policy – Principles and Guidelines for Cannabis Cultivation (Policy) ~~North Coast Regional Water Quality Control Board~~ and County regulations that require water quality controls for construction to prevent impacts to water quality. Thus, potential water quality impacts may occur during construction and would be considered **less than significant**.

DEIR page 3.8-36, the following text changes are made to the fourth full paragraph:

The proposed ordinance would require demonstration of compliance with the State Water Board Cannabis Policy – Principles and Guidelines for Cannabis Cultivation (Policy) ~~North Coast RWQCB Order No. 2015-0023 or any subsequent water quality standards established (e.g., State Water Board interim principles and guidelines)~~. This Policy establishes new requirements for cannabis cultivation activities to protect water quality and instream flows. As noted above, ~~the Policy Order No. 2015-0023~~ requires measures to protect water quality that includes water quality controls such as runoff and erosion control, standard setbacks from riparian areas and headwater streams and springs, roadway and drainage design requirements, and winterization requirements and includes ~~standard conditions for site maintenance, erosion control, stream and wetland buffers, spoils management, remediation, and restoration activities.~~ The proposed ordinance also includes water quality protection requirements for roadways servicing commercial cannabis operations that identifies use of BMPs to address point and non-point sources of sediment and other pollutants (see Chapter 2, “Project Description,” for a detailed description of these performance standards).

DEIR page 3.8-37 and 3.8-38, the following text changes are made to the third and fourth paragraphs and Mitigation Measure 3.8-2 under Impact 3.8-2:

The proposed ordinance contains requirements associated with the design of ponds that reduces the risk of leaks or systems failures. The proposed ordinance also includes performance standards that require proper storage and use of any fuels, fertilizer, pesticide, fungicide, rodenticide, or herbicide, and provisions for annual on-site inspections to ensure those standards are being met. The proposed ordinance also requires demonstration of compliance with the State Water Board Policy North Coast RWQCB Order No. 2015-0023 or any subsequent water quality standards established (e.g., State Water Board interim principles and guidelines) for existing and new commercial cannabis operations. As noted above, the Policy Order No. 2015-0023 requires measures to protect water quality that include clean-up and restoration of existing cannabis cultivation sites, water quality controls for construction and operation, standard setbacks from riparian area and headwater streams and springs, roadway and drainage design requirements, soil disposal and storage, and winterization of sites and includes standard conditions for site maintenance, erosion control, stream and wetland buffers, spoils management, and the proper use and storage of regulated fertilizers, pesticides, and other chemicals to avoid impacts to water quality. The reader is referred to Section 3.7, "Hazards and Hazardous Materials," for a further discussion of pesticide and other chemical usage impacts. However, the State Water Board Policy conditionally exempts cultivation sites less than 2,000 square feet in size from the Cannabis General Order (though they are still required to comply with the water quality standards in Attachment A of the Policy). this applies only to cultivation sites of 2,000 square feet or greater, thus some sites may not be required to follow practices to prevent, minimize, control, and reduce the discharges to waterways.

Compliance with laws and regulations controlling on-site pollutants would ensure that the threat of pollution from improperly constructed sites would not result in water quality degradation. However, as noted above, any cannabis cultivation activities under 2,000 square feet in disturbance area would be conditionally exempt under the Cannabis General Order and may not be checked for compliance with the Policy. not be required to comply with the North Coast RWQCB Order 2015-0023 and its specific requirements pertinent to the control and minimization of erosion, sedimentation, and chemical transport. As a result, impacts would be **significant**.

### **Mitigation Measure 3.8-2: Minimum Size of Commercial Cultivation Activities**

The County shall amend the proposed ordinance to demonstrate ~~require~~ compliance with the requirements of the State Water Board Cannabis Cultivation Policy – Guidelines for Cannabis Cultivation North Coast RWQCB Order 2015-0023 or any subsequent water quality standards to apply to ~~for~~ all new commercial cannabis cultivation operations and not limited by a minimum cultivation area size.

#### **Significance after Mitigation**

Mitigation Measure 3.3-1 would require all new commercial cannabis activities in the County to comply with the State Water Board Policy requirements conditions of North Coast RWQCB Order 2015-0023 or any subsequent water quality standards. Coupled with the County's program of storm water pollution prevention and remediation, cannabis-related activities within the County would be required to implement BMPs, subject to regular inspections by local and state regulators, thus limiting the amount of pollution entering receiving waterways. Implementation of the proposed ordinance for existing cannabis operations that intend to comply with the performance standards of the ordinance would result in water quality benefits over existing conditions. Consequently, with implementation of Mitigation Measure 3.8-2 in combination with the performance standards of the proposed ordinance, impacts to surface and groundwater quality would be **less than significant**.

DEIR page 3.8-46 and 3.8-47, the following text changes are made associated with Mitigation Measure 3.8-5:



### Mitigation 3.8-5: Implement water diversion restrictions and monitoring and reporting requirements.

The text of the proposed ordinance shall be modified to align with the State Water Resources Control Board Cannabis Cultivation Policy ~~when it is approved, which may include the following measures that are in the draft policy as of July 1, 2017:~~

- ▲ The period of forbearance shall extend from April 1 through October 31 of each year, and be subject to the following additional restrictions:
  - From November 1 through December 14 of each year, the surface water diversion period shall not begin until after seven consecutive days in which the surface waterbody's real-time Numeric Flow Requirement are met (see Appendix E).
  - From December 15 through March 31 of each surface water diversion period, surface water diversion may occur on any day in which the surface waterbody's real-time daily average flow is greater than the Numeric Flow Requirement (see Appendix E).
  - The State Water Board will monitor instream flows during the dry season and evaluate whether the number or location of groundwater diversions to determine whether imposition of a groundwater forbearance period or other measures. The State Water Board will notify cannabis cultivators the possibility of a groundwater forbearance period or other measures may be imposed to address the low flow condition. ~~Groundwater users will be required to demonstrate that the groundwater source is not hydrologically connected to an adjacent surface water feature and is not subject to the forbearance requirements through the establishment of a flow gage in the stream or river and groundwater pumping tests to monitor and verify no connection to the satisfaction of the County and/or State Water Resources Control Board. The monitoring and testing protocol shall be reviewed and approved by the County and/or State Water Resources Control Board prior installation of the well and flow gage.~~
  - Cannabis cultivators shall bypass a minimum of 50 percent of the surface water flow past their point of diversion, as estimated based on visually observing surface water flow at least daily.
  - Water diversion rates may be further restricted in a manner to provide minimum instream flow requirements needed for fish spawning, migration, and rearing, and the flows needed to maintain natural flow variability by the State Water Resources Control Board and/or California Department of Fish and Wildlife as part of state surface water diversion approvals in circumstances where multiple diversions existing along a single waterway.
  - The cannabis cultivator shall not divert more than a maximum instantaneous diversion rate of 10 gallons per minute, unless authorized under an existing appropriative water right.
- ▲ Cannabis cultivators shall plug, block, cap, disconnect, or remove diversion intake structures associated with cannabis cultivation activities during the source water forbearance period, unless the diversion intake is used for other beneficial uses.
- ▲ Diverted water storage systems for cannabis cultivation shall be separated from storage systems used for other beneficial uses within a cultivation site.
- ▲ Cannabis cultivation shall inspect for leaks in mainlines, laterals, in-irrigation connections, sprinkler headers, and/or the ends of drop tape and feeder lines on a monthly basis. Any leaks discovered shall be immediately repaired upon detection. Worn, outdated, or inefficient irrigation system components and equipment shall be regulatory replaced to ensure a properly function, leak-free

irrigation system at all times. Records of the date of inspections, repairs, and replacements shall be maintained.

- ▲ Cannabis cultivators shall retain irrigation, inspection, and repair records at the cannabis cultivation site and shall make all records available for review by the Water Boards, CDFW, and the County upon request for a period of 10 years.

#### Significance after Mitigation

~~When State Water Board Policy is adopted, Implementation of Mitigation Measure 3.8-5 and State Water Board Policy will require cannabis-related surface water diversions to meet flow rate standards during a limited period of time through the year, which correlates to the greater level of water availability within watersheds in Humboldt County that protect aquatic species life history needs, including endangered anadromous salmonids. Monitoring of flow and inspection and repair of leaks and old equipment will ensure that cannabis cultivation activities are consistent with permitted diversion rates established by legal water rights. Because implementation of this mitigation measure would ensure that Numeric Flow Requirements and aquatic base flow requirements are met throughout Humboldt County, this impact would be less than significant. Even if the State Water Board's policy on water diversion is not yet approved prior to adoption of this ordinance, this mitigation is reasonably protective of surface water resources because it would restrict diversions to ensure that Numeric Flow Requirements are met and beneficial uses are protected that are based on information from the State Water Board.~~

### SECTION 3.10, "NOISE"

On DEIR page 3.10-6, the following text change is made to the first paragraph:

The predominant sources of noise in Humboldt County include highway and roadway traffic; aircraft in the vicinity of airports; ~~railroad traffic along the Northwestern Pacific right of way~~; noise from industrial activities such as lumber mills; and power plants in Blue Lake, Fairhaven, and Scotia (Humboldt County 2017). Noise levels along County roads that provide access to the more sparsely populated areas are generally low because these roads do not carry high volumes of traffic.

### SECTION 3.12, "TRANSPORTATION AND CIRCULATION"

DEIR page 3.12-14, the following text change is made to Impact 3.12-2:

#### **Impact 3.12-2: Long-term increase in traffic.**

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New commercial cannabis operations in the County that may occur under the proposed ordinance would result in the addition of vehicle trips to existing traffic levels on the state highway system within Humboldt County. This increase would be greatest during the fall harvest, but would not result in the LOS degrading below LOS C along any of the State highway segments analyzed. Therefore, LOS would not exceed existing LOS standards. However, roadway access points to state highway could result in operational safety issues. This impact is considered **less than significant**.

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DEIR page 3.12-17, the following text changes are made to the impact discussion and mitigation for Impact 3.12-2:

In addition, where access to a site is provided by roads not meeting the Category 4 standard, the commercial cannabis operation would be subject to a Special Permit and preparation of a report prepared by a licensed engineer evaluating whether the design, condition, and performance of all necessary road segments are currently capable of supporting increases in traffic volume created by the site, in addition to the existing traffic using the road(s). The report would detail all substandard conditions and prescribe measures that would be taken to achieve compliance with the relevant

road standards and objectives, or the same practical effect. A cost estimate and schedule would be required to be provided. The report would be required to also include a recommendation, or formula for cost sharing among all parcels served by the road system. Thus, the proposed ordinance would not contribute to increased congestion, and therefore would not conflict with an applicable plan, policy, or ordinance establishing measures of effectiveness for the performance of the circulation system. ~~This impact is considered less than significant.~~

However, commercial cannabis operation traffic could result in significant operation safety issues at existing and new roadway access points to a state highway (e.g., inadequate roadway access point width and sight distance). This impact is considered significant.

### **Mitigation Measure 3.12-2: Proper design of highway access points**

The proposed ordinance's roadway design standards shall be modified to include the following requirement:

- ▲ An evaluation of the existing or proposed new roadway access point to a state highway shall be provided. The evaluation will identify the required improvements to ensure proper function of the access based on anticipated traffic volumes. Improvements may include widening of the throat of the driveway to a minimum of 20 feet, provision of adequate sight distances, and other improvements determined necessary to comply with County and Caltrans standards. This improvement shall be in place prior to construction of the commercial cannabis operation. A copy of the approved Caltrans encroachment permit (if required) will be provided to the County.

#### **Significance after Mitigation**

Implementation of Mitigation Measure 3.12-2 would ensure roadway access points to state highways are designed to meet operational safety needs. Thus, this impact would be reduced to a less-than-significant level.

### **Mitigation Measures**

No mitigation is required.

## **CHAPTER 4, "CUMULATIVE IMPACTS"**

On DEIR page 4-7, the following text change is made to the first paragraph:

Implementation of the proposed ordinance would result in impacts related to the disturbance or loss of special-status wildlife species and habitat (see Section 3.4, "Biological Resources"). This would contribute to significant cumulative impacts, because they would include ground disturbance, vegetation removal, and overall conversion of wildlife habitat in Humboldt County where adverse effects on special status wildlife species and habitat are significant. Mitigation Measures 3.4-1a through 3.4-1j and 3.8-5 would address impacts because actions including preconstruction surveys, establishment of protective buffers, limits on surface water diversion, and avoidance of individual animals would reduce the potential impacts of injury, mortality or other disturbance on individual animals and habitat. These mitigation measures would offset the project's contribution to cumulative special-status wildlife species and habitat impacts. Thus, after implementation of these mitigation measures, the project's contribution to significant cumulative impacts to sensitive natural communities **would not be cumulatively considerable.**

DEIR page 4-10 and 4-11, the following text changes are made to reflect the State Water Board Policy:

...cannabis operations that may occur under the proposed ordinance have the potential to modify surface drainage and flows in such a manner that increased sedimentation and erosion could take place, leading to water quality degradation. The long-term operational use of pesticides, fertilizers, and other chemicals can also have a negative effect on water quality and ultimately affect the health and



sustainability of organisms that rely on high quality waters. Compliance with County Code Section 331-14 (detailed rules and regulations regarding grading, excavation, erosion, and sedimentation control) and State Water Board Policy North Coast RWQCB Order 2015-0023 (requirements for discharges of waste from cannabis cultivation) would generally minimize the potential for erosion, sedimentation, and chemical transportation. Implementation of Mitigation Measure 3.8-2 would ensure that compliance with the State Water Board Policy's water quality requirements is verified for extend the requirements of North Coast RWQCB Order 2015-0023 to all cannabis operations, thereby offsetting impacts from construction and operation of commercial cannabis operations to water quality. Thus, after implementation of Mitigation Measure 3.8-2, the project's contribution to cumulative impacts to surface water quality **would not be cumulatively considerable**.

The project could result in an increase in demand for local groundwater resources that could contribute to cumulative groundwater supply and impacts in areas of the County with limited groundwater resources (e.g., fractured bedrock conditions). The proposed ordinance contains testing requirements for new wells on parcels 10 acres or smaller located within 400 feet of property lines to determine if drawdown would occur on any adjacent wells. These requirements further identify that use of a well for cannabis related irrigation may be prohibited, limited or subject to provisional approval and monitoring. These requirements would address groundwater impacts of the initial installation of a new well, but may not necessarily identify later operational impacts that could result in unanticipated reductions in local groundwater levels that could adversely impact adjacent wells. Mitigation Measure 3.8-3 will require the reporting of annual monitoring of groundwater conditions to the County as part of the annual inspections of commercial cannabis operations. This monitoring will identify if on-site well operations are resulting in groundwater drawdown impacts and what adaptive measures that will be implemented to recover groundwater levels and protect adjacent wells. Because implementation of this mitigation measure would be required as part of annual commercial cannabis operations permit renewals, it would provide on-going protection of local groundwater resources and would offset contribution to cumulative impacts to local groundwater conditions. Thus, after implementation of Mitigation Measure 3.8-3, the project's contribution to cumulative impacts to groundwater **would not be cumulatively considerable**.

Implementation of proposed ordinance could alter drainage patterns that may contribute to cumulatively significant drainage and flooding impacts within the County watersheds. As shown in Exhibit 3.8-9, the 100-year floodplain is currently located near existing populated areas of the County that could be worsen from cumulative development activities in the watersheds. Implementation of Mitigation Measure 3.8-4 would offset the project contributions to cumulative drainage and flood impacts by requiring site drainage facilities to retain pre-development flow conditions. Thus, after implementation of Mitigation Measure 3.8-4, the proposed ordinance's contribution to cumulative impacts to drainage and flooding **would not be cumulatively considerable**.

Surface water diversion for future cannabis irrigation under the proposed ordinance could substantially reduce or eliminate surface water flows on individual tributaries that are already affected by existing illegal cannabis cultivation operations. Low flows are associated with increased temperature. In addition, low flows also aggravate the effects of water pollution (see Impact 3.8-5 for more information regarding the effects of low flow conditions on water quality). As noted in Section 3.8, "Hydrology and Water Quality," several watersheds in the County are currently impaired by historic land use activities (e.g., timber production). Dilution is the primary mechanism by which the concentrations of contaminants (e.g., copper, lead) discharged from industrial facilities and other point and some non-point sources are reduced. However, during a low flow event, there is less water available to dilute effluent loadings, resulting in higher in-stream concentration of pollutants. This could occur along waterways listed as impaired under Section 303(d) of the federal Clean Water Act, thereby resulting in a considerable contribution to an existing cumulative impact. Mitigation Measure 3.8-5 would require cannabis-related surface water diversions to meet instream flow and aquatic base flow requirements future flow rate standards set forth in the State Water Board Policy for the protection of aquatic species life history needs, including endangered anadromous salmonids by the

~~State Water Resources Control Board during a limited period of time through the year, which correlates to the greater level of water availability within watersheds in Humboldt County.~~ This mitigation measure would offset project impacts to surface water resources because it would restrict diversions to ensure that Numeric Flow Requirements and requirements for groundwater diversions associated with the aquatic base flow during the dry season are met and beneficial uses are protected that are based on information from the State Water Board. Thus, after implementation of Mitigation Measure 3.8-5, the proposed ordinance's contribution to cumulative impacts to surface water **would not be cumulatively considerable.**

## 4 MITIGATION MONITORING AND REPORTING PROGRAM

CEQA and the State CEQA Guidelines (PRC Section 21081.6 and State CEQA Guidelines Sections 15091[d] and 15097) require public agencies “to adopt a reporting and monitoring program for changes to the project which it has adopted or made a condition of project approval to mitigate or avoid significant effects on the environment.” A Mitigation Monitoring and Reporting Program (MMRP) is required for the proposed project because the EIR identifies potential significant adverse impacts related to the project implementation, and mitigation measure have been identified to reduce those impacts. Adoption of the MMRP would occur along with approval of the proposed amendments to Humboldt County Code regulating commercial cannabis activities (proposed ordinance or project).

### 4.1 PURPOSE OF MITIGATION MONITORING AND REPORTING PROGRAM

This MMRP has been prepared to ensure that all required mitigation measures are implemented and completed in a satisfactory manner prior to implementation of the proposed ordinance. The attached table has been prepared to assist the responsible parties in implementing the mitigation measures. The table identifies the impact, mitigation measures (as amended through the Final EIR), monitoring responsibility, mitigation timing, and provides space to confirm implementation of the mitigation measures. The numbering of mitigation measures follows the numbering sequence found in the EIR. Mitigation measures that are referenced more than once in the DEIR are not duplicated in the MMRP table.

### 4.2 ROLES AND RESPONSIBILITIES

Unless otherwise specified herein, the County is responsible for taking all actions necessary to implement the mitigation measures under its jurisdiction according to the specifications provided for each measure and for demonstrating that the action has been successfully completed.

Inquiries should be directed to:

Humboldt County Planning and Building Department  
Attention: Steve Lazar, Senior Planner, 3015 H Street, Eureka, CA 95501  
Telephone: (707) 268-3741 Fax: (707) 268-3792  
Email: slazar@co.humboldt.ca.us

The location of this information is:

- ▲ Humboldt County Planning and Building Department at 3015 H Street, Eureka, CA 95501

The County is responsible for overall administration of the MMRP and for verifying that County staff members have completed the necessary actions for each measure (i.e., appropriate amendments to the proposed ordinance).

### 4.3 REPORTING

The County shall document and describing the compliance of the activity with the required mitigation measures either within the attached table or a separate monitoring documentation as part of processing applications under the proposed ordinance.

## 4.4 MITIGATION MONITORING AND REPORTING PROGRAM TABLE

The categories identified in the attached MMRP table are described below.

- ▲ Impact – This column provides the verbatim text of the identified impact.
- ▲ Mitigation Measure – This column provides the verbatim text of the adopted mitigation measure
- ▲ Implementation Responsibility – This column identifies the party responsible for implementing the mitigation measure.
- ▲ Timing – This column identifies the time frame in which the mitigation will be implemented.
- ▲ Verification – This column is to be dated and signed by the person (either project manager or his/her designee) responsible for verifying compliance with the requirements of the mitigation measure.

**Table 4-1 Mitigation Monitoring and Reporting Program – Proposed Amendments to Humboldt County Code Regulating Commercial Cannabis Activities**

Impact	Mitigation Measure	Implementation Responsibility	Timing	Verification
3.3 Air Quality/Greenhouse Gas Emissions				
<b>Impact 3.3-4: Exposure of people to objectionable odors.</b>	<p><b>Mitigation Measure 3.3-4: Prohibit burning of cannabis and other vegetative material</b></p> <p>The County shall amend the proposed ordinance to reflect the following requirements:</p> <ul style="list-style-type: none"> <li>▲ The burning of excess plant material associated with the cultivation and processing of commercial cannabis is prohibited.</li> </ul>	Humboldt County	This mitigation measure will be incorporated into the ordinance and will be applied to commercial cannabis operations that receive permits.	
3.3 Biological Resources				
<b>Impact 3.4-1: Disturbance to or loss of special-status wildlife species and habitat.</b>	<p><b>Mitigation Measure 3.4-1a: Pre-approval biological reconnaissance surveys.</b></p> <p>The following shall be included as performance standards in the proposed ordinance for the protection of special-status wildlife species and habitat from new development related to cannabis activities.</p> <ul style="list-style-type: none"> <li>▲ Prior to approval of any application for commercial cannabis operations, a biological reconnaissance survey shall be conducted within the proposed development area by a qualified biologist. The qualified biologist shall assess the habitat suitability of the proposed development area for all 35 special-status wildlife species identified as having potential to occur in the County consistent with General Requirement and Prohibition 10 of the Attachment A of the State Water Board Policy.</li> <li>▲ The biologist shall provide a letter report to the project applicant and the County with evidence to support a conclusion as to whether special-status species and sensitive habitats are present or are likely to occur within the proposed development area. If special-status species or sensitive habitats are present, the appropriate mitigation measures from this EIR shall be identified. The County shall require implementation of the mitigation measures as part of the application approval.</li> </ul> <p><b>Mitigation Measure 3.4-1b: Special-status amphibian preconstruction surveys.</b></p> <p>The following shall be included as performance standards in the proposed ordinance for the protection of special-status amphibian species from new development related to cannabis activities.</p> <ul style="list-style-type: none"> <li>▲ If special-status amphibians are detected during the initial biological reconnaissance survey (see Mitigation 3.4-1a), preconstruction surveys, or are determined to be likely to occur, consultation with CDFW shall be initiated to determine whether additional measures, such as project design modifications, relocation of the site, relocation of individual animals, or installation of</li> </ul>	Humboldt County	These mitigation measures will be incorporated into the performance standards and application requirements of the proposed ordinance.	

**Table 4-1 Mitigation Monitoring and Reporting Program – Proposed Amendments to Humboldt County Code Regulating Commercial Cannabis Activities**

Impact	Mitigation Measure	Implementation Responsibility	Timing	Verification
	<p>exclusionary fencing, will be necessary and appropriate.</p> <ul style="list-style-type: none"> <li>Regardless of detection during the initial biological reconnaissance survey, if suitable habitat for special-status amphibians is present within the proposed development area, a qualified biologist familiar with the life cycle of foothill yellow-legged frog, northern red-legged frog, Pacific tailed-frog, red-bellied newt, and southern torrent salamander shall conduct preconstruction surveys of proposed new development activities 48 hours prior to such development activities. Preconstruction surveys for special-status amphibian species shall be conducted throughout the proposed construction area and a 400-foot buffer around the proposed development area. Surveys shall consist of “walk and turn” surveys of areas beneath surface objects (e.g., rocks, leaf litter, moss mats, coarse woody debris) for newts and salamanders, and visual searches for frogs. Preconstruction surveys shall be conducted within the appropriate season to maximize potential for observation for each species, and appropriate surveys will be conducted for the applicable life stages (i.e., eggs, larvae, adults).</li> <li>If special-status amphibians are not detected during the preconstruction survey, then further mitigation is not required.</li> </ul> <p><b>Mitigation Measure 3.4-1c: Western pond turtle preconstruction surveys and relocation.</b> The following shall be included as a performance standard in the proposed ordinance for the protection of western pond turtle from new development related to cannabis activities.</p> <ul style="list-style-type: none"> <li>If pond turtles are detected during the initial biological reconnaissance survey (see Mitigation 3.4-1a), preconstruction surveys, or are determined to be likely to occur, consultation with CDFW shall be initiated to determine whether mitigation measures, such as project design modifications, relocation of the site, relocation of individual animals, or installation of exclusionary fencing, will be necessary and appropriate.</li> <li>Regardless of detection during the initial biological reconnaissance survey, if suitable aquatic habitat for western pond turtle is present within the proposed development area, a qualified biologist familiar with the life history of western pond turtle shall conduct preconstruction surveys of proposed new development activities within 200 feet of any SMA or Other Wet Area 24 hours prior to new development activities.</li> <li>If pond turtles are not detected during the preconstruction survey, then further mitigation is not required.</li> </ul>			

**Table 4-1 Mitigation Monitoring and Reporting Program – Proposed Amendments to Humboldt County Code Regulating Commercial Cannabis Activities**

Impact	Mitigation Measure	Implementation Responsibility	Timing	Verification
	<p><b>Mitigation Measure 3.4-1d: Nesting raptor preconstruction survey and establishment of protective buffers.</b> The following shall be included as performance standards in the proposed ordinance for the protection of nesting raptors from new development related to cannabis activities.</p> <ul style="list-style-type: none"> <li>▲ To minimize the potential for loss of nesting raptors, tree removal activities shall only occur during the nonbreeding season (September 1-January 31).</li> <li>▲ Prior to removal of any trees, or ground-disturbing activities between February 1 and August 31, a qualified biologist shall conduct preconstruction surveys for nesting raptors, and shall identify active nests within 500 feet of the proposed development area. The surveys shall be conducted between February 1 and August 31.</li> <li>▲ Impacts to nesting raptors, including direct impacts and indirect impacts (e.g., noise, presence of construction crews) shall be avoided by establishing appropriate buffers around active nest sites identified during preconstruction raptor surveys. The buffer areas shall be protected with construction fencing, and no activity shall occur within the buffer areas until a qualified biologist has determined, in coordination with CDFW, that the young have fledged, the nest is no longer active, or reducing the buffer would not likely result in nest abandonment. CDFW guidelines recommend implementation of a 500-foot buffer for raptors, but the size of the buffer may be adjusted if a qualified biologist and the applicant, in consultation with CDFW, determine that such an adjustment would not be likely to adversely affect the nest. Monitoring of the nest by a qualified biologist during and after construction activities will be required if the activity has potential to adversely affect the nest.</li> <li>▲ Removal of bald and golden eagle nests are prohibited regardless of the occupancy status under the federal Bald and Golden Eagle Protection Act. If bald or golden eagle nests are found during pre-construction surveys, then the nest tree shall not be removed.</li> <li>▲ Trees shall not be removed during the breeding season for nesting raptors unless a survey by a qualified biologist verifies that there is not an active nest in the tree.</li> </ul> <p><b>Mitigation Measure 3.4-1e: Northern spotted owl preconstruction habitat suitability surveys and determination of presence or absence.</b> The following shall be included as performance standards in the proposed ordinance for the protection of northern spotted owl from permitted cannabis activities.</p> <ul style="list-style-type: none"> <li>▲ To avoid the potential for loss of northern spotted owl and their nests, or loss or</li> </ul>			



**Table 4-1 Mitigation Monitoring and Reporting Program – Proposed Amendments to Humboldt County Code Regulating Commercial Cannabis Activities**

Impact	Mitigation Measure	Implementation Responsibility	Timing	Verification
	<p>fragmentation of occupied or suitable habitat for northern spotted owl, removal of old growth habitat shall be prohibited, as outlined in Mitigation Measure 3.4-3, Sensitive natural communities, riparian habitat, old growth habitat, and wetland vegetation.</p> <ul style="list-style-type: none"> <li>▲ If the area of proposed new development activities is within suitable habitat for northern spotted owl (e.g., coniferous forest), and is within 1.3 miles (average species home range) of a known occurrence of northern spotted owl, as determined by a qualified biologist, the following measures shall be followed.</li> <li>▲ Prior to removal of any trees, or ground-disturbing activities adjacent or within suitable nesting, roosting, or foraging habitat (e.g. forest clearings) for spotted owl, a qualified biologist, familiar with the life history of the northern spotted owl, shall conduct preconstruction surveys for nests within a 1.3-mile buffer around the site as described in <i>Protocol for Surveying Proposed Management Activities that May Impact Northern Spotted Owls</i> (USFWS 2012). Surveys shall take place between March 1 and August 31. Three complete surveys spaced at least 7 days apart must be completed by June 30. Six complete surveys over the course of 2 years must be completed to determine presence or absence of northern spotted owl.</li> <li>▲ If northern spotted owls are determined to be absent 1.3 miles from the site, then further mitigation is not required.</li> <li>▲ If northern spotted owls are determined to be present within 1.3 miles of the site, then it is presumed that habitat removal could cause harm to northern spotted owl populations in the area, and could result in direct take of northern spotted owls. If northern spotted owls are determined to be present within 1.3 miles of the site, proposed cultivation activities will not be permitted consistent with the General Requirement and Prohibition 4 of the Attachment A of the State Water Board Policy.</li> <li>▲ For pre-existing cultivation sites that submitted for permitting prior to December 31, 2019 within 0.7 miles of a known northern spotted owl activity center, a qualified biologist, familiar with the life history of the northern spotted owl, shall conduct a disturbance and habitat modification assessment to determine the presence of the species and whether the cultivation site can operate or have its operation modified to avoid take of the species. If it is determined that take of the species could occur, the cultivation site will be required to participate in the Retirement, Remediation, and Relocation provisions of the proposed ordinance to relocate the cannabis cultivation to outside of the northern spotted owl activity area. Pre-existing cultivation sites that submit for permitting after December 31,</li> </ul>			



**Table 4-1 Mitigation Monitoring and Reporting Program – Proposed Amendments to Humboldt County Code Regulating Commercial Cannabis Activities**

Impact	Mitigation Measure	Implementation Responsibility	Timing	Verification
	<p>2019 will be subject the new development provisions of this mitigation measure.</p> <p><b>Mitigation Measure 3.4-1f: Special-status nesting bird surveys and establishment of protective buffers.</b></p> <p>The following shall be included as performance standards in the proposed ordinance for the protection of bank swallow, little willow flycatcher, tricolored blackbird, and western yellow-billed cuckoo from new development related to cannabis activities. This will apply to any commercial cannabis activity that would result in the disturbance or loss of riparian, riverine, mudflat, or grassland habitats.</p> <ul style="list-style-type: none"> <li>▲ To minimize the potential for disturbance or loss of bank swallow, little willow flycatcher, tricolored blackbird, western snowy plover, western yellow-billed cuckoo, or other bird nests, vegetation removal activities shall only occur during the nonbreeding season (September 1-January 31). Alteration of or disturbance to suitable river bank habitat (i.e., for bank swallow nests) and mudflat habitat (i.e., for western snowy plover) is prohibited because of limited habitat availability for this species.</li> <li>▲ Prior to removal of any vegetation or any ground disturbance between February 1 and August 31, a qualified biologist shall conduct preconstruction surveys for nests on any structure or vegetation slated for removal, as well as for potential tricolored blackbird nesting habitat. The surveys shall be conducted no more than 14 days before construction commences. If no active nests or bank swallow colonies are found during focused surveys, no further action under this measure will be required. If active nests are located during the preconstruction surveys, the biologist shall notify the Planning Director and CDFW. If deemed necessary by the Planning Director in consultation with CDFW, modifications to the project design to avoid removal of occupied habitat while still achieving project objectives may be required. If the Planning Director determines in consultation with CDFW that avoidance is not feasible or conflicts with project objectives, construction shall be prohibited within a minimum of 100 feet of the nest to avoid disturbance until the nest or colony is no longer active.</li> </ul> <p><b>Mitigation Measure 3.4-1g: Marbled murrelet preconstruction habitat suitability surveys and establishment of protective buffers.</b></p> <p>The following shall be included as performance standards in the proposed ordinance for the protection of marbled murrelet from new development related to cannabis activities.</p> <ul style="list-style-type: none"> <li>▲ To avoid the potential for loss of or disturbance to marbled murrelet nests and habitat, removal of old growth habitat shall be prohibited, as outlined in Mitigation Measure 3.4-3, Sensitive natural communities, riparian habitat, old</li> </ul>			

**Table 4-1 Mitigation Monitoring and Reporting Program – Proposed Amendments to Humboldt County Code Regulating Commercial Cannabis Activities**

Impact	Mitigation Measure	Implementation Responsibility	Timing	Verification
	<p>growth habitat, and wetland vegetation.</p> <ul style="list-style-type: none"> <li>▲ Prior to removal of any trees, or ground-disturbing activities adjacent or within suitable habitat for marbled murrelet between April 15 and August 5, a qualified biologist, familiar with the life history of the marbled murrelet, shall conduct preconstruction surveys for nests within a 0.25-mile buffer around the site as described in <i>Methods for Surveying Marbled Murrelets in Forests: A Revised Protocol for Land Management and Research</i> (Evans Mack et. al 2003).</li> <li>▲ If marbled murrelets are determined to be absent from the site, then no further mitigation is required.</li> <li>▲ If marbled murrelets are determined to be present within the site, a 0.25-mile buffer will be established around occupied nest sites. No project activity may occur within the 0.25-mile buffer areas until the end of marbled murrelet breeding season (August 6).</li> </ul> <p><b>Mitigation Measure 3.4-1h: Noise reduction.</b> The ordinance requires generators and other cannabis operations not to increase existing ambient noise levels at the property line of the site beyond 3 dB. In addition, the noise standards shall include the following standards to protect wildlife (USFWS 2006).</p> <ul style="list-style-type: none"> <li>▲ Project-generated sound must not exceed ambient nesting conditions by 20-25 decibels.</li> <li>▲ Project-generated sound, when added to existing ambient conditions, must not exceed 90 decibels.</li> <li>▲ Time of day adjustment: Marbled murrelet and northern spotted owl are most active during dawn and dusk. Within approximately 2 hours of sunrise and sunset, ambient sound levels are lower than during the middle of the day (by approximately 5-10 decibels). This will be accounted for when determining impacts of project-generated sound.</li> </ul> <p><b>Mitigation Measure 3.4-1i: American badger preconstruction survey and establishment of protective buffers.</b> The following shall be included as performance standards in the proposed ordinance for the protection of the American badger from new development related to cannabis activities.</p> <ul style="list-style-type: none"> <li>▲ Prior to the commencement of construction activities, a qualified wildlife biologist shall conduct surveys of the suitable grassland or agricultural habitats slated for conversion within the site to identify any American badger burrows/dens. These surveys shall be conducted not more than 30 days prior to the start of construction. If occupied burrows are not found, further mitigation</li> </ul>			

**Table 4-1 Mitigation Monitoring and Reporting Program – Proposed Amendments to Humboldt County Code Regulating Commercial Cannabis Activities**

Impact	Mitigation Measure	Implementation Responsibility	Timing	Verification
	<p>shall not be required. If occupied burrows are found, impacts to active badger dens shall be avoided by establishing exclusion zones around all active badger dens, within which construction related activities shall be prohibited until denning activities are complete or the den is abandoned. A qualified biologist shall monitor each den once per week to track the status of the den and to determine when a den area has been cleared for construction.</p> <p><b>Mitigation Measure 3.4-1j: Fisher and Humboldt marten preconstruction survey and preservation of active den sites.</b></p> <p>The following shall be included as performance standards in the proposed ordinance for the protection of the fisher and Humboldt marten from new development related to cannabis activities.</p> <ul style="list-style-type: none"> <li>▲ To minimize the potential for loss of or disturbance to fisher and Humboldt marten habitat and dens, removal of old growth habitat shall be prohibited, as outlined in Mitigation Measure 3.4-3, Sensitive natural communities, riparian habitat, old growth habitat, and wetland vegetation.</li> <li>▲ Prior to commencement of from new development related to cannabis activities occurring within the fisher and Humboldt marten denning season (March 1 to July 31), including tree removal (non-old growth), a qualified wildlife biologist will conduct preconstruction surveys of all suitable habitat within the site, and will identify sightings of individual fishers or martens, as well as potential dens.</li> <li>▲ If individuals or potential or occupied dens are not found, further mitigation will not be required.</li> <li>▲ If fisher or Humboldt marten are identified or if potential dens of these species are located, an appropriate method shall be used by a qualified wildlife biologist to confirm whether a fisher or marten is occupying the den. This may involve use of remote field cameras, track plates, or hair snares. Other devices such as fiber optic scope may be utilized to determine occupancy. If no fisher or marten occupies the potential den, the entrance will be temporarily blocked so that no other animals occupy the area during the construction period but only after it has been fully inspected. The blockage will be removed once construction activities have been completed.</li> <li>▲ If a den is found to be occupied by a fisher or marten, a no-disturbance buffer will be placed around the occupied den location. The no-disturbance buffer will include the den tree (or other structure) plus a suitable buffer as determined by the biologist in coordination with USFWS and CDFW. Construction activities in the no-disturbance buffer will be avoided until the nest is unoccupied as determined</li> </ul>			

**Table 4-1 Mitigation Monitoring and Reporting Program – Proposed Amendments to Humboldt County Code Regulating Commercial Cannabis Activities**

Impact	Mitigation Measure	Implementation Responsibility	Timing	Verification
	<p>by a qualified wildlife biologist in coordination with USFWS and CDFW.</p> <p><b>Mitigation Measure 3.4-1k: Preconstruction bat survey and exclusion.</b> The following shall be included as performance standards in the proposed ordinance for the protection of the pallid bat and Townsend's big-eared bat from new development related to cannabis activities.</p> <ul style="list-style-type: none"> <li>▲ Before commencing any new development related to cannabis activities, a qualified biologist shall conduct surveys for roosting bats. If evidence of bat use is observed, the species and number of bats using the roost shall be determined. Bat detectors may be used to supplement survey efforts. If no evidence of bat roosts is found, then no further study will be required.</li> <li>▲ If pallid bats or Townsend's big-eared bats are found in the surveys, a mitigation program addressing mitigation for the specific occurrence shall be submitted to the Planning Director and CDFW by a qualified biologist subject to the review and approval of the Planning Director in consultation with CDFW. Implementation of the mitigation plan shall be a condition of project approval. At a minimum, the mitigation plan shall establish a 400-foot buffer area around the nest during hibernation or while females in maternity colonies are nursing young.</li> </ul> <p><b>Mitigation Measure 3.4-1l: Preconstruction vole survey and relocation.</b> The following shall be included as performance standards in the proposed ordinance for the protection of the Sonoma tree vole and white-footed vole from new development related to cannabis activities.</p> <ul style="list-style-type: none"> <li>▲ To minimize the potential for loss of or disturbance to vole habitat and nests, removal of old growth habitat shall be prohibited, as outlined in Mitigation Measure 3.4-3 Sensitive natural communities, riparian habitat, old growth habitat, and wetland vegetation.</li> <li>▲ Before commencing any tree or other vegetation removal activities, or ground-disturbance, a qualified biologist shall conduct surveys for vole nests (e.g., nest searching within trees on the site, and confirming that nests belong to voles rather than squirrels or birds). If no evidence of vole nests is found, then no further study shall be required. A report summarizing the results of the surveys shall be prepared and submitted to the Planning Director and shall be subject to his review and approval in consultation with CDFW.</li> <li>▲ If occupied trees or nests are identified within 100 feet of the site, the biologist shall determine whether project development activities will adversely affect the voles, based on factors such as noise level of development activities, or line of sight between the tree and the disturbance source. If it is determined that</li> </ul>			

**Table 4-1 Mitigation Monitoring and Reporting Program – Proposed Amendments to Humboldt County Code Regulating Commercial Cannabis Activities**

Impact	Mitigation Measure	Implementation Responsibility	Timing	Verification
	<p>development activities would not affect the voles, then development can proceed without protective measures.</p> <p>▲ If the biologist determines that development activities would likely disturb voles, the proposed area of disturbance shall be relocated a minimum of 200 feet from the nest.</p>			
<b>Impact 3.4-2: Disturbance to or loss of special-status fisheries.</b>	<b>Mitigation Measure 3.4-2: Implement Mitigation Measure 3.8-5.</b>	See Impact 3.8-5	See Impact 3.8-5	
<b>Impact 3.4-3: Disturbance to or loss of special-status plant species and habitat.</b>	<p><b>Mitigation Measure 3.4-3a: Special-status plants.</b> The following shall be included as performance standards in the proposed ordinance for the protection of special-status plant species from new development related to cannabis activities.</p> <p>▲ Prior to commencement of new development related to cannabis activities and during the blooming period for the special-status plant species with potential to occur in the site, a qualified botanist will conduct protocol-level surveys for special-status plants in all proposed disturbance areas following survey methods from CDFW's <i>Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities</i> (CDFW 2009).</p> <p>▲ If special-status plants are not found, the botanist will document the findings in a letter report to USFWS, CDFW, and the applicant and no further mitigation will be required.</p> <p>▲ If special-status plant species are found, a qualified biologist shall consult with CDFW to designate a no-disturbance buffer that will be reflected in the application to the County consistent with General Requirement and Prohibition 10 of the Attachment A of the State Water Board Policy. If the special-status plant species cannot be avoided, the application will be denied.</p> <p><b>Mitigation 3.4-3b: Invasive plant species.</b> The following shall be included as performance standards in the proposed ordinance to avoid the introduction or spread of plants classified as invasive plant species by the California Invasive Plant Council.</p> <p>▲ The application will include identification of invasive plant species that occur on the site and where they are located. The application will identify specific measures to be employed for the removal of invasive species and on-site management practices. As part of the County's annual inspection areas where invasive plant species were removed will be checked to verify removal. Corrective actions may be required as part of the annual permit renewal if invasive species</p>	Humboldt County	These mitigation measures will be incorporated into the performance standards and application requirements of the proposed ordinance.	

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Impact	Mitigation Measure	Implementation Responsibility	Timing	Verification
	<p>remain or have returned.</p> <p>▲ All invasive plant species shall be removed from the site using measures appropriate to the species. For example, species that cannot easily re-root, re-sprout, or disperse seeds may be left on site in a debris pile. Species that re-sprout readily (e.g., English ivy) or disperse seeds (e.g., Pampas grass) should be hauled off-site and disposed of appropriately at a landfill site.</p> <p>Heavy equipment and other machinery shall be inspected for the presence of invasive species prior to on-site use, and shall be cleaned prior to entering the site, to reduce the risk of introducing invasive plant species.</p>			

**Table 4-1 Mitigation Monitoring and Reporting Program – Proposed Amendments to Humboldt County Code Regulating Commercial Cannabis Activities**

Impact	Mitigation Measure	Implementation Responsibility	Timing	Verification
<b>Impact 3.4-4: Disturbance to or loss of riparian habitat, old growth habitat, or other sensitive natural communities.</b>	<p><b>Mitigation 3.4-4: Sensitive natural communities, riparian habitat, and wetland vegetation.</b> The following shall be included as performance standards in the proposed ordinance for the protection of sensitive natural communities and riparian habitat.</p> <ul style="list-style-type: none"> <li>▲ For projects that could disturb sensitive natural communities or riparian habitat, the application shall include a report prepared by a qualified biologist that surveys the site for these sensitive resources, including riparian habitat associated with aquatic features; old growth Sitka spruce, Douglas fir, and redwood forests; coastal oak woodlands; special-status fish stream habitats; marsh habitats; and northern foredune grassland near Humboldt Bay and the Mattole River; coastal terrace prairie within Table Bluff Ecological Reserve; and any designated environmentally sensitive habitat area (ESHA).</li> <li>▲ The report shall include requirements that before development activities commence, all sensitive areas identified above shall be flagged or fenced with brightly visible construction flagging and/or fencing under the direction of the qualified biologist to require that grading, excavation, other ground-disturbing activities, and vegetation removal will not occur within these areas. Foot traffic by construction personnel shall also be limited in these areas to prevent the introduction of invasive or weedy species. Periodic inspections during construction shall be conducted by the monitoring biologist to maintain the integrity of exclusion fencing/flagging throughout the period of construction involving ground disturbance.</li> <li>▲ If the report documents that site development would affect the bed, bank, channel, or associated riparian habitat subject to CDFW jurisdiction under Fish and Game Code Section 1602, a Streambed Alteration Notification shall be submitted to CDFW, pursuant to Section 1600 et seq. of the California Fish and Game Code. If proposed activities are determined to be subject to CDFW jurisdiction, the project proponent shall abide by the conditions of any executed agreement prior to the issuance of a grading permit by Humboldt County.</li> <li>▲ Subject to the review and approval of the Planning Director in consultation with CDFW applicants shall compensate for permanent loss of riparian habitat at a minimum of a 2:1 ratio through contributions to a CDFW approved wetland mitigation bank or through the development and implementation of a Compensatory Stream and Riparian Mitigation and Monitoring Plan for creating or restoring in-kind habitat in the surrounding area (such as the proposed ordinance site reconfiguration criteria for existing cultivation sites). If mitigation credits are not available, stream and riparian habitat compensation shall include establishment of riparian vegetation on currently unvegetated bank portions of streams affected by the project and enhancement of existing riparian habitat</li> </ul>	Humboldt County	This mitigation measure will be incorporated into the performance standards and application requirements of the proposed ordinance.	



**Table 4-1 Mitigation Monitoring and Reporting Program – Proposed Amendments to Humboldt County Code Regulating Commercial Cannabis Activities**

Impact	Mitigation Measure	Implementation Responsibility	Timing	Verification
	<p>through removal of nonnative species, where appropriate, and planting additional native riparian plants to increase cover, continuity, and width of the existing riparian corridor along streams in the site and surrounding areas. Construction activities and compensatory mitigation shall be conducted in accordance with the terms of a streambed alteration agreement as required under Section 1602 of the Fish and Game Code as well as the State Water Board Cannabis Cultivation Policy.</p> <p>The Compensatory Stream and Riparian Mitigation and Monitoring Plan shall include the following:</p> <ul style="list-style-type: none"> <li>▲ identification of compensatory mitigation sites and criteria for selecting these mitigation sites;</li> <li>▲ in kind reference habitats for comparison with compensatory riparian habitats (using performance and success criteria) to document success;</li> <li>▲ monitoring protocol, including schedule and annual report requirements (Compensatory habitat will be monitored for a minimum of 5 years from completion of mitigation, or human intervention [including recontouring and grading], or until the success criteria identified in the approved mitigation plan have been met, whichever is longer.);</li> <li>▲ ecological performance standards, based on the best available science and including specifications for native riparian plant densities, species composition, amount of dead woody vegetation gaps and bare ground, and survivorship; at a minimum, compensatory mitigation planting sites must achieve 80 percent survival of planted riparian trees and shrubs by the end of the five-year maintenance and monitoring period or dead and dying trees will be replaced and monitoring continued until 80 percent survivorship is achieved;</li> <li>▲ corrective measures if performance standards are not met;</li> <li>▲ responsible parties for monitoring and preparing reports; and</li> <li>▲ responsible parties for receiving and reviewing reports and for verifying success or prescribing implementation or corrective actions.</li> </ul>			
<b>Impact 3.4-5: Disturbance to or loss of waters of the United States.</b>	<p><b>Mitigation 3.4-5: Waters of the United States.</b> The following shall be included as performance standards in the proposed ordinance for the protection of waters of the United States from new development related to cannabis activities.</p> <ul style="list-style-type: none"> <li>▲ The application shall include a report prepared by a qualified biologist that surveys the site for sensitive resources, including wetlands, streams, and rivers.</li> </ul>	Humboldt County	This mitigation measure will be incorporated into the performance standards and application requirements of the proposed ordinance.	

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Impact	Mitigation Measure	Implementation Responsibility	Timing	Verification
	<p>Wetlands and other waters of the United States are of special concern to resource agencies and are afforded specific consideration, based on Section 404 of the Clean Water Act and other applicable regulations.</p> <ul style="list-style-type: none"> <li>▲ If the report documents waters of the United States to be present, a delineation of waters of the United States, including wetlands that would be affected by the project, shall be prepared by a qualified biologist through the formal Section 404 wetland delineation process. The delineation shall be submitted to and verified by USACE.</li> <li>▲ If, based on the verified delineation, it is determined that fill of waters of the United States would result from implementation of the project, authorization for such fill will be secured from USACE through the Section 404 permitting process.</li> <li>▲ Any waters of the United States that would be affected by site development shall be replaced or restored on a "no-net-loss" basis in accordance with USACE mitigation guidelines (or the applicable USACE guidelines in place at the time of construction). In association with the Section 404 permit (if applicable) and prior to the issuance of any grading permit, Section 401 Water Quality Certification from the RWQCB will be obtained.</li> <li>▲ USACE may not issue a Section 404 permit for activities associated with cannabis cultivation. If a Section 404 permit cannot be obtained, then the applicant shall modify the proposed project to avoid any wetlands or other waters of the United States by providing a buffer of at least 50 feet around these features.</li> </ul>			
<b>Impact 3.4-6: Interference with resident or migratory wildlife corridors or native wildlife nursery sites.</b>	<p><b>Mitigation 3.4-6a: Implement Mitigation Measure 3.4-5: Waters of the United States.</b></p> <p><b>Mitigation 3.4-6b: Retention of fisher and Humboldt marten habitat features</b></p> <p>The following shall be included as performance standards in the proposed ordinance for the protection of the habitat for fisher and Humboldt marten.</p> <ul style="list-style-type: none"> <li>▲ To minimize the potential for loss of or disturbance to fisher and Humboldt marten habitat, removal of old growth habitat shall be prohibited, as outlined in Mitigation Measure 3.4-3. Sensitive natural communities, riparian habitat, and wetland vegetation.</li> <li>▲ Habitat features within non-old growth habitat, such as large trees, large snags, coarse woody debris, and understory vegetation (e.g., shrubs) shall be retained within the site to the extent feasible, to maintain connectivity of fisher and marten habitat.</li> </ul>	Humboldt County	This mitigation measure will be incorporated into the performance standards and application requirements of the proposed ordinance.	

**Table 4-1 Mitigation Monitoring and Reporting Program – Proposed Amendments to Humboldt County Code Regulating Commercial Cannabis Activities**

Impact	Mitigation Measure	Implementation Responsibility	Timing	Verification
<b>3.5 Cultural Resources</b>  <b>Impact 3.5-1: Change in the significance of a historic resource.</b>	<p><b>Mitigation 3.5-1: Protection of historic resources.</b> The following shall be included as performance standards in the proposed ordinance for the protection of historic resources.</p> <ul style="list-style-type: none"> <li>Applicants shall identify and evaluate all historic-age (over 45-years in age) buildings and structures that are proposed to be removed and modified as part of cannabis operations. This will include preparation of an historic structure report and evaluation of resources to determine their eligibility for recognition under State, federal, or County Local Official Register of Historic Resources criteria. The evaluation shall be prepared by an architectural historian, or historical architect meeting the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation, Professional Qualification Standards. The evaluation shall comply with CEQA Guidelines Section 15064.5(b), and, if federal funding or permits are required, with Section 106 of the National Historic Preservation Act (NHPA) of 1966 (16 U.S.C. § 470 et seq.).</li> <li>If resources eligible for inclusion in the NRHP, CRHR, or Local Official Register of Historic Resources are identified, an assessment of impacts on these resources shall be included in the report, as well as detailed measures to avoid impacts. If avoidance of a significant architectural/built environment resource is not feasible, additional mitigation options include, but are not limited to, specific design plans for historic districts, or plans for alteration or adaptive re-use of a historical resource that follows the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitation, Restoring, and Reconstructing Historic Buildings.</li> </ul>	Humboldt County	This mitigation measure will be incorporated into the performance standards and application requirements of the proposed ordinance.	
<b>Impact 3.5-2: Disturb unique archaeological resources.</b>	<p><b>Mitigation 3.5-2: Avoid potential effects on unique archaeological resources.</b> The following shall be included as performance standards in the proposed ordinance for the protection of archaeological resources.</p> <ul style="list-style-type: none"> <li>Applicants for projects that include any ground disturbance shall retain a qualified archaeologist to conduct archaeological surveys of the site. The applicant shall follow recommendations identified in the survey, which may include activities such as subsurface testing, designing, and implementing a Worker Environmental Awareness Program, construction monitoring by a qualified archaeologist, avoidance of sites, or preservation in place.</li> <li>All projects shall include the following requirements as a condition of approval: If evidence of any prehistoric or historic-era subsurface archaeological features or deposits are discovered during construction-related earth-moving activities (e.g.,</li> </ul>	Humboldt County	This mitigation measure will be incorporated into the performance standards and application requirements of the proposed ordinance.	

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Impact	Mitigation Measure	Implementation Responsibility	Timing	Verification
	ceramic shard, trash scatters, lithic scatters), all ground-disturbing activity in the area of the discovery shall be halted and the County shall be notified immediately. A qualified archaeologist shall be retained to assess the significance of the find. If the find is a prehistoric archeological site, the appropriate Native American group shall be notified. If the archaeologist determines that the find does not meet NRHP or CRHR standards of significance for cultural resources, construction may proceed. If the archaeologist determines that further information is needed to evaluate significance, a data recovery plan shall be prepared. If the find is determined to be significant by the qualified archaeologist (i.e., because the find is determined to constitute either an archaeological resource or a unique archaeological resource), the archaeologist shall work with the project applicant to avoid disturbance to the resources, and if complete avoidance is not feasible in light of project design, economics, logistics, and other factors, follow accepted professional standards in recording any find including submittal of the standard DPR Primary Record forms (Form DPR 523) and location information to NCIC.			
<b>3.6 Geology and Soils</b>				
<b>Impact 3.6.5: Damage to or destruction of undiscovered paleontological resources.</b>	<p><b>Mitigation Measure 3.6-5 Protection of discovered paleontological resources.</b></p> <p>The following shall be included as performance standards in the proposed ordinance for the protection of paleontological resources.</p> <ul style="list-style-type: none"> <li>▲ If a paleontological discovery is made during construction, the contractor shall immediately cease all work activities in the vicinity (within approximately 100 feet) of the discovery and shall immediately contact the County.</li> <li>▲ A qualified paleontologist shall be retained to observe all subsequent grading and excavation activities in the area of the find and shall salvage fossils as necessary. The paleontologist shall establish procedures for paleontological resource surveillance and shall establish, in cooperation with the project developer, procedures for temporarily halting or redirecting work to permit sampling, identification, and evaluation of fossils. If major paleontological resources are discovered that require temporarily halting or redirecting of grading, the paleontologist shall report such findings to the County. The paleontologist shall determine appropriate actions, in cooperation with the applicant and the County, that ensure proper exploration and/or salvage. Excavated finds shall first be offered to a State-designated repository such as the Museum of Paleontology, University of California, Berkeley, or the California Academy of Sciences. Otherwise, the finds shall be offered to the County for purposes of public education and interpretive displays. The paleontologist shall</li> </ul>	Humboldt County	This mitigation measure will be incorporated into the performance standards and application requirements of the proposed ordinance.	

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Impact	Mitigation Measure	Implementation Responsibility	Timing	Verification
	submit a follow-up report to the County that shall include the period of inspection, an analysis of the fossils found, and the present repository of fossils.			
<b>3.7 Hazards and Hazardous Materials</b>				
<b>Impact 3.7-2: Create potential human hazards from exposure to on-site hazardous materials.</b>	<p><b>Mitigation Measure 3.7-2a: Prepare Environmental Site Assessments</b> The following shall be included as performance standards in the proposed ordinance for proposed development of commercial cannabis facilities on existing commercial, business park, or industrial sites:</p> <ul style="list-style-type: none"> <li>Applications for new cannabis activities in commercial, business park, or industrial sites shall include a site assessment for the presence of potential hazardous materials, including an updated review of environmental risk databases. If this assessment indicates the presence or likely presence of contamination, the applicant shall prepare a Phase I ESA in accordance with the American Society for Testing and Materials' E-1527-05 standard. For work requiring any demolition, the Phase I ESA shall make recommendations for any hazardous building materials survey work that shall be done. All recommendations included in a Phase I ESA prepared for a site shall be implemented. If a Phase I ESA indicates the presence or likely presence of contamination, the applicant shall prepare a Phase II ESA, and recommendations of the Phase II ESA shall be fully implemented prior to ground disturbance, which will be made a condition of approval for the project.</li> </ul> <p><b>Mitigation Measure 3.7-2b: Prepare a Hazardous Materials Contingency Plan for Construction Activities</b> The following shall be included as performance standards in the proposed ordinance for proposed development of commercial cannabis facilities on existing commercial, business park, or industrial sites:</p> <ul style="list-style-type: none"> <li>Applications for new cannabis activities in commercial, business park, or industrial sites shall include a hazardous materials contingency plan for review and approval by Humboldt County Division of Environmental Health. The plan shall describe the necessary actions that would be taken if evidence of contaminated soil or groundwater is encountered during construction. The contingency plan shall identify conditions that could indicate potential hazardous materials contamination, including soil discoloration, petroleum or chemical odors, and presence of USTs or buried building material. The plan shall include the provision that, if at any time during constructing the project, evidence of soil and/or groundwater contamination with hazardous material is encountered, the project applicant shall immediately halt construction and contact Humboldt</li> </ul>	Humboldt County	This mitigation measure will be incorporated into the performance standards and application requirements of the proposed ordinance.	

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Impact	Mitigation Measure	Implementation Responsibility	Timing	Verification
	County Division of Environmental Health. Work shall not recommence until the discovery has been assessed/treated appropriately (through such mechanisms as soil or groundwater sampling and remediation if potentially hazardous materials are detected above threshold levels) to the satisfaction of Humboldt County Division of Environmental Health, RWQCB, and DTSC (as applicable). The plan, and obligations to abide by and implement the plan, shall be incorporated into the conditions of approval for the project.			
<b>3.8 Hydrology and Water Quality</b>				
<b>Impact 3.8-2: Operational water quality impacts.</b>	<b>Mitigation Measure 3.8-2: Minimum Size of Commercial Cultivation Activities</b> The County shall amend the proposed ordinance to demonstrate compliance with the requirements of the State Water Board <i>Cannabis Cultivation Policy – Guidelines for Cannabis Cultivation</i> for all new commercial cannabis cultivation operations and not limited by a minimum cultivation area size.	Humboldt County	This mitigation measure will be incorporated into the performance standards and application requirements of the proposed ordinance. Annual inspections as part of permit renewals will verify continued compliance with this mitigation measure.	
<b>Impact 3.8-3: Groundwater supply impacts.</b>	<b>Mitigation Measure 3.8-3: Annual groundwater monitoring and adaptive management.</b> The following requirement will be included as an additional performance standard of the ordinance associated wells on small parcels: <ul style="list-style-type: none"> <li>As part of the ordinance's annual inspection process, cultivation operators shall provide the County with groundwater monitoring data for on-site well facilities that documents well production and changes in groundwater levels during each month of the year. Should this monitoring data identify potential drawdown impacts to adjacent well(s) and indicate a connection to operation of the on-site wells, the cultivation operators, in conjunction with the County, shall develop adaptive management measures to allow for recovery of groundwater levels. Adaptive management measures may include forbearance (e.g., prohibition of groundwater extraction from the months of May to October), water conservation measures, reductions in on-site cannabis cultivation, alteration of the groundwater pumping schedule, or other measures determined appropriate. Adaptive management measures will remain in place until groundwater levels have recovered based on annual monitoring data provided to the County as part of subsequent annual inspections.</li> </ul>	Humboldt County	This mitigation measure will be incorporated into the performance standards and application requirements of the proposed ordinance. Annual inspections and review of water records as part of permit renewals will verify continued compliance with this mitigation measure.	



**Table 4-1 Mitigation Monitoring and Reporting Program – Proposed Amendments to Humboldt County Code Regulating Commercial Cannabis Activities**

Impact	Mitigation Measure	Implementation Responsibility	Timing	Verification
<b>Impact 3.8-4: Surface drainage impacts on on-site and offsite flooding.</b>	<p><b>Mitigation Measure 3.8-4: Provision of drainage facilities to attenuate increases in drainage flows.</b></p> <p>The County shall include the following drainage requirement in the proposed ordinance application requirements:</p> <ul style="list-style-type: none"> <li>Applications will provide details of drainage facilities and stormwater management. This will include a drainage analysis of increases or alteration of on-site and off-site drainage flows from project facilities and identification of drainage swales, detention basins, or other facilities that will ensure that the project will retain pre-project drainage conditions.</li> </ul>	Humboldt County	This mitigation measure will be incorporated into the performance standards and application requirements of the proposed ordinance.	
<b>Impact 3.8-5: Effects of diversion of surface water.</b>	<p><b>Mitigation 3.8-5: Implement water diversion restrictions and monitoring and reporting requirements.</b></p> <p>The text of the proposed ordinance shall be modified to align with the State Water Resources Control Board Cannabis Cultivation Policy, which includes the following measures:</p> <ul style="list-style-type: none"> <li>The period of forbearance shall extend from April 1 through October 31 of each year, and be subject to the following additional restrictions:</li> <li>From November 1 through December 14 of each year, the surface water diversion period shall not begin until after seven consecutive days in which the surface waterbody's real-time Numeric Flow Requirement are met (see Appendix E).</li> <li>From December 15 through March 31 of each surface water diversion period, surface water diversion may occur on any day in which the surface waterbody's real-time daily average flow is greater than the Numeric Flow Requirement (see Appendix E).</li> <li>The State Water Board will monitor instream flows during the dry season and evaluate whether the number or location of groundwater diversions to determine whether imposition of a groundwater forbearance period or other measures. The State Water Board will notify cannabis cultivators the possibility of a groundwater forbearance period or other measures may be imposed to address the low flow condition.</li> <li>Cannabis cultivators shall bypass a minimum of 50 percent of the surface water flow past their point of diversion, as estimated based on visually observing surface water flow at least daily.</li> <li>Water diversion rates may be further restricted in a manner to provide minimum instream flow requirements needed for fish spawning, migration, and rearing.</li> </ul>	Humboldt County	<p>This mitigation measure will be incorporated into the performance standards and application requirements of the proposed ordinance.</p> <p>Annual inspections and review of water records as part of permit renewals will verify continued compliance with this mitigation measure.</p> <p>The County will also notify water users (surface and groundwater) of any diversion restrictions based on water conditions and compliance with the State Water Board.</p>	



**Table 4-1 Mitigation Monitoring and Reporting Program – Proposed Amendments to Humboldt County Code Regulating Commercial Cannabis Activities**

Impact	Mitigation Measure	Implementation Responsibility	Timing	Verification
	<p>and the flows needed to maintain natural flow variability by the State Water Resources Control Board and/or California Department of Fish and Wildlife as part of state surface water diversion approvals in circumstances where multiple diversions existing along a single waterway.</p> <ul style="list-style-type: none"> <li>▲ The cannabis cultivator shall not divert more than a maximum instantaneous diversion rate of 10 gallons per minute, unless authorized under an existing appropriate water right.</li> <li>▲ Cannabis cultivators shall plug, block, cap, disconnect, or remove diversion intake structures associated with cannabis cultivation activities during the source water forbearance period, unless the diversion intake is used for other beneficial uses.</li> <li>▲ Diverted water storage systems for cannabis cultivation shall be separated from storage systems used for other beneficial uses within a cultivation site.</li> <li>▲ Cannabis cultivation shall inspect for leaks in mainlines, laterals, in-irrigation connections, sprinkler headers, and/or the ends of drop tape and feeder lines on a monthly basis. Any leaks discovered shall be immediately repaired upon detection. Worn, outdated, or inefficient irrigation system components and equipment shall be regulatory replaced to ensure a properly function, leak-free irrigation system at all times. Records of the date of inspections, repairs, and replacements shall be maintained.</li> <li>▲ Cannabis cultivators shall retain irrigation, inspection, and repair records at the cannabis cultivation site and shall make all records available for review by the Water Boards, CDFW, and the County upon request for a period of 10 years.</li> </ul>			
<b>3.10 Noise</b>				
<b>Impact 3.10-1: Short-term, construction-related noise.</b>	<p><b>Mitigation Measure 3.10-1: Implement construction-noise reduction measures.</b> The County shall include the following construction noise requirement for new commercial cannabis operations and modifications to existing commercial cannabis operations in the ordinance:</p> <ul style="list-style-type: none"> <li>▲ All outdoor construction activity and use of heavy equipment outdoors shall take place between 7:00 a.m. and 6:00 p.m., Monday through Friday, and between 9:00 a.m. and 6:00 p.m. on Saturday and Sunday.</li> </ul>	Humboldt County	This mitigation measure will be incorporated into the performance standards and application requirements of the proposed ordinance.	
<b>3.12 Transportation and Circulation</b>				
<b>Impact 3.12-2: Long-term increase in traffic.</b>	<p><b>Mitigation Measure 3.12-2: Proper design of highway access points.</b> The proposed ordinance's roadway design standards shall be modified to include the</p>	Humboldt County	This mitigation measure will be incorporated into the performance standards and	

**Table 4-1 Mitigation Monitoring and Reporting Program – Proposed Amendments to Humboldt County Code Regulating Commercial Cannabis Activities**

Impact	Mitigation Measure	Implementation Responsibility	Timing	Verification
	<p>following requirement:</p> <ul style="list-style-type: none"> <li>▲ An evaluation of the existing or proposed new roadway access point to a state highway shall be provided. The evaluation will identify the required improvements to ensure proper function of the access based on anticipated traffic volumes. Improvements may include widening of the throat of the driveway to a minimum of 20 feet, provision of adequate sight distances, and other improvements determined necessary to comply with County and Caltrans standards. This improvement shall be in place prior to construction of the commercial cannabis operation. A copy of the approved Caltrans encroachment permit (if required) will be provided to the County.</li> </ul>		application requirements of the proposed ordinance.	
<b>3.13 Utilities and Service Systems</b>				
<b>Impact 3.13-1: Exceed wastewater treatment requirements or wastewater treatment capacity and related infrastructure.</b>	<p><b>Mitigation Measure 3.13-1a: Prepare a treatment program for all new indoor cultivation and non-cultivation activities.</b></p> <p>Applicants for new commercial indoor cultivation and non-cultivation cannabis operations shall prepare a materials management program that will address each permit type sought within a site. The program shall include:</p> <ul style="list-style-type: none"> <li>▲ a detailed description of activities and processes occurring on site, including: <ul style="list-style-type: none"> <li>➤ equipment type and number;</li> <li>➤ detailed standard operating procedures for processes;</li> <li>➤ chemical requirements and reactions;</li> <li>➤ cleaning procedures for equipment; and</li> <li>➤ disposal methods for all materials (e.g., plant materials, solvents, empty containers), and</li> </ul> </li> <li>▲ type and quantity of items produced: <ul style="list-style-type: none"> <li>➤ Material Safety Data Sheets for all chemical substances occurring on site;</li> <li>➤ manifests for each chemical describing quantities purchased, date used, and quantities disposed;</li> <li>➤ facility site plan with storage map, showing where hazardous materials will be stored;</li> <li>➤ an inventory of all emergency equipment with the location and description of items, including: <ul style="list-style-type: none"> <li>▪ personal protective equipment;</li> <li>▪ fire extinguishing systems;</li> </ul> </li> </ul> </li> </ul>	Humboldt County	These mitigation measures will be incorporated into the performance standards and application requirements of the proposed ordinance.	

**Table 4-1 Mitigation Monitoring and Reporting Program – Proposed Amendments to Humboldt County Code Regulating Commercial Cannabis Activities**

Impact	Mitigation Measure	Implementation Responsibility	Timing	Verification
	<ul style="list-style-type: none"> <li>▪ spill control equipment and decontamination equipment, and</li> <li>▪ communication and alarm systems.</li> <li>▪ an employee training plan that includes:</li> <li>▪ emergency response procedures and incident reporting, and</li> <li>▪ chemical handling procedures.</li> </ul> <p>The materials management program shall be submitted to Humboldt County Division of Environmental Health and public agencies or private enterprises accepting waste materials, including CSDs and waste transfer stations. Commercial cannabis permits shall not be granted without approval of the materials management program relevant agencies.</p> <p><b>Mitigation Measure 3.13-1b: Verification of adequate wastewater service and necessary improvements for public wastewater systems.</b></p> <p>Applicants shall determine whether sufficient wastewater treatment capacity exists for a proposed project. These determinations must ensure that the proposed development can be served by its existing or planned treatment capacity and wastewater conveyance through approval of the relevant service provider. If adequate capacity does not exist, applicants shall coordinate with the relevant service provider to ensure that adequate improvements are made to accommodate the increased demand, and if not, infrastructure improvements for the appropriate public service or utility shall be identified. The relevant public service provider or utility shall be responsible for undertaking project-level review as necessary to provide CEQA clearance and implementation of adopted mitigation measures for new facilities.</p>			
<b>Impact 3.13-2: Provision of sufficient water supplies and infrastructure needs.</b>	<p><b>Mitigation Measure 3.13-2: Verification of adequate water supply and service for municipal water service.</b></p> <p>The County shall include the following additional water supply verification requirements in the ordinance for all new commercial cannabis operations that plan to obtain municipal water service:</p> <ul style="list-style-type: none"> <li>▲ Applicants for new commercial cannabis operations that plan to obtain water from CSD or other entities will obtain, and provide to the County, written verification from the water service provider that adequate water supply is available to serve the site. If adequate capacity does not exist, applicants shall coordinate with the relevant service provider to ensure that adequate improvements are made to accommodate the increased demand, and if not, infrastructure improvements for the appropriate public service or utility shall be identified. The relevant public service provider or utility shall be responsible for undertaking project-level review as necessary to provide CEQA clearance for new facilities.</li> </ul>	Humboldt County	This mitigation measure will be incorporated into the performance standards and application requirements of the proposed ordinance.	

**Table 4-1 Mitigation Monitoring and Reporting Program – Proposed Amendments to Humboldt County Code Regulating Commercial Cannabis Activities**

Impact	Mitigation Measure	Implementation Responsibility	Timing	Verification
Impact 3.13-3: Potential to be served by a landfill with insufficient capacity or violate existing statutes related to solid waste.	Mitigation Measure 3.13-3: Implement Mitigation Measure 3.13-1a.	See Impact 3.13-1	See Impact 3.13-1	

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# Amendments to Humboldt County Code Regulating Commercial Cannabis Activities

State Clearinghouse #: 2017042022

September 2017



PREPARED FOR:  
Humboldt County  
3015 H Street  
Eureka, CA 95501



**Draft  
Environmental Impact Report  
For the**

**Amendments to Humboldt County Code  
Regulating Commercial Cannabis Activities**

**SCH# 2017042022**

**PREPARED FOR**

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**September 2017**



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# ACRONYMS AND ABBREVIATIONS

°F	degrees Fahrenheit
A&MRTS	Arcata & Mad River Transit System
AB	Assembly Bill
AB 939	California Integrated Waste Management Act of 1989
ACP	Agricultural Conservation Program
ADA	American with Disabilities Act
AFV	alternative fuel vehicle
ALUC	Airport Land Use Commission
ALUCP	Airport Land Use Compatibility Plan
AUMA	Adult Use of Marijuana Act
BACT	Best Available Control Technology
Basin Assessment	Eel River Valley Groundwater Basin Assessment
BIA Police	Bureau of Indian Affairs Police
BLM	U.S. Bureau of Land Management
BMP	best management practice
Btu/year	British thermal units per year
CAA	Clean Air Act
CAAA	Clean Air Act Amendments of 1990
CAAQS	California ambient air quality standards
CAFE	Corporate Average Fuel Economy
cal BP	calibrated years before present
Cal FIP	California Forest Improvement Program
CAL FIRE	California Department of Forestry and Fire Protection
CAL OES	California Office of Emergency Services
Cal/OSHA	California Occupational Safety and Health Administration
CalEEMod	California Emissions Estimator Model
CAL-OSHA	California Occupational Safety and Health Administration
Caltrans	California Department of Transportation
CAP	Climate Action Plan
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CBC	California Building Code
CBD	cannabidiol
CCAA	California Clean Air Act
CCR	California Code of Regulations
CDE	California Department of Education
CDFA	California Department of Food and Agriculture
CDFW	California Department of Fish and Wildlife

CDPR	California Department of Pesticide Regulation
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CERT	Community Emergency Response Teams
CESA	California Endangered Species Act
CEU	Code Enforcement Unit
CFR	Code of Federal Regulations
cfs	cubic feet per second
CHL	California Historical Landmarks
CHP	California Highway Patrol
CHRIS	California Historical Resources Information System
CMMLUO	Commercial Medical Marijuana Land Use Ordinance
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CNRA	California Natural Resources Agency
CO	carbon monoxide
CO <sub>2</sub>	carbon dioxide
CO <sub>2</sub> e	carbon dioxide-equivalent
Court	California Supreme Court
CPA	Community Planning Area
CPUC	California Public Utilities Commission
CRHR	California Register of Historical Resources
CRV	CA Redemption Value
CSA	County Service Area
CSD	community services district
CSP	California State Parks
CTR	California Toxics Rule
CUP	Conditional Use Permit
CUPA	Certified Unified Program Agency
CWA	Clean Water Act
dB	decibel
DBH	diameter at breast height
DEA	US Drug Enforcement Administration
DHS	Department of Health Services
DOC	California Department of Conservation
DOF	Department of Finance
DOT	U.S. Department of Transportation
Draft EIR	draft environmental impact report
DTSC	California Department of Toxic Substances Control
DWR	California Department of Water Resources

ECA	Essential Connectivity Areas
EIA	U.S. Energy Information Administration
EMS	Emergency Management System
EO	Executive Order
EOC	Emergency Operation Center
EOP	Emergency Operations Plan
EPA	U.S. Environmental Protection Agency
EPAct	Energy Policy Act of 1992
ESA	Endangered Species Act
ETS	Eureka Transit Service
EVs	electric vehicles
FBI	Federal Bureau of Investigation
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FIP	Forest Improvement Program
FIRM	Federal Insurance Rate Maps
FMMP	Farmland Mapping and Monitoring Program
FPD	Fire Protection District
FTIP	Federal Transportation Improvement Program
GHG	Greenhouse gas
gpm	gallons per minute
GSP	Groundwater Sustainability Plan
HAP	hazardous air pollutant
HBMWD	Humboldt Bay Municipal Water District
HCAOG	Humboldt County Association of Governments
HCPWD	Humboldt County Public Works Department
HMBP	Hazardous Materials Business Plan
HMIS	Hazardous Materials Inventory Statement
HMMP	Hazardous Materials Management Plan
HSTS	Hawthorne Street Transfer Station
HWMA	Humboldt Waste Management Authority
Hz	hertz
in/sec	inches per second
ITIP	Interregional Transportation Improvement Program
K/T Net	Klamath-Trinity Non-Emergency Transportation
kWh/year	kilowatt-hours per year

LAFCo	Local Agency Formation Commission
lb/day	pounds per day
LCFS	Low Carbon Fuel Standard
LCP	Local Coastal Plan
L <sub>dn</sub>	Day-Night Level
LEandI	Law Enforcement and Investigations
L <sub>eq</sub>	Equivalent Continuous Sound Level
LID	low impact development”
L <sub>max</sub>	Maximum Sound Level
LOS	level of service
MBTA	Migratory Bird Treaty Act
MCL	maximum contaminant level
MCRSA	Medical Cannabis Regulation and Safety Act
MFPP	Master Fire Protection Plan
MGD	million gallons per day
MMRSA	Medical Marijuana Regulation and Safety Act
MMT	million metric tons
MOE	Measures of Effectiveness
mPa	micro-Pascals
mpg	miles per gallon
MPO	metropolitan planning organization
MRP	Monitoring and Reporting Program
N <sub>2</sub> O	nitrous oxide
NAAQS	national ambient air quality standards
NAHC	Native American Heritage Commission
NCAB	North Coast Air Basin
NCRWQCB	North Coast Regional Water Quality Control Board
NCUAQMD	North Coast Unified Air Quality Management District
NEHRP	National Earthquake Hazards Reduction Program
NFIP	National Flood Insurance Program
NHPA	National Historic Preservation Act of 1966
NHTSA	National Highway Traffic Safety Administration
NICCAI	Northwest Information Center of the California Archaeological Inventory
NIMS	National Incident Management System
NMFS	National Marine Fisheries Service
NO <sub>2</sub>	nitrogen dioxide
NOA	naturally-occurring asbestos
NOAA	National Oceanic and Atmospheric Administration’s
NOI	Notice of Intent
NOP	Notice of Preparation
NPDES	National Pollutant Discharge Elimination System



NPPA	Native Plant Protection Act
NPS	National Park Service
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NTR	National Toxics Rule
OES	Office of Emergency Services
OSHA	Occupational Safety and Health Administration
OWTS	onsite wastewater treatment systems
PG&E	Pacific Gas & Electric
PM	particulate matter
PM <sub>10</sub>	particulate matter
PM <sub>2.5</sub>	Fine particulate matter
Porter-Cologne Act	Porter-Cologne Water Quality Control Act of 1970
ppm	parts per million
PPV	peak particle velocity
PRC	Public Resources Code
pvc	poly-vinyl chloride
RCRA	Resource Conservation and Recovery Act
RID	Resort Improvement Districts
RMA	road maintenance association
RMS	root-mean-square
RPF	registered professional forester
RPS	renewable portfolio standard
RRNA	Rural Residential Neighborhood Area
RTP	Regional Transportation Plan
RTS	Redwood Transit System
RWQCB	Regional Water Quality Control Board
SAF Plan	State Alternative Fuels Plan
SB	Senate Bill
SCS	Sustainable Communities Strategy
SEMS	Standard Emergency Management Systems
SFHA	Special Flood Hazard Area
SFPD	School Facilities Planning Division
SGMA	Sustainable Groundwater Management Act of 2014
SHPO	State Historic Preservation Officer
SIP	State implementation plan
SIR	Storie Index Rating system
SMA	Streamside Management Area
SO <sub>2</sub>	sulfur dioxide

SOI	sphere of influence
SPL	sound pressure level
sq. ft.	square feet
SR	State Routes
SRA	State Responsibility Area
STAR	Southern Trinity Area Rescue
State Water Board	State Water Resources Control Board
STEP	Septic Tank Effluent Pump
STIP	California Statewide Transportation Improvement Program
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminant
TCR	Transportation Concept Report
TCR	tribal cultural resource
THC	tetrahydrocannabinol
THPO	Tribal Historic Preservation Officer
TMDL	total maximum daily load
tons/year	tons per year
TPZ	Timber Protection Zone
TRI	Toxic Release Inventory
US	US Route
US 101	US Highway 101
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USDOT	U.S. Department of Transportation
USFS	US Forest Service
USFWS	U.S. Fish and Wildlife Service
USGS	United States Geological Survey
UST	underground storage tank
UWMP	urban water management plan
VdB	vibration decibel
VMT	vehicle miles traveled
WDR	waste discharge requirement
Williamson Act	California Land Conservation Act of 1965
WRPP	Water Resource Protection Plan
WSA	water supply assessments
WWTP	wastewater treatment plant

# EXECUTIVE SUMMARY

## INTRODUCTION

This Executive Summary is provided in accordance with the California Environmental Quality Act (CEQA) Guidelines Section 15123. As stated in the State CEQA Guidelines Section 15123(a), “[a]n EIR shall contain a brief summary of the proposed actions and its consequences. The language of the summary should be as clear and simple as reasonably practical.” State CEQA Guidelines Section 15123(b) states, “[t]he summary shall identify: (1) each significant effect with proposed mitigation measures and alternatives that would reduce or avoid that effect; (2) areas of controversy known to the Lead Agency, including issues raised by agencies and the public; and (3) issues to be resolved including the choice among alternatives and whether or how to mitigate the significant effects.” Accordingly, this summary includes a brief synopsis of the proposed project and project alternatives, environmental impacts and mitigation, areas of known controversy, and issues to be resolved during environmental review. Table ES-1 (at the end of this section) presents the summary of potential environmental impacts, their level of significance without mitigation measures, the mitigation measures, and the levels of significance following the implementation of mitigation measures.

## PROJECT COMPONENTS

Humboldt County is the Lead Agency for the Amendments to the Humboldt County Code Regulating Commercial Cannabis Activities (project or proposed ordinance). The project would update the County’s existing Commercial Medical Marijuana Land Use Ordinance (Section 313-55.4 and 314-55.4 of Chapter 3 of Division 1 of Title III of the County Code) as well as repeal of the Medical Cannabis Testing and Research Laboratories provisions and on-site consumption prohibition found in Sections 313-55.3.15, 314-55.3.15, 313-55.3.11.7, and 314-55.3.11.7 of Division 1 of Title III of the County Code, respectively. These regulations establish land use regulations for the commercial cultivation, processing, manufacturing, distribution, testing, and sale of cannabis within the County.

A detailed description of the project components is included in Chapter 2, “Project Description,” of this document.

## SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Pursuant to State CEQA Guidelines Section 15382, a significant effect on the environment is defined as “a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance.” Chapter 3 of this Draft EIR describes in detail the significant environmental impacts that would result from implementation of the proposed project. Chapters 4 and 5 provides a discussion of cumulative and growth-inducing impacts. Table ES-1 summarizes the environmental impacts and mitigation measures discussed in these chapters.

## SIGNIFICANT AND UNAVOIDABLE ENVIRONMENTAL IMPACTS

Detailed mitigation measures have been identified throughout Chapter 3 of this report that are intended to mitigate project effects to the extent feasible. For the following environmental issue areas, one or more impacts are considered significant and unavoidable; that is, no feasible mitigation is available to reduce the project’s impacts or the project’s contribution to cumulative impacts to a less-than-significant level.

### Air Quality (Section 3.3)

- ▲ Impact 3.3-2: Long-term operational emissions of criteria pollutants and precursors.
- ▲ Cumulative air quality impacts involving particulate matter (PM<sub>10</sub>) emissions.
- ▲ Impact 3.3-4: Exposure of people to objectionable odors.
- ▲ Cumulative impacts from exposure of people to objectionable odors.

### Utilities and Service Systems (Section 3.13)

- ▲ Impact 3.13-2: Provision of sufficient water supplies and infrastructure needs.
- ▲ Cumulative impacts associated with the provision of sufficient water supplies and infrastructure needs.

## SUMMARY OF PROJECT ALTERNATIVES

State CEQA Guidelines Section 15126.6, as amended, mandates that all EIRs include a comparative evaluation of the proposed project with alternatives to the project that are capable of attaining most of the project's basic objectives, but would avoid or substantially lessen any of the significant effects of the project. CEQA requires an evaluation of a "range of reasonable" alternatives, including the "no project" alternative. Chapter 6, "Alternatives," of this Draft EIR provides an analysis of the comparative impacts anticipated from the following alternatives to the proposed project:

- ▲ **Alternative 1: No Project, No Additional Permits Issued.** This alternative would consist of not adopting the proposed ordinance. The County would continue to implement the requirements of the Commercial Medical Marijuana Land Use Ordinance (CMMLUO) and would not consider any new permit applications beyond what was submitted on or before December 31, 2016 pursuant to Section 55.4.17 (Sunset of Applications).
- ▲ **Alternative 2: No Project, New Permits Issued.** This alternative would be like Alternative 1. The County would continue to implement the requirements of the CMMLUO, but would amend the ordinance to allow for the submittal of new permit applications.
- ▲ **Alternative 3: Prohibition of New Outdoor and Mixed-Light Cultivation Operations in City Spheres of Influence and Community Plan Areas.** This alternative would consist of the proposed ordinance, but would prohibit new outdoor and mixed-light commercial cannabis cultivation operations within the spheres of influence of the incorporated cities and the community plan area boundaries.
- ▲ **Alternative 4: Prohibition of New Outdoor and Mixed-Light Cultivation Operations.** This alternative would cap the extent of new outdoor and mixed-light commercial cannabis cultivation allowed under the proposed ordinance to applications for new cultivation received on or before December 31, 2015 under the CMMLUO. Only new indoor commercial cannabis cultivation would be allowed under this alternative.
- ▲ **Alternative 5: Reduction of New Commercial Cannabis Operations.** This alternative would prohibit all new commercial cannabis outdoor and mixed-light cultivation that did not exist on or before December 31, 2015 except under the Retirement, Remediation, and Relocation (RRR) program, and would not allow any new permits for pre-existing cultivation in areas zoned Timber Production Zone (TPZ). New commercial cannabis indoor cultivation and non-cultivation operations would only be allowed within community plan boundaries.

## AREAS OF CONTROVERSY

Section 15123 of the State CEQA Guidelines requires the summary section of a Draft EIR to identify areas of controversy known to the Lead Agency, including issues raised by agencies and the public. The following provides a summary of issues raised through scoping and comments on the notice of preparation (NOP) that

could be considered controversial. The comment letters received on the NOP are included in Appendix A of this document.

- ▲ Concerns regarding the County's ability to conduct enforcement activities against illegal cannabis operations.
- ▲ Biological and watershed impacts from land disturbance associated with existing and new cannabis operations.
- ▲ Impacts related to traffic operations and safety from cannabis cultivation operations.
- ▲ Land use compatibility with cannabis operations in regard to traffic, noise, and odors.
- ▲ Nighttime lighting impacts of adjoining residents and wildlife.
- ▲ Generator noise impacts on noise-sensitive land uses and wildlife.
- ▲ Impacts to community service districts and other service providers related to water supply impacts and wastewater discharge quality concerns.
- ▲ Water quality impacts from cannabis cultivation associated with sediment, pesticides, fertilizers, petroleum products, and other materials.
- ▲ Water diversion impacts on fisheries and other aquatic resources.
- ▲ Loss of natural habitat (e.g., wetlands, riparian, forest, and other sensitive habitat areas) from conversion by cannabis cultivation.
- ▲ Wildland fire hazards from improper operation of cannabis cultivation facilities.
- ▲ Conflicts with future land use planning and annexation in the City of Fortuna's Sphere of Influence.
- ▲ Increase crime associated with cannabis operations in the County.
- ▲ Potential contamination from improper handling of hazardous materials from existing and future cannabis operations.
- ▲ Groundwater supply issues from increased groundwater use by cannabis cultivation.
- ▲ Visual impacts of increased building development and new sources of nighttime lighting.
- ▲ Suggested changes to the approach of the proposed ordinance requirements.
- ▲ Consideration of alternatives to the proposed ordinance.
- ▲ Suggested cap to new cannabis operations.
- ▲ Economic impacts of larger cannabis operations in the County.

The Draft EIR addresses the above issues to the extent that substantial evidence permits, and to the extent that the issue is an environmental issue. However, it does not address impacts that are speculative and not reasonably foreseeable.

## ISSUES TO BE RESOLVED IN THE EIR

Section 15123 of the State CEQA Guidelines requires the summary section of a Draft EIR to identify issues to be resolved in the EIR including the choice among alternatives and whether or how to mitigate the significant project effects. Issues to be resolved, in addition to the “Areas of Controversy,” include the following:

- ▲ Whether the proposed ordinance should provide opportunities for new commercial cannabis operations in the County or should the extent of cannabis operations be limited as evaluated in Chapter 6, “Alternatives.”
- ▲ Consideration of additional performance standards for the construction and operation of commercial cannabis facilities, including their locations in the County.
- ▲ The extent of inspections and enforcement required to ensure compliance with the proposed ordinance.

## RESPONSIBLE AND TRUSTEE AGENCIES

Under CEQA, a responsible agency is a public agency, other than the lead agency, that has responsibility to carry out or approve a project (Public Resources Code [PRC] Section 21069). A trustee agency is a state agency that has jurisdiction by law over natural resources that are held in trust for the people of the State of California (PRC Section 21070).

The following federal, responsible, and trustee agencies may have jurisdiction over elements of the project:

- ▲ U.S. Army Corps of Engineers,
- ▲ California Coastal Commission,
- ▲ California Department of Consumer Affairs, Bureau of Cannabis Regulation
- ▲ California Department of Fish and Wildlife, Region 1,
- ▲ California Department of Food and Agriculture,
- ▲ California Department of Forestry and Fire Protection,
- ▲ California Department of Parks and Recreation,
- ▲ California Department of Pesticide Regulation,
- ▲ California Department of Public Health,
- ▲ California Department of Transportation, District 1,
- ▲ California Department of Water Resources,
- ▲ North Coast Regional Water Quality Control Board (Region 1),
- ▲ North Coast Unified Air Quality Management District, and
- ▲ State Water Resource Control Board.

**Table ES-1 Summary of Impacts and Mitigation Measures**

Impacts		Significance before Mitigation	Mitigation Measure	Significance after Mitigation
<b>3.1 Aesthetics</b>				
<b>Impact 3.1-1: Have a substantial adverse effect on a scenic vista or scenic resources.</b> Commercial cannabis operations in the County that may occur under the proposed ordinance could alter localized views of scenic vistas or resources. The limitations on size, coverage, and location of cannabis cultivation provided under the proposed ordinance, in addition to existing county code and coastal zoning regulations, would limit the potential for cannabis-related uses to alter or have a substantial adverse visual impact on scenic vistas or resources. Cannabis operations are aesthetically not substantially different in appearance from other agricultural operations. This impact would be less than significant.		LTS	No mitigation is required.	LTS
<b>Impact 3.1-2: Substantially degrade the existing visual character or quality of the project area.</b> Improvements to existing cannabis operations and new cannabis operations permitted under the proposed ordinance would be visually consistent with the existing rural and agricultural character of the County. Cannabis operations are aesthetically not substantially different in appearance from other agricultural operations. This impact would be less than significant.		LTS	No mitigation is required.	LTS
<b>Impact 3.1-3: Create a new source of substantial light or glare that would adversely affect views.</b> Commercial cannabis operations permitted under the proposed ordinance could involve the use of lighting. The proposed ordinance includes lighting performance standards to reduce lighting impacts. This impact is less than significant.		LTS	No mitigation is required.	LTS
<b>3.2 Agriculture and Forest Resources</b>				
<b>Impact 3.2-1: Conversion of farmland to nonagricultural use or conflict with existing zoning for agricultural use or a Williamson Act contract.</b> Implementation of the proposed ordinance would result in an increase in commercial cannabis cultivation and supporting activities in unincorporated Humboldt County. Cannabis is defined under the proposed ordinance and by the state as an agricultural product and as such, the ordinance would not result in conversion of farmland to nonagricultural uses nor conflict with existing zoning for agricultural use or a Williamson Act contract. The County has determined that cannabis cultivation is a compatible use on lands under Williamson Act contracts. There would be no impact on conversion of farmland to nonagricultural use or conflict with zoning for agricultural use or a Williamson Act contract.		NI	No mitigation is required.	NI

NI = No Impact, LTS = Less than significant, PS = Potentially significant, S = Significant, SU = Significant and unavoidable



**Table ES-1 Summary of Impacts and Mitigation Measures**

Impacts	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
<p><b>Impact 3.2-2: Convert substantial forest land, conflict with or cause rezoning of forest land or Timberland Production Zone, or involve other changes in the existing environment which, because of their location or nature, could result in substantial conversion of forest land to a non-forest use.</b></p> <p>The proposed ordinance would result in an increase in commercial cannabis cultivation in unincorporated Humboldt County; however, no new commercial cultivation sites would be allowed lands zoned as TPZ. For existing cultivation sites, timberland conversion may only occur in association with on-site remediation and reconfiguration activities, including reforestation, subject to performance standards. Therefore, cannabis cultivation and associated activities would not cause conflicts that could result in substantial conversion of forest land to a non-forest use or rezoning of TPZ lands. This impact would be less than significant.</p>	LTS	No mitigation is required.	LTS
<b>3.3 Air Quality and Greenhouse Gas Emissions</b>			
<p><b>Impact 3.3-1: Construction-generated emissions of criteria air pollutants and precursors.</b></p> <p>Short-term, construction-generated emissions would not exceed NCUAQMD-recommended daily emission threshold for PM<sub>10</sub>. Although the NCAB is in nonattainment for PM<sub>10</sub> emissions, construction of a single cultivation operation or non-cultivation operation would not contribute substantially to an existing or projected air quality violation, expose sensitive receptors to substantial pollutant concentrations, and/or conflict with air quality planning efforts in Humboldt County and the NCAB. This impact would be less than significant.</p>	LTS	No mitigation is required.	LTS
<p><b>Impact 3.3-2: Long-term operational emissions of criteria pollutants and precursors.</b></p> <p>Operation of commercial cannabis cultivation operations and non-cultivation operations in the County would result in peak emissions of PM<sub>10</sub> during the harvest season. Operation of a new single cultivation operation during the harvest season would exceed NCUAQMD-recommended maximum daily thresholds for PM<sub>10</sub>. Because the NCAB is in nonattainment for PM<sub>10</sub>, operation of a single cannabis cultivation would contribute to an existing or projected air quality violation. This impact would be significant.</p>	S	No feasible mitigation is available.	SU

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**Table ES-1 Summary of Impacts and Mitigation Measures**

Impacts	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
<p><b>Impact 3.3-3: Generation of greenhouse gas emissions.</b> Construction and operation of commercial cannabis cultivation operations permitted under the proposed ordinance would result in GHG emissions. However, it is anticipated that existing cultivation sites would apply for licenses under the proposed ordinance, which would require sites to achieve at least 80 percent of their energy demand from renewable sources; this would be a substantial reduction from current operations. The energy-related GHG emissions associated with existing sites would be reduced through the renewable requirement of the proposed ordinance, and would offset the emissions generated by new cultivation operations. Further, the proposed ordinance would include GHG efficiency measures consistent with all applicable State and local policies and regulations for reducing GHG emissions and enabling achievement of the statewide reduction targets of AB 32 of 2006 and SB 32 of 2016. The proposed ordinance would not conflict with any applicable plan, policy, or regulation of an agency adopted for reducing GHG emissions. Therefore, this impact would be less than significant.</p>	LTS	No mitigation is required.	LTS
<p><b>Impact 3.3-4: Exposure of people to objectionable odors.</b> Implementation of the proposed ordinance would allow for construction and operation of new commercial cannabis-related activities, which would generate localized construction and operational odors associated with equipment operation that could be sources of objectionable odors to nearby residents. However, the cultivation and processing of cannabis generates odors associated with the plant itself, which during maturation can produce substantial odors. Setbacks are provided as part of the proposed ordinance; however, they do not preclude the generation of odorous emissions in such quantities as to cause detriment, nuisance, or annoyance to a substantial number of people. This would be a significant impact.</p>	S	<p><b>Mitigation Measure 3.3-4: Prohibit burning of cannabis and other vegetative material</b> The County shall amend the proposed ordinance to reflect the following requirements:            ▲ The burning of excess plant material associated with the cultivation and processing of commercial cannabis is prohibited.</p>	SU
<p><b>Impact 3.3-5: Impacts of climate change on the project.</b> Climate change is expected to result in a variety of effects that would influence conditions in Humboldt County, with increased wildfire being the largest risk. However, the proposed ordinance includes various features that would reduce this wildfire risk. These features would reduce the extent and severity of climate change-related impacts to the project. For these reasons, this impact would be less than significant.</p>	LTS	No mitigation is required.	LTS

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**Table ES-1 Summary of Impacts and Mitigation Measures**

Impacts	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
<p><b>3.4 Biological Resources</b></p> <p><b>Impact 3.4-1: Disturbance to or loss of special-status wildlife species and habitat.</b> Potential land use conversion and development that may occur under the proposed ordinance could adversely affect several special-status wildlife species, including reptiles, amphibians, nesting birds, and mammals. Project implementation may include ground disturbance, vegetation removal, and overall conversion of wildlife habitat, which could result in the disturbance or loss of individuals and reduced breeding productivity of these species. Special-status wildlife species are protected under ESA, CESA, California Fish and Game Code, CEQA, or other regulations. The loss of special-status wildlife species and their habitat would be a potentially significant impact.</p>	PS	<p><b>Mitigation 3.4-1a: Special-status amphibian preconstruction surveys and relocation.</b> The following shall be included as performance standards in the proposed ordinance for the protection of special-status amphibian species from new development related to cannabis activities.</p> <ul style="list-style-type: none"> <li>▲ Forty-eight hours prior to proposed new development activities within 200 feet of any SMA or Other Wet Area, a preconstruction survey for special-status amphibians shall be conducted by a qualified biologist. The biologist shall be familiar with the life cycle of foothill yellow-legged frog, northern red-legged frog, Pacific tailed-frog, red-bellied newt, and southern torrent salamander, and will conduct appropriate surveys for the applicable life stages (i.e., eggs, larvae, adults).</li> <li>▲ Preconstruction surveys for special-status amphibian species shall be conducted throughout the proposed construction area and a 400-foot buffer around the proposed development area. Surveys shall consist of "walk and turn" surveys of areas beneath surface objects (e.g., rocks, leaf litter, moss mats, coarse woody debris) for newts and salamanders, and visual searches for frogs.</li> <li>▲ If red-bellied newt or southern torrent salamander or special status frogs are detected during the preconstruction survey, the proposed development area shall be relocated to be no closer than 200 feet from the occurrence(s) measured as a horizontal line perpendicular to, and moving away from, the SMA.</li> </ul> <p><b>Mitigation 3.4-1b: Western pond turtle preconstruction surveys and relocation.</b> The following shall be included as a performance standard in the proposed ordinance for the protection of western pond turtle from new development related to cannabis activities.</p> <ul style="list-style-type: none"> <li>▲ Within 24 hours before beginning proposed new development activities within 200 feet of SMA or Other Wet Area, a qualified biologist shall survey areas of anticipated disturbance for the presence of western pond turtle. If pond turtles are found during the survey the proposed development area shall be relocated to be no closer than 200 feet from the occurrence(s) measured as a horizontal line perpendicular to, and moving away from, the SMA.</li> </ul>	LTS

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**Table ES-1      Summary of Impacts and Mitigation Measures**

Impacts	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
		<p><b>Mitigation 3.4-1c: Nesting raptor preconstruction survey and establishment of protective buffers.</b>  The following shall be included as performance standards in the proposed ordinance for the protection of nesting raptors from new development related to cannabis activities.</p> <ul style="list-style-type: none"> <li>▲ To minimize the potential for loss of nesting raptors, tree removal activities shall only occur during the nonbreeding season (September 1-January 31.</li> <li>▲ Prior to removal of any trees, or ground-disturbing activities between February 1 and August 31, a qualified biologist shall conduct preconstruction surveys for nesting raptors, and shall identify active nests within 500 feet of the proposed development area. The surveys shall be conducted between February 1 and August 31.</li> <li>▲ Impacts to nesting raptors shall be avoided by establishing appropriate buffers around active nest sites identified during preconstruction raptor surveys. The buffer areas shall be protected with construction fencing, and no activity shall occur within the buffer areas until a qualified biologist has determined, in coordination with CDFW, that the young have fledged, the nest is no longer active, or reducing the buffer would not likely result in nest abandonment. CDFW guidelines recommend implementation of a 500-foot buffer for raptors, but the size of the buffer may be adjusted if a qualified biologist and the applicant, in consultation with CDFW, determine that such an adjustment would not be likely to adversely affect the nest. Monitoring of the nest by a qualified biologist during and after construction activities will be required if the activity has potential to adversely affect the nest.</li> <li>▲ Trees shall not be removed during the breeding season for nesting raptors unless a survey by a qualified biologist verifies that there is not an active nest in the tree.</li> </ul> <p><b>Mitigation 3.4-1d: Special-status nesting bird surveys and establishment of protective buffers.</b>  The following shall be included as performance standards in the proposed ordinance for the protection of bank swallow, little willow flycatcher, tricolored blackbird, and western yellow-billed cuckoo from new development related to cannabis activities. This will apply to any commercial cannabis activity that would result in the disturbance or loss of riparian, riverine, mudflat, or grassland habitats.</p>	

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**Table ES-1 Summary of Impacts and Mitigation Measures**

Impacts	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
		<p>▲ To minimize the potential for disturbance or loss of bank swallow, little willow flycatcher, tricolored blackbird, western snowy plover, western yellow-billed cuckoo, or other bird nests, vegetation removal activities shall only occur during the nonbreeding season (September 1-January 31). Alteration of or disturbance to suitable river bank habitat (i.e., for bank swallow nests) and mudflat habitat (i.e., for western snowy plover) is prohibited because of limited habitat availability for this species.</p> <p>▲ Prior to removal of any vegetation or any ground disturbance between February 1 and August 31, a qualified biologist shall conduct preconstruction surveys for nests on any structure or vegetation slated for removal, as well as for potential tricolored blackbird nesting habitat. The surveys shall be conducted no more than 14 days before construction commences. If no active nests or bank swallow colonies are found during focused surveys, no further action under this measure will be required. If active nests are located during the preconstruction surveys, the biologist shall notify the Planning Director and CDFW. If deemed necessary by the Planning Director in consultation with CDFW, modifications to the project design to avoid removal of occupied habitat while still achieving project objectives may be required. If the Planning Director determines in consultation with CDFW that avoidance is not feasible or conflicts with project objectives, construction shall be prohibited within a minimum of 100 feet of the nest to avoid disturbance until the nest or colony is no longer active.</p> <p><b>Mitigation 3.4-1e: Marbled murrelet preconstruction habitat suitability surveys and establishment of protective buffers.</b></p> <p>The following shall be included as performance standards in the proposed ordinance for the protection of marbled murrelet from new development related to cannabis activities.</p> <p>▲ To avoid the potential for loss of or disturbance to marbled murrelet nests and habitat, removal of old growth habitat shall be prohibited, as outlined in Mitigation Measure 3.4-3. Sensitive natural communities, riparian habitat, old growth habitat, and wetland vegetation.</p> <p>▲ Prior to removal of any trees, or ground-disturbing activities adjacent or within suitable habitat for marbled murrelet between April 15 and August 5, a qualified biologist, familiar with the life history of the marbled murrelet, shall conduct preconstruction surveys for nests within a 0.25-mile buffer around the site as described in <i>Methods for Surveying Marbled Murrelets in Forests</i>:</p>	

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**Table ES-1      Summary of Impacts and Mitigation Measures**

Impacts	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
		<p>A Revised Protocol for Land Management and Research (Evans Mack et. al 2003).</p> <ul style="list-style-type: none"> <li>▲ If marbled murrelets are determined to be absent from the site, then no further mitigation is required.</li> <li>► If marbled murrelets are determined to be present within the site, a 0.25-mile buffer will be established around occupied nest sites. No project activity may occur within the 0.25-mile buffer areas until the end of marbled murrelet breeding season (August 6).</li> </ul> <p><b>Mitigation 3.4-1f: Generator noise reduction.</b></p> <p>The ordinance requires generators not to increase existing ambient noise levels at the property line of the site. In addition, the noise standards shall include the following standards to protect wildlife (USFWS 2006).</p> <ul style="list-style-type: none"> <li>▲ Project-generated sound must not exceed ambient nesting conditions by 20-25 decibels.</li> <li>▲ Project-generated sound, when added to existing ambient conditions, must not exceed 90 decibels.</li> <li>▲ Time of day adjustment: Marbled murrelet and northern spotted owl are most active during dawn and dusk. Within approximately 2 hours of sunrise and sunset, ambient sound levels are lower than during the middle of the day (by approximately 5-10 decibels). This will be accounted for when determining impacts of project-generated sound.</li> </ul> <p><b>Mitigation Measure 3.4-1g: American badger preconstruction survey and establishment of protective buffers.</b></p> <p>The following shall be included as performance standards in the proposed ordinance for the protection of the American badger from new development related to cannabis activities.</p> <ul style="list-style-type: none"> <li>▲ Prior to the commencement of construction activities, a qualified wildlife biologist shall conduct surveys of the suitable grassland or agricultural habitats slated for conversion within the site to identify any American badger burrows/dens. These surveys shall be conducted not more than 30 days prior to the start of construction. If occupied burrows are not found, further mitigation shall not be required. If occupied burrows are found, impacts to active badger dens shall be avoided by establishing exclusion zones around all active badger dens, within which construction related activities shall be prohibited until denning activities are complete or the den is abandoned. A</li> </ul>	

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**Table ES-1 Summary of Impacts and Mitigation Measures**

Impacts	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
		<p>qualified biologist shall monitor each den once per week to track the status of the den and to determine when a den area has been cleared for construction.</p> <p><b>Mitigation Measure 3.4-1h: Fisher and Humboldt marten preconstruction survey and preservation of active den sites.</b></p> <p>The following shall be included as performance standards in the proposed ordinance for the protection of the fisher and Humboldt marten from new development related to cannabis activities.</p> <ul style="list-style-type: none"> <li>▲ To minimize the potential for loss of or disturbance to fisher and Humboldt marten habitat and dens, removal of old growth habitat shall be prohibited, as outlined in Mitigation Measure 3.4-3, Sensitive natural communities, riparian habitat, old growth habitat, and wetland vegetation.</li> <li>▲ Prior to commencement of from new development related to cannabis activities occurring within the fisher and Humboldt marten denning season (March 1 to July 31), including tree removal (non-old growth), a qualified wildlife biologist will conduct preconstruction surveys of all suitable habitat within the site, and will identify sightings of individual fishers or martens, as well as potential dens.</li> <li>▲ If individuals or potential or occupied dens are not found, further mitigation will not be required.</li> <li>▲ If fisher or Humboldt marten are identified or if potential dens of these species are located, an appropriate method shall be used by a qualified wildlife biologist to confirm whether a fisher or marten is occupying the den. This may involve use of remote field cameras, track plates, or hair snares. Other devices such as fiber optic scope may be utilized to determine occupancy. If no fisher or marten occupies the potential den, the entrance will be temporarily blocked so that no other animals occupy the area during the construction period but only after it has been fully inspected. The blockage will be removed once construction activities have been completed.</li> <li>▲ If a den is found to be occupied by a fisher or marten, a no-disturbance buffer will be placed around the occupied den location. The no-disturbance buffer will include the den tree (or other structure) plus a suitable buffer as determined by the biologist in coordination with USFWS and CDFW. Construction activities in the no-disturbance buffer will be avoided until the nest is unoccupied as determined by a qualified wildlife biologist in coordination with USFWS and CDFW.</li> </ul>	

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**Table ES-1 Summary of Impacts and Mitigation Measures**

Impacts	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
		<p><b>Mitigation Measure 3.4-1i: Preconstruction bat survey and exclusion.</b> The following shall be included as performance standards in the proposed ordinance for the protection of the pallid bat and Townsend's big-eared bat from new development related to cannabis activities.</p> <ul style="list-style-type: none"> <li>▲ Before commencing any new development related to cannabis activities, a qualified biologist shall conduct surveys for roosting bats. If evidence of bat use is observed, the species and number of bats using the roost shall be determined. Bat detectors may be used to supplement survey efforts. If no evidence of bat roosts is found, then no further study will be required.</li> <li>▲ If pallid bats or Townsend's big-eared bats are found in the surveys, a mitigation program addressing mitigation for the specific occurrence shall be submitted to the Planning Director and CDFW by a qualified biologist subject to the review and approval of the Planning Director in consultation with CDFW. Implementation of the mitigation plan shall be a condition of project approval. At a minimum, the mitigation plan shall establish a 400-foot buffer area around the nest during hibernation or while females in maternity colonies are nursing young.</li> </ul> <p><b>Mitigation Measure 3.4-1j: Preconstruction vole survey and relocation.</b> The following shall be included as performance standards in the proposed ordinance for the protection of the Sonoma tree vole and white-footed vole from new development related to cannabis activities.</p> <ul style="list-style-type: none"> <li>▲ To minimize the potential for loss of or disturbance to vole habitat and nests, removal of old growth habitat shall be prohibited, as outlined in Mitigation Measure 3.4-3 Sensitive natural communities, riparian habitat, old growth habitat, and wetland vegetation.</li> <li>▲ Before commencing any tree or other vegetation removal activities, or ground-disturbance, a qualified biologist shall conduct surveys for vole nests (e.g., nest searching within trees on the site, and confirming that nests belong to voles rather than squirrels or birds). If no evidence of vole nests is found, then no further study shall be required. A report summarizing the results of the surveys shall be prepared and submitted to the Planning Director and shall be subject to his review and approval in consultation with CDFW.</li> <li>▲ If occupied trees or nests are identified within 100 feet of the site, the biologist shall determine whether project development activities will adversely affect the voles, based on factors such as noise level of development</li> </ul>	

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**Table ES-1 Summary of Impacts and Mitigation Measures**

Impacts	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
<b>Impact 3.4-2: Disturbance to or loss of special-status fisheries.</b> Surface water diversions from new commercial cannabis cultivation that may occur under the proposed ordinance could adversely affect several special-status fish species. Special-status fish species are protected under ESA, CESA, or other regulations. The alteration of surface water conditions that support special-status fish species would be a potentially significant impact.		activities, or line of sight between the tree and the disturbance source. If it is determined that development activities would not affect the voles, then development can proceed without protective measures. <p>▲ If the biologist determines that development activities would likely disturb voles, the proposed area of disturbance shall be relocated a minimum of 200 feet from the nest.</p>	
<b>Impact 3.4-2: Disturbance to or loss of special-status fisheries.</b> Surface water diversions from new commercial cannabis cultivation that may occur under the proposed ordinance could adversely affect several special-status fish species. Special-status fish species are protected under ESA, CESA, or other regulations. The alteration of surface water conditions that support special-status fish species would be a potentially significant impact.	PS	<b>Mitigation 3.4-2:</b> Implement Mitigation Measure 3.8.5: Implement water diversion restrictions and monitoring and reporting requirements.	LTS
<b>Impact 3.4-3: Disturbance to or loss of special-status plant species and habitat.</b> Potential land use conversion and development under the proposed ordinance could result in disturbance or loss of several special-status plant species, if they are present. Because the loss of special-status plants can substantially affect the abundance, distribution, and viability of local and regional populations of these species, this would be a potentially significant impact.	PS	<b>Mitigation 3.4-3a: Special-status plants.</b> The following shall be included as performance standards in the proposed ordinance for the protection of special-status plant species from new development related to cannabis activities. <p>▲ Prior to commencement of new development related to cannabis activities and during the blooming period for the special-status plant species with potential to occur in the site, a qualified botanist will conduct protocol-level surveys for special-status plants in all proposed disturbance areas.</p> <p>▲ If special-status plants are not found, the botanist will document the findings in a letter report to USFWS, CDFW, and the applicant and no further mitigation will be required.</p> <p>▲ If special-status plant species are found that cannot be avoided, the applicant, as part of its application to the County, shall retain a qualified botanist to consult with CDFW and/or USFWS (as appropriate, depending on species status) to determine the appropriate mitigation measures for direct and indirect impacts through a Mitigation and Monitoring Plan. The applicant shall be responsible for implementing the approved Mitigation and Monitoring Plan to the satisfaction of the Planning Director in consultation with, CDFW, and/or USFWS to achieve a 2:1 replacement ratio of habitat and individuals. Mitigation measures may include preserving and enhancing existing populations, creation of off-site populations on project mitigation sites through seed collection or transplantation, and/or restoring or creating</p>	LTS

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**Table ES-1      Summary of Impacts and Mitigation Measures**

Impacts	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
		<p>suitable habitat in sufficient quantities to achieve a 2:1 replacement ratio of habitat and individuals.</p> <p>▲ If relocation efforts are part of the Mitigation and Monitoring Plan, the plan shall include details on the methods to be used, including collection, storage, propagation, receptor site preparation, installation, long-term protection, and management, monitoring and reporting requirements, success criteria, and remedial action responsibilities should the initial effort fail to meet long-term monitoring requirements.</p> <p>▲ Success criteria for preserved and compensatory populations shall include:</p> <ul style="list-style-type: none"> <li>➤ The extent of occupied area and plant density (number of plants per unit area) in compensatory populations will be equal to or greater than the affected occupied habitat.</li> <li>➤ Compensatory and preserved populations will be self-producing. Populations will be considered self-producing when: <ul style="list-style-type: none"> <li>▪ plants reestablish annually for a minimum of five years with no human intervention such as supplemental seeding; and</li> <li>▪ reestablished and preserved habitats contain an occupied area and flower density comparable to existing occupied habitat areas in similar habitat types in the project vicinity.</li> </ul> </li> <li>➤ If off-site mitigation includes dedication of conservation easements, purchase of mitigation credits, or other off-site conservation measures, the details of these measures shall be included in the mitigation plan, including information on responsible parties for long-term management, conservation easement holders, long-term management requirements, success criteria such as those listed above and other details, as appropriate to target the preservation of long term viable populations.</li> </ul> <p><b>Mitigation 3.4-3b: Invasive plant species.</b>  The following shall be included as performance standards in the proposed ordinance to avoid the introduction or spread of plants classified as invasive plant species by the California Invasive Plant Council.</p> <p>▲ All invasive plant species shall be removed from the site using measures appropriate to the species. For example, species that cannot easily re-root, re-sprout, or disperse seeds may be left on site in a debris pile. Species that re-</p>	

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**Table ES-1 Summary of Impacts and Mitigation Measures**

Impacts	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
<p><b>Impact 3.4-4: Disturbance to or loss of riparian habitat, old growth habitat, or other sensitive natural communities.</b></p> <p>Potential land use conversion and development that may be approved under the proposed ordinance could adversely affect riparian habitat, old growth habitat, and other sensitive natural communities if they are present on the site. Construction-related activities, including ground disturbance, old growth habitat removal, removal of riparian vegetation, or disturbance of stream and river habitat would be a potentially significant impact.</p>	PS	<p>sprout readily (e.g., English ivy) or disperse seeds (e.g., Pampas grass) should be hauled off-site and disposed of appropriately at a landfill site.</p> <p>▲ Heavy equipment and other machinery shall be inspected for the presence of invasive species prior to on-site use, and shall be cleaned prior to entering the site, to reduce the risk of introducing invasive plant species.</p> <p><b>Mitigation 3.4-4: Sensitive natural communities, riparian habitat, and wetland vegetation.</b></p> <p>The following shall be included as performance standards in the proposed ordinance for the protection of sensitive natural communities and riparian habitat.</p> <p>▲ For projects that could disturb sensitive natural communities or riparian habitat, the application shall include a report prepared by a qualified biologist that surveys the site for these sensitive resources, including riparian habitat associated with aquatic features; old growth Sitka spruce, Douglas fir, and redwood forests; special-status fish stream habitats; marsh habitats; and northern foredune grassland near Humboldt Bay and the Mattole River; and coastal terrace prairie within Table Bluff Ecological Reserve.</p> <p>▲ The report shall include requirements that before development activities commence, all sensitive areas shall be flagged or fenced with brightly visible construction flagging and/or fencing under the direction of the qualified biologist to require that grading, excavation, other ground-disturbing activities, and vegetation removal will not occur within these areas. Foot traffic by construction personnel shall also be limited in these areas to prevent the introduction of invasive or weedy species. Periodic inspections during construction shall be conducted by the monitoring biologist to maintain the integrity of exclusion fencing/flagging throughout the period of construction involving ground disturbance.</p> <p>▲ If the report documents that site development would affect the bed, bank, channel, or associated riparian habitat subject to CDFW jurisdiction under Fish and Game Code Section 1602, a Streambed Alteration Notification shall be submitted to CDFW, pursuant to Section 1600 et seq. of the California Fish and Game Code. If proposed activities are determined to be subject to CDFW jurisdiction, the project proponent shall abide by the conditions of any executed agreement prior to the issuance of a grading permit by Humboldt County.</p>	LTS

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Impacts	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
		<p>▲ Subject to the review and approval of the Planning Director in consultation with CDFW applicants shall compensate for permanent loss of riparian habitat at a minimum of a 2:1 ratio through contributions to a CDFW approved wetland mitigation bank or through the development and implementation of a Compensatory Stream and Riparian Mitigation and Monitoring Plan for creating or restoring in-kind habitat in the surrounding area (such as the proposed ordinance site reconfiguration criteria for existing cultivation sites). If mitigation credits are not available, stream and riparian habitat compensation shall include establishment of riparian vegetation on currently unvegetated bank portions of streams affected by the project and enhancement of existing riparian habitat through removal of nonnative species, where appropriate, and planting additional native riparian plants to increase cover, continuity, and width of the existing riparian corridor along streams in the site and surrounding areas. Construction activities and compensatory mitigation shall be conducted in accordance with the terms of a streambed alteration agreement as required under Section 1602 of the Fish and Game Code as well as the Regional Water Quality Control Board North Coast Region Order R1-2015-0023.</p> <p>The Compensatory Stream and Riparian Mitigation and Monitoring Plan shall include the following:</p> <ul style="list-style-type: none"> <li>▲ identification of compensatory mitigation sites and criteria for selecting these mitigation sites;</li> <li>▲ in kind reference habitats for comparison with compensatory riparian habitats (using performance and success criteria) to document success;</li> <li>▲ monitoring protocol, including schedule and annual report requirements (Compensatory habitat will be monitored for a minimum of 5 years from completion of mitigation, or human intervention [including recontouring and grading], or until the success criteria identified in the approved mitigation plan have been met, whichever is longer.);</li> <li>▲ ecological performance standards, based on the best available science and including specifications for native riparian plant densities, species composition, amount of dead woody vegetation gaps and bare ground, and survivorship; at a minimum, compensatory mitigation planting sites must achieve 80 percent survival of planted riparian trees and shrubs by the end of the five-year maintenance and monitoring period or dead and dying trees will</li> </ul>	

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**Table ES-1 Summary of Impacts and Mitigation Measures**

Impacts	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
<p><b>Impact 3.4-5: Disturbance to or loss of waters of the United States.</b></p> <p>Potential land use conversion and development under the proposed ordinance could adversely affect waters of the United States, such as streams, rivers, lakes, and wetlands. This would be a potentially significant impact.</p>	PS	<p>be replaced and monitoring continued until 80 percent survivorship is achieved;</p> <ul style="list-style-type: none"> <li>▲ corrective measures if performance standards are not met;</li> <li>▲ responsible parties for monitoring and preparing reports; and</li> <li>▲ responsible parties for receiving and reviewing reports and for verifying success or prescribing implementation or corrective actions.</li> </ul> <p><b>Mitigation 3.4-5: Waters of the United States.</b></p> <p>The following shall be included as performance standards in the proposed ordinance for the protection of waters of the United States from new development related to cannabis activities.</p> <ul style="list-style-type: none"> <li>▲ The application shall include a report prepared by a qualified biologist that surveys the site for sensitive resources, including wetlands, streams, and rivers. Wetlands and other waters of the United States are of special concern to resource agencies and are afforded specific consideration, based on Section 404 of the Clean Water Act and other applicable regulations.</li> <li>▲ If the report documents waters of the United States to be present, a delineation of waters of the United States, including wetlands that would be affected by the project, shall be prepared by a qualified biologist through the formal Section 404 wetland delineation process. The delineation shall be submitted to and verified by USACE.</li> <li>▲ If, based on the verified delineation, it is determined that fill of waters of the United States would result from implementation of the project, authorization for such fill will be secured from USACE through the Section 404 permitting process.</li> <li>▲ Any waters of the United States that would be affected by site development shall be replaced or restored on a "no-net-loss" basis in accordance with USACE mitigation guidelines (or the applicable USACE guidelines in place at the time of construction). In association with the Section 404 permit (if applicable) and prior to the issuance of any grading permit, Section 401 Water Quality Certification from the RWQCB will be obtained.</li> <li>▲ USACE may not issue a Section 404 permit for activities associated with cannabis cultivation. If a Section 404 permit cannot be obtained, then the applicant shall modify the proposed project to avoid any wetlands or other</li> </ul>	LTS

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**Table ES-1 Summary of Impacts and Mitigation Measures**

Impacts	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
<p><b>Impact 3.4-6: Interference with resident or migratory wildlife corridors or native wildlife nursery sites.</b></p> <p>Potential land use conversion and development under the proposed ordinance could adversely affect resident or migratory wildlife corridors through habitat fragmentation, degradation of aquatic habitat (e.g., streams and rivers), or blockage of important wildlife migration paths. Impacts to movement corridors and habitat connectivity for these species would be potentially significant.</p>	PS	<p>waters of the United States by providing a buffer of at least 50 feet around these features.</p> <p><b>Mitigation 3.4-6a: Implement Mitigation Measure 3.4-5: Waters of the United States.</b></p> <p><b>Mitigation 3.4-6b: Retention of fisher and Humboldt marten habitat features</b></p> <p>The following shall be included as performance standards in the proposed ordinance for the protection of the habitat for fisher and Humboldt marten.</p> <ul style="list-style-type: none"> <li>▲ To minimize the potential for loss of or disturbance to fisher and Humboldt marten habitat, removal of old growth habitat shall be prohibited, as outlined in Mitigation Measure 3.4-3, Sensitive natural communities, riparian habitat, and wetland vegetation.</li> <li>▲ Habitat features within non-old growth habitat, such as large trees, large snags, coarse woody debris, and understory vegetation (e.g., shrubs) shall be retained within the site to the extent feasible, to maintain connectivity of fisher and marten habitat.</li> </ul>	LTS
<b>3.5 Cultural Resources</b>			
<p><b>Impact 3.5-1: Change in the significance of a historic resource.</b></p> <p>Future commercial cannabis operations associated with the proposed ordinance could be located on lands that contain, or are nearby historic resources. This could result in damage to or destruction of a historic building or structure, thereby resulting in a substantial adverse change in the significance of a historical resource as defined in Section 15064.5. This would be a potentially significant impact.</p>	PS	<p><b>Mitigation 3.5-1: Protection of historic resources.</b></p> <p>The following shall be included as performance standards in the proposed ordinance for the protection of historic resources.</p> <ul style="list-style-type: none"> <li>▲ Applicants shall identify and evaluate all historic-age (over 45-years in age) buildings and structures that are proposed to be removed and modified as part of cannabis operations. This will include preparation of an historic structure report and evaluation of resources to determine their eligibility for recognition under State, federal, or County Local Official Register of Historic Resources criteria. The evaluation shall be prepared by an architectural historian, or historical architect meeting the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation, Professional Qualification Standards. The evaluation shall comply with CEQA Guidelines Section 15064.5(b), and, if federal funding or permits are required, with Section 106 of the National Historic Preservation Act (NHPA) of 1966 (16 U.S.C. § 470 et seq.).</li> <li>▲ If resources eligible for inclusion in the NRHP, CRHR, or Local Official Register of Historic Resources are identified, an assessment of impacts on these resources shall be included in the report, as well as detailed measures to avoid impacts. If avoidance of a significant architectural/built environment</li> </ul>	LTS

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Impacts	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
<p><b>Impact 3.5-2: Disturb unique archaeological resources.</b>            Future commercial cannabis operations associated with the proposed ordinance could be located on properties that contain known or unknown archaeological resources and ground-disturbing activities could result in discovery or damage of yet undiscovered archaeological resources as defined in CEQA Guidelines Section 15064.5. This would be a potentially significant impact.</p>	PS	<p>resource is not feasible, additional mitigation options include, but are not limited to, specific design plans for historic districts, or plans for alteration or adaptive re-use of a historical resource that follows the Secretary of the Interior's <i>Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitation, Restoring, and Reconstructing Historic Buildings</i>.</p> <p><b>Mitigation 3.5-2: Avoid potential effects on unique archaeological resources.</b>            The following shall be included as performance standards in the proposed ordinance for the protection of archaeological resources.</p> <ul style="list-style-type: none"> <li>▲ Applicants for projects that include any ground disturbance shall retain a qualified archaeologist to conduct archaeological surveys of the site. The applicant shall follow recommendations identified in the survey, which may include activities such as subsurface testing, designing, and implementing a Worker Environmental Awareness Program, construction monitoring by a qualified archaeologist, avoidance of sites, or preservation in place.</li> <li>▲ All projects shall include the following requirements as a condition of approval: If evidence of any prehistoric or historic-era subsurface archaeological features or deposits are discovered during construction-related earth-moving activities (e.g., ceramic shard, trash scatters, lithic scatters), all ground-disturbing activity in the area of the discovery shall be halted and the County shall be notified immediately. A qualified archaeologist shall be retained to assess the significance of the find. If the find is a prehistoric archeological site, the appropriate Native American group shall be notified. If the archaeologist determines that the find does not meet NRHP or CRHR standards of significance for cultural resources, construction may proceed. If the archaeologist determines that further information is needed to evaluate significance, a data recovery plan shall be prepared. If the find is determined to be significant by the qualified archaeologist (i.e., because the find is determined to constitute either an historical resource or a unique archaeological resource), the archaeologist shall work with the project applicant to avoid disturbance to the resources, and if complete avoidance is not feasible in light of project design, economics, logistics, and other factors, follow accepted professional standards in recording any find including submittal of the standard DPR Primary Record forms (Form DPR 523) and location information to NCHC.</li> </ul>	LTS

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Impacts	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
<b>Impact 3.5-3: Discovery of human remains.</b> Previously undiscovered human remains could be discovered when soils are disturbed during construction of commercial cultivation and processing sites under the proposed ordinance. Compliance with California Health and Safety Code Sections 7050.5 and 7052 and California Public Resources Code Section 5097 would make this impact less than significant.	LTS	No mitigation is required.	LTS
<b>Impact 3.5-4: Change in the significance of a tribal cultural resource.</b> Consultation with the Blue Lake, Karuk, and Wiyot tribes resulted in refinements to the proposed ordinance that protect potential TCRs and any potential resources of tribal interest. Because no resources meet the criteria for a TRC under PRC Section 21074, this impact would be less than significant.	LTS	No mitigation is required.	LTS
<b>3.6 Geology and Soils</b>			
<b>Impact 3.6-1: Exposure of people or structures to risk of loss, injury or death resulting from rupture of a known earthquake fault or strong seismic shaking.</b> Implementation of the proposed ordinance would result in additional people and structures in a region susceptible to strong seismic shaking. All new development that would be related to the proposed ordinance would comply with state and local regulatory requirements related to seismic or geologic hazards (e.g., building codes and other laws and regulations), such that the exposure of people or structures to risk of loss, injury or death resulting from rupture of a known earthquake fault or strong seismic shaking would be avoided or reduced. This impact would be less than significant.	LTS	No mitigation is required.	LTS
<b>Impact 3.6-2: Potential to result in off-site landslide, lateral spreading, subsidence, liquefaction, or collapse due to unstable soil conditions or risk of like due to siting on expansive soil.</b> Parts of Humboldt County are characterized by steep slopes, landslides, expansive soils, and areas subject to risk of subsidence and liquefaction. Implementation of the ordinance could result in the exposure of people and property to risks associated with unstable or expansive soils. However, development associated with commercial cannabis cultivation and associated operations and existing cannabis cultivation operations would be required to comply with state and local regulatory requirements (e.g., building codes and other laws and regulations) related to geologic hazards, such that the risk to life or property through exposure to expansive or unstable soils because	LTS	No mitigation is required.	LTS

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Impacts	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
of the project would be reduced. Compliance with the proposed ordinance would also limit new cultivation sites to areas with slopes less than 15 percent, reducing the potential for individual projects to contribute to or be affected by future slope failure. This impact would be less than significant.			
<b>Impact 3.6-3: Potential for substantial soil erosion or loss of topsoil.</b> Implementation of the proposed ordinance could result in development of new structures and cultivation areas, water storage ponds, new roadways, or modification to existing roadways, which could include grading, terracing, and other earth-moving activities. The potential for substantial soil erosion or loss of topsoil from implementation of the ordinance would be reduced through implementation of performance standards related to water quality protection included in the ordinance and compliance with NCRWQOB Order R1-2015-0023 and, if applicable, the Construction General Permit requirements for development and implementation of a SWPPP. The project's impact on soil erosion and loss of topsoil would be less than significant.	LTS	No mitigation is required.	LTS
<b>Impact 3.6-4: Create adverse soil conditions resulting from use of septic tanks or alternative wastewater disposal systems.</b> Implementation of the proposed ordinance may lead to installation of septic tanks or alternative wastewater disposal systems on individual sites. Portions of the county may contain areas with soils not suitable for wastewater treatment. Such systems must be sited, designed, and constructed in accordance with applicable local requirements and the State Water Board's Onsite Wastewater Treatment System policy and seek approval from the Humboldt County Department of Health and Human Services, Environmental Health Division. Because the siting and design of wastewater disposal systems is governed by existing requirements, there would be a less-than-significant impact related to suitability of soils for septic tanks or alternative wastewater disposal systems.	LTS	No mitigation is required.	LTS
<b>Impact 3.6-5: Damage to or destruction of undiscovered paleontological resources</b> Future development of commercial cannabis facilities under the proposed ordinance could result in the damage or destruction of undiscovered paleontological resources. This would be a potentially significant impact.	PS	<b>Mitigation Measure 3.6-5 Protection of discovered paleontological resources.</b> The following shall be included as performance standards in the proposed ordinance for the protection of paleontological resources. ▲ If a paleontological discovery is made during construction, the contractor shall immediately cease all work activities in the vicinity (within approximately 100 feet) of the discovery and shall immediately contact the County.	LTS

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		<p>▲ A qualified paleontologist shall be retained to observe all subsequent grading and excavation activities in the area of the find and shall salvage fossils as necessary. The paleontologist shall establish procedures for paleontological resource surveillance and shall establish, in cooperation with the project developer, procedures for temporarily halting or redirecting work to permit sampling, identification, and evaluation of fossils. If major paleontological resources are discovered that require temporarily halting or redirecting of grading, the paleontologist shall report such findings to the County. The paleontologist shall determine appropriate actions, in cooperation with the applicant and the County, that ensure proper exploration and/or salvage. Excavated finds shall first be offered to a State-designated repository such as the Museum of Paleontology, University of California, Berkeley, or the California Academy of Sciences. Otherwise, the finds shall be offered to the County for purposes of public education and interpretive displays. The paleontologist shall submit a follow-up report to the County that shall include the period of inspection, an analysis of the fossils found, and the present repository of fossils.</p>	
<b>3.7 Hazards and Hazardous Materials</b>			
<p><b>Impact 3.7-1: Create a significant hazard through transport, use, or disposal of hazardous materials.</b></p> <p>Activities conducted under the proposed ordinance could create a hazard through the routine transport, use, or disposal of hazardous materials during construction or operational activities. However, compliance with existing, applicable rules and regulations specifically designed to protect the public health would be sufficient to preclude significant hazardous materials impacts. This impact would be less than significant.</p>	LTS	No mitigation is required.	LTS
<p><b>Impact 3.7-2: Create potential human hazards from exposure to existing on-site hazardous materials.</b></p> <p>Construction activities that disturb subsurface materials could encounter previously unidentified contamination from past practices, placement of undocumented fill, or even unauthorized disposal of hazardous wastes. Encountering these hazardous materials could expose workers, the public, or the environment to adverse effects depending on the volume, materials involved, and concentrations. In addition,</p>	PS	<p><b>Mitigation Measure 3.7-2a: Prepare Environmental Site Assessments</b></p> <p>The following shall be included as performance standards in the proposed ordinance for proposed development of commercial cannabis facilities on existing commercial, business park, or industrial sites:</p> <p>▲ Applications for new cannabis activities in commercial, business park, or industrial sites shall include a site assessment for the presence of potential hazardous materials, including an updated review of environmental risk databases. If this assessment indicates the presence or likely presence of</p>	LTS

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**Table ES-1 Summary of Impacts and Mitigation Measures**

Impacts	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
construction activities could expose naturally occurring asbestos. This would be a potentially significant impact.		<p>contamination, the applicant shall prepare a Phase I ESA in accordance with the American Society for Testing and Materials' E-1527-05 standard. For work requiring any demolition, the Phase I ESA shall make recommendations for any hazardous building materials survey work that shall be done. All recommendations included in a Phase I ESA prepared for a site shall be implemented. If a Phase I ESA indicates the presence or likely presence of contamination, the applicant shall prepare a Phase II ESA, and recommendations of the Phase II ESA shall be fully implemented prior to ground disturbance, which will be made a condition of approval for the project.</p> <p><b>Mitigation Measure 3.7-2b: Prepare a Hazardous Materials Contingency Plan for Construction Activities</b></p> <p>The following shall be included as performance standards in the proposed ordinance for proposed development of commercial cannabis facilities on existing commercial, business park, or industrial sites:</p> <p>▲ Applications for new cannabis activities in commercial, business park, or industrial sites shall include a hazardous materials contingency plan for review and approval by Humboldt County Division of Environmental Health.</p> <p>The plan shall describe the necessary actions that would be taken if evidence of contaminated soil or groundwater is encountered during construction. The contingency plan shall identify conditions that could indicate potential hazardous materials contamination, including soil discoloration, petroleum or chemical odors, and presence of USTs or buried building material. The plan shall include the provision that, if at any time during constructing the project, evidence of soil and/or groundwater contamination with hazardous material is encountered, the project applicant shall immediately halt construction and contact Humboldt County Division of Environmental Health. Work shall not recommence until the discovery has been assessed/treated appropriately (through such mechanisms as soil or groundwater sampling and remediation if potentially hazardous materials are detected above threshold levels) to the satisfaction of Humboldt County Division of Environmental Health, RWQCB, and DTSC (as applicable). The plan, and obligations to abide by and implement the plan, shall be incorporated into the conditions of approval for the project.</p>	

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**Table ES-1 Summary of Impacts and Mitigation Measures**

Impacts	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
<p><b>Impact 3.7-3: Create a significant hazard to the public or environment due to upset and accident conditions.</b></p> <p>Commercial cannabis facilities would not generally require intensive use of hazardous materials. Existing regulations effectively reduce the potential for individual projects to create a hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials. This impact would be less than significant.</p>	LTS	No mitigation is required.	LTS
<p><b>Impact 3.7-4: Emit hazardous emissions or handle hazardous materials within 0.25 mile of a school.</b></p> <p>Cultivation sites are not anticipated to use large quantities of hazardous materials. Materials used in processing and extraction would be used in accordance with applicable regulations to limit the potential for accident or upset conditions. Setbacks from school sites are required in the proposed ordinance. This impact would be less than significant.</p>	LTS	No mitigation is required.	LTS
<p><b>Impact 3.7-5: Result in a safety hazard for people residing or working in a project area that is located within 2 miles of a public airport or private use airport.</b></p> <p>Applications for new cannabis-related development near public airports would be required to comply with the applicable ALUCP. Further, development subject to the proposed ordinance would not result in new sensitive land uses or attract dense populations. The proposed ordinance would not create a safety hazard for people working or residing near a public or private airport. This impact would be less than significant.</p>	LTS	No mitigation is required.	LTS
<p><b>Impact 3.7-6: Impair emergency response or evacuation plans.</b></p> <p>Future commercial cannabis facilities that would be allowed under the proposed ordinance would not impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan. This impact would be less than significant.</p>	LTS	No mitigation is required.	LTS
<p><b>Impact 3.7-7: Create a significant risk from wildfires.</b></p> <p>Commercial cannabis activities in rural areas, areas designated as High Fire Hazard Severity Zones, or at the urban-wildland interface could expose workers, structures, and firefighters to risk of loss from wildfire hazards. This hazard would not be substantially worse than that for other types of land uses in the same areas, and would be reduced compared to existing cannabis cultivation occurring under baseline</p>	LTS	No mitigation is required.	LTS

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**Table ES-1 Summary of Impacts and Mitigation Measures**

Impacts	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
conditions. Existing laws would be anticipated to reduce potential impacts. This impact would be less than significant.			
<b>3.8 Hydrology and Water Quality</b>			
<b>Impact 3.8-1: Construction water quality impacts.</b> New and modifications to existing commercial cannabis operations in the County that may occur under the proposed ordinance would require ground-disturbing activities that could result in erosion and sedimentation, leading to degradation of water quality. Construction related to commercial cannabis operations would be subject to compliance with North Coast Regional Water Quality Control Board and County regulations that require water quality controls for construction to prevent impacts to water quality. Thus, potential water quality impacts may occur during construction and would be considered less than significant.	LTS	No mitigation is required.	LTS
<b>Impact 3.8-2: Operational water quality impacts.</b> Commercial cannabis operations in the County that may occur under the proposed ordinance have the potential to modify surface drainage and flows in such a manner that increased sedimentation and erosion could take place, leading to water quality degradation. The long-term operational use of pesticides, fertilizers, and other chemicals can also have a negative effect on water quality and ultimately affect the health and sustainability of organisms that rely on high quality waters. As a result, potential impacts would be significant.	S	<b>Mitigation Measure 3.8-2: Minimum Size of Commercial Cultivation Activities</b> The County shall amend the proposed ordinance to require compliance with the requirements of North Coast RWQCB Order 2015-0023 or any subsequent water quality standards to apply to all new commercial cannabis cultivation operations and not limited by a minimum cultivation area size.	LTS
<b>Impact 3.8-3: Groundwater supply impacts.</b> Commercial cannabis operations in the County that may occur under the proposed ordinance have the potential to deplete local groundwater supplies and affect adjacent wells as a result of cultivation water demands. The proposed ordinance provisions include requirements for testing and protection of neighboring wells as part of new well installation. While these requirements would address the potential effects of short-term well operation, it is not known if operation of wells for cannabis cultivation over an extended period could result in isolated locations that affect the operability of adjacent wells. As a result, this would be potentially significant impact.	PS	<b>Mitigation Measure 3.8-3: Annual groundwater monitoring and adaptive management.</b> The following requirement will be included as an additional performance standard of the ordinance associated wells on small parcels: <ul style="list-style-type: none"> <li>As part of the ordinance's annual inspection process, cultivation operators shall provide the County with groundwater monitoring data for on-site well facilities that documents well production and changes in groundwater levels during each month of the year. Should this monitoring data identify potential drawdown impacts to adjacent well(s) and indicate a connection to operation of the on-site wells, the cultivation operators, in conjunction with the County, shall develop adaptive management measures to allow for recovery of groundwater levels. Adaptive management measures may include forbearance (e.g., prohibition of groundwater extraction from the months of May to October), water conservation measures, reductions in on-site cannabis</li> </ul>	LTS

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**Table ES-1 Summary of Impacts and Mitigation Measures**

Impacts	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
<b>Impact 3.8-4: Surface drainage impacts on on-site and offsite flooding.</b> Commercial cannabis operations in the County that may occur under the proposed ordinance could alter local drainage characteristics of individual sites and influence on-site or off-site flooding. As a result, impacts would be potentially significant.	PS	cultivation, alteration of the groundwater pumping schedule, or other measures determined appropriate. Adaptive management measures will remain in place until groundwater levels have recovered based on annual monitoring data provided to the County as part of subsequent annual inspections.  <b>Mitigation Measure 3.8-4: Provision of drainage facilities to attenuate increases in drainage flows.</b> The County shall include the following drainage requirement in the proposed ordinance application requirements: <ul style="list-style-type: none"> <li>Applications will provide details of drainage facilities and stormwater management. This will include a drainage analysis of increases or alteration of on-site and off-site drainage flows from project facilities and identification of drainage swales, detention basins, or other facilities that will ensure that the project will retain pre-project drainage conditions.</li> </ul>	LTS
<b>Impact 3.8-5: Effects of diversion of surface water.</b> New commercial cannabis cultivation operations in the County that may occur under the proposed ordinance could result in decreased flow rates on County streams and rivers because of surface water diversion. Low flows are associated with increased temperature and may also aggravate the effects of water pollution. While available data indicates that some rivers in Humboldt County would not be substantially affected by surface water demand during typical water years, data is not available for the potential effects on individual tributaries. Thus, substantial decreases to some individual tributary flows could occur, which could result in degraded water quality conditions. This impact would be potentially significant.	PS	<b>Mitigation 3.8-5: Implement water diversion restrictions and monitoring and reporting requirements.</b> The text of the proposed ordinance shall be modified to align with the State Water Resources Control Board Cannabis Cultivation Policy when it is approved, which may include the following measures that are in the draft policy as of July 1, 2017: <ul style="list-style-type: none"> <li>The period of forbearance shall extend from April 1 through October 31 of each year, and be subject to the following additional restrictions: <ul style="list-style-type: none"> <li>From November 1 through December 14 of each year, the surface water diversion period shall not begin until after seven consecutive days in which the surface waterbody's real-time Numeric Flow Requirement are met (see Appendix E).</li> <li>From December 15 through March 31 of each surface water diversion period, surface water diversion may occur on any day in which the surface waterbody's real-time daily average flow is greater than the Numeric Flow Requirement (see Appendix E).</li> <li>Groundwater users will be required to demonstrate that the groundwater source is not hydrologically connected to an adjacent surface water feature and is not subject to the forbearance requirements through the establishment of a flow gage in the stream or river and groundwater pumping tests to monitor and verify no connection to the satisfaction of the</li> </ul> </li> </ul>	LTS

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**Table ES-1 Summary of Impacts and Mitigation Measures**

Impacts	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
		<p>County and/or State Water Resources Control Board. The monitoring and testing protocol shall be reviewed and approved by the County and/or State Water Resources Control Board prior installation of the well and flow gage.</p> <ul style="list-style-type: none"> <li>➤ Cannabis cultivators shall bypass a minimum of 50 percent of the surface water flow past their point of diversion, as estimated based on visually observing surface water flow at least daily.</li> <li>➤ Water diversion rates may be further restricted in a manner to provide minimum instream flow requirements needed for fish spawning, migration, and rearing, and the flows needed to maintain natural flow variability by the State Water Resources Control Board and/or California Department of Fish and Wildlife as part of state surface water diversion approvals in circumstances where multiple diversions existing along a single waterway.</li> <li>➤ The cannabis cultivator shall not divert more than a maximum instantaneous diversion rate of 10 gallons per minute, unless authorized under an existing appropriative water right.</li> <li>➤ Cannabis cultivators shall plug, block, cap, disconnect, or remove diversion intake structures associated with cannabis cultivation activities during the source water forbearance period, unless the diversion intake is used for other beneficial uses.</li> <li>➤ Diverted water storage systems for cannabis cultivation shall be separated from storage systems used for other beneficial uses within a cultivation site.</li> <li>➤ Cannabis cultivation shall inspect for leaks in mainlines, laterals, in-irrigation connections, sprinkler headers, and/or the ends of drop tape and feeder lines on a monthly basis. Any leaks discovered shall be immediately repaired upon detection. Worn, outdated, or inefficient irrigation system components and equipment shall be regulatory replaced to ensure a properly function, leak-free irrigation system at all times. Records of the date of inspections, repairs, and replacements shall be maintained.</li> <li>➤ Cannabis cultivators shall retain irrigation, inspection, and repair records at the cannabis cultivation site and shall make all records available for review by the Water Boards, CDFW, and the County upon request for a period of 10 years.</li> </ul>	

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**Table ES-1 Summary of Impacts and Mitigation Measures**

		Significance before Mitigation	Mitigation Measure	Significance after Mitigation
<b>3.9</b>	<b>Land Use and Planning</b>			
<b>Impact 3.9-1: Potential for physical division of an established community.</b> Commercial cannabis operations in the County that may occur under the proposed ordinance could create land use conflicts, including potential physical division of established communities, if not regulated properly. The proposed ordinance contains permitting requirements that would manage conditions that create public nuisances by enacting restrictions on the location, type, and size of cannabis cultivation sites and commercial activities in Humboldt County, as well as other permitting requirements such as setbacks, security, and other protective measures. Because the project would include the above permitting requirements, land use conflicts that could result in the division of established communities would not occur. Therefore, this impact would be less than significant.		LTS	No mitigation is required.	LTS
<b>Impact 3.9-2: Conflict with relevant plans, policies, and zoning adopted for the purpose of avoiding or mitigating an environmental effect.</b> The Humboldt County General Plan contains policies that protect natural resource lands, direct growth on community development lands, and promote land use compatibility. The proposed ordinance would amend the Humboldt County Code that implements the General Plan land use policy direction, and would be consistent with General Plan land use provisions. Further, the proposed ordinance contains permitting requirements that provides a mechanism for the County to ensure compliance with relevant plans and policies adopted for the purpose of avoiding or mitigating an environmental effect. Therefore, this impact would be less than significant.		LTS	No mitigation is required.	LTS
<b>3.10</b>	<b>Noise</b>			
<b>Impact 3.10-1: Short-term, construction-related noise.</b> Construction of new commercial cannabis operations in the County that may occur under the proposed ordinance would involve the use of heavy off-road equipment that would increase noise levels at nearby land uses. All construction-generated noise would be temporary; however, nearby noise-sensitive receptors could be exposed to excessive noise levels during construction. Therefore, this impact would be potentially significant.		PS	<b>Mitigation Measure 3.10-1: Implement construction-noise reduction measures.</b> The County shall include the following construction noise requirement for new commercial cannabis operations and modifications to existing commercial cannabis operations in the ordinance: <ul style="list-style-type: none"> <li>▲ All outdoor construction activity and use of heavy equipment outdoors shall take place between 7:00 a.m. and 6:00 p.m., Monday through Friday, and between 9:00 a.m. and 6:00 p.m. on Saturday and Sunday.</li> </ul>	LTS

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Impacts	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
<b>Impact 3.10-2: Long-term non-transportation operational noise.</b> Commercial cannabis operations in the County that may occur under the proposed ordinance could generate increased noise levels as a result of the use of specialized, mechanized equipment, as determined necessary for individual sites. However, the use of mechanized equipment would be temporary and periodic in nature and adjacent land uses would not be exposed to noise levels that exceed noise standards in the Humboldt County General Plan land use/noise compatibility standards. Additionally, the setback requirements in the proposed ordinance would prevent sensitive uses from being exposed to excessive noise levels during each harvest. Therefore, this impact would be less than significant.	LTS	No mitigation is required.	LTS
<b>Impact 3.10-3: Long-term traffic noise levels.</b> Commercial cannabis operations in the County that may occur under the proposed ordinance could result in increased traffic volumes on associated roadways and highways in the county, particularly during fall harvest season when the need for workers is highest. However, increased traffic volumes would not result in a noticeable increase in traffic noise (i.e., 3 dB or greater). Therefore, this impact would be less than significant.	LTS	No mitigation is required.	LTS
<b>3.11 Public Services</b>			
<b>Impact 3.11-1: Result in substantial adverse physical impacts associated with the need for new or physically altered fire protection facilities.</b> Commercial cannabis operations and production that would result with implementation of the proposed ordinance could increase the demand for fire protection services, but because of the nature of the activities would not trigger the need for new or altered fire protection facilities. Compliance with existing building, electrical, and fire code regulations as well as roadway access performance standards set forth in the proposed ordinance would provide a sufficient level of fire prevention and access such that fire protection services and response times would not be substantially affected. Thus, fire protection service impacts and facility needs would be less than significant.	LTS	No mitigation is required.	LTS
<b>Impact 3.11-2: Result in substantial adverse physical impacts associated with the need for new or physically altered law enforcement facilities.</b> Commercial cannabis production and operation under the proposed ordinance would not require increased law enforcement services that would result in the need for new or	LTS	No mitigation is required.	LTS

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**Table ES-1 Summary of Impacts and Mitigation Measures**

Impacts	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
altered facilities. Potential impacts related to law enforcement services would be less than significant.			
<b>3.12 Transportation and Circulation</b>			
<b>Impact 3.12-1: Construction-related increase in traffic.</b> Commercial cannabis operations in the County that may occur under the proposed ordinance would involve construction activities. These construction activities would result in an increase in vehicular trips associated with construction workers traveling to and from construction sites. However, the increase in trips associated with construction at commercial cannabis operations would be minimal, dispersed throughout the larger roadway network serving the County, and staggered over an extended period of time. Thus, this impact is less than significant.	LTS	No mitigation is required.	LTS
<b>Impact 3.12-2: Long-term increase in traffic.</b> New commercial cannabis operations in the County that may occur under the proposed ordinance would result in the addition of vehicle trips to existing traffic levels on the state highway system within Humboldt County. This increase would be greatest during the fall harvest, but would not result in the LOS degrading below LOS C along any of the State highway segments analyzed. Therefore, LOS would not exceed existing LOS standards. This impact is considered less than significant.	LTS	No mitigation is required.	LTS
<b>Impact 3.9-3: Potential for inadequate emergency access.</b> Commercial cannabis operations in the County that may occur under the proposed ordinance would be required to be in compliance of Chapter 10 – Fire Safe Regulations of the Humboldt County Code and performance standards for access to roadway system that meets the County's Category 4 road standard. Thus, the project would result in a less-than-significant impact on emergency access.	LTS	No mitigation is required.	LTS
<b>3.13 Utilities and Service Systems</b>			
<b>Impact 3.13-1: Exceed wastewater treatment requirements or wastewater treatment capacity and related infrastructure.</b> New commercial cannabis facilities that would be allowed under the proposed ordinance could result in increased wastewater service demand for public wastewater systems that may not have adequate capacity. Commercial cannabis operations involving manufacturing, retail nurseries, processing, and distribution that would result with implementation of the proposed ordinance would generate wastewater that could	PS	<b>Mitigation Measure 3.13-1a: Prepare a treatment program for all new indoor cultivation and non-cultivation activities.</b> Applicants for new commercial indoor cultivation and non-cultivation cannabis operations shall prepare a materials management program that will address each permit type sought within a site. The program shall include: ▲ a detailed description of activities and processes occurring on site, including: ► equipment type and number;	LTS

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**Table ES-1 Summary of Impacts and Mitigation Measures**

Impacts	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
contain contaminants that cannot be adequately treated by existing public wastewater treatment systems. This impact would be potentially significant.		<ul style="list-style-type: none"> <li>➤ detailed standard operating procedures for processes;</li> <li>➤ chemical requirements and reactions;</li> <li>➤ cleaning procedures for equipment; and</li> <li>➤ disposal methods for all materials (e.g., plant materials, solvents, empty containers), and</li> <li>▲ type and quantity of items produced;</li> <li>➤ Material Safety Data Sheets for all chemical substances occurring on site;</li> <li>➤ manifests for each chemical describing quantities purchased, date used, and quantities disposed;</li> <li>➤ facility site plan with storage map, showing where hazardous materials will be stored;</li> <li>➤ an inventory of all emergency equipment with the location and description of items, including:               <ul style="list-style-type: none"> <li>▪ personal protective equipment;</li> <li>▪ fire extinguishing systems;</li> <li>▪ spill control equipment and decontamination equipment, and</li> <li>▪ communication and alarm systems.</li> <li>▪ an employee training plan that includes:</li> <li>▪ emergency response procedures and incident reporting, and</li> <li>▪ chemical handling procedures.</li> </ul> </li> </ul> <p>The materials management program shall be submitted to Humboldt County Division of Environmental Health and public agencies or private enterprises accepting waste materials, including CSDs and waste transfer stations. Commercial cannabis permits shall not be granted without approval of the materials management program relevant agencies.</p> <p><b>Mitigation Measure 3.13-1b: Verification of adequate wastewater service and necessary improvements for public wastewater systems.</b></p> <p>Applicants shall determine whether sufficient wastewater treatment capacity exists for a proposed project. These determinations must ensure that the proposed development can be served by its existing or planned treatment capacity and wastewater conveyance through approval of the relevant service provider. If adequate capacity does not exist, applicants shall coordinate with the relevant service provider</p>	

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**Table ES-1 Summary of Impacts and Mitigation Measures**

Impacts	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
<b>Impact 3.13-2: Provision of sufficient water supplies and infrastructure needs.</b> New commercial cannabis facilities that would be allowed under the proposed ordinance would result in increased water demand from public water systems that could exceed supply and related infrastructure. This impact would be significant.	S	to ensure that adequate improvements are made to accommodate the increased demand, and if not, infrastructure improvements for the appropriate public service or utility shall be identified. The relevant public service provider or utility shall be responsible for undertaking project-level review as necessary to provide CEQA clearance and implementation of adopted mitigation measures for new facilities.  <b>Mitigation Measure 3.13-2: Verification of adequate water supply and service for municipal water service.</b> The County shall include the following additional water supply verification requirements in the ordinance for all new commercial cannabis operations that plan to obtain municipal water service: ▲ Applicants for new commercial cannabis operations that plan to obtain water from CSD or other entities will obtain, and provide to the County, written verification from the water service provider that adequate water supply is available to serve the site. If adequate capacity does not exist, applicants shall coordinate with the relevant service provider to ensure that adequate improvements are made to accommodate the increased demand, and if not, infrastructure improvements for the appropriate public service or utility shall be identified. The relevant public service provider or utility shall be responsible for undertaking project-level review as necessary to provide CEQA clearance for new facilities.	SU
<b>Impact 3.13-3: Potential to be served by a landfill with insufficient capacity or violate existing statutes related to solid waste.</b> Future commercial cannabis facilities that would be allowed under the proposed ordinance would generate solid waste from various materials and containers used during cultivation (e.g., soils, fertilizers, pesticides, pots), as well as household trash from workers, discarded irrigation tubing, discarded soil, and other equipment. Cannabis processing activities may result in increased levels of hazardous waste or plant materials requiring disposal. While individual sites may contribute only small amounts of hazardous and non-hazardous wastes, periods of cultivation, such as harvest, may result in the contribution of many sites such that acceptance rates are exceeded. Thus, this impact would be potentially significant.	PS	<b>Mitigation Measure 3.13-3:</b> Implement Mitigation Measure 3.13-1a: Prepare a treatment program for all new indoor cultivation and non-cultivation activities.	LTS

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Impacts	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
<b>3.14 Energy</b>			
<b>Impact 3.14-1: Wasteful, inefficient, and unnecessary consumption of energy.</b> The proposed ordinance would increase electricity and natural gas consumption at future sites relative to existing conditions for temporary construction activities as well as long-term operational activities. The energy needs for construction of commercial cannabis cultivation sites and non-cultivation sites would be temporary and would not require additional capacity or increase peak or base period demands for electricity or other forms of energy. Further, the proposed ordinance would require all new cultivation and non-cultivation sites to derive its energy from up to 100 percent renewable energy sources. Existing outdoor or mixed-light cultivation operations that are not on the grid would be required to obtain at least 80 percent of their energy demand from renewable sources. Therefore, the project would not result in wasteful, inefficient, and unnecessary consumption of energy. Thus, the impact would be less than significant.	LTS	No mitigation is required.	LTS
<b>Impact 3.14-2: Demand for energy services and facilities.</b> Adequate infrastructure and capacity for energy services and facilities exist within portions of the County for future commercial cannabis activities resulting from the ordinance. The proposed ordinance requires all sites conducting cultivation or supportive activities to be supplied from on-grid power from either 100 percent renewable sources, on-grid power with purchase of carbon offset from an accredited source, or on-site zero net energy provided by a renewable source. Existing outdoor and mixed-light cannabis cultivation operations not on the grid that apply for a permit under the proposed ordinance would be required to obtain at least 80 percent of their energy demand from renewable sources. These requirements within the ordinance would reduce new energy demand beyond the existing capacity of energy services or facilities in the County. Thus, this impact would be less than significant.	LTS	No mitigation is required.	LTS

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# 1 INTRODUCTION

This draft environmental impact report (Draft EIR) evaluates the potential environmental impacts of the proposed amendments to Humboldt County Code regulating commercial cannabis activities (proposed ordinance or project). This Draft EIR has been prepared under the direction of Humboldt County in accordance with the requirements of the California Environmental Quality Act (CEQA) (Public Resources Code [PRC] Section 21000–21177) and the State CEQA Guidelines (California Code of Regulations [CCR], Title 14, Division 6, Chapter 3, Sections 15000–15387). The County is the lead agency for consideration of this EIR and potential project approval.

Humboldt County has existing ordinances regulating commercial medical cannabis activities, including the Commercial Medical Marijuana Land Use Ordinance (Ordinance No. 2544, adopted February 26, 2016 and was modified on September 13, 2016 (Ordinance 2559). The project would involve the repeal of the County's existing Commercial Medical Marijuana Land Use Ordinance (Section 313-55.4 and 314-55.4 of Chapter 3 of Division 1 of Title III of the County Code) as well as repeal of the Medical Cannabis Testing and Research Laboratories provisions and on-site consumption prohibition found in Sections 313-55.3.15, 314-55.3.15, 313-55.3.11.7 and 314-55.3.11.7 of Division 1 of Title III of the County Code, respectively. These regulations would be replaced by the provisions of the proposed ordinance, which would establish land use regulations for the commercial cultivation, processing, manufacturing, distribution, testing, and sale of cannabis within the County.

## 1.1 PURPOSE AND INTENDED USES OF THIS DRAFT EIR

CEQA requires that public agencies consider the potentially significant adverse environmental effects of projects over which they have discretionary approval authority before taking action on those projects (PRC Section 21000 et seq.). CEQA also requires that each public agency avoid or mitigate to less-than-significant levels, wherever feasible, the significant adverse environmental effects of projects it approves or implements. If a project would result in significant and unavoidable environmental impacts (i.e., significant effects that cannot be feasibly mitigated to less-than-significant levels), the project can still be approved, but the lead agency decision-maker, in this case the Humboldt County Board of Supervisors, must prepare findings and issue a “statement of overriding considerations” explaining in writing the specific economic, social, or other considerations that they believe, based on substantial evidence, make those significant effects acceptable (PRC Section 21002, CCR Section 15093).

According to CEQA Guidelines Section 15064(f)(1), preparation of an EIR is required whenever a project may result in a significant adverse environmental impact. An EIR is an informational document used to inform public agency decision makers and the public of the significant environmental effects of a project, identify possible ways to mitigate or avoid the significant effects, and describe a range of reasonable alternatives to the project that could feasibly attain most of the basic objectives of the project while substantially lessening or avoiding any of the significant environmental impacts. Public agencies are required to consider the information presented in the EIR when determining whether to approve a project.

In accordance with CEQA Guidelines Section 15168, this document is a program EIR that examines the environmental impacts of a series of actions (e.g., issuing discretionary permits or zoning clearance certificates). This type of EIR focuses on the changes in the environment that would result from the issuance of rules, regulations, plans, or other general criteria attributable to a continuing program. In accordance with CEQA Guidelines Section 15168, a program EIR must examine the county-wide environmental effects of the entire program and potential actions carried out as part of the program, including construction and operational activities.

This program EIR would be used by the County to streamline environmental review of subsequent site-specific/individual application actions implementing the proposed ordinance as provided for under CEQA Guidelines Section 15168(c), “Use with Later Activities,” and 15168(d), “Use with Subsequent EIRs and Negative Declarations.” The program EIR may also be used by the California Department of Food and Agriculture for its licensing actions (California Department of Food and Agriculture 2017: 1-6).

Because it has principal authority over approval of the project, Humboldt County is the lead agency, as defined by CEQA, for this EIR. Other public agencies that may have jurisdiction over the project and subsequent actions related to the project are listed below in Section 1.3, “Agency Roles and Responsibilities.”

## 1.2 SCOPE OF ENVIRONMENTAL ANALYSIS

Pursuant to CEQA and the State CEQA Guidelines, a lead agency shall focus an EIR’s discussion on significant environmental effects and may limit discussion on other effects to brief explanations about why they are not significant (PRC Section 21002.1, CCR Section 15128). Potentially significant impacts were identified based on review of comments received as part of the public scoping process (Appendix A) and additional research and analysis of relevant project data during preparation of this Draft EIR.

The County has determined that the project has the potential to result in significant environmental impacts on the following resources, which are addressed in detail in this Draft EIR:

- ▲ Aesthetics
- ▲ Agriculture and Forestry Resources
- ▲ Air Quality and Greenhouse Gas Emissions
- ▲ Biological Resources
- ▲ Cultural Resources
- ▲ Geology and Soils
- ▲ Hazards and Hazardous Materials
- ▲ Hydrology and Water Quality
- ▲ Land Use and Planning
- ▲ Noise
- ▲ Public Services
- ▲ Transportation and Circulation
- ▲ Utilities and Service Systems
- ▲ Energy

### 1.2.1 Effects Found Not to be Significant

CEQA allows a lead agency to limit the detail of discussion of environmental effects that are not potentially significant (PRC Section 21100, CCR Sections 15126.2[a] and 15128). Based on a review of comments received as part of the public scoping process (Appendix A) as well as additional research and analysis of relevant project data during preparation of this Draft EIR, it was determined, for reasons described below, that the project would not result in significant environmental impacts in the following areas. Accordingly, these resources are not addressed further in this Draft EIR.

- ▲ Mineral Resources
- ▲ Recreation
- ▲ Population and Housing

## MINERAL RESOURCES

Development under the project would permit land for commercial cannabis activities (depending on the zoning district, the parcel size, and whether the parcel is coastal or inland; see Chapter 2, “Project Description,” for more details). Commercial cultivation operations would not involve permanent facilities and structures that would prohibit future access to mineral resources. Commercial distribution and nurseries, testing centers, and community propagation centers would be primarily located within designated commercial and industrial land areas that do not support mineral resource production. As a result, implementation of the project would not result in the loss of availability of or preclude the recovery of mineral resources within the County. Therefore, no significant impacts to mineral resources would occur and this issue is not discussed further.

## POPULATION AND HOUSING

The project would not induce substantial population growth, displace housing, or displace people, and would not necessitate the construction of replacement housing elsewhere. Commercial cultivation would be required to be setback from residential uses. Commercial distribution and nurseries, testing centers, and community propagation centers would be located within designated commercial and industrial land areas. Therefore, no significant impacts to population and housing would occur and this issue is not discussed further in this EIR. The potential for growth-inducing effects, however, is considered, as required by CEQA, in Chapter 5, "Other CEQA Sections."

## RECREATION

Implementation of the project would not directly result in increased usage of recreational facilities. In addition, as noted above, the project would not result in a substantial increase in countywide population such that indirect impacts to recreational facilities could occur. Furthermore, the project requires that any development related to the project adhere to a 600-foot buffer from sensitive land uses, including public parks, such that impacts to recreational facilities would be avoided. Therefore, no significant impacts to recreation would occur and this issue is not discussed further in this EIR.

## 1.3 AGENCY ROLES AND RESPONSIBILITIES

This Draft EIR will be used by the County and CEQA responsible and trustee agencies to determine their respective CEQA requirements are met before deciding whether to approve or permit project elements over which they have jurisdiction. It may also be used by other state and local agencies with an interest in resources affected by the project.

### 1.3.1 Lead Agency

For this EIR, Humboldt County is the lead agency under CEQA, as defined in Section 15367 of the State CEQA Guidelines.

### 1.3.2 Responsible and Trustee Agencies

Under CEQA, a responsible agency is a public agency, other than the lead agency, that has responsibility to carry out or approve a project (PRC Section 21069). A trustee agency is a state agency that has jurisdiction by law over natural resources that are held in trust for the people of the State of California (PRC Section 21070).

The following federal, responsible, and trustee agencies may have jurisdiction over elements of the project:

- ▲ U.S. Army Corps of Engineers,
- ▲ California Coastal Commission,
- ▲ California Department of Consumer Affairs, Bureau of Cannabis Regulation
- ▲ California Department of Fish and Wildlife, Region 1,
- ▲ California Department of Food and Agriculture,
- ▲ California Department of Forestry and Fire Protection,
- ▲ California Department of Parks and Recreation,
- ▲ California Department of Pesticide Regulation,
- ▲ California Department of Public Health,
- ▲ California Department of Transportation, District 1,
- ▲ California Department of Water Resources,

- ▲ North Coast Regional Water Quality Control Board (Region 1),
- ▲ North Coast Unified Air Quality Management District, and
- ▲ State Water Resource Control Board.

## 1.4 CEQA PUBLIC REVIEW PROCESS

### 1.4.1 Notice of Preparation

In accordance with PRC Section 21092 and CEQA Guidelines Section 15082, the County issued a notice of preparation (NOP) to inform agencies and the public that an EIR was being prepared and to invite comments on the scope and content of the document (Appendix A). The NOP was submitted to the State Clearinghouse; posted on the County's website (<https://humboldt.gov.org/2308/Cannabis-EIR>); posted with the Humboldt County Clerk; and made available at the Humboldt County Planning and Building Department. In addition, the NOP was distributed directly to public agencies (including federal, responsible, and trustee agencies), interested parties, and individuals who had previously requested such notices. Finally, a press release was issued by the County on April 7, 2017. The NOP was circulated from April 6, 2017 through May 9, 2017 (a 34-day review period).

In accordance with PRC Section 21083.9 and CEQA Guidelines Section 15082(c), a noticed scoping meeting for the EIR occurred on May 12, 2017 at the Sequoia Conference Center in Eureka, CA.

The purpose of an NOP is to provide sufficient information about the project and its potential environmental impacts to allow agencies and interested parties the opportunity to provide a meaningful response related to the scope and content of the EIR, including mitigation measures that should be considered and alternatives that should be addressed (CCR Section 15082[b]). Comments submitted in response to the NOP are used by the lead agency to identify broad topics to be addressed in the EIR. All comments on environmental issues received during the NOP public comment period are considered and addressed in this Draft EIR. Appendix A contains the comment letters submitted during the NOP public comment period.

Table 1-1 provides a summary of NOP comments and where they are addressed in this Draft EIR.

<b>Table 1-1 Summary of NOP Comments</b>		
<b>Commenter</b>	<b>Summary of Issue</b>	<b>Location of Where it is Addressed in the EIR</b>
<b>State</b>		
Department of Fish and Wildlife	Due to HPBD's lack of regulatory oversight and enforcement in minimizing environmental impacts of cannabis cultivation, CDFW has had to address the resulting rampant violations of County Code, Fish and Game Code, and Water Quality Code.	Section 3.4, "Biological Resources," and Section 3.8, "Hydrology and Water Quality"
	Recommends assessing carrying capacity of watersheds to support cultivation.	Section 3.8, "Hydrology and Water Quality"
	HPBD does not have the means to enforce mitigation proposed in the existing land use ordinance.	Section 3.4, "Biological Resources," and Section 3.8, "Hydrology and Water Quality"
	CDFW has spent considerable amounts of staff time and resources investigating environmental impacts resulting from cultivation. These investigations have led to issuance of hundreds of NOV's and filing of cases with the County's DA office. Efforts to increase cultivation in the County should not be permitted until enforcement is evaluated.	Section 3.4, "Biological Resources," and Section 3.8, "Hydrology and Water Quality"

**Table 1-1 Summary of NOP Comments**

Commenter	Summary of Issue	Location of Where it is Addressed in the EIR
Department of Fish and Wildlife (continued)	Cultivation impacts have included habitat fragmentation, habitat loss, reduction in instream flow, pesticides in streams, and delivery of sediment, nutrients, and petroleum products. Unpermitted land use development has included road building, grading, pond construction, stream crossing construction, and hydrologic modification (i.e., rerouting streams, groundwater interception from poorly constructed road systems)	Section 3.4, "Biological Resources," and Section 3.8, "Hydrology and Water Quality"
	Additional impacts CDFW staff have documented include: degraded water quality; degraded habitat due to inappropriate development location; development within riparian buffers; loss and degradation of wetland habitat; wildlife entanglement and mortality from site hazards (ex. plastic mesh); wildlife entrapment; fish passage barriers from poorly designed water diversions; altered natural photoperiods from light pollution; introduction of nonnative species.	Section 3.4, "Biological Resources," and Section 3.8, "Hydrology and Water Quality"
	County should ensure availability of adequate funding and staff to meaningfully enforce permitted operations as well as non-compliant operations.	Section 3.4, "Biological Resources," and Section 3.8, "Hydrology and Water Quality"
	New Code should include specific penalties or remedies for permit non-compliance and post-permit environmental remediation as well as adequate staffing to conduct enforcement and compliance review.	Section 3.4, "Biological Resources," and Section 3.8, "Hydrology and Water Quality"
	The overuse of surface water diversions from cultivations continues to have a significant impact on aquatic resources.	Section 3.4, "Biological Resources," and Section 3.8, "Hydrology and Water Quality"
	Require pond development approvals as a condition of cultivation permit approval.	Section 3.4, "Biological Resources," and Section 3.8, "Hydrology and Water Quality"
	Require wetland delineation and recommended buffers if surface waters are on site.	Section 3.4, "Biological Resources," and Section 3.8, "Hydrology and Water Quality"
	Prohibit placement of permanent structures within the 100-year floodplain of streams and rivers.	Section 3.4, "Biological Resources," and Section 3.8, "Hydrology and Water Quality"
	Use of light at night for indoor cultivation should be prohibited, enforced, and monitored. Analyze impact of potential night lighting on wildlife.	Section 3.1, "Aesthetics" and Section 3.4, "Biological Resources"
	Analyze chronic noise exposure impacts to wildlife and effective avoidance or mitigation.	Section 3.4, "Biological Resources," and Section 3.10, "Noise"
	Address potential for incidental take of any CESA-listed species and cumulative impacts to Coho salmon from surface water diversion.	Section 3.4, "Biological Resources"
	Define criteria of "viable" water source and "whether groundwater is "non-hydrologically connected."	Section 3.8, "Hydrology and Water Quality"
	Address impacts of existing and proposed cultivation-related road construction, including habitat fragmentation and impacts to sensitive aquatic habitats and species.	Section 3.4, "Biological Resources," and Section 3.8, "Hydrology and Water Quality"
	Amended County Code should not allow new or expanded cultivation on forested parcels	Section 3.2, "Agriculture and Forest Resources"
	Impacts resulting from fuel breaks	Section 3.11, "Public Services"



**Table 1-1 Summary of NOP Comments**

Commenter	Summary of Issue	Location of Where it is Addressed in the EIR
Department of Fish and Wildlife (continued)	Establish maximum limits of allowable cultivation as a proportion of watershed size to minimize cumulative impacts.	Section 4.3, "Cumulative Impact Analysis"
	Define and disclose criteria that the County shall use to determine whether a cultivation project requires site-specific CEQA review	Chapter 1, "Introduction"
	Analyze effectiveness of mitigation measures under the current program in avoiding, minimizing, or reducing environmental impacts of cultivation sites, particularly if same or similar mitigation is proposed for use in amended Code.	This EIR addresses the environmental impacts of implementing the proposed ordinance and identifies mitigation measures to reduce significant impacts.
	All growers should submit notification of proposed water diversion to CDFW to determine whether an LSAA is necessary	Section 3.4, "Biological Resources," and Section 3.8, "Hydrology and Water Quality"
Department of Parks and Recreation- CSP North Coast Redwoods District	Concern regarding proximity of permitted cannabis activities to park boundaries due to possible impacts on resources and management activities, including impacts to aesthetics, biological resources, degraded water quality and quantity, exotic invasive species introduction, slope instability, erosion and sediment transport, and demand on fuel and/or hazard tree management.	Section 3.1, "Aesthetics"; 3.4, "Biological Resources"; Section 3.8, "Hydrology and Water Quality"; Section 3.6, "Geology and Soils"; and Section 3.7, "Hazards and Hazardous Materials"
	Recommends inclusion of a Special Treatment Area (STA) that requires minimum buffer distances where old growth and structures are present to reduce some potential impacts near State Park boundaries.	Section 3.1, "Aesthetics," Section 3.2, "Agriculture and Forest Resources," and Section 3.4, "Biological Resources," and Section 3.9, "Land Use"
	To reduce slope failure within watersheds, require that existing and proposed permitted cultivation operations identify and characterize potential for landslides and determine if conversion of cover type is appropriate.	Section 3.6, "Geology and Soils"
	If existing cultivation sites are zoned TPZ, NCRD suggests a process for retrospective review of permit conditions prior to issuance of a grandfathered permit so that existing impacts adjacent to State Parks are considered in consultation with NCRD.	Chapter 2, "Project Description." The proposed ordinance does include requirements to address impacts from previous cultivation operations.
Regional Water Quality Control Board, North Coast	Various permits, including the Board's Cannabis Cultivation Water Quality Regulatory Programs, construction stormwater, municipal storm sewer system (MS4), and Clean Water Act Sections 401 and 404 may be required.	Section 3.4, "Biological Resources," and Section 3.8, "Hydrology and Water Quality"
	Cumulative impacts of sediment waste discharges to watersheds in Humboldt County have resulted in numerous waterbodies listed as impaired under Clean Water Act 303(d). Encourages County and local agencies to include provisions in land use ordinances associated with cultivation to identify, assess, and mitigate these cumulative adverse impacts.	Section 3.8, "Hydrology and Water Quality"
	The EIR needs to define a clear strategy to address sediment discharge from private, shared-use roads and the County road network on a timeframe and at locations that are in-sync with cannabis permitting.	Section 3.8, "Hydrology and Water Quality"
	The EIR needs to address level of enforcement necessary to ensure compliance.	Chapter 2, "Project Description," and Section 3.8, "Hydrology and Water Quality"
	Impacts to groundwater levels need to be identified and mitigated and will require a robust monitoring and reporting program	Section 3.8, "Hydrology and Water Quality"
	Recommends the County build capacity for watershed groups and road associations to monitor and report watershed conditions, and coordinate watershed scale. Promote opportunities for grant funding.	Section 3.8, "Hydrology and Water Quality"



**Table 1-1 Summary of NOP Comments**

Commenter	Summary of Issue	Location of Where it is Addressed in the EIR
<b>Local</b>		
Blue Lake Rancheria Environmental Programs	Concerned about cultivation activities in ancestral Wiyot territory, specifically in the Mad River watershed. Requests the EIR diligently address hydrology and water quality, visual resources, and tribal cultural resources, and biological resources.	Section 3.1, "Aesthetics," Section 3.4, "Biological Resources," Section 3.5, "Cultural Resources," Section 3.8, "Hydrology and Water Quality,"
	The Mad River is the Tribe's source of drinking water and supports many culturally important species. EIR needs to include a thorough analysis of cumulative impacts from cultivation permitting.	Section 3.4, "Biological Resources," Section 3.5, "Cultural Resources," Section 3.8, "Hydrology and Water Quality," Section 3.13, "Utilities and Service Systems," Section 4.3, "Cumulative Impact Analysis"
	Urge County to include and prioritize more enforcement for Mad River Watershed in permitting process.	Chapter 2, "Project Description"
City of Fortuna	The County's codes conflict with the City's codes regarding marijuana; the City has adopted a City-wide prohibition on all marijuana activities, except for those preempted by State law.	Section 3.9, "Land Use." The proposed ordinance would only apply to the unincorporated area of the county.
	The City's ability to expand into its sphere of influence would be impaired by the County's cannabis ordinance because expansion of cannabis permits could result in conversion of most vacant land surrounding the City to commercial cultivation sites. This would be a land use conflict for the City as it expands.	Section 3.9, "Land Use"
	The EIR should consider land use impacts to the City's Sphere of Influence and the City requests a complete prohibition be adopted within its Sphere of Influence,	Section 3.9, "Land Use"
	Suggests the County limit permits to existing applications and assess impacts from existing permits first. If the County must allow new permits, the City requests a yearly limit of applications.	Chapter 2, "Project Description" The proposed ordinance does not currently limit the total number of applications.
	Property values for rural land suitable for cannabis are increasing making affordable land for current residents harder to find.	Economic and social impacts, such as property values, are not subject to review under CEQA and are not addressed in the EIR.
	Consider aesthetic impacts of increased building development, lighting effects on night sky, fencing, and razor wire. The City would like to see a measurable lighting standard and recommends a measure that allows no lighting to emanate from greenhouses.	Section 3.1, "Aesthetics"
	EIR should demonstrate that all structures containing cannabis have odor-reduction equipment installed to prevent odor emissions to nearby residents.	Section 3.3, "Air Quality and Greenhouse Gas Emissions"
	Cannabis operations have increased crime in Humboldt County. Requests the EIR identify potential increases in crime rates, safety impacts to neighborhoods, and financial impacts to the City's law enforcement resources.	Section 3.11, "Public Services"
	Focusing cultivation into lower portions of the County's watersheds will lead to cumulative impacts within lower areas around Fortuna, creating an unfair burden to the City.	Section 3.8, "Hydrology and Water Quality," Section 4.3, "Cumulative Impact Analysis"
	Water diversions and usage for cultivation will continue to create significant impacts, especially without adequate enforcement. Do not consider allowing rainwater collection. And trucking water in will result in GHG and traffic impacts.	Section 3.3, "Air Quality and Greenhouse Gas Emissions," Section 3.4, "Biological Resources," Section 3.8, "Hydrology and Water Quality," Section 3.13, "Utilities and Service Systems," Section 3.12, "Transportation and Circulation"

**Table 1-1 Summary of NOP Comments**

Commenter	Summary of Issue	Location of Where it is Addressed in the EIR
City of Fortuna (continued)	Project will Increase offsite flows to City drainage facilities. City requests all applications have drainage reports and/or calculations that include consideration of the 2005 Storm Drain Master Plan. City requests impacts to City drainage facilities are mitigated and that increases beyond peak 25-year event resulting from new development shall be retained or detained at permittees expense.	Section 3.8, "Hydrology and Water Quality"
	Urges adoption of stricter standards related to use of generators at cannabis sites due to accidental fuel spills, noise, and odor impacts to nearby residents. Potential impacts of alternative energy sources should be considered in the analysis and sites should be required to operate on the grid.	Section 3.3, "Air Quality and Greenhouse Gas Emissions," Section 3.7, "Hazards and Hazardous Materials," Section 3.10, "Noise," Section 3.14, "Energy"
	Because code enforcement is understaffed in the County, analysis should anticipate need for increased staff levels with code implementation.	Code enforcement for illegal activities is not a component of this project.
	The City requests establishment of a more significant buffer that would protect City residents and encompass the City's Sphere of Influence.	Chapter 2, "Project Description," and Section 3.9, "Land Use"
County of Humboldt- Division of Environmental Health	Proper handling of spent bulk soil from cannabis operations along with overall increase in solid wastes and recycling should be discussed in the EIR and offer onsite alternatives to bulk soil disposal (i.e., reconditioning and reuse). Redway Transfer Station has received a spike in tonnage over past 5 years; recycling and solid waste capacity should be analyzed.	Section 3.13, "Utilities and Service Systems"
Humboldt Bay Municipal Water District	Concerns regarding cannabis permits on Mad River watershed water quality, drinking water quality and quantity, compliance with HBMWD aquatic species HCP, cumulative impacts, and need for more enforcement within watershed.	Section 3.4, "Biological Resources," Section 3.8, "Hydrology and Water Quality," Section 3.13, "Utilities and Service Systems"
Humboldt Community Services District	Concerns regarding impact on water and sewer systems. Requests EIR address impacts to public water systems, public sewer collection and treatment infrastructure, groundwater supplies	Section 3.13, "Utilities and Service Systems," Section 3.8, "Hydrology and Water Quality"
	EIR should analyze use of fertilizers, pesticides, herbicides, and associated discharge rate. Analysis should also analyze solid waste generated by cannabis operations.	Section 3.7, "Hazards and Hazardous Materials," Section 3.13, "Utilities and Service Systems"
Karuk Tribe	Legal and illegal cannabis growers are dewatering streams within Karuk territory which is negatively affecting water quality, fisheries, and wildlife with herbicides, pesticides, and rodenticides.	Section 3.4, "Biological Resources," Section 3.5, "Cultural Resources, Section 3.8, "Hydrology and Water Quality,"
	At this critical regulatory point, the establishment and enforcement of environmentally protective measures is imperative to safeguard Karuk territory and associated tribal cultural resources. Expect and encourage the County to begin meeting with Karuk govt and staff re. AB 52 compliance and CEQA as early as possible. Disappointed consultation has been initiated to date.	Section 3.5, "Cultural Resources"
McKinleyville Community Services District	Concern regarding nutrient overloads and disposal of cannabis industry related byproducts in MCSD wastewater systems	Section 3.13, "Utilities and Service Systems"
	Assess potential need for additional MCSD time, manpower, and expenses	Section 3.13, "Utilities and Service Systems"
	Sewer use Ordinance, local limits, issuance of Industrial Discharge Permits and MCSD pretreatment program	Section 3.13, "Utilities and Service Systems"

**Table 1-1 Summary of NOP Comments**

Commenter	Summary of Issue	Location of Where it is Addressed in the EIR
McKinleyville Community Services District (continued)	Recommends clear language in Code that the County is not restricting the individual authority of special districts and other governmental agencies and that all rights of these entities are reserved as necessary to regulate.	Section 3.13, "Utilities and Service Systems"
	The MCSD's new treatment plant should be able to treat the higher load concentrations resulting from permitted cannabis activities; however, heavier dischargers should be required to pay more for treatment of larger loads.	Section 3.13, "Utilities and Service Systems"
	Assessing changes in nutrient loads poses an interesting dilemma to MCSD's pretreatment standards and potential impacts on facilities. Within the Ordinance, how will the County require cannabis activities to comply with MCSD's pretreatment standards? MCSD would need the County's assistance in identifying heavy dischargers that may not be applying for permits but are in compliance with state and county regulations.	Section 3.13, "Utilities and Service Systems"
	MCSD believes that McKinleyville has the highest per capita of residential grow operations in the County. How will the County utilize the new ordinance to curtail excess nutrient load being dumped from residential (or non-commercial) cannabis grow operations impacting the wastewater systems? Will the County require waste product recycling programs from commercial and non-commercial cannabis operations?	Section 3.13, "Utilities and Service Systems"
	What process will the County utilize to determine distance of permitted commercial operations from parks and recreation facilities utilized by children?	Chapter 2, "Project Description," identifies setbacks proposed in the ordinance that are based on anticipated state permit requirements and public input regarding the content of the ordinance.
	Will a percentage of revenue collected from cannabis industry be earmarked by the County to help MCSD cover costs?	Economic and cost issues are not treated as significant effects on the environmental and are not addressed in this Draft EIR (see State CEQA Guidelines Section 15131[a]).
Wiyot Tribe- Natural Resource Department	Some THPO's regard protection of relevant botanical communities that are relics of past indigenous land management as sites that should be protected under AB 52.	Section 3.5, "Cultural Resources"
	Assess impacts to ethnobotanical resources, a type of TCR	Section 3.5, "Cultural Resources"
	Include AB 2162 Oak Woodland Conservation Act compliance in permitting process and assess potential impacts to white oak, tanoak, and possible hazel stands.	AB 2162 was never enacted into law. Section 3.4, "Biological Resources," does address impacts to habitat conditions in the County.
<b>Organizations</b>		
The Buckeye	Suggests that the EIR include discussion of unpermitted marijuana grows as these operations have significant impacts on natural resources. Recommend that all permits must be approved prior to any business being conducted.	Chapter 2, "Project Description," and Section 3.0, "Environmental Setting, Impacts, and Mitigation Measures"
California Native Plant Society	Encourages the County to carefully consider the effects of cannabis cultivation on the County's ecosystems.	Section 3.4, "Biological Resources"
	Proper botanical screening and field surveys by qualified botanists should be conducted where projects in habitats that support rare plant species or natural communities occur and cumulative impacts of these projects should be considered.	Section 3.4, "Biological Resources," Chapter 4, "Cumulative Impacts"

**Table 1-1 Summary of NOP Comments**

Commenter	Summary of Issue	Location of Where it is Addressed in the EIR
California Native Plant Society (continued)	CNPS inventory lists 180 rare and endangered plant species in Humboldt County.	Section 3.4, "Biological Resources"
	Humboldt County contains several rare natural communities (ex., California oat grass prairies and white oak woodlands) that must be considered under CEQA (IV-b).	Section 3.4, "Biological Resources," addresses impacts to critical habitat as designated by the U.S. Fish and Wildlife Service and National Marine Fisheries Service and sensitive natural communities as defined by the California Department of Fish and Wildlife.
Environmental Protection Information Center	Recommends completely banning use of generators due to noise.	Section 3.10, "Noise"
	Recommends strict light pollution standards be developed.	Section 3.1, "Aesthetics"
	Recommends prohibition of new or expanded cultivation that would require conversion of timberland.	Chapter 2, "Project Description," and Section 3.2, "Agriculture and Forest Resources"
	Encourages consideration of an alternative that mandates 100 percent water storage throughout the dry season.	Chapter 2, "Project Description," Section 3.8, "Hydrology and Water Quality," and Section 3.13, "Utilities and Service Systems"
	Incorporate required compliance with County's grading ordinance.	Section 3.8, "Hydrology and Water Quality"
	Concerned about adequate County resources to ensure compliance with the code.	Chapter 2, "Project Description," and Section 3.11, "Public Services"
Friends of The Eel River	Existing marijuana industry in Humboldt County is causing significant impacts to the Eel River, especially to fisheries of Coho salmon and steelhead.	Section 3.4, "Biological Resources"
	Concerned about sediment load, water diversions, and use of pesticides and fungicides.	Section 3.8, "Hydrology and Water Quality"
	Important for the County to establish straightforward enforcement mechanisms.	Chapter 2, "Project Description"
	Concerned that the higher impacts of the black-market sector would continue despite legal status of lower impact operations.	Chapter 2, "Project Description"
	Cumulative effects are visible through many sources. County should analyze and disclose the cumulative impacts of the cannabis industry, particularly related to endangered species.	Chapter 4, "Cumulative Impacts"
	The County should outline the scope and scale of enforcement measures reasonably necessary to reduce watershed impacts. The County should describe the resources necessary to annual inspections of permitted operations, serve nuisance notices on non-permitted operations, and enforce the County's grading ordinance.	Chapter 2, "Project Description"
	Provides examples of tools that may be useful for addressing illegal operations. Suggest that the EIR consider additional regulatory improvements.	Chapter 2, "Project Description"
	Seek a meaningful cap on the total number of permits.	The proposed ordinance does not include a cap on the total number of commercial cannabis permits that could be issued.
	Request that the EIR include a "Watershed and Wildlife Protection Alternative" and a "No Indoor Cultivation, No Artificial Lights Alternative."	Chapter 6, "Alternatives"
McLean Foundation	Restrictions should be created such that cannabis cultivation is moved away from where people are living and recreating to open spaces conducive to agriculture	Chapter 2, "Project Description"

**Table 1-1 Summary of NOP Comments**

Commenter	Summary of Issue	Location of Where it is Addressed in the EIR
Nelson-Hillside Association	County should institute an immediate moratorium and freeze all existing applications until the amendments are finalized.	Chapter 2, "Project Description"
	Cultivation areas should not be expanded as soil amendments will adversely affect all downstream uses and users.	Chapter 2, "Project Description," Section 3.8, "Hydrology and Water Quality"
	Surface water diversions and groundwater use must be controlled and monitored.	Section 3.8, "Hydrology and Water Quality"
	Private and privately maintained roads should be protected from degradation.	Section 3.12, "Transportation and Circulation"
	A buffer zone, exclusion zone, and substantial setbacks should be established around all city limits and rural neighborhoods.	Chapter 2, "Project Description" and Section 3.9, "Land Use and Planning"
	No aspect of the amended ordinance should be non-discretionary or ministerial.	Chapter 2, "Project Description"
Sanctuary Forest, Inc.	Would like the County to consider using mitigation and conservation banks to offset impacts from cannabis farms. The Van Arken Watershed Conservation Project is an example of utilizing mitigation requirements to fund land conservation in the watershed where many impacts are occurring.	Section 3.4, "Biological Resources," identifies mitigation measures to address potential impacts.
True Humboldt	Opening the application process to more cultivations would negatively impact small rural farmers.	Section 3.2, "Agriculture and Forest Resources"
	Generator use limitations would negatively impact business.	Economic and social impacts are not subject to review under CEQA (see State CEQA Guidelines Section 15131) and are not addressed in this Draft EIR.
Victoria Ranch Estates HOA	Request that the County designate the Victoria Ranch Estates subdivision as a Q zone which would prohibit the commercial cultivation of cannabis due to severe water restrictions and inadequate road system.	Section 3.8, "Hydrology and Water Quality" and Section 3.13, "Utilities and Service Systems"
	Allowing commercial cultivation in the Victoria Ranch Estates subdivision would require substantially more water than allotted to the subdivision. This area cannot sustain the water usage associated with commercial cultivation.	Section 3.8, "Hydrology and Water Quality," and Section 3.13, "Utilities and Service Systems"
	Allowing commercial cultivation in subdivision would increase traffic and deterioration of private roads and should not be permitted in the subdivision.	Section 3.12, "Transportation and Circulation"
	Commercial cultivation would negatively affect Wolverton Gulch, a coho/steelhead stream.	Section 3.4, "Biological Resources"
<b>Individuals</b> (organized alphabetically by last name)		
Tony Anderson	Concerned about road deterioration, safety, light pollution, and noise impacts.	Section 3.1, "Aesthetics," Section 3.10, "Noise," Section 3.11, "Public Services," and Section 3.12 "Transportation and Circulation"
Joan Bennett	Concerned about odors, light pollution, and noise.	Section 3.1, "Aesthetics," Section 3.3, "Air Quality and Greenhouse Gas Emissions," and Section 3.10, "Noise"

**Table 1-1 Summary of NOP Comments**

Commenter	Summary of Issue	Location of Where it is Addressed in the EIR
Joan and Randy Bennett	Suggest setbacks of 300 feet from homes and 200 feet from property lines.	Chapter 2, "Project Description"
	Concerned about odors, light pollution, noise, water quality degradation, traffic, and safety.	Section 3.1, "Aesthetics," Section 3.3, "Air Quality and Greenhouse Gas Emissions," Section 3.8, "Hydrology and Water Quality," Section 3.10, "Noise," Section 3.11, "Public Services," and Section 3.12 "Transportation and Circulation"
Bonnie Blackberry	Concerned about traffic, road deterioration, dust, noise, light pollution, glare and glowing greenhouses, proximity to residential areas, and enforcement.	Chapter 2, "Project Description," Section 3.1, "Aesthetics," Section 3.3, "Air Quality and Greenhouse Gas Emissions," Section 3.8, "Hydrology and Water Quality," Section 3.9, "Land Use and Planning," Section 3.10, "Noise," Section 3.11, "Public Services," and Section 3.12 "Transportation and Circulation"
Dawn Boechler	Commercial grow operations do not belong in residential areas.	Chapter 2, "Project Description"
Chantal Campbell	Commercial cannabis growing should be done only in agricultural areas.	Chapter 2, "Project Description"
Sal Chinnici	Concerned about proposals for commercial cannabis operations on County land adjacent to private parcels within spheres of influence or community areas.	Section 3.9, "Land Use and Planning"
	Specific concerns include safety, overuse and deterioration of roads, noise, odors, light pollution, decreased property values, and impacts to wildlands and wildlife.	Section 3.1, "Aesthetics," Section 3.3, "Air Quality and Greenhouse Gas Emissions," Section 3.8, "Hydrology and Water Quality," Section 3.9, "Land Use and Planning," Section 3.10, "Noise," Section 3.11, "Public Services," and 3.12 "Transportation and Circulation." Economic and social impacts are not subject to review under CEQA and are not addressed in the EIR.
	Cannabis industry must be held to the same regulatory standards as other industries in Humboldt County.	Chapter 2, "Project Description"
Jim Cotton	Concerned about odors, distance from other uses, and water supply.	Chapter 2, "Project Description," Section 3.3, "Air Quality and Greenhouse Gas Emissions," and Section 3.13, "Utilities and Service Systems"
Laurel Farnham	Concerned about adequate notice to nearby residents, conflicts with adjacent uses, odors, traffic, and water quality. New requirements should also apply retroactively to existing permits.	Chapter 2, "Project Description," Section 3.3, "Air Quality and Greenhouse Gas Emissions," Section 3.8, "Hydrology and Water Quality," Section 3.9, "Land Use and Planning," and Section 3.12 "Transportation and Circulation"
Paul Farnham	Concerned about the County permitting operations within the sphere of influence of cities and areas designated for residential development. Suggests that the amendments give cities the right to deny applications within their sphere of influence.	Chapter 2, "Project Description," and Section 3.9, "Land Use and Planning"
Alan Fox	Requests distance of at least two miles between city limits and any production, cropland, or greenhouse. Requests one-mile buffer between cannabis facilities and homes, schools, and churches with some exception.	Chapter 2, "Project Description"
	Concerned about safety, noise, and light.	Section 3.1, "Aesthetics," Section 3.10, "Noise," and Section 3.11, "Public Services"



**Table 1-1 Summary of NOP Comments**

Commenter	Summary of Issue	Location of Where it is Addressed in the EIR
Donald Fregeau Jr., DDS	Concerned about degradation of views and visual character, odors, wildlife passage, groundwater supply, land use conflicts, noise, safety, and traffic.	Chapter 2, "Project Description," Section 3.1, "Aesthetics," Section 3.3, "Air Quality and Greenhouse Gas Emissions," Section 3.4, "Biological Resources," Section 3.9, "Land Use and Planning," Section 3.10, "Noise," Section 3.11, "Public Services," Section 3.12 "Transportation and Circulation," and Section 3.13, "Utilities and Service Systems"
Rose Hooas	Concerned about odors, road deterioration, traffic, water quality, and safety.	Section 3.3, "Air Quality and Greenhouse Gas Emissions," Section 3.8, "Hydrology and Water Quality," Section 3.11, "Public Services," and Section 3.12 "Transportation and Circulation"
Judy Hodgson	Concerned that neighbor notification is not required for cannabis greenhouses up to 10,000 square feet in agricultural zones. Concerned about setbacks.	Chapter 2, "Project Description"
	Concerned that odor impacts would be incompatible with existing tasting room use.	Section 3.3, "Air Quality and Greenhouse Gas Emissions"
Tim Meade	Suggests 300-foot and 100-foot setbacks for commercial operations.	Chapter 2, "Project Description"
	Concerns about odors, noise, water quality, property values, and neighbor notification.	Chapter 2, "Project Description," Section 3.3, "Air Quality and Greenhouse Gas Emissions," Section 3.8, "Hydrology and Water Quality," Section 3.9, "Land Use and Planning," and Section 3.10, "Noise"
Deb Meador	Concerned about impacts to existing neighborhoods.	Sections 3.1 through 3.14 of the Draft EIR.
Lindsay Merryman	Concerned about roadway deterioration, water quality, hazardous chemicals, light pollution, noise, and visual character.	Section 3.1, "Aesthetics," Section 3.8, "Hydrology and Water Quality," Section 3.7, "Hazards and Hazardous Materials," Section 3.10, "Noise," and Section 3.12 "Transportation and Circulation"
Thomas Mulder	Concerned about new square footage and compliance with tax and other business requirements.	Chapter 2, "Project Description" Commercial cannabis operations would be subject to all other applicable County regulations.
Susan Nolan	Concerned about adequate funding for permit processing.	Chapter 2, "Project Description"
Kim Puckett	Concerned about proximity to residential use, odors, noise, light pollution, pesticide use, and safety.	Chapter 2, "Project Description," Section 3.1, "Aesthetics," Section 3.3, "Air Quality and Greenhouse Gas Emissions," Section 3.7, "Hazards and Hazardous Materials," Section 3.8, "Hydrology and Water Quality," Section 3.9, "Land Use and Planning," Section 3.10, "Noise," and Section 3.11, "Public Services"
Nathan Queener	Concerned about baseline conditions and effectiveness of County regulations.	Chapter 2, "Project Description," and Chapter 3, "Environmental Setting, Impacts, and Mitigation Measures"
Dan Rathbun	Concerned about water quality and supply, light pollution, air pollution, noise, land clearing, erosion, and traffic.	Chapter 2, "Project Description," Section 3.1, "Aesthetics," Section 3.3, "Air Quality and Greenhouse Gas Emissions," Section 3.8, "Hydrology and Water Quality," Section 3.10, "Noise," Section 3.12 "Transportation and Circulation," and Section 3.13, "Utilities and Service Systems"



**Table 1-1 Summary of NOP Comments**

Commenter	Summary of Issue	Location of Where it is Addressed in the EIR
Francene and Jim Rizza	Concerned about permitted grow operations near city limits and residences, particularly related to traffic, noise, odors, biological resources, and water quality.	Section 3.3, "Air Quality and Greenhouse Gas Emissions," Section 3.4, "Biological Resources," Section 3.8, "Hydrology and Water Quality," Section 3.9, "Land Use and Planning," Section 3.10, "Noise," and Section 3.12 "Transportation and Circulation"
Nancy Roberts	Concerned about impacts on nearby residents including aesthetics, safety, water supply, biological resources, waste disposal, odors, noise, and light pollution.	Section 3.1, "Aesthetics," Section 3.3, "Air Quality and Greenhouse Gas Emissions," Section 3.4, "Biological Resources," Section 3.8, "Hydrology and Water Quality," Section 3.9, "Land Use and Planning," Section 3.10, "Noise," Section 3.11, "Public Services," Section 3.12 "Transportation and Circulation," and Section 3.13, "Utilities and Service Systems"
Richard Scheinman, MD	Concerned about light pollution, noise, water supply, odors, setbacks, soils, and traffic. Suggest regulations prohibit night lighting, ensure adequate water supply, and include setbacks for the protection of neighbors.	Section 3.1, "Aesthetics," Section 3.3, "Air Quality and Greenhouse Gas Emissions," Section 3.6, "Geology and Soils," Section 3.9, "Land Use and Planning," Section 3.10, "Noise," Section 3.11, "Public Services," Section 3.12 "Transportation and Circulation," and Section 3.13, "Utilities and Service Systems"
Marisa St John	Concerned about odors, County abatement of existing nuisances, fire protection and emergency response times, light pollution, traffic, and air quality.	Chapter 2, "Project Description," Section 3.1, "Aesthetics," Section 3.3, "Air Quality and Greenhouse Gas Emissions," Section 3.9, "Land Use and Planning," Section 3.11, "Public Services," and Section 3.12 "Transportation and Circulation"
Robie Tenorio	Concerned about loss of forestland, loss of land for food production, dust, air pollutants, biological resources, noise, hazardous chemicals, threat of fire, traffic, and cumulative effects.	Section 3.1, "Aesthetics," Section 3.2, "Agriculture and Forest Resources," Section 3.3, "Air Quality and Greenhouse Gas Emissions," Section 3.4, "Biological Resources," Section 3.7, "Hazards and Hazardous Materials," Section 3.8, "Hydrology and Water Quality," Section 3.10, "Noise," Section 3.11, "Public Services," Section 3.12 "Transportation and Circulation," and Chapter 4, "Cumulative Impacts"
Laura Cooskey Walker	Concerned about water supply, noise, polluted runoff, population growth, traffic, and safety. Suggests clarification of agricultural vs industrial uses.	Chapter 2, "Project Description," Section 3.8, "Hydrology and Water Quality," Section 3.9, "Land Use and Planning," Section 3.10, "Noise," Section 3.11, "Public Services," Section 3.12 "Transportation and Circulation," and Section 3.13, "Utilities and Service Systems"
Steve Watson	Concerned about visual character, odors, noise, and safety.	Section 3.1, "Aesthetics," Section 3.3, "Air Quality and Greenhouse Gas Emissions," Section 3.10, "Noise," and Section 3.11, "Public Services"
Robert Wiele	Concerned about light pollution, noise, public health, traffic, and enforcement.	Chapter 2, "Project Description," Section 3.1, "Aesthetics," Section 3.7, "Hazards and Hazardous Materials," Section 3.10, "Noise," Section 3.11, "Public Services," and Section 3.12 "Transportation and Circulation"
John G. Williams, Ph.D.	Concerned about rural lifestyle, population growth, public safety and emergency response, public health, housing, roadway deterioration, and enforcement.	Chapter 2, "Project Description," Section 3.8, "Hydrology and Water Quality," Section 3.9, "Land Use and Planning," Section 3.11, "Public Services," and Section 3.12 "Transportation and Circulation"

**Table 1-1 Summary of NOP Comments**

Commenter	Summary of Issue	Location of Where it is Addressed in the EIR
Unknown-Cannabis Operator	Concerned about aesthetics or large-scale grow operations, air pollution and greenhouse gas emissions, generator use, energy use, light pollution, pesticide use, and increased size of grow operations.	Chapter 2, "Project Description," Section 3.1, "Aesthetics," Section 3.3, "Air Quality and Greenhouse Gas Emissions," Section 3.7, "Hazards and Hazardous Materials," Section 3.8, "Hydrology and Water Quality," Section 3.9, "Land Use and Planning," Section 3.10, "Noise," Section 3.13, "Utilities and Service Systems," and Section 3.14, "Energy"
<b>CEQA Scoping Meeting, May 12, 2017 (Verbal comments)</b>		
CDFW	EIR should evaluate the effect on grasslands and oak woodlands	Section 3.4, "Biological Resources"
CAL FIRE, Kurt McCray	Illegal timberland conversions, ordinance clause that allows third party review of conversions with CAL FIRE review is a good step. Should not be perceived as amnesty program. CAL FIRE has enforcement program which is not affected by County ordinance.	Section 3.2, "Agriculture and Forest Resources"; Section 3.4, "Biological Resources"
	Economics of cannabis is affecting timberland management; timberland value and timber uses. CAL FIRE is tasked with maintaining timber productivity.	Section 3.2, "Agriculture and Forest Resources"
	Environmental impacts a concern. Regulation is good step forward to reduce impacts.	Section 3, "Environmental Setting, Impacts, and Mitigation Measures"
	Seeing increase in fire starts from cannabis activities that put resources, public, and firefighters at risk	Section 3.7, Hazards and Hazardous Materials, Section 3.11, "Public Services"
City of Fortuna	Setbacks from neighborhoods are very important for neighborhood protection.	Chapter 2, "Project Description," and Section 3.9, "Land Use and Planning"
City of Fortuna, Sue Long	Outskirts of Fortuna. Tight knight community. Cultivators may not be from community. Concerned about roads, other resources/assets, and effects from cultivators from outside community. Want cultivators to be good neighbors.	Section 3.12 "Transportation and Circulation," Section 3.11, "Public Services," Section 3.13, "Utilities and Service Systems"
Frankie Joe Meyers, Yurok Tribe environmental department	Cultivators should go through wetland delineation process, code enforcement needs to be addressed, and impacts on streams need to be addressed. Wastewater discharge up in the hills affect the people on the reservation – increase in E. coli contamination	Section 3.4, "Biological Resources," and Section 3.8, "Hydrology and Water Quality"
CNPS, NC Chapter	Concerned with native plants in natural habitat. Concerned about effects on native plants. Qualified biologists to perform studies. Oak grass prairie and other communities must be considered in CEQA. (See written comments). Consider cumulative impacts to native plant communities.	Section 3.4, "Biological Resources," Chapter 4, "Cumulative Impacts"
Kenny Richards – High school district	Circulation and traffic impacts near schools need to be addressed	Chapter 2, "Project Description," and Section 3.12 "Transportation and Circulation"
Small farmer	Concerned about RRR and potential flooding impacts from multiple greenhouses and runoff. Acres and acres of cannabis and runoff.	Section 3.8, "Hydrology and Water Quality"
Peter Childs	Biological impacts. Impacts from light. Owls locate prey by sound. Generators create noise and it effects owls ability to hear prey. EIR needs experts to determine impacts.	Section 3.1, "Aesthetics," Section 3.4, "Biological Resources," Section 3.10, "Noise"
Chuck Ciancio	Given great deal of testimony. See economics. Given testimony on timber operations. Why isn't Board of Supervisors here? Redwood and fir have become uneconomic.	Section 3.2, "Agriculture and Forest Resources"

**Table 1-1 Summary of NOP Comments**

Commenter	Summary of Issue	Location of Where it is Addressed in the EIR
Andrew Nash	In Petrolia area. Tighten up rules. Tree removal. Traffic increase. Visual impacts. Plastic is concern. Continuity of forest is affected. Not opposed to small well-run operations. What is going to be done about non-compliant large grows? Big trucks are tearing up the roads. Roads are the worst that I have seen them. Are they paying their fair share?	Chapter 2, "Project Description," Section 3.4, "Biological Resources," Section 3.12 "Transportation and Circulation" Section 3.1, "Aesthetics," Section 3.2, "Agriculture and Forest Resources"
Speaker	Marbled murrelets are of concern and Redwood habitat. Spotted owl, golden eagle, (2-3 other species)	Section 3.4, "Biological Resources"
Lynne Tobler	Permaculture standards should be included. Agriculture forestry should be incentivized. Some impacts can't be mitigated - generators for example. Some impacts are just not ok. Growing pot encourages bad ag practices	Section 3.2, "Agriculture and Forest Resources," Section 3.3, "Air Quality and Greenhouse Gas Emissions"
Bonnie Blackberry	Community character; atmosphere of free for all. Huge increase in excavation and greenhouses. Noise pollution from generators travels long distance. Up to four crops per year. Should not be allowed in outlying area. Noise and light pollution and impacts to wildlife. Lack of notification to neighbors. Impacts to visual quality with ever increasing number of greenhouses. Monitoring and enforcement. (written comments)	Chapter 2, "Project Description," Section 3.1, "Aesthetics," Section 3.3, "Air Quality and Greenhouse Gas Emissions," Section 3.4, "Biological Resources," Section 3.10, "Noise," Section 3.12 "Transportation and Circulation"
Martha Spencer, Hydesville HOA	Concerns regarding water and roads. Commercial ag is illegal in HOA CC and R's due to water use and some permits in HOA. Use Q zone to limit cultivation in water-restricted areas. Impacts to roads due to traffic. Cultivation results in more trips. Roads don't meet fire safe regulations. Can't even put a second unit on our property, but we've got a commercial grow up our road with greater impacts than second units. (written comments).	Section 3.8, "Hydrology and Water Quality," and Section 3.12 "Transportation and Circulation"
Bill Thorington	Represent 50 landowners in Fortuna. All EIR topics relate to all cultivations. Effects on small neighborhoods close in to cities. Air quality, noise, traffic, hazardous materials impacts should all be considered. Consider where the grow is when designing mitigation.	Section 3.3, "Air Quality and Greenhouse Gas Emissions," Section 3.7, "Hazards and Hazardous Materials, Section 3.10, "Noise"
Meline Dubuois	Cannabis advocate. Need to consider community impacts.	Sections 3.1 through 3.14 of the Draft EIR.
Speaker	Most egregious environmental impacts have come from cattle and clear cutting. Cannabis cultivation can coexist.	The EIR impact analysis considers existing conditions in the County that include timber production and cattle operations.
Cory	EIR should have a County scope. Public notice for projects should be broadcast beyond the neighborhood. That way more people will know what's going on. Incentive to grow illegally - it takes so long to pursue a case as a civil matter. If our well runs dry, our house becomes un-livable.	Chapter 2, "Project Description, " and Section 3.8, "Hydrology and Water Quality"
Mark Wheetly, City of Fortuna	Impacts within City SOI, CSD, School Dist. Projected buildout of cultivation with SOI. Water is huge issue and permit process is inadequate. Surface water use and impacts on fish. Groundwater is being over-drafted. Potential level of development and water use. Where will water come from, potential overdraft. Cumulative water impacts. Traffic impacts. Control sediment. Public service LOS. Emergency responders are being impacted. Change in land use creates public service LOS impacts. Administrative permit approach is inadequate, should be CUP so that project by project impacts can be addressed. Monitoring capacity is issue. Look at pilot permit program for to develop BMPs. Have more comments.	Section 3.4, "Biological Resources," Section 3.8, "Hydrology and Water Quality," Chapter 4, "Cumulative Impacts" Section 3.2, "Agriculture and Forest Resources," Section 3.11, "Public Services," Section 3.13, "Utilities and Service Systems"

**Table 1-1 Summary of NOP Comments**

Commenter	Summary of Issue	Location of Where it is Addressed in the EIR
Paul Hagen	Two areas of interest: existing footprint on TPZ and prime soils. TPZ footprints – need for relocation and reconfiguration of footprints – allow flexibility to incentivize permaculture, restoration of the land ▲ Prime soils – existing ordinance defines it a certain way, but it's not working ▲ Need to look at cannabis as agricultural products. If you do that, you'll have a lot of flexibility on how you treat prime agricultural soils.	Section 3.2, "Agriculture and Forest Resources,"
Unknown	Water – hydrologic connection between springs and wells and streams. Cannabis operators are having different standards applied to them compared to other agricultural uses.	Section 3.8, "Hydrology and Water Quality," Section 3.13, "Utilities and Service Systems"
Tiesha Meschetti	Impacts on land values and lack of affordable farmland. Growers should subsidize other ag to deal with economic impacts. Legacy impacts. Public services have historically been an issue. Assess in EIR.	Economic and social impacts, such as property values, are not subject to review under CEQA and are not addressed in the EIR. Section 3.11, "Public Services"
John Trainor	Move forward more quickly on RRR program. Education and BMPs	Chapter 2, "Project Description," and Section 3, "Environmental Setting, Impacts, and Mitigation Measures"
Jack Henry	Cultivation can be done in an environmentally friendly way.	Sections 3.1 through 3.14 of the Draft EIR.
David Horn, Fortuna.	Five families next to City limit in SOI. Five acres of cultivation with a fence is a visual impact and affects wildlife movement. Concerned about water use and impacts to neighboring wells and water table. Soil is fragile and not good for cultivation and affects grassland. Fire hazard. Noise and traffic impacts/trucks. Concerned about generators. Private road with commercial grow. Air quality and odor. 30,000 sf grow is unacceptable. Not set up for commercial operations, and impact on small neighborhood. Not in my neighborhood.	Sections 3.1 through 3.14 of the Draft EIR.
Vicky	Thanks for opening up to public. Impact of population (workers) on rivers and community: trash (willow creek area).	Section 3.11, "Public Services," Section 3.8, "Hydrology and Water Quality," Section 3.13, "Utilities and Service Systems"
Donald Jr.	Million-dollar view = million dollar grow. Visual impacts. Odor impacts. He is down wind. Water use – 400K gallons. Excessive. Noise impacts. Doesn't want to see, smell, or hear grows.	Section 3.1, "Aesthetics," Section 3.3, "Air Quality and Greenhouse Gas Emissions," Section 3.10, "Noise," Section 3.11, "Public Services"
Unknown	Processing centers should not be allowed in rural areas. Would reduce impacts.	Section 3.9, "Land Use and Planning"

## 1.4.2 Public Review of this Draft EIR

This Draft EIR is being circulated for public review and comment for a period of 45 days, from **September 1 to October 16, 2017**.

During the public review period, written comments from the public, organizations, and agencies on the Draft EIR content may be submitted to the lead agency. Because of time limits mandated by State law, comments should be provided no later than 5:00 p.m. on October 16, 2017. Please send all comments to:

Humboldt County Planning and Building Department  
 Attention: Steve Lazar, Senior Planner, 3015 H Street, Eureka, CA 95501  
 Telephone: (707) 268-3741 Fax: (707) 268-3792  
 Email: slazar@co.humboldt.ca.us

Agencies that will need to use the EIR when considering permits or other approvals for the project should provide the name of a contact person, phone number, and email address. Comments provided by email should include the name and physical address of the commenter.

Copies of this Draft EIR are available for public review at the following locations:

- ▲ Humboldt County Planning and Building Department at 3015 H Street, Eureka, CA 95501; and
- ▲ Humboldt County Library at 1313 3rd Street, Eureka CA 95501

The Draft EIR is also available for public review on the County's website at:  
<http://www.humboldt.gov/2308/Cannabis-EIR..>

### 1.4.3 Final EIR

Following public review of the Draft EIR, responses to written comments on the Draft EIR will be prepared and any revisions to the Draft EIR will be summarized. The Final EIR will consist of the Draft EIR; a list of persons, organizations, and public agencies commenting on the Draft EIR; comments and responses thereto; and other information, as applicable.

Before approving the proposed ordinance, the lead agency is required to certify that the EIR has been completed in compliance with CEQA, that the decision-making body reviewed and considered the information in the EIR, and that the EIR reflects the independent judgment of the lead agency.

## 1.5 ORGANIZATION OF THIS DRAFT EIR

This Draft EIR is organized as follows:

**Executive Summary:** This chapter introduces the proposed ordinance; provides a summary of the environmental review process, effects found not to be significant, and key environmental issues; and lists significant environmental impacts and mitigation measures to reduce significant impacts to a less-than-significant level. A summary of alternatives to the project are presented and the environmentally superior alternative is identified. Finally, areas of controversy as well as issues to be resolved are described.

**Chapter 1, Introduction:** This chapter provides a description of the lead and responsible agencies, the legal authority and purpose of the EIR, the scope of the environmental analysis, agency roles and responsibilities, the CEQA public review process, and organization of the EIR.

**Chapter 2, Project Description:** This chapter describes the project background, including existing and related regulations; lists the objectives of the proposed ordinance; and provides a detailed description of the proposed ordinance.

**Chapter 3, Environmental Setting, Impacts, and Mitigation Measures:** The resource sections within this chapter evaluate the expected environmental impacts generated by the project. Within each subsection of Chapter 3, the regulatory background, existing environmental setting, the significance criteria, and the analysis methodology and assumptions are described. The anticipated changes to the existing environmental conditions associated with the project are then evaluated for each resource. For any significant or potentially significant impact that would result from project implementation, mitigation measures are presented along with the remaining level of significance. Environmental impacts are numbered sequentially throughout the sections of Chapter 3 (e.g., Impact 3.1-1, Impact 3.1-2, etc.). Any required mitigation measures are numbered to correspond to the impact numbering; therefore, the mitigation measure for Impact 3.1-1 would be Mitigation Measure 3.1-1.

**Chapter 4, Cumulative Impacts:** This chapter provides information regarding the potential cumulative impacts that would result from implementation of the project together with other past, present, and probable future projects.

**Chapter 5, Other CEQA Sections:** This chapter provides a discussion of significant and unavoidable impacts, significant and irreversible commitment of resources, and growth-inducing impacts.

**Chapter 6, Alternatives:** This chapter provides a discussion of alternatives to the project, including the No Project Alternative; alternatives considered but removed from further consideration; and the environmentally superior alternative. Evaluation of alternatives is provided in sufficient detail to allow comparison with the project.

**Chapter 7, List of Preparers:** This chapter identifies the lead agency contacts as well as the preparers of this Draft EIR.

**Chapter 8, References:** This chapter identifies the organizations and persons consulted during preparation of this Draft EIR and the documents used as sources for the analysis.

## 1.6 STANDARD TERMINOLOGY

This Draft EIR uses the following standard terminology:

**No Impact** means no change from existing conditions (no mitigation is required).

**Less-than-Significant Impact** means no substantial adverse change in the physical environment (no mitigation is required).

**Potentially Significant Impact** or **Significant Impact** means an impact that might or would cause a substantial adverse change in the physical environment (mitigation is recommended where feasible).

**Significant and Unavoidable Impact** means an impact that would cause a substantial adverse change in the physical environment and that cannot be avoided, even with the implementation of all feasible mitigation.

**Project** means the proposed Amendments to Humboldt County Code Regulating Commercial Cannabis Activities Project.

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## 2 PROJECT DESCRIPTION

### 2.1 INTRODUCTION

This draft environmental impact report (Draft EIR) evaluates the proposed Amendments to Humboldt County Code regulating Commercial Cannabis Activities (proposed ordinance or project). The proposed ordinance establishes land use regulations concerning the commercial cultivation, processing, manufacturing, and distribution of cannabis within Humboldt County.

#### 2.1.1 Cannabis Overview

The cannabis or hemp plant has been used since antiquity and grows in almost all parts of the world, and has been known primarily as a source of useful fiber for the manufacture of textiles and rope. In most fiber-producing areas, the plant was not used as a drug. Geographic and climatic factors modified the content of pharmacologically active material in the plant, and only in some regions was this content high enough to lead to the discovery that the plant, and especially its resin, had important drug actions. Knowledge of these actions appears to have arisen first in the Himalayan region of central Asia and spread gradually from there to India, Asia Minor, North Africa, and across the desert to sub-Saharan Africa and the rest of the African continent. Cannabis also formed part of the therapeutic armamentarium of traditional Indian medicine, and many of the uses were like those for which it is currently advocated in contemporary society. The extracts of cannabis were adopted into the British Pharmacopoeia and later into the American Pharmacopoeia, and were widely used in the English-speaking world as sedative, hypnotic, and anticonvulsant agents in the late 19<sup>th</sup> and early 20<sup>th</sup> centuries. Yet, by the time that cannabis was dropped from the British Pharmacopoeia in 1932 and the American Pharmacopoeia in 1941, its clinical use had virtually disappeared and its formal banishment evoked little or no protest. Among the reasons for this loss of favor were that the plant material was too variable in composition, its shelf life was too short and unpredictable, and it had been increasingly replaced by pure opiates and more reliable new synthetic drugs invented in the early part of the 20<sup>th</sup> century.

A variety of federal laws have addressed the pharmacological uses of cannabis in the United States. Notably, the use of marijuana became regulated under federal law in 1937, when congress passed the Marijuana Tax Act. The Marijuana Tax Act was repealed through passage of the Controlled Substances Act in 1970, which scheduled or categorized therapeutic goods. Through the Controlled Substances Act, marijuana was deemed to be a Schedule 1 substance, meaning that it has no valid medical uses and a high potential for abuse. Since that time, efforts to decriminalize, legalize, and otherwise re-schedule marijuana have occurred at the federal level and by individual states. Over 60 percent of people in the United States live in states that have legalized marijuana for medical use with a growing number (including California) legalizing it for recreational use. An overview of regulations pertaining to marijuana in California and Humboldt County are described below under Section 2.2, “Existing and Related Regulations.”

#### 2.1.2 Physical Description Cannabis Cultivation and Commerce Processes

Cannabis cultivation requires the same basic conditions as most plants: a growth medium, light, water, and nutrients. For the purposes of this discussion, activities associated with medical cannabis cultivation consist of: stages of growth, indoor and outdoor growth requirements, harvesting activities, and preparation of cannabis products for sale.

## PLANT STAGES AND DEVELOPMENT

There are currently more than 2,000 varieties of cannabis worldwide (Leafly 2016), and often dispensaries provide varietal-specific information to their customers, who then in turn can request specific varieties.

Within each plant, there are over 480 natural components, 66 of which have been classified as unique to the cannabis plant (i.e., cannabinoids). These cannabinoids, the most famous of which are tetrahydrocannabinol (THC) and cannabidiol (CBD), affect the user by interacting with specific receptors within the central nervous system involved in cognition, memory reward, pain perception, and motor coordination (University of Washington 2013). CBD has been found to have fewer psychoactive effects (i.e., feeling high or stoned) than THC (Chambers 2016). To date, cannabis and cannabis-derived products are being used for a number of medical conditions including epilepsy, neuropathic pain, AIDS wasting (i.e., involuntary loss of more than 10 percent of body weight), treatment of spasticity associated with multiple sclerosis, and cancer and chemotherapy-induced nausea (FDA 2016).

### Nursery Phase – Cloning and Germination

To maintain specific varieties of cannabis at cultivation sites, the practice of cloning is often employed. Mature female plants are maintained in a vegetative non-flowering stage by artificial light for approximately 18 hours per day as a source of the cuttings or “clones.” Cuttings (i.e., targeted trimmings of a plant) are taken and dipped in medium to stimulate root growth. Once roots develop, the clones are placed in small pots to grow to sufficient size for transplanting to grow to maturity. The clones would all be female plants with the same genetic composition as the “mother” plant.

Germination is the process in which seeds sprout, and typically occurs in a nursery in an enclosed greenhouse building. Generally, germination is initiated by soaking seeds either between wet paper towels, in a cup of water at room temperature, in wet peat pellets, or directly in potting soil. Warmth, darkness, and moisture initiate metabolic processes such as the activation of hormones that trigger the expansion of the embryo within the seed. Once germination is complete, seedlings are prepared for indoor, outdoor, or mixed-light cultivation. The plants are sorted by sex. Male plants are isolated by varietal as a source of pollination for future seed production and to avoid cross-pollination between separate strains. Only female plants are grown for production of product for medical or adult recreational use.

Artificial light used during the germination/nursery phase is not considered to be a mixed-light cultivation operation (further described below), but can represent substantial energy demand. Nurseries are frequently located on the same site as an ancillary component of cultivation operations. For remote off-the-grid cultivation sites, maintenance of a nursery often requires off-grid energy sources.

Nurseries can also be operated as a stand-alone retail or wholesale operation that can provide a source of seed or immature clone plants, which can be purchased for personal use or as part of a commercial cultivation operation.

### Vegetative and Flowering Phase

Cultivation is generally related to the vegetative and flowering phases a plant. The four categories of cannabis cultivation licenses allowed under state law have different requirements for light manipulation and consist of: nursery, outdoor cultivation, indoor cultivation, and mixed-light. These cultivation operations vary in several ways, including: potential number of harvests per year, energy demands, and water demands. These categories are described in more detail as follows.

#### Outdoor Cultivation

Cannabis can be grown outdoors, either on natural soil or in pots of pre-made or commercial soil with no artificial light. Some strains perform better than others in outdoor settings, an attribute that depends on different conditions, variables, and aspects. To generate optimum quantities of cannabinoids, the plant needs fertile soil and long hours of daylight. For outdoor cultivation, growers generally select areas that receive twelve hours or more of sunlight a day. In the Northern Hemisphere, growers typically plant seeds

from mid-April through early June to allow for four to nine months of growth (one harvest a year). Harvest is usually between mid-September and early November. Depending on the varietal, each plant can reach as much as twelve or more feet in height with a radius of six feet or more. Based on published information for California, approximately 230,000 gallons of water are required per half acre of outdoor cultivation, or 10.65 gallons per canopy square foot per year (Carah et al. 2015). However, water demands vary based on local climate conditions, watering methods and other variables. Based on cannabis permit application data, water demands for outdoor cultivation ranges from 1.23 gallons to 14.71 gallons per canopy square foot per year in Humboldt County. Water supply sources used in the County for cannabis cultivation primarily consist of wells, on-site rainwater collection, and surface water diversions.

### **Mixed-Light Cultivation**

Mixed-light cultivation refers to cultivation using a combination of natural and supplemental artificial lighting to allow up to three harvests per year. Mixed-light cultivation operations allow for manipulation of light and dark cycles through the use of artificial lighting or deprivation of light. Light manipulation is used to increase or decrease the vegetative and flowering phases by mimicking seasonal daylight variation. In the northern hemisphere daylight exceeds 12 hours per day beginning with the vernal equinox (March 21) and is less than 12 hours per day after the autumnal equinox (September 21). Longer light exposure, which in nature peaks at the summer solstice (June 21) is associated with the vegetative stage; the flowering stage is prompted when the number of daylight hours approaches 12 hours per day or less. Light manipulation techniques can increase the number of harvests per year. Artificial light is used to “extend” daylight hours, or to disrupt periods of darkness (typically for approximately two hours in the middle of the night) to foster vegetative development, and shorter hours of exposure by light deprivation in mixed-light operations by covering hoop houses with light-blocking opaque tarps, to promote flowering. In addition, artificial light may be used to supplement sunlight, during periods of low light (i.e., several days of rain). Light systems that are not connected to the electrical grid use generators and/or solar-powered batteries when natural light is not available to power lights.

Mixed-light operations with only two growing cycles per year with harvests in July and October-November can be accomplished with minimal supplemental lighting with low wattage florescent or LED bulbs (below the 25 watt/square foot threshold), and modest energy demand. It is reasonably possible to supply sufficient power to low wattage supplemental lighting primarily, if not exclusively, by solar power with battery storage. Mixed-light operations with three or more harvests per year require longer periods of higher intensity lighting and increasing energy demand, which may require on-grid power or heavy generator use.

Similarly to the other cultivation techniques described above, water demand for mixed-light cultivation varies depending on whether the grower employs a water capture/reuse system. Based on local data, mixed-light operations use about the same amount of water as outdoor operations (1.23 gallons to 14.71 gallons per canopy square foot per year). Mixed-light is the most common type of cultivation operation in Humboldt County.

### **Indoor Cultivation**

Indoor cultivation refers to exclusive use of artificial light during vegetative and flowering phases. Generally, cultivating cannabis indoors is more complicated and expensive than growing outdoors, but it allows the cultivator complete control over the growing environment and five harvests a year. Plants of any type can be grown faster indoors than outdoors because of the ability to control light, and carbon dioxide concentrations, and humidity. Plants can also be grown indoors through the use of hydroponics, which uses a mineral nutrient solution in water without soil.

Year-round indoor cultivation is subject to substantial energy demands associated with: high wattage lighting fixtures (typically 600 – 1,200-watt high pressure sodium), cooling ventilation systems, humidity control, watering, and air filtration systems. According to application data received by Humboldt County, the energy demand for a 5,000 square-foot indoor cultivation operation is equivalent to the demand for up to 100 typical American homes (1,084 megawatts per year).

Water demand for indoor cultivation varies, depending on whether the grower employs a water capture/reuse system. Based on local data, indoor cultivation uses approximately 11 gallons per canopy

square foot per year. The use of dehumidifiers or modified air conditioning systems that can capture water for reuse can reduce water demand. However, indoor grows would allow for multiple harvests per year, which could also increase annual water demand.

## PROCESSING ACTIVITIES

Processing includes drying, curing, grading, trimming, and packing as a separate process from cultivation. This may be within the parcel where the cannabis was grown or at separate facilities that accept product from multiple cultivation sites. Cannabis processing activities generally require a maximum of approximately 10 to 15 people. Plants are trimmed of their leaves to reveal buds, which are typically hang-dried or placed on drying racks in a warehouse, barn, or other enclosed building. Trimming may be done by hand or through the use of mechanized trimming. Cultivation sites may accommodate harvest staff on-site, or they may commute daily. Harvested and trimmed cannabis is typically vacuum-sealed in plastic bags.

## MANUFACTURING ACTIVITIES

Manufacturing is the process in which the raw agricultural product is transformed into a concentrate, edible products, or a topical product; most cannabis is used in the agricultural form (once dried it is smoked) and does not undergo manufacturing. The production, preparation, propagation, or compounding of cannabis or cannabis production is accomplished through extraction methods and/or chemical synthesis. Generally, no more than 15 people are required for large-scale operations. These activities typically occur off-site of the cultivation sites in industrial parks.

## DISTRIBUTION ACTIVITIES

Under current state law and county ordinance, cannabis flower and manufactured product must pass through a licensed distributor before it can be offered for retail sale to patients with physician recommendations for medical cannabis use or to adults for recreational use. The distributor serves as an important quality control step where product is held for testing by independent licensed testing laboratories for cannabis constituent content, strength, and contaminants.

## DISPENSARY AND OTHER RETAIL ACTIVITIES

Retail sale of cannabis products is required by state law to be exclusively through licensed dispensaries to qualified patients holding physician recommendations for cannabis use, which may include persons under 21 years of age, or through separate licensed retail outlets for adults 21 years of age and older for recreational use, which may not also offer alcohol or tobacco products for sale.

A limited exception is a special “microbusiness” license, which may combine any mix of cultivation operations of up to 10,000 square feet (sq. ft.), manufacturing, and direct retail sale for adult recreational use. Such an operation would be analogous to a winery with an associated small vineyard and a retail outlet.

Under state law on-site cannabis consumption in conjunction with adult use retail sales may be permitted if allowed by local ordinance in a segregated area accessible only to persons 21 years of age or older that is not visible to the public. State law is currently silent regarding on-site consumption at dispensaries.

Humboldt County has a separate ordinance (Ordinance No. 2554 codified in Sections 55-3 and 56-3 of the Humboldt County Code) regulating dispensaries, deliveries, testing laboratories, and business offices, which explicitly prohibits on-site consumption of medical cannabis at dispensaries. This EIR evaluates the potential physical environmental effects of amending Ordinance No. 2554 to provide for retail sales for adult recreational use.

## 2.2 EXISTING AND RELATED REGULATIONS

As discussed above, cannabis is currently regulated as a Schedule 1 drug under the Federal Controlled Substances Act. In California, the passage of Proposition 215 in 1996 legalized medical marijuana, and the passage of Proposition 64 in 2016 legalized recreational marijuana for adults over 21 years of age. Although the Department of Justice under President Obama did not prosecute most individuals and businesses that followed state marijuana laws, both medical and recreational marijuana remain illegal under federal law.

A brief history of cannabis regulations is provided below.

### 2.2.1 Compassionate Use Act

The Compassionate Use Act of 1996, which allows for the medical use of cannabis in California under state law, was passed through voter approval of ballot proposition 215. It allows patients with a valid doctor's recommendation, and the patients' designated primary caregivers, to possess and cultivate cannabis for personal medical use without facing criminal charges from the state. The Compassionate Use Act changed California's penal code to decriminalize the cultivation and possession of medical marijuana by a patient, or the patient's primary caregiver, for the patient's personal use, and to create a limited defense to the crimes of possessing or cultivating marijuana.

### 2.2.2 Medical Marijuana Program Act

The passage of Senate Bill (SB) 420 (Statutes of 2003), enacted the Medical Marijuana Program Act. The Medical Marijuana Program Act clarifies the scope and application of the Compassionate Use Act, and established the California medical marijuana program. Specially, this act established a voluntary program for the issuance of identification cards to qualified patients and established procedures under which a qualified patient with an identification card may use marijuana for medical purposes to protect patients and their caregivers from arrest.

### 2.2.3 Medical Cannabis Regulation and Safety Act

Originally referred to as the Medical Marijuana Regulation and Safety Act but renamed through subsequent amendments, the Medical Cannabis Regulation and Safety Act (MCRSA) consists of three separate bills that were enacted together in September 2015 (Assembly Bill [AB] 266, AB 243, and SB 643). The bills created a comprehensive state licensing system for the commercial cultivation, manufacture, retail sale, transport, distribution, delivery, and testing of medical cannabis. All licenses must be approved by local governments. AB 266 established a new Bureau of Medical Cannabis Regulation under the Department of Consumer Affairs. The Bureau is tasked with establishing a comprehensive internet system to track licensees and report the movement of commercial cannabis and cannabis products. SB 643 and AB 243 establish the following responsibilities: the California Department of Food and Agriculture is responsible for regulating cultivation; the California Department of Public Health is responsible for developing standards for manufacture, testing, and production and labeling of edibles; the California Department of Pesticide Regulation is responsible for developing pesticide standards; and, the California Department of Fish and Wildlife (CDFW) and State Water Resources Control Board (SWRCB) are responsible for protecting water quality.

Proposed regulations to establish cannabis cultivation licensing and a track-and-trace system, collectively referred to as CalCannabis Cultivation Licensing were released for public review in April 2017. The Draft EIR for CalCannabis was released for public review in June 2017.



## 2.2.4 Adult Use of Marijuana Act

On November 8, 2016, California voters approved Proposition 64, the California Marijuana Legalization Initiative, or the Adult Use of Marijuana Act (AUMA). Proposition 64 legalized the personal use and cultivation of marijuana in California as of November 9, 2016. However, the sale and subsequent taxation of recreational marijuana will not go into effect until January 1, 2018. The intent of the Act is to establish a comprehensive system to legalize, control, and regulate the cultivation, procession, manufacture, distribution, testing, and sale of nonmedical marijuana products, for use by adults 21 years and older, and to tax the commercial growth and retail sale of marijuana for recreational use.

Senate Bill 94, adopted in June 2017, reconciles conflicts in regulations between MCRSA and AUMA.

### CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE LICENSING REQUIREMENTS

The type of zoning clearance certificate or permit issued by the County Planning Department prior to engaging in the commercial cultivation of cannabis for medical use is determined by the zoning classification of the parcel on which the activity is to be conducted and the type of state license required for that operation pursuant to the MCRSA. State cultivation license types, issued by the California Department of Food and Agriculture, are shown in Table 2-1.

**Table 2-1 Cannabis Cultivation License Types**

Type	Name	Outdoor/Indoor	Artificial Lighting	Total Size of Cannabis Cultivation Area (sq. ft.)
1	Specialty Outdoor	Outdoor	No	Up to 5,000 (canopy)
1A	Specialty Indoor	Indoor	Yes	Up to 5,000
1B	Specialty Mixed-Light	Indoor/Outdoor	Yes	Up to 5,000
1C	Specialty Cottage	Indoor/Outdoor	Yes (supplemental)	Up to 2,500 (mixed-light canopy) Up to 25 plants (outdoor) Up to 500 (indoor canopy)
2	Small Outdoor	Outdoor	No	5,001-10,000
2A	Small Indoor	Indoor	Yes	5,001-10,000
2B	Specialty Mixed-Light	Indoor/Outdoor	Yes	5,001-10,000
3	Small Outdoor	Outdoor	No	10,001 - 44,000
3A	Small Indoor	Indoor	Yes	10,001 - 22,000
3B	Specialty Mixed-Light	Indoor/Outdoor	Yes	10,001 - 22,000
4	Nursery	Indoor/Outdoor	Yes	N/A

Source: MCRSA 2015

### NORTH COAST REGIONAL WATER QUALITY CONTROL BOARD ORDER R5-2015-0023

Cultivators with 2,000 sq. ft. or more of cannabis are required to enroll in the North Coast Regional Water Quality Board's (RWQCB's) water quality regulatory program (Order R1-2015-0023), either directly with the Regional Water Board, or via an approved third-party program. Additionally, smaller operations or operations with similar environmental effects, where there is a threat to water quality, may be directed to enroll under the Order. The order requires water quality protection and covers water quality-related improvements and maintenance of developed sites with cannabis cultivation or operation with similar environmental effects.

The Order describes performance standards for site conditions. If a site meets these standards, the Regional Water Board has a reasonable expectation that water quality and beneficial uses will be protected. The Order establishes a process by which properties will be brought into conformance with these performance standards, referred to in the Order as standard conditions, through development and implementation of best management practices. There are twelve categories of standard conditions provided in the Order (Section I, A). The standard conditions address:

- ▲ site maintenance, erosion control and drainage features,
- ▲ stream crossing maintenance and improvement,
- ▲ stream and wetland buffers,
- ▲ spoils management,
- ▲ water storage and use,
- ▲ irrigation runoff,
- ▲ fertilizers and soil amendments,
- ▲ pesticides,
- ▲ petroleum products and other chemicals,
- ▲ cultivation-related wastes,
- ▲ refuse and human waste, and
- ▲ remediation, cleanup, and restoration activities.

If a site does not presently meet the standard conditions, the Order requires the development of a plan and schedule and implementation of corrective actions to achieve the standard conditions.

The State Water Resources Control Board (State Water Board) is developing a policy for water quality control to establish interim principles and guidelines for cannabis cultivation. The draft principles and guidelines include measures to protect springs, wetlands, and aquatic habitats from potential adverse effects of cannabis cultivation. Principles and guidelines include instream flow objectives, limits on diversions, and requirements for screening of diversions and elimination of barriers to fish passage. The principles and guidelines may include requirements that apply to groundwater extractions. The draft policy was released for public comment in June 2017, and the final policy is anticipated to be brought to the State Water Board for adoption in October 2017. Upon approval, the North Coast RWQCB Order R1-2015-0023 would sunset and cannabis operations would be subject to the State Water Board's policy.

## **HUMBOLDT COUNTY COMMERCIAL MEDICAL MARIJUANA LAND USE ORDINANCE**

On January 26, 2016, Humboldt County (County) adopted the Commercial Medical Marijuana Land Use Ordinance (CMMLUO) (Ordinance No. 2544, with corrective amendments by Ordinance No. 2559). This ordinance was the first proactive step in the County's process of establishing regulations for commercial cultivation, processing, manufacturing, and distribution of cannabis in a manner consistent with California's recently enacted Medical Marijuana Regulation and Safety Act (MMRSA). Its intent is to ensure public health and safety; protect the environment from harm to streams, fish, and wildlife; ensure the security of the medical marijuana; to bring existing cannabis cultivation into compliance with state law, and to safeguard against the diversion of medical marijuana for non-medical purposes. The ordinance establishes land use regulations and performance standards (Sections 55.4.10 and 55.4.11) to control medical commercial cannabis operations. Applications were no longer accepted after December 31, 2016; however, new applications may be submitted pending an extension or amendment by the Board of Supervisors following certification of this EIR.



## OTHER LOCAL AND STATE PERMITTING REQUIREMENTS

Prior to new site development, an owner or operator may be required to comply with additional requirements and obtain other permits including:

- ▲ county land use, building, streamside management area, and grading permits;
- ▲ California Department of Forestry and Fire Protection permitting for timber harvest, less-than-three-acre conversion exemption, and timberland conversions;
- ▲ coverage under the State Water Resources Control Board Construction General Permit for land disturbance of an acre or more;
- ▲ California Department of Fish and Wildlife Lake and Streambed Alteration Agreements; and
- ▲ SWRCB Division of Water Rights permitting for diversion, storage, and use of surface waters.

## 2.3 PROJECT LOCATION AND EXISTING CONDITIONS

Humboldt County is located along the north coast of California. It is bounded by the Pacific Ocean, Del Norte, Siskiyou, Trinity, and Mendocino counties (see Exhibit 2-1). The proposed ordinance would address appropriately zoned lands in the unincorporated area of Humboldt County and would not apply to the incorporated cities, tribal, state, and federal lands (see Exhibit 2-2).

Humboldt County consists of approximately 2.3 million acres, 75 percent of which is forested. Approximately 30 percent of the county is under federal, state, and tribal ownership. Incorporated cities consist of 24,000 acres and agricultural operations make-up 460,000 acres of the County. The reader is referred to Section 3.2, "Agriculture and Forest Resources," and 3.3, "Biological Resources," for a further description of the County's natural resources.

It has been estimated that there may be as many as 15,000 cannabis operations in the County. In response to passage of the CMMLUO, 2,337 cannabis operation permit applications were submitted to the County in December 2016 (see Table 2-2). Approximately 68 percent of these permit applications are for existing cannabis operations in the County. Based on review of the applications, cannabis cultivation operations in the County typically have the following characteristics:

- ▲ Number of employees (not including temporary staffing for harvests) per site: two to four (year-round operations) or two (seasonal operations).
- ▲ Water supply: combined use of wells and rain water collection with on-site storage in ponds.
- ▲ Energy source: combined use of solar power and generators.
- ▲ Distance from County-maintained roads: typically located one mile or greater from a County-maintained road.



Exhibit 2-1

County Location











## TYPE OF OPERATIONS

The following table provides the number of cannabis license applications received by the County by state license type. It is important to note that each application request does not constitute a single cannabis operation. Several of the applications consist of multiple cannabis operations (license types) that involve one site. For example, the 941 applications for permitting of new cannabis activities identified in Table 2-2 are associated with 432 individual sites.

**Table 2-2 Summary of Submitted Cannabis License Applications**

State License Type <sup>1</sup>	Permitting of New Cannabis Activities		Permitting of Existing Cannabis Activities		Permitting of Combination New and Existing Activities	
	Total Number of Requests	Cannabis Cultivation Area (acres)	Total Number of Requests	Cannabis Cultivation Area (acres)	Total Number of Requests	Cannabis Cultivation Area (acres)
1-Outdoor	61	6.99	240	27.58	13	1.51
2-Outdoor	161	37.04	313	71.90	23	5.21
3-Outdoor	147	147.02	643	643.07	25	25.10
1A-Indoor	31	3.56	16	1.78	17	1.92
2A-Indoor	17	3.84	8	1.92	2	0.55
3A-Indoor	30	15.10	5	2.41	1	0.61
1B-Mixed-Light	25	2.88	164	18.80	8	0.96
2B-Mixed-Light	123	28.27	222	51.04	23	5.21
3B-Mixed-Light	76	38.63	201	101.42	14	7.24
1C	N/A	0	N/A	0	N/A	0
4	78		19		19	
6	57		0		3	
7	43		0		0	
8	4		0		0	
10	20		0		1	
10A	4		1		0	
11	44		2		1	
12	2		0		0	
Processing	17		0		1	
RRR <sup>2</sup>	0		0		128	54.8
<b>TOTAL</b>	<b>941</b>	<b>283.35</b>	<b>1,838</b>	<b>919.92</b>	<b>157</b>	<b>48.32</b>

<sup>1</sup> See Table 2-1 for a description of state license types. Other license types used by the County are:

6: Manufacturing Level 1

7: Manufacturing Level 2

8: Testing

10 and 10A: Dispensary

11: Distribution

12: Transporter

<sup>2</sup> The Retirement, Retirement, and Relocation Program (RRR) sites are associated with other applications and are not included in the total number of applications received or total acreage.

## OBJECTIVES OF THE PROPOSED ORDINANCE

The overall purposes of the proposed ordinance are to establish legal commercial (in addition to medical) cannabis activities and expand upon the existing regulations set forth under the CMMLUO. Recognizing the requirements of state law related to the use and distribution of cannabis, the primary objectives of the proposed ordinance include the following:

- ▲ expand the scope of the Ordinance 2554 and 2559 to include commercial marijuana operations for adult recreational uses now authorized by AUMA, under the same general regulations as medical cannabis;
- ▲ establish local land use regulations to allow for continued commercial cannabis operations in the unincorporated area of the County that ensure the health and safety of residents, employees, County visitors, neighboring property owners, and end users of cannabis;
- ▲ provide consistency with state agency regulations associated with commercial cannabis operations;
- ▲ establish requirements that address land use and environmental impacts of cannabis operations, consistent with state agency regulations;
- ▲ support the local cannabis industry through maximizing participation of existing non-permitted cannabis farmers in the County's permitting program;
- ▲ improve baseline environmental conditions in the County by removing existing cannabis cultivation operations from environmentally sensitive locations and relocating them to areas with public services; and
- ▲ relocating existing non-permitted cannabis related activities into more centralized locations with better infrastructure (e.g. nurseries, community propagation centers, processing centers).

## 2.4 DESCRIPTION OF THE PROPOSED ORDINANCE

The project would involve the repeal of the County's existing Commercial Medical Marijuana Land Use Ordinance (Section 313-55.4 and 314-55.4 of Chapter 3 of Division 1 of Title III of the County Code) as well as repeal of the Medical Cannabis Testing and Research Laboratories provisions and on-site consumption prohibition found in Sections 313-55.3.15, 314-55.3.15, 313-55.3.11.7 and 314-55.3.11.7 of Division 1 of Title III of the County Code, respectively. These regulations would be replaced by the provisions of the proposed ordinance, which would establish land use regulations for the commercial cultivation, processing, manufacturing, distribution, testing, and sale of cannabis within the County.

Under the proposed ordinance, Humboldt County would issue three types of authorization:

- ▲ Zoning Clearance Certificate, which requires review of the Planning Division, as a ministerial action, upon determination that the application is consistent with zoning requirements.
- ▲ Special Permit, which requires noticing to surrounding property owners and occupants, and a discretionary action that may have hearing requirements waived.
- ▲ Use Permit, which requires noticing to surrounding property owners and occupants and a discretionary action subject to a public hearing.

A summary of components of the proposed ordinance are described below. The full text of the ordinance can be downloaded from the County's website: <http://www.humboldt.gov.org/2308/Cannabis-EIR>.



## 2.4.1 General Provisions

### OUTDOOR AND MIXED-LIGHT COMMERCIAL CULTIVATION

#### Resource Production and Residential Areas

Outside of the Coastal Zone, outdoor and mixed-light commercial cultivation would be allowed in the following Resource Production and Low Density Residential zoning districts: Agricultural Exclusive (AE), Agricultural General (AG), Forest Recreational (FR), or Unclassified (U) (accompanied by a General Plan land use designation of Resource Protection, other than Timberland, or Residential requiring parcel sizes of more than 5 acres). Within the Coastal Zone, outdoor and mixed-light commercial cultivation would be allowed in the AE and Rural Residential Agriculture (RA) zones. All sites would also be required to comply with the ordinance's eligibility and siting criteria, as well as applicable performance standards.

Inland Zoning Districts: AE, AG, FR, and U

Coastal Zoning Districts: AE and RA

- ▲ Parcels between 5 and 10 acres: up to 5,000 sq. ft. of cannabis cultivation area with a Zoning Clearance Certificate. A cannabis cultivation area of up to 10,000 sq. ft. may be allowed with a Special Permit.
- ▲ Parcels 10 acres or larger: up to 10,000 sq. ft. of cannabis cultivation area with a Zoning Clearance Certificate. A cannabis cultivation area of up to 43,560 sq. ft. may be allowed with a Special Permit.
- ▲ Parcels 320 acres or larger: up to 43,560 sq. ft. of cannabis cultivation area per 100 acres with a Use Permit.

#### Commercial and Industrial Areas

Outside of the Coastal Zone, outdoor and mixed-light commercial cultivation would be allowed in the following Commercial and Industrial zoning districts: Industrial Commercial (C-3), Light Industrial (ML), Heavy Industrial (MH), and U (when accompanied by a Commercial or Industrial General Plan land use designation, or where previously developed for a lawful industrial or commercial use). Within the Coastal Zone, outdoor and mixed-light commercial cultivation would be allowed in zoning districts: Commercial General (CG), ML, Industrial General (MG), and Industrial/Coastal Dependent (MC) (as an interim use). All sites would also be required to comply with the ordinance's eligibility and siting criteria, as well as applicable performance standards, and be located on a parcel at least 2 acres in size.

Inland Zoning Districts: C-3, ML, MH, and U (when accompanied by a Commercial or Industrial General Plan land use designation, or where previously developed for a lawful industrial or commercial use).

Coastal Zoning Districts: CG, ML, MG, and MC (as an Interim Use) zones, or on parcels previously developed for a lawful industrial or commercial use.

- ▲ Open air cultivation activities of up to 1 acre of cannabis cultivation area with a Zoning Clearance Certificate.
- ▲ Additional cannabis cultivation area in excess of 1 acre may be allowed with a Use Permit.

### PRE-EXISTING INLAND OUTDOOR AND MIXED-LIGHT COMMERCIAL CULTIVATION

Pre-existing cultivation sites are defined as parcels where cultivation activities occurred at any time between January 1, 2006 and December 31, 2015. Expansion of pre-existing sites is prohibited in areas zoned as Timberland Production Zone (TPZ) and U (where the General Plan land use designation is Timberland). In other areas, a pre-existing cultivation site may be expanded to the maximum allowed for the applicable parcel size and permit type within non-forested areas with slopes less than 15 percent, except as otherwise specified or

restricted in the ordinance. Pre-existing outdoor and mixed-light commercial cultivation sites that comply with the proposed ordinance's siting requirements and performance standards may be allowed as provided below.

Inland Zoning Districts: AE, AG, FR, Flood Plain (FP), TPZ, and U (including parcels with a General Plan designation of Timberland or with a Residential designation requiring parcel sizes of more than 5 acres).

Coastal Zoning Districts: AE, RA, TC, TPZ

Accommodations for pre-existing cultivation sites:

- ▲ Pre-existing sites may be provisionally approved, subject to a Compliance Agreement.
- ▲ Parcels 5 acres or larger: up to 3,000 sq. ft. of cannabis cultivation area with a Zoning Clearance Certificate, subject to certain allowances where meeting specific requirements.
- ▲ Parcels 1 to 5 acres: up to 5,000 sq. ft. of cannabis cultivation area with a Special Permit.
- ▲ Parcels between 5 and 10 acres: up to 5,000 sq. ft. of cannabis cultivation area with a Zoning Clearance Certificate. A cannabis cultivation area of up to 10,000 sq. ft. may be allowed with a Special Permit.
- ▲ Parcels 10 acres or larger: up to 10,000 sq. ft. of cultivation area with a Zoning Clearance Certificate. A cannabis cultivation area of up to 43,560 sq. ft. may be allowed with a Special Permit.
- ▲ A pre-existing cultivation site may be permitted on slopes greater than 15 percent but not exceeding 30 percent with a Special Permit.
- ▲ With a Special Permit, a pre-existing cultivation site may be reconfigured to best achieve compliance with applicable eligibility and siting criteria.
- ▲ Pre-existing sites may utilize generators to provide up to 20 percent of their cultivation-related energy demands, subject to conformance with the Generator Noise Performance Standard. However, generator use would be prohibited within TPZ zones or U zones with a Timberland General Plan land use designation.
- ▲ Myers Flat Community Plan Area: up to 3,000 sq. ft. of cannabis cultivation area with a Special Permit, subject to certain allowances.
- ▲ Pre-existing sites meeting certain criteria qualify for incentives pursuant to the Retirement, Remediation, and Relocation provisions (RRR).

## RETIREMENT, REMEDIATION, AND RELOCATION OF PRE-EXISTING CULTIVATION SITES

The proposed ordinance includes provisions to incentivize, promote, and encourage the retirement, remediation, and relocation of existing cannabis cultivation operations occurring in inappropriate, marginal, or environmentally sensitive sites. This would apply to existing cultivation sites that have unpermitted surface water supplies or do not meet the roadway, slope, and setback standards of the proposed ordinance. Sites where relocation (relocation sites) of cannabis cultivation activities may occur would be required to meet eligibility requirements and performance standards of the ordinance. The RRR provisions would allow for a cultivation area of up to four times that of the existing site, with a maximum cultivation area of 20,000 sq. ft. The existing cannabis cultivation site participating in the relocation program would be remediated and restored to natural habitat conditions.

Inland Zoning Districts: AE, RA, AG, TPZ, FR, or U

Coastal Zoning Districts: AE, RA, TC, TPZ

## INDOOR COMMERCIAL CULTIVATION

### Resource Production and Residential Areas

With a Zoning Clearance Certificate, indoor cultivation of up to 5,000 sq. ft. of cultivation area would be permitted within a non-residential structure that existed prior to January 1, 2016. Outside of the Coastal Zone, this would be allowed to occur in the following resource production and low density residential zoning districts: AE, AG, FR, or U (accompanied by a General Plan land use designation of Resource Protection, other than Timberland, or Residential requiring parcel sizes greater than 5 acres). Within the Coastal Zone, indoor commercial cultivation would be allowed in the AE and RA zones. All sites would also be required to comply with the ordinance's eligibility and siting criteria, as well as applicable performance standards.

Inland Zoning Districts: *Resource Production/Residential* AE, AG, FR, and U (except parcels with a General Plan designation of Timberland or with a Residential designation allowing parcel sizes of 5 acres or less).

Coastal Zoning Districts: *Resource Production/Residential* AE, RA

### Commercial and Industrial Areas

With a Zoning Clearance Certificate or Special Permit, up to 5,000 or 10,000 sq. ft. of indoor cultivation area may be permitted within certain commercial and industrial zoning districts, as well as at previously developed commercial and industrial sites. Where more than one permit is sought on a single parcel, a Use Permit would be required. Outside of the Coastal Zone, indoor commercial cultivation would be allowed in the following commercial and industrial zoning districts: C-3, ML, MH, and U (when accompanied by a Commercial or Industrial General Plan land use designation, or where previously developed for a lawful industrial or commercial use). Within the Coastal Zone, indoor commercial cultivation would be allowed in the CG, ML, MG, and MC zoning districts (as an interim use). All sites would also be required to comply with the ordinance's eligibility and siting criteria as well as applicable performance standards.

Inland Zoning Districts: *Commercial/Industrial* C-3, ML, MH, and U (when accompanied by a Commercial or Industrial General Plan land use designation, or where previously developed for a lawful industrial or commercial use)

Coastal Zoning Districts: *Commercial/Industrial* CG, ML, MG, and MC (as an Interim Use) zones, or where previously developed for a lawful industrial or commercial use.

Allowable zoning districts for indoor commercial cannabis cultivation are provided in Table 2-3.

**Table 2-3 Indoor Cannabis Cultivation - Allowable Zoning Districts**

Zone Districts	Designation	Limitations
Resource Production/Residential Areas		
Inland: Agriculture Exclusive, Agricultural General, Forest Residential, and Unclassified	AE, AG, FR, and U	Enclosed structures with up to 5,000 sq. ft. of cannabis cultivation area, located in non-residential structure that existed prior to January 1, 2016 are allowed with a Zoning Clearance Certificate where siting requirements and performance standards are met.
Coastal: Agriculture Exclusive and Rural Residential Agriculture	AE and RA	
Commercial/Industrial Areas		
Inland: Industrial Commercial, Light Industrial, Heavy Industrial, and Unclassified	C-3, ML, MH, and U	Enclosed structures with up to 5,000 sq. ft. of cannabis cultivation area are allowed with a Zoning Clearance Certificate where siting requirements and performance standards are met. Enclosed structures with up to 10,000 sq. ft. of cannabis cultivation area may be permitted with a Special Permit. Use Permits would be required where more than one clearance or permit is sought on a parcel. The total cannabis cultivation area may not exceed 1 acre.
Coastal: Commercial General, Light Industrial, Industrial General, Industrial/Coastal-Dependent	CG, ML, MG, and MC (as an Interim Use)	

## MANUFACTURING

Manufacturing activities are required to be conducted in an enclosed structure. Manufacturing activities may be permitted with a Special Permit within certain commercial and industrial zoning districts, as well as at previously developed commercial and industrial sites. Manufacturers conducting extraction using volatile and non-volatile solvents may be permitted with a Special Permit. Manufacturers that produce edible or topical products using infusion processes or other types of medical cannabis products other than extracts or concentrates, and that do not conduct extractions, may be permitted with a Zoning Clearance Certificate. Outside of the Coastal Zone, manufacturing would be allowed in the following commercial and industrial zoning districts: Highway Service Commercial (CH), Community Commercial (C-2), C-3, Business Park (MB), ML, MH, and U when accompanied by a Commercial or Industrial General Plan land use designation, or where previously developed for a lawful industrial or commercial use. Within the Coastal Zone, Manufacturing would be allowed in the CG, ML, MG, and MC (as an interim use) zoning districts. All sites would also be required to comply with the ordinance's eligibility and siting criteria as well as applicable performance standards.

Inland Zoning Districts: *Commercial/Industrial* CH, C-2, C-3, MB, ML, MH, and U (when accompanied by a Commercial or Industrial General Plan land use designation, or where previously developed for a lawful industrial or commercial use).

Coastal Zoning Districts: *Commercial/Industrial* CG, ML, MG, and MC (as an Interim Use) zones, or where previously developed for a lawful industrial or commercial use.

Allowable zoning districts for indoor commercial cannabis cultivation are provided in Table 2-4.

**Table 2-4 Manufacturing - Allowable Zoning Districts**

Zone Districts	Designation	Limitations
<b>Commercial/Industrial Areas</b>		
Inland: Highway Service Commercial, Community Commercial, Industrial Commercial, Business Park, Limited Industrial, Heavy Industrial, and Unclassified	CH, C-2, C-3, MB, ML, MH, U	Within Enclosed structures. Must comply with eligibility and siting criteria and applicable performance standards. Manufacturers conducting extraction using volatile and non-volatile solvents would be allowed with a Special Permit.
Coastal: Commercial General, Business Park, Light Industrial, Industrial General, Industrial/Coastal-Dependent	CG, MB, ML, MG, and MC (as an Interim Use)	Manufacturers that do not conduct extraction and produce edible or topical products using infusion processes would be allowed with a Zoning Clearance Certificate.

## CANNABIS SUPPORT FACILITIES

Distribution, off-site processing, enclosed nurseries, and community propagation centers may be allowed with a Zoning Clearance Certificate when meeting the proposed ordinance eligibility and siting criteria, as well as applicable performance standards. These facilities may also be allowed in CH and MB zones with a Special Permit.

Inland Zoning Districts: *Resource Production/Residential* AE, AG, FR, and U (except parcels with a General Plan designation of Timberland or with a Residential designation allowing parcel sizes of 5 acres or less)

*Commercial/Industrial:* C-2, C-3, MB, ML, MH, and U (when accompanied by a Commercial or Industrial General Plan land use designation, or where previously developed for a lawful industrial or commercial use)

Coastal Zoning Districts: *Resource Production/Residential* AE, RA

*Commercial/Industrial:* CG, MB, ML, MG, and MC (as an interim use) zones, or where previously developed for a lawful industrial or commercial use.

Cannabis testing and research laboratories may be allowed with a Zoning Clearance Certificate when meeting the proposed ordinance eligibility and siting criteria as well as applicable performance standards.

Inland Zoning Districts: *Commercial/Industrial* C-2, C-3, MB, ML, MH, and U (when accompanied by a Commercial or Industrial General Plan land use designation, or where previously developed for a lawful industrial or commercial use).

Coastal Zoning Districts: *Commercial/Industrial* CG, MB, ML, MG, and MC (as an interim use) zones, or where previously developed for a lawful industrial or commercial use. Allowable zoning districts for indoor commercial cannabis cultivation are provided in Table 2-5.

**Table 2-5 Cannabis Support Facilities - Allowable Zoning Districts**

Zone Districts	Designation	Limitations
<b>Resource Production/Residential Areas – Distribution, Off-Site Processing, Enclosed Nurseries, Community Propagation Centers*</b>		Allowed with a Zoning Clearance Certificate where certain eligibility/siting requirements and performance standards are met. Access to the site must be provided exclusively via paved roads that contain a centerline strip or meet the Category 4 road standard (no exceptions).
Inland: Agriculture Exclusive, Agricultural General, Forest Residential, and Unclassified	AE, AG, FR, and U	
Coastal: Agriculture Exclusive and Rural Residential Agriculture	AE and RA	
<b>Commercial/Industrial Areas – Distribution, Off-Site Processing, Enclosed Nurseries, Community Propagation Centers*</b>		Allowed with a Special Permit where meeting <u>all</u> eligibility and siting criteria, and applicable performance standards.
Inland: Community Commercial, Industrial Commercial, Business Park, Light Industrial, Heavy Industrial, and Unclassified	C-2, C-3, MB, ML, MH, and U	
Coastal: Commercial General, Business Park, Light Industrial, Industrial General, Industrial/Coastal-Dependent	CG, MB, ML, MG, and MC (as an Interim Use)	
Inland: Highway Service Commercial and Business Park	CH and MB	
Coastal: Business Park	MB	

\* Propagation Centers allow cannabis farmers, operating within regional cultivation areas and communities without grid-supplied electricity, to maintain mother plants in a vegetative state at a nearby facility, during periods where these plants need not be located at the cultivation site.

Zone Districts	Designation	Limitations
<b>Commercial/Industrial Areas – Cannabis Testing and Research Laboratories</b>		Allowed with a Zoning Clearance Certificate where eligibility/siting requirements and performance standards are met. Access to the site must be provided exclusively via paved roads that contain a centerline strip or meet the Category 4 road standard (no exceptions).
Inland: Community Commercial, Heavy Commercial, Business Park, Limited Industrial, Heavy Industrial, and Unclassified	C-2, C-3, MB, ML, MH, and U	
Coastal: Commercial General, Business Park, Light Industrial, Industrial General, Industrial/Coastal-Dependent	CG, MB, ML, MG, and MC (as an Interim Use)	

## MICROBUSINESSES

“Microbusiness” is defined as a cannabis operation that includes cultivation, manufacturing, wholesale distribution, and sales at the same establishment consistent with state licensing provisions.

Microbusinesses may be allowed in any of the zoning districts that authorize cannabis activities (except on parcels zoned FP and TPZ) with a Use Permit. Microbusiness sites must be accessed exclusively by roads that are paved with a centerline stripe or roads that are paved and meet the Category 4 roads standard without exception.



## SPECIAL AREA PROVISIONS

The proposed ordinance includes the following special provisions for commercial cannabis operations associated with city spheres of influence (SOI), tribal reservations and rancherias, and rural residential areas.

- ▲ A Special Permit would be required for any commercial cannabis activity that would be located within the SOI of any incorporated city, or within 1,000 feet of the city limit boundary of any city, whichever distance is greater, or within 1,000 feet of the boundary of a reservation or rancheria.
- ▲ A Special Permit would be required for any commercial cannabis activity that would be located within mapped Rural Residential Neighborhood Areas (RRNA's).
- ▲ The Hearing Officer would consider the potential impacts and cumulative impacts of proposed uses to the community area as a whole, including impacts to neighboring uses within cities or their buffers, and to residents within RRNA's, SOI's, or buffers from city limits or tribal land. The Hearing Officer could deny any discretionary permit application within these areas if it is found, based on substantial evidence in the record, that the impacts of a proposed activity on the existing uses would have a significant adverse effect on the public health, safety, or welfare.

### 2.4.2 Tribal Land Requirements and Tribal Consultation

- ▲ Commercial cannabis activities on tribal lands would be subject to the express approval of the tribe.
- ▲ The County would engage with local tribes before consenting to the issuance of any clearance or permit, if cultivation operations occur within an Area of Traditional Tribal Cultural Affiliation.<sup>1</sup> This process would follow current departmental referral protocol, including engagement with the Tribe(s) through coordination with their Tribal Historic Preservation Officer (THPO) or other tribal representatives. This procedure would be required to be conducted similar to the protocols outlined under Senate Bill (SB) 18 (Burton) and Assembly Bill (AB) 52 (Gatto), which describe “government to government” consultation, through tribal and local government officials and their designees. During this process, the tribe may request that operations associated with the clearance or permit be designed to avoid, minimize or mitigate impacts to tribal cultural resources.<sup>2</sup> Examples include, but are not limited to: conducting a site visit with the THPO or their designee to the existing or proposed cultivation site, requiring that a professional cultural resources survey be performed, or requiring that a tribal cultural monitor be retained during project-related ground disturbance within areas of sensitivity or concern. The county would be required to request that a records search be performed through the California Historical Resources Information System (CHRIS).

### 2.4.3 Application Requirements

Applications may require, but are not limited to, any or all of the following information be submitted depending on permit type and location: plans, cultivation and operations plans, processing plan, documentation of water use and storage, information concerning previously secured state and local permits for cannabis-related infrastructure or activities, evidence of prior cultivation where seeking a permit as a pre-

<sup>1</sup> “Area of Traditional Tribal Cultural Affiliation” as defined by the proposed ordinance means geographic areas of historic occupancy and traditional cultural use by local indigenous peoples (California Native American Tribes), as shown on the latest mapping prepared by the Planning & Building Department, created from geographic information supplied by the Tribes of Humboldt County.

<sup>2</sup> “Tribal Cultural Resources” as defined by the proposed ordinance means sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe, including unique archaeological resources and historical resources as described under sections 21074, 21083.2(g), and 21084.1 of the Public Resources Code, respectively. Tribal cultural resources would also include sites or resources identified by the tribe through an action of the Tribal Council or equivalent body.

existing cultivation site, restoration and remediation plans where appropriate, plans for energy use, and details of current known violations related to commercial cannabis activities.

## 2.4.4 Ordinance Requirements and Performance Standards

Under the proposed ordinance, cannabis is considered to be a highly regulated specialty crop that is not exempt from grading, streambed alteration, or other construction and earth-moving permits. Cannabis cultivation and other commercial cannabis activity would be subject to performance standards. The requirements and performance standards are summarized below.

### GENERAL REQUIREMENTS

- ▲ Commercial cannabis activities would be required to be conducted in compliance with all applicable state laws and County ordinances.
- ▲ The operator of the permitted facility would be required to have in their possession on the premises a current, valid license, or licenses issued by the appropriate state licensing authority or authorities as provided in MAUCRSA for the type of activity being conducted, as soon as such licenses become available.
- ▲ Consent to an annual on-site compliance inspection, with at least 24 hours prior notice, to be conducted by appropriate County officials during regular business hours (Monday – Friday, 9:00 am – 5:00 pm, excluding holidays).
- ▲ Pay all applicable application and annual inspection fees.
- ▲ Comply with any special conditions applicable to that permit or premises that may be imposed as a condition of approval of any Special Permit, or Use Permit.

### ENERGY USE FOR COMMERCIAL CANNABIS CULTIVATION, MANUFACTURING, AND PROCESSING

Energy would be supplied through one of the following:

- ▲ On-grid power from 100 percent renewable energy source (PG&E Solar Choice, RCEA Community Choice Aggregation, etc.).
- ▲ On-grid power with purchase of carbon offset from an accredited source.
- ▲ On-site zero net energy provided by a renewable energy source.

Existing sites may be allowed to use 20 percent generator/80 percent renewable energy supplies, upon issuance of a Zoning Clearance Certificate and compliance with other energy and generator noise performance standards.

### SETBACKS

All cultivation site(s) would observe the following setbacks:

- ▲ Property lines: 30 feet from any property line.
- ▲ Residences: 300 feet from any residence.
- ▲ Sensitive Receptors: 600 feet from a school bus stop, church, or other place of religious worship, public park, or tribal cultural resource. For purposes of this section, the setback requirement applicable to



public parks, other than lands managed for open space and/or wildlife habitat, would only be applied to designated and developed recreational facilities such as picnic areas and campgrounds, trails, river, and fishing access points, and like facilities under public ownership.

- ▲ Tribal ceremonial areas: 1,000 feet from all tribal ceremonial areas.
- ▲ The setback required from associated property lines or residence(s) on an adjacent privately-owned property may be waived or reduced with the express written consent of the owner(s) of the subject property.
- ▲ Notwithstanding the above described setbacks from sensitive receptors and tribal ceremonial areas, the setback required from these areas may also be waived or reduced with the express written consent of qualified officials or representatives representing these protected uses. For publicly owned lands managed for open space and/or wildlife habitat purposes, a setback of less than 600 feet may be allowed with a Special Permit, provided that advanced notice is given to the person or agency responsible for managing or supervising the management of those lands.
- ▲ In all cases, structures would comply with the setback requirements and similar provisions of the principal zoning district(s) as well as those required by the Building Code, including lot coverage.
- ▲ Additionally, in cases where one or more discrete premises span multiple parcels, the 30-foot setback from shared boundary lines may be waived for cultivation activities that do not occur within a structure.
- ▲ Cultivation site(s) and appurtenant facilities including surface water diversions, agricultural wells, and similar infrastructure would observe all prescribed setbacks and limitations pertaining to the use of land located within or affecting Streamside Management Areas (SMAs) or other wet areas, as identified and described under Section 314-61.1 of the County Code. Under certain circumstances, a Special Permit may be required.

## ROAD STANDARD FOR NEW AND EXISTING SITES

Roads providing access to any parcel(s) or premises on which commercial cannabis activities occur would comply with the following standards, as applicable:

### Standard 1 – Dead End Road Length

Individual sites would not be located more than 2-miles (measured in driving distance) from the nearest intersection with a County Category 4 road that is part of a system providing secondary access by emergency vehicles and personnel, including wildland fire equipment.<sup>3</sup>

### Standard 2 – Functional Capacity

Road systems providing access to the parcel(s) or premises would meet or exceed the County Category 4 road standard (or same practical effect). The application package would demonstrate compliance with this requirement in one of the following ways:

- ▲ Parcel(s) served exclusively by roads that are paved publicly maintained or private roads where all portions of the road system feature a center-line stripe require no further analysis only a notation on the plans that the access to the site meets this requirement, or
- ▲ Parcel(s) served by roads without a centerline stripe would submit a written assessment of the functional capacity of these road segments. If the assessment reveals that all road systems meet or exceed the Category 4 standard (or same practical effect), then no additional review is necessary. Documentation of

<sup>3</sup> The Category 4 road standard provides 18 to 20-foot wide travel lanes, 2-foot wide bladed shoulders (as required by the County), 25 to 40-mile per hour design speed, and sight distance requirements for safe passage. The County has determined that the Category 4 road standard is adequate to accommodate commercial cannabis operation traffic volumes and vehicle types (e.g., passenger vehicles, small trucks, large service trucks).

self-certification would be required to be produced to the satisfaction of the County, including use of appropriate forms where provided. The County reserves the right to independently verify general compliance with this standard.

Where access to a site is provided by roads not meeting the Category 4 standard, the application would be subject to a Special Permit and preparation of a report prepared by a licensed engineer evaluating whether the design, condition, and performance of all necessary road segments are currently capable of supporting increases in traffic volume created by the site, in addition to the existing traffic using the road(s). The report would detail all substandard conditions and prescribe measures that would be taken to most closely achieve compliance with the relevant road standards and objectives, or the same practical effect. A cost estimate and schedule would be required to be provided. The report would be required to also include a recommendation or formula for cost sharing among all parcels served by the road system.

### **Standard 3 – Private Road Systems: Protections for Water Quality and Biological Resources**

- ▲ Private road systems and driveways providing access to parcel(s) or premises would be designed, maintained, or retrofitted in accordance with the latest edition of the document titled, “A Water Quality and Stream Habitat Protection Manual for County Road Maintenance in Northwestern California Watersheds,” which was adopted by the Humboldt County Board of Supervisors on July 6, 2010, and is also known as the Five Counties Salmonid Conservation Roads Maintenance Manual. This includes measures to protect water quality using best management practices so that:
  - Impacts from point source and non-point source pollution are prevented or minimized, including discharges of sediment or other pollutants that constitute a threat to water quality. Road segments would be required to be designed and maintained in ways that minimize the potential for discharge of sediment through measures to reduce velocity of runoff, capture and detain stormwater from road systems to enable settling of transported sediments, and minimize direct delivery to nearby watercourses, to the greatest extent feasible.
  - Road segments are hydrologically disconnected from surface water features to the greatest extent feasible.
  - Design and construction of culverts, stream crossings, and related drainage features would be required to remove barriers to passage and use by adult and juvenile fish, amphibians, reptiles, and aquatic invertebrates.
- ▲ Where access to a site is provided in part by private roads systems, any application to permit a commercial cannabis activity would include a report evaluating the design, condition, and performance of all private road segments within the defined roadshed.
  - The report would be prepared by a licensed engineer or similarly qualified professional.
  - The report would be prepared to the satisfaction of the County and would include or be accompanied by exhibits and stationing information of sufficient detail to enable the location, attributes, and condition of all road drainage features to be itemized and documented. The narrative portion of the report would evaluate the current design, functionality and performance of discrete drainage systems and segments and develop conclusions concerning compliance and conformance with best management practices within the defined roadshed. The County may request additional information or choose to independently investigate and verify any and all conclusions within the report.
  - Where an evaluation has determined, to the satisfaction of the County, that all private road segments comply with relevant best management practices, no further work is needed.

- ▲ Road Maintenance Associations and Cost Sharing
  - Where three or more permit applications have been filed for commercial cannabis activities on parcels served by the same shared private road system, the owner of each property would consent to join or establish the appropriate road maintenance association (RMA) prior to operation or provisional permit approval. This requirement would be required to apply to existing permittees seeking to renew their permit. Evidence would be provided to the satisfaction of the County, and may include minutes from a meeting, written correspondence and confirmation from the RMA Secretary, or similar information.
  - When one or more applicants in a defined roadshed have prepared and submitted a Professional Private Road Evaluation, all contemporaneous applicants served by the same roadshed would be required to contribute to the cost of preparation of the report. The cost allocation would be determined by any RMA(s) within the roadshed that includes the road segments providing access to the cultivation site of each applicant. In determining the cost allocation, the RMA would consider the recommendation or formula for cost sharing included in the report.
- ▲ Special Noticing on Private Road Systems
  - Wherever an exception to the standard for functional capacity is being sought, in addition to noticing property owners and occupants within 300 feet of the boundaries of the parcel(s) or premises, notice of the project would also be sent to all owners and occupants of property accessed through common shared use private road systems.

## GENERATOR NOISE STANDARDS

- ▲ Generators would be required to not result in an increase in existing ambient noise levels at the property line of the site, and would not be audible by humans from neighboring residences located on separate nearby parcels.
- ▲ Where located within one (1) mile of mapped critical habitat for marbled murrelet or spotted owls where timberland is present, maximum noise exposure from the combination of background and generator created noise may not exceed 50 decibels measured at a distance of 100 feet from the generator or the edge of habitat, whichever is closer. Where ambient noise levels, without including generator noise, exceed 50 decibels within 100 feet from the generator or the edge of habitat, generators may continue to be used when an increase in ambient noise levels would not result.
- ▲ The permit application would include information demonstrating compliance with the noise standards, including: a site plan detailing the location of the generator, property lines, and nearby forested areas, existing ambient noise levels at the property line using current noise measurements (excluding generators) during typical periods of use, details on the design of any structure(s) or equipment used to attenuate noise, as well as details on the location and characteristics of any landscaping, natural features, or other measures that serve to attenuate generator noise levels at nearby property lines or habitat.

## WATER SUPPLY

- ▲ Irrigation for nurseries, outdoor, and mixed-light cannabis cultivation would be required to use stored water from non-diversionary sources or water from a public or private water supplier. Water from on-site greywater systems is also authorized for year-round use. Dry farmed outdoor or mixed-light cultivation sites may obtain water supplies for irrigation from diversionary sources for propagation areas and transplantation. Irrigation water sourced from diversionary sources may be permitted with a Special Permit pursuant to the Streamside Management Area Ordinance, Humboldt County Code Section 314-61.1., and subject to the following performance standards.

## Documentation of Current and Projected Water Use

- ▲ All requests to permit commercial cannabis cultivation activities would be required to provide information detailing past and proposed use(s) of water on the site. Information in the plan would be developed to the satisfaction of County staff, and would be used to assist in identifying and establishing an appropriate forbearance period. At minimum, the following items would be included:
  - ▲ Information identifying the cultivation season(s).
  - ▲ A water budget showing weekly and monthly past or projected irrigation demands, including daily irrigation demand during periods of peak usage, broken out by each discrete Cultivation Site. Irrigation reporting or projections would be differentiated where cultivation methods and conditions result in differences in water usage at specific cultivation sites.
  - ▲ A listing of current or proposed areas of on-site water storage, showing volume in gallons.

## Forbearance Period & Storage Requirements

- ▲ The County may require that operators of cannabis cultivation site(s) forbear from diversions of surface water for irrigation during periods of low or reduced stream flows. Unless otherwise specified, the default forbearance period would be required to occur from May 15<sup>th</sup> through October 31<sup>st</sup> of each year. In determining the appropriate forbearance period, the County would review the past record of water use at the site, the volume and availability of water resources and other water use and users in the local watershed, as well as relevant gaging information. Under certain circumstances, limited diversion during the forbearance period(s) may be authorized.
- ▲ The County may require the submittal of a water management plan prepared by a qualified person such as a licensed engineer, hydrologist, or similar qualified professional, establishing a smaller or larger water storage and forbearance period, if required, based upon local site conditions.
- ▲ Where subject to forbearance, the applicant would be required to provide a plan for developing adequate on-site water storage to provide for irrigation, based on the size of the area to be cultivated.

## Metering and Recordkeeping

- ▲ A metering device would be required to be installed and maintained on all discrete points of diversion, located at or near the point of diversion, and at or near the outlet of all water storage facilities used for irrigation.
- ▲ Operators would be required to maintain a weekly record of water collected from diversionary sources, as well as a record of all water used in irrigation of permitted cultivation areas. A copy of these records would be stored and maintained at the cultivation site, and kept separately or differentiated from any record of water use for domestic, fire protection, or other irrigation purposes. Irrigation records would be reported to the County on an annual basis, and made available for review during site inspections by local and state officials.

## Wells on Small Parcels

- ▲ Cultivation site(s) located within areas planned or zoned for lot sizes of ten acres or smaller where proposing or conducting Irrigation with water from a proposed or existing well located within 400 feet of a property line, shall be subject to groundwater testing to determine connectivity of the source supply well. These tests shall be preceded by a minimum of eight (8) hours of non-operation to maintain a static depth to water measurement. Results of testing would be required to be provided with the permit application submittal. If the testing demonstrates use of the well results in the drawdown of any adjacent well(s), a Special Permit will be required. Use of the well for cannabis-related Irrigation may be prohibited, limited, or subject to provisional approval and monitoring.

## WATER STORAGE

All facilities and equipment storing water for irrigation would be designed and managed in conformance with the following performance standards, where applicable:

### Ponds and Reservoirs

- ▲ Except in limited circumstances where already permitted or existing, ponds would be required to be located “off-channel” from nearby watercourses and adequately setback from nearby streams, springs, and other hydrologic features.
- ▲ To prevent occupancy by and survival of non-native bullfrog species, ponds would be required to be designed to allow for them to be drained. Draining may be required on an annual basis or other interval where determined necessary.
- ▲ Introduction or maintenance of non-native species is prohibited where an existing or proposed pond is filled from, or outlets to a nearby stream or wetland.
- ▲ Ponds would be designed with pathways enabling escape by local wildlife. These may include rock-lined portions or similar features providing equivalent means of egress. Ponds would not be fenced.
- ▲ All ponds and reservoirs would be designed by a licensed civil engineer where utilizing a dike, earthen dam, berm or similar feature to facilitate water storage. The engineer would evaluate the risk of pond failure under natural conditions and specify provisions for periodic inspection, routine maintenance, and long-term management. An engineered reclamation and remediation plan would be submitted for County approval within one year of sunset or cancellation of the permit, and completed within standard permitting timeframes.

### Bladders

- ▲ Use of bladders or above ground pools for water storage would be prohibited.
- ▲ Pre-existing cultivation sites currently reliant on use of bladders for storage would be required to substitute permitted means of storage and remove bladder(s) within 2 years of permit issuance. Permits would be approved provisionally subject to completion of these measures.

### Tanks located in designated Flood Zones

- ▲ Tanks must be sited at least one foot above the base flood elevation or wet flood proofed and anchored.

## SOILS MANAGEMENT AND CONSERVATION

Commercial cannabis cultivation activities are encouraged to minimize the need for repeated import of soil, through all of the following measures:

- ▲ Utilizing periodic amendments and similar measures, soil would be managed so that they may be reused during subsequent cultivation seasons.
- ▲ Notwithstanding soils imported during initial establishment of the cultivation site(s), soils imported during subsequent cultivation seasons would primarily be used for ancillary propagation activities and amendment of native or previously imported soils.
- ▲ Outdoor and mixed-light cultivation activities would be required to provide a soils management plan detailing the use of soil at the site including annual and seasonal import of soil, disposal of waste soils, and accounting of the seasonal volume of import and exported soils. A Special Permit would be required for cultivation operations that seasonally reuse less than 75 percent of their imported soils.

## LIGHTING PERFORMANCE STANDARDS: NEW AND EXISTING SITES

- ▲ Structures used for mixed-light cultivation and nurseries would be shielded so that no light escapes between sunset and sunrise.
- ▲ No mixed-light cultivation may occur within 200 feet of a riparian zone.
- ▲ All security lighting would be shielded and angled in such a way as to prevent light from spilling outside of the boundaries of the site or directly focusing on any surrounding uses.

## SITE RECONFIGURATION CRITERIA: EXISTING SITES

- ▲ Where an existing site does not conform to one or more performance standards or certain eligibility criteria, or cannot comply with local, state, or federal regulatory requirements, reconfiguration of the cultivation site and associated infrastructure may be permitted, provided that the reconfiguration results in an improvement in the environmental resources of the site, and the site is brought into compliance with the requirements of the regulations.
- ▲ A biological resource protection plan would also be included. The plan would be prepared by a qualified professional and would evaluate whether prior unpermitted development or disturbance has occurred within a streamside management area, sensitive plant community, or area of similar biological sensitivity.
- ▲ Any new timberland conversion proposed in association with cultivation site reconfiguration would not exceed the areas of existing conversion to be relocated.
- ▲ Pre-existing cultivation areas to be relocated would be restored to pre-disturbance conditions and restocked and/or managed to promote recovery by native vegetation and tree species.
- ▲ Pre-existing interior driveways and road networks may be reconfigured to achieve better design and compliance with road standards and watercourse protections.
- ▲ All relocated road segments would be fully decommissioned and restored to pre-disturbance conditions or mothballed and stabilized to ensure that they are no longer a threat to water quality. Relocated road systems occupying the site of converted timberland would be restocked and/or managed to promote recovery by native vegetation and tree species.
- ▲ All remediation activities would be performed in accordance with the remediation performance standards.

## ADAPTIVE REUSE OF DEVELOPED INDUSTRIAL SITE(S)

All commercial cannabis activities would be conducted in a way that avoids displacing or destroying existing buildings or other infrastructure on the parcel developed for prior commercial or industrial uses. Adaptations would be required to be carefully designed to preserve future opportunity for future resumption or restoration of other commercial or industrial uses after commercial cannabis activities have ceased or been terminated.

- ▲ Development of additional buildings or infrastructure would be allowed once existing infrastructure has been fully occupied.
- ▲ Interior changes or additions to facilities would not prevent future re-occupancy by new uses that are compatible with the base zoning district or consistent with historic prior operations.
- ▲ Newly constructed facilities would comply with all development standards of the principal zoning district(s).



## PERMITTING PENALTIES FOR VIOLATIONS

Initiation or expansion of cannabis activities prior to permit issuance would be required to be grounds for disqualification of the application with no refund of submitted fees.

### 2.4.5 Reasonably Foreseeable Compliance Responses

The following discussion summarizes what is reasonably foreseeable to occur within Humboldt County upon implementation of the proposed ordinance. The scenario described in this section summarizes assumptions developed by County staff based on review of cannabis applications received in response to the 2016 CMMLUO, data associated with existing cannabis operations in the County, and published information regarding cannabis operations. The future of cannabis operations in Humboldt County may vary from what is set forth here because the cannabis business is a market-based product that is guided by unpredictable economic and regulatory forces. The compliance responses described here are based on reasonable assumptions and therefore provide the basis for evaluating the reasonably foreseeable environmental impact analysis provided in this EIR.

### EXISTING COMMERCIAL CANNABIS OPERATIONS OBTAINING PERMITS AND APPROVALS UNDER THE ORDINANCE

As noted above, the County has received 2,337 cannabis operation permit applications in response to the 2016 CMMLUO. Of these applications, 1,576 (approximately 968.24 acres of cultivation area) consist of existing cannabis operations that intend to comply with County standards and/or propose to retire existing cultivation sites, remediate existing cultivation site, or relocate to new properties. While these operations are existing and part of the environmental baseline condition, compliance with the proposed ordinance may involve new actions that would modify their operations, which may include restoration of habitat, roadway improvements, expansion or reconfiguration of their operations, installation of water quality controls, and modification to water supply facilities. This EIR programmatically evaluates the environmental impacts of these possible actions.

### EXISTING CANNABIS OPERATIONS NOT OBTAINING PERMITS AND APPROVALS UNDER THE ORDINANCE

A study of 2012 satellite imagery conducted by Butsic and Brenner (2016), revealed the presence of 4,428 outdoor cultivation sites within 60 of the 112 subwatersheds visible in Humboldt County. In 2015, during a presentation before the Humboldt County Board Supervisors, Mr. Butsic confirmed that the 60 watersheds were chosen as part of a random sample and that it was therefore reasonable to extrapolate almost double that number existed within Humboldt County in 2012 (Mintz 2016). Anecdotal information received from observations by local regulatory and enforcement agencies suggests a pattern of rampant growth in the industry during the past decade, with some estimates of as many as 10,000 to 15,000 cultivation operations currently in existence. As identified in Table 2-2, the County has received cannabis applications in response to the 2016 CMMLUO that covers approximately 1,252 acres of existing and proposed new operations (8 to 13 percent of the total estimated cultivation operations in the County).

Owners and operators of pre-existing sites that continue to be used for cultivation activities, and who did not seek permits under the existing regulations and who do not participate following adoption of the proposed ordinance are considered illegal, and subject to code enforcement. Enforcement activities would be taken by the County in coordination with other agencies that could result in bringing some cultivation operations into compliance with County and state standards and the closure and remediation of other operations. However, it is acknowledged that illegal cannabis operations would continue to occur in the County after adoption and implementation of the ordinance.



## POTENTIAL EXTENT OF NEW COMMERCIAL CANNABIS OPERATIONS PERMITTED AND APPROVED UNDER THE ORDINANCE

The California Department of Food and Agriculture estimates that cannabis production in the state in 2016 was approximately 13.5 million pounds, with no anticipated increases in overall production from implementation of MCRSA and AUMA by the year 2018 (California Department of Food and Agriculture 2017: 3-22 and 3-23). Thus, substantial growth in cannabis operations state-wide is not expected to occur.

Table 2-2 identifies a total of 941 applications for new commercial cannabis operations that would be located on approximately 283.35 acres of land. For purposes of evaluating the potential environmental impacts of new cannabis operations from implementation of the proposed ordinance, this EIR assumes that an additional 941 applications over an area of 283.35 acres of new commercial cannabis operations could be approved and established over the next three years. The mix of these new commercial cannabis uses would be similar to the application types received under the CMMLUO (see Table 2-1 and 2-2), consisting of 1,012 new commercial cannabis cultivation sites and 108 new commercial cannabis non-cultivation sites (e.g., testing, manufacturing, distribution, retail nurseries, and microbusinesses).

## ASSUMPTIONS ON OPERATIONAL CHARACTERISTICS OF COMMERCIAL CANNABIS OPERATIONS

Operational characteristics described above under Section 2.1.2, “Physical Description Cannabis Cultivation and Commerce Processes,” are assumed to continue for cannabis operations in the County.

### Facilities

Typical facilities assumed to be associated with cannabis cultivation sites include:

- ▲ ancillary nurseries between 200 and 400 sq. ft. in size,
- ▲ hoop houses,
- ▲ water storage and distribution facilities,
- ▲ perimeter wildlife exclusionary fencing and solid wood fencing blocking views of cultivation areas,
- ▲ equipment and material storage structures,
- ▲ employee housing and caretaker housing,
- ▲ solar or other renewable power source (solar expected to be the predominant renewable power source) and related batteries,
- ▲ generators, and
- ▲ indoor cultivation structures between 5,000 and 22,000 sq. ft. in size.

### Number of Cannabis Harvests a Year

Number of harvests vary with the type of cultivation used. Harvesting is assumed to occur over a four-week period. The largest harvest period is the fall harvest when outdoor, mixed-light, and indoor are harvesting in the same season. The number of harvests associated with each cultivation type are generally:

- ▲ Outdoor cultivation: one to two harvests a year.
- ▲ Mixed-light cultivation: two harvests a year.
- ▲ Indoor cultivation: up to five harvests a year.

## Employment and Services

Average employment demands for cultivation facilities are identified below:

- ▲ Full-time and seasonal employment: four
- ▲ Temporary employment for harvesting: up to 15

It is assumed that employees (including seasonal and harvest employees) are housed on-site for cultivation at sites 15 miles or greater from existing communities and lodging located along Highway 101, SR 36, SR 299, and SR 96.

## ASSUMPTIONS ON OPERATIONAL CHARACTERISTICS OF NON-CULTIVATION FACILITIES RELATED TO CANNABIS

Non-cultivation facilities consist of the following operation types:

- ▲ nurseries and propagation centers,
- ▲ testing, processing, and wholesale sites, and
- ▲ microbusinesses.

Non-cultivation operations would be located in buildings averaging 10,000 sq. ft. in area. It is assumed that half of the new cannabis operations would be located within existing available buildings and half would involve the construction of new buildings. These operations would be primarily located along Highway 101, SR 36, and SR 299.

## 3 ENVIRONMENTAL SETTING, IMPACTS, AND MITIGATION MEASURES

This chapter is organized by environmental resource category; each resource category is organized to provide an integrated discussion of the existing environmental conditions (including regulatory setting and environmental setting), potential environmental effects of the project (including direct and indirect impacts), and mitigation measures to reduce significant effects.

Cumulative and growth-inducing impacts are discussed in Chapters 4, “Cumulative Impacts,” and 5, “Other CEQA Sections,” respectively.

### 3.1 APPROACH TO THE ENVIRONMENTAL ANALYSIS

In accordance with the State CEQA Guidelines (California Code of Regulations [CCR] Section 15126.2), this Draft EIR identifies and focuses on the significant direct and indirect environmental effects of the project, giving due consideration to both its short-term and its long-term effects. Short-term effects are generally those associated with construction, and long-term effects are generally those associated with project operation.

As described in Chapter 1, “Introduction,” this analysis focuses on those environmental resource topics for which potentially significant impacts were identified during project scoping (see Section 1.2, “Scope of Environmental Analysis,” for further details).

The remainder of this chapter addresses the following resource topics:

- ▲ Section 3.1, “Aesthetics”
- ▲ Section 3.2, “Agriculture and Forestry Resources”
- ▲ Section 3.3, “Air Quality and Greenhouse Gas Emissions”
- ▲ Section 3.4, “Biological Resources”
- ▲ Section 3.5, “Cultural Resources and Tribal Cultural Resources”
- ▲ Section 3.6, “Geology and Soils”
- ▲ Section 3.7, “Hazards and Hazardous Materials”
- ▲ Section 3.8, “Hydrology and Water Quality”
- ▲ Section 3.9, “Land Use and Planning”
- ▲ Section 3.10, “Noise”
- ▲ Section 3.11, “Public Services”
- ▲ Section 3.12, “Transportation and Circulation”
- ▲ Section 3.13, “Utilities and Service Systems”
- ▲ Section 3.14, “Energy”

Sections 3.1 through 3.14 follow the same general format:

**Regulatory Setting.** This section presents the laws, regulations, plans, and policies that are relevant to each issue area. This includes identification of state, regional, and local regulations that address potential adverse environmental impacts (e.g., County Code Title III – Land Use & Development, Division 11 – Fire Safe Regulations). Cannabis is identified as a Schedule 1 controlled substance under the federal Controlled Substance Act. Operations related to the growing, processing, and sale of cannabis products are in violation of federal law. Federal agencies are prohibited from issuing permits or approvals for any operation that is in violation of federal law. Thus, compliance with federal permitting requirements that would usually address environmental impacts (e.g., filling of waters of the U.S. and incidental take authorization under the federal Endangered Species Act) cannot be utilized.

**Environmental Setting.** This section describes the existing environmental conditions on the project site and surrounding area as appropriate, in accordance with the State CEQA Guidelines (CCR Section 15125). This setting generally serves as the baseline against which environmental impacts are evaluated. The notice of preparation (NOP) for the project was issued on April 6, 2017. Typically, and in accordance with State CEQA Guidelines, the date the NOP is issued is considered appropriate for establishing existing conditions.

For the purposes of this EIR, the description of the existing or baseline conditions of cannabis cultivation in the County has been informed by the County's recent registration and time-limited permit application process that closed December 31, 2016, which resulted in 2,936 applications. Approximately 68 percent of these applicants claim to have historically cultivated cannabis and are seeking a permit for continued cannabis operations. In some cases, applicants are choosing to retire and remediate existing cultivation sites, and are requesting to relocate to new properties that qualify to receive them, with the benefit of allowing applicants to expand the total cultivation area. A smaller percentage of the total applications received are linked to projects proposing to establish new cultivation sites. The smallest percentage of applications received involves proposals for indoor cultivation, or the development of manufacturing operations or wholesale distribution facilities. Additionally, the baseline also includes existing commercial cannabis operations for which no permit applications have been submitted. The EIR assumes that these applications will seek to participate in the state's legal and regulated marketplace.

A study of 2012 satellite imagery conducted by Butsic and Brenner (2016), revealed the presence of 4,428 outdoor cultivation sites within 60 of the 112 subwatersheds visible in Humboldt County. In 2015, during a presentation before the Humboldt County Board Supervisors, Mr. Butsic confirmed that the 60 watersheds were chosen as part of a random sample and that it was therefore reasonable to extrapolate to conclude that almost double that number existed within Humboldt County in 2012 (Mintz 2016). Anecdotal information received from observations by local regulatory and enforcement agencies suggests a pattern of rampant growth in the industry during the past decade, with some estimates of as many as 10,000 to 15,000 cultivation operations currently in existence.

Cultivation operations that do not comply with the proposed ordinance would be considered illegal upon its adoption. Enforcement activities would be taken by the County in coordination with other agencies that could result in bringing some cultivation operations into compliance with County and state standards and the closure and remediation of others. However, it is acknowledged that illegal cannabis operations would continue to occur in the County after adoption and implementation of the ordinance. While this Draft EIR acknowledges the adverse environmental effects of continued illegal cannabis operations as part of the environmental baseline condition, the Draft EIR does not propose mitigation measures to address illegal operations as they are not part of the project.

**Environmental Impacts and Mitigation Measures.** This section identifies the thresholds of significance used to determine the level of significance of the environmental impacts for each resource topic, in accordance with the State CEQA Guidelines (CCR Sections 15126, 15126.2, and 15143). The thresholds of significance are based on the checklist presented in Appendix G of the State CEQA Guidelines, best available data, and applicable regulatory standards. The level of each impact is determined by comparing the effects of the project to the environmental setting.

The impact analysis is focused on changes to the physical environment from implementation of the proposed ordinance and its performance standards that would regulate both existing cannabis operations that submit applications for compliance with the ordinance and new cannabis operations. For example, possible environmental impacts associated with existing cannabis operations could result from physical improvements required to bring the operation into compliance, such as roadway improvements, relocation of operations to less environmentally sensitive portions of the site, and construction of water storage facilities to comply with water use restrictions. Environmental impacts associated with new cannabis operations would include construction and operation of such facilities in accordance with the performance standards of the proposed ordinance that are intended to protect the environment. The impact analysis would also consider the environmental protections provided by existing regulations, unrelated to the proposed

ordinance, that would apply to cannabis facilities (e.g., County Code Title III – Land Use & Development, Division 3 – Building Regulations, Chapter 5 – Flood Damage Protection, and Chapter 6 – Geologic Hazards).

Project impacts are organized numerically in each subsection (e.g., Impact 3.1-1, Impact 3.1-2, Impact 3.1-3, etc.). A bold-font impact statement, a summary of each impact, and its level of significance precedes the discussion of each impact. The discussion that follows the impact summary includes the substantial evidence supporting the impact significance conclusion.

The Draft EIR must describe any feasible measures that could avoid, minimize, rectify, reduce, or compensate for significant adverse impacts and, in the case of a plan, policy, or regulation, the measures are to be fully enforceable through incorporation into the project (Public Resources Code Section 21081.6[b]). Mitigation measures are not required for effects that are found to be less than significant. Where feasible mitigation for a significant impact is available, it is described following the impact along with its effectiveness at addressing it. Each identified mitigation measure is labeled numerically to correspond with the impact it addresses. Where sufficient feasible mitigation is not available to reduce impacts to a less-than-significant level, or where the County lacks the authority to ensure that the mitigation is implemented when needed, the impacts are identified as “significant and unavoidable.”

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## 3.1 AESTHETICS

This section evaluates the regional visual effects of the project (or “proposed ordinance”) on scenic resources in the County. The following analysis considers quality and character of existing scenic resources and the potential visibility of existing and new cannabis facilities from surrounding areas, including physical changes, lighting, and glare. Potential short-term and long-term visual impacts that could result from construction and operation of cannabis facilities are discussed, and mitigation measures are recommended as necessary to reduce potentially significant adverse effects.

Several comments letters pertaining to aesthetics were received in response to the Notice of Preparation (NOP) from various agencies and individuals (see Table 1-1 and Appendix A). Many of the comments expressed concern about potential impacts associated with light pollution, and the potential changes in aesthetic character of the area primarily from large-scale cultivation operations.

### 3.1.1 Concepts Related to Evaluation of Scenic Resources

Scenic or visual resources are generally defined as both the natural and built features of the landscape that contribute to the experience and appreciation of the environment by the public. Depending on the extent to which a project would adversely alter the perceived visual character and quality of the environment, a visual or scenic impact may occur.

Assessment of visual changes and determining the degree to which they are considered adverse are highly subjective. One person may conclude that any change in a pleasing visual setting is adverse. Others may find the same changes to be acceptable or even an improvement. There are few formal tools available to evaluate changes to the visual environment and conclude significance. This EIR uses certain terms and concepts, described below, to aid the reader in understanding the content of this chapter. These terms and definitions are general in nature; however, they draw upon the methodologies of the U.S. Department of Agriculture, Forest Service (USFS) and Federal Highway Administration, two of the relatively few public agencies that have formalized visual resource assessment.

### VISUAL QUALITY

Visual quality is defined as the overall visual impression or attractiveness of an area as determined by the particular landscape characteristics, including landforms, rock forms, water features, and vegetation patterns. The attributes of line, form, and color combine in various ways to create landscape characteristics whose variety, vividness, coherence, uniqueness, harmony, and pattern contribute to the overall visual quality of an area.

The visual quality of a particular view is based on using three primary criteria: vividness, intactness, and unity. These three criteria are defined as follows:

- ▲ vividness is the visual power or memorability of the landscape components as they combine in striking and distinctive visual pattern;
- ▲ intactness is the visual integrity of the landscape and its freedom from atypical encroaching elements. If all of the various elements of a landscape seem to “belong” together, there will be a high level of intactness. Visual intrusions are typically artificial features that reduce the intactness of a view; and
- ▲ unity is the visual harmony of the landscape as a whole. Unity represents the degree to which the visual elements maintain a coherent visual pattern.

The visual quality of a particular scene or viewpoint is also judged in the context of the general visual character of an area. Therefore, visual quality can be described according to three levels:



- ▲ indistinctive: generally lacking in natural or cultural visual resource amenities typical of the region;
- ▲ representative: typical or characteristic of the region's natural and cultural visual amenities; and
- ▲ distinctive: unique or exemplary of the region's natural or cultural scenic amenities.

Viewpoints with exceptionally high visual quality may be a scenic vista. A scenic vista is generally considered to be a location from which the public can experience unique and exemplary high-quality views—often from elevated vantage points that offer panoramic views of great breadth and depth.

## VIEWER GROUPS

Viewer groups are differentiated by factors that modify perception, such as location, activities, and awareness or concern. Activities such as driving for commuting, shopping, or working can distract the observer from the visual environment. On the other hand, activities such as driving for pleasure, engaging in recreational pursuits like hiking or relaxing in scenic surroundings can heighten awareness of visual surroundings. Viewer groups may also be differentiated by levels of concern regarding changes to the visual environment; viewers who are very familiar with surroundings, such as residents or frequent visitors, are more aware of adverse changes than viewers who pass through an area on an infrequent basis.

## VIEWER EXPOSURE

Viewer exposure addresses the variables that affect viewing conditions of potentially modified views resulting from the project. Viewer exposure considers the following factors:

- ▲ landscape visibility – the ability to see the potentially modified portion of the landscape;
- ▲ viewing distance – the proximity of viewers to the modified view;
- ▲ viewing angle – whether the project would be viewed from above (superior), below (inferior), or from a level (normal) line of sight;
- ▲ extent of visibility – whether the line of sight is open and panoramic to the project area or restricted by terrain, vegetation and/or structures; and
- ▲ duration of view – the elapsed time the project area would be visible to a particular viewer.

For purposes of analysis, landscapes are separated into foreground, middleground, and background views. In general, the foreground is characterized by clear details (from immediate foreground to within 0.5 mile of the viewer); the middleground is characterized by the loss of clear detail in a landscape, creating a uniform appearance (from the foreground to 4 miles in the distance); and the background extends from the middleground to the limit of human sight (USFS 1995: p. 4-5).

Generally, the closer a resource is to the viewer, the more dominant, and thus the more visually important it is to the viewer. However, middleground views can be of longer duration and provide viewers with more context and coherency than do foreground views.

## VIEWER SENSITIVITY

Viewer sensitivity is the measure of the degree to which potential viewers would be sensitive to adverse visual changes in an existing landscape. Viewer sensitivity is evaluated based on the viewer exposure to the visual resource, the existing visual quality, the frequency and duration of views, the number of viewers, and the type and expectations of individuals and viewer groups. People in different visual settings, typically characterized by different land uses near a project, have varying degrees of sensitivity to changes in visual conditions. In areas of more distinctive visual quality, such as designated scenic highways, designated

scenic roads, parks, and recreation and natural areas, viewer sensitivity is more pronounced. In areas of more indistinctive visual quality, sensitivity to change tends to be less pronounced. Viewer sensitivity is described as high, moderate, or low, depending on these factors.

## **LIGHT POLLUTION**

Light pollution refers to all forms of unwanted light in the night sky, including glare, light trespass, skyglow, and over-lighting. Excessive light and glare can also be visually disruptive to humans and nocturnal animal species.

Electric lighting also increases night sky brightness and is the human-made source of skyglow. Light that is either emitted directly upward by luminaires or reflected from the ground is scattered by dust and gas molecules in the atmosphere, producing a luminous background. It has the effect of reducing one's ability to view the stars. Skyglow is highly variable depending on weather conditions, quantity of dust and gas in the atmosphere, amount of light directed skyward, and the direction from which it is viewed. In poor weather conditions, more particles are present in the atmosphere to scatter the upward-bound light.

### **3.1.2 Regulatory Setting**

#### **FEDERAL**

##### **National Scenic Byways Program**

The National Scenic Byways Program is part of the U.S. Department of Transportation, Federal Highway Administration. The program was established to help recognize, preserve, and enhance selected roads throughout the United States. The U.S. Secretary of Transportation recognizes certain roads as All-American Roads or National Scenic Byways based on one or more archeological, cultural, historic, natural, recreational, and scenic qualities. In Humboldt County, the Bigfoot Scenic Byway is recognized as a USDA Forest Service Scenic Byway, beginning in Willow Creek and travelling north along State Route (SR) 96 into Siskiyou County. State Route 299 is also recognized as a Forest Service Scenic Byway, located between Arcata and Redding.

##### **Wild and Scenic Rivers Act**

The Wild and Scenic Rivers Act of 1968 was enacted to protect “certain selected rivers of the Nation which, with their immediate environments, possess outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural or other similar values, shall be preserved in free flowing condition, and that they and their immediate environments shall be protected for the benefit and enjoyment of present and future generations” (Section 33 1(b) of the Wild and Scenic Rivers Act [16 USC Sections 1271-1287], Public Law 90-542) (Wild and Scenic Rivers 2017a). Protected rivers are designated as wild, scenic, or recreational rivers; segments of a given river may be designated with one or all of these classifications. California has approximately 189,454 miles of river, of which 1,999.6 miles are designated as wild and scenic—1 percent of the State's river miles (Wild and Scenic Rivers 2017b). Sections of the Klamath, Trinity, Eel, and Van Duzen rivers within Humboldt County are classified as wild, scenic, or recreational under the Wild and Scenic Rivers Act (see Exhibit 3.1-1).

#### **STATE**

##### **California Energy Commission Building Energy Efficiency Standards for Outdoor Lighting**

Title 24, Parts 1 and 6, Building Energy Efficiency Standards, adopted by the California Energy Commission on November 5, 2003 includes requirements for outdoor lighting. These standards are updated periodically. The last update took effect in July of 2014.

The requirements of the outdoor lighting standards vary according to “Lighting Zone.” The allowed lighting power is based on the brightness of existing lighting in the surrounding area. This is because the eyes adapt to darker surrounding conditions, and less light is needed to properly see. Providing greater power than is needed potentially leads to debilitating glare, and to an increasing spiral of brightness as over-bright projects become the surrounding conditions for future projects, causing future projects to unnecessarily consume energy and contribute to light pollution.

The California Energy Commission defines the boundaries of Lighting Zones based on U.S. Census Bureau boundaries for urban and rural areas, as well as the legal boundaries of wilderness and park areas. The smallest amount of power is allowed in Lighting Zone 1 and increasingly more power is allowed in Lighting Zones 2, 3, and 4. By default, government-designated parks, recreation areas, and wildlife preserves are Lighting Zone 1; rural areas are Lighting Zone 2; and urban areas are Lighting Zone 3. Lighting Zone 4 is a special use district that may be adopted by a local government.

### **California Scenic Highway Program**

California’s Scenic Highway Program was created by the California Legislature in 1963 and is managed by the California Department of Transportation. The goal of this program is to preserve and protect scenic highway corridors from changes that would affect the aesthetic value of the land adjacent to highways. A highway may be designated “scenic” depending on how much of the natural landscape travelers can see, the scenic quality of the landscape, and the extent to which development intrudes on travelers’ enjoyment of the view.

No highways in Humboldt County are “officially designated” under the California State Scenic Highway Program, however, several highways are eligible for official designation. These include Route 36 from Route 101 near Fortuna to the Trinity County line, Route 96 from Route 299 at Willow Creek north to Siskiyou County, Route 101 for its entire length in Humboldt County, and Route 299 from Arcata to Willow Creek (Humboldt County 2002) (see Exhibit 3.1-2). The 1984 Framework General Plan contains Scenic Highways Section 3520, with Goals (Section 3540), Policies (Section 3541) and Standards (Section 3542) providing for the designation of scenic routes and the preparation of Scenic Route Plans. No plans or scenic corridor protection regulations have been proposed or adopted, which is a precondition of official designation (Streets & Highways Code §§ 261, 262). The pending draft General Plan update includes Scenic Resources Section 10.7 in the Open Space and Conservation Element, including goals, policies, standards and implementation measures that provide for mapping and adoption of scenic highway protection standards.

## **LOCAL**

### **Humboldt County Zoning Code**

The Humboldt County Zoning Code is adopted pursuant to Title 7 of the California Government Code and Section 20500 of the California Public Resources Code. Chapter 3 of the Code contains regulations that apply exclusively within the California Coastal Zone in Humboldt County. The Code provides many applicable regulations that address protection of visual resources. For example, the code provides regulations for the design of accessory structures, signage standards, vegetation protection, and buffers from wetlands. Chapter 4 of the Humboldt County Zoning Code contains regulations that apply outside the California Coastal Zone in Humboldt County.

### **Humboldt County Local Coastal Plans**

Local Coastal Plans contain policies to ensure that new development does not block coastal views available to the public, and protect areas that are mapped as scenic. Local Coastal Plans also contain policies to protect natural landforms such as natural contours, visible contours of hilltops and tree lines, bluffs, and rock outcroppings. Volume II of the Humboldt County General plan contains six Local Coastal Plans: The Eel River, Humboldt Bay, McKinleyville, North Coast, South Coast, and Trinidad Area Local Coastal Plans.



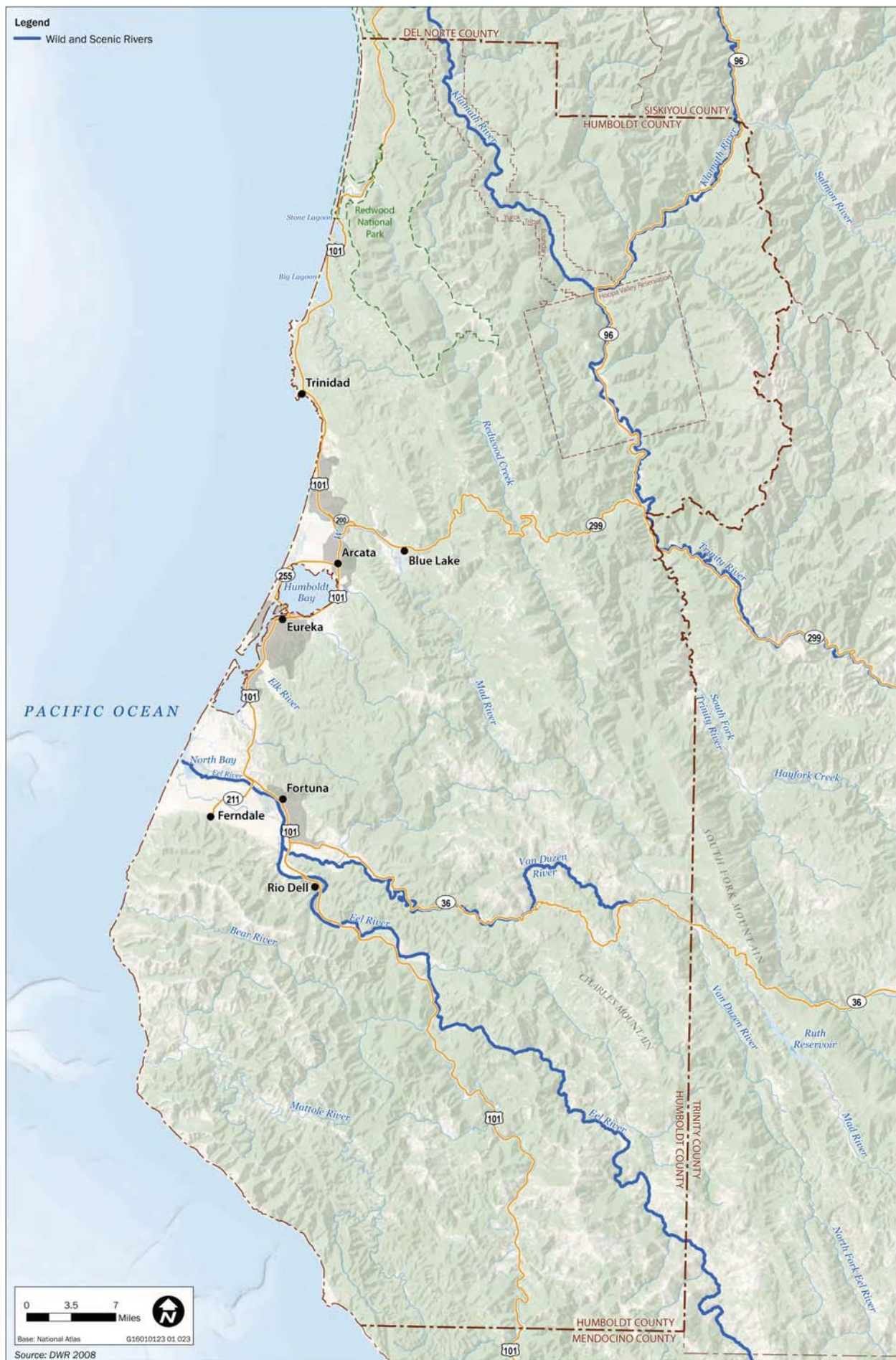


Exhibit 3.1-1

Designated Wild and Scenic Rivers in Humboldt County







**Legend**

Eligible State Scenic Highway







## Humboldt County General Plan Update

The General Plan Update is in process, with a revised Draft EIR complete. The previous General Plan (last amended in 1998) does not include policies specific to scenic resources beyond the scenic highways. The following policies regarding scenic resources from the General Plan update may be applicable to the project:

- ▲ **Policy CO-P1. Conservation and Open Space Program.** The County shall inventory and appropriately zone conservation, resource and open space lands and work to maintain these lands through discretionary or ministerial review, Williamson Act programs, TPZ zoning designations, conservation easement and recreation programs, and support for continued resource production.
- ▲ **Policy CO-P4X. Development within Community Separation Areas.** Retain a rural character and promote low intensities of development in community separation areas, consistent with the LAFCo process. Provide opportunities for transfer of development rights in exchange for permanent open space preservation within community separation areas.
- ▲ **Policy SR-PX.** Recognize the scenic value of resource production lands.
- ▲ **Policy SR-P1.** In mapped scenic areas, new discretionary and ministerial development shall be consistent with and subordinate to natural contours, hilltops, tree lines, bluffs and rock outcroppings. Visible disturbance and interruption of natural features shall be minimized to the extent feasible.
- ▲ **Policy SR-P3.** Protect the scenic quality of designated Scenic Highways for the enjoyment of natural and scenic resources, coastal views, landmarks, or points of historic and cultural interest.

### 3.1.3 Environmental Setting

Humboldt is a rural/agricultural county that includes developed areas around its incorporated cities. Due to its varied topography, Humboldt County offers a range of scenic features, including, coastline, forests, rivers, working agricultural land, and scenic roadways.

## SCENIC FEATURES

### Coastline

Located remotely along the northern coast of California, the county provides coastline views and scenic vistas from SR 101, beaches, state parks, and designated access points. Volume II of the *Humboldt County General Plan*, includes six Local Coastal Plans, representing the County coastal planning areas of Eel River, Humboldt Bay, McKinleyville, North Coast, South Coast, and Trinidad. The Humboldt County Local Coastal Plans (LCPs) outline development and resource protection policies and standards as well as permitted uses in areas considered to be scenic resources along the coast.

### Forests

There are 1.9 million acres of forested land in Humboldt County, covering more than 80 percent of the County's total land area. The Redwood National Park, Six Rivers National Forest, Redwoods State Park, and Kings Range Conservation Area are protected forests within the County (Humboldt County 2002). National Forests encompass approximately 338,000 acres within the County. National and state parks include 70,000 and 72,000 acres, respectively, while national and state wildlife areas cover 2,600 and 2,000 acres. County parks and community parks account for 1,000 acres. The Bureau of Land Management's forest reserves cover 7,600 acres. Altogether, these public forested lands (including reserves, parks, and other holdings) total over 679,500 acres or 35.5 percent of all forested lands in Humboldt County.

In addition to forest land, tribal lands and reservations also contribute to Humboldt County's total land area. The Hoopa Valley Tribal Reservation was created through an agreement between the Hoopa Tribe and the United States Government in 1876. The Reservation, described as area six miles on either side of the Trinity River from the mouth of the Klamath River to the point where the river enters the Hoopa Valley, 12 miles from the confluence, is a 12-mile square, approximately 144 square miles. The federal government established the Yurok Reservation in 1855. The 84.7-square-mile reservation is in parts of Del Norte and Humboldt counties on a 44-mile stretch of the Klamath River.

## **Rivers**

Rivers and biologically rich watersheds are defining visual features of Humboldt County. These resources provide local water supply, spawning habitat for fisheries, recreation opportunities, and local wealth for the fishing and tourism industries. The Eel, Trinity, and Klamath rivers extend well beyond county borders linking Humboldt to the complex regional, state, and interstate water resource and habitat management issues affecting their respective watersheds. As noted above, sections of the Klamath, Trinity, Eel, and Van Duzen rivers have been designated as wild, scenic, or recreational under the Wild and Scenic Rivers Act.

## **Agricultural Lands**

Agricultural lands are viewed as a scenic resource because of their prominence and abundance within the County. The total agricultural acreage in 2008 was approximately 345,238 acres, consisting of 15 percent of the County's total land area. As there has been no substantial conversion of agricultural land to non-agricultural uses between 2008 and 2016, total agricultural acreage in 2016 is still approximately 15 percent of the total land area. Of the approximately 345,238 acres identified as agricultural lands by the Humboldt County GIS mapping system, approximately 12 percent, or 42,000 acres are identified as prime agricultural lands, primarily based upon soil type. The highly productive soils of the Mad River, Redwood Creek, Eel River Deltas, Humboldt Bay, as well as other areas, provide the basis for Humboldt's significant agricultural resources.

These agricultural lands can be divided by land type, such as delta land, river and mountain alluvial flats, and upland grazing. Most areas are actively engaged in ranching, row cropping, or specialty agriculture, such as organic foods and organic/grass-fed meats, while some areas are occupied by rural residential development or are being acquired by public agencies for resource protection and parkland.

## **Roadways**

Although no highways in Humboldt County are officially designated by Caltrans as California State Scenic highways, several State Highways are eligible for official designation: Route 36 from Route 101 near Fortuna to the Trinity County line; Route 96 from Route 299 at Willow Creek north to Siskiyou County; Route 101 for its entire length in Humboldt County; and Route 299 from Arcata to Willow Creek (Humboldt County 2002).

## **VISUAL CHARACTERISTICS OF CURRENT CANNABIS OPERATIONS IN THE COUNTY**

While existing cannabis operations are located county-wide, there is a concentration of cannabis cultivation operations in the southern portion of the County in the Mattole and Eel River watersheds. Existing outdoor and mixed-light cannabis cultivation in the County are generally located in remote rural residential and agricultural land areas that are exposed (i.e., clear of trees and other vegetation that would obstruct sunlight and harvest operations) (see Exhibit 3.1-3, Photo 1). On-site features typically include a nursery/greenhouse, hoop houses, water storage tanks and ponds, storage buildings for equipment and materials, solar panels, and employee/caretaker housing (see Exhibits 3.1-3, 3.1-4, 3.1-5, and 3.1-6). Cannabis cultivation sites are usually screened with six-foot solid wood fencing from public views along roadways, while open wired fencing sometimes borders the perimeter of the overall cannabis operation.





Source: Ascent Environmental 2017

### Exhibit 3.1-3



X16010123.01.002

### Photos of Existing Cannabis Cultivation Operations (Photos 1 and 2)







Source: Ascent Environmental 2017

X16010123 01 003

### Exhibit 3.1-4

### Photos of Existing Cannabis Cultivation Operations (Photos 3 and 4)







Source: Ascent Environmental 2017

X16010123 01 004

### Exhibit 3.1-5

### Photos of Existing Cannabis Cultivation Operations (Photos 5 and 6)







Source: Ascent Environmental 2017

X16010123 01 005

### Exhibit 3.1-6

### Photos of Existing Cannabis Cultivation Operations (Photos 7 and 8)





### 3.1.4 Environmental Impacts and Mitigation Measures

#### METHODS AND ASSUMPTIONS

Characterization of visual changes and determination of whether they are considered adverse are highly subjective undertakings. Any two people can draw very different conclusions about the nature and severity of visual changes. This EIR uses terms and concepts, described above, that draw upon the methodologies of the U.S. Forest Service and Federal Highway Administration, two of the relatively few public agencies that have formalized visual resource assessment.

Depending on the extent to which a project would adversely alter the existing visual character and quality of the environment, a significant visual or scenic impact may occur. Because the highways located throughout Humboldt County are eligible for scenic road designations under Caltrans' California Scenic Highway Mapping System, for this analysis, they will be treated as a scenic resource within the county. In addition, sections of the Klamath, Trinity, Eel, and Van Duzen rivers are recognized under the Wild and Scenic Rivers Act, these rivers will also be treated as scenic resources for this analysis. The Coastal Zone is also treated as a scenic resource. This assessment of potential effects on Humboldt County's aesthetic resources qualitatively considers the potential changes to existing cannabis operations to attain compliance with the proposed ordinance and visual character changes from the development of new cannabis operations that would be permitted under the proposed ordinance.

Community and parcel-level analyses cannot be performed because the locations of future cannabis cultivations would be is not fully known. Therefore, this regional analysis is based on views of existing cannabis cultivations and the potential for design requirements identified in the proposed ordinance to limit changes in aesthetic conditions.

#### THRESHOLDS OF SIGNIFICANCE

Thresholds of significance are based on Appendix G of the State CEQA Guidelines. The project would result in a significant impact on visual resources if it would:

- ▲ have a substantial adverse effect on a scenic vista;
- ▲ substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway;
- ▲ substantially degrade the existing visual character or quality of the site and its surroundings; or
- ▲ create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

#### IMPACT ANALYSIS

##### **Impact 3.1-1: Have a substantial adverse effect on a scenic vista or scenic resources.**

---

Commercial cannabis operations in the County that may occur under the proposed ordinance could alter localized views of scenic vistas or resources. The limitations on size, coverage, and location of cannabis cultivation provided under the proposed ordinance, in addition to existing county code and coastal zoning regulations, would limit the potential for cannabis-related uses to alter or have a substantial adverse visual impact on scenic vistas or resources. Cannabis operations are aesthetically not substantially different in appearance from other agricultural operations. This impact would be **less than significant**.

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Humboldt County has a wealth of natural beauty and offers many scenic vistas and resources from key travel routes and recreational sites. Scenic resources associated with Humboldt County include features such as mountains, forests, agricultural lands, routes and roadways, and wild and scenic rivers. Because of the various scenic features that are present, scenic vistas and resources can be identified in most parts of the County. Potential visual effects associated with cultivation activities under the proposed ordinance would generally include the presence of cultivation structures and operation of equipment, which may be both temporary and permanent in nature. Views of outdoor cannabis crops are frequently screened from public view through the use of solid wood fencing, although the visual quality of cannabis cultivation is not substantially different than that of other row crops or greenhouse cultivation of vegetables or flowers.

Although there are eligible state scenic highways in Humboldt County, none are officially designated (Caltrans 2011). Because the highways are eligible, however, they are treated as scenic resources for purposes of this analysis. Existing cannabis cultivation operations are partially visible from publicly accessible viewpoints along SR 101, SR 36, SR 99, and SR 299. Through implementation of the proposed ordinance, most new cannabis cultivation operations would be located near these existing sites. It is possible that new and/or modified cannabis cultivation operations may be licensed in locations within view of scenic resources or may otherwise result in changes to existing views or viewsheds of scenic resources.

As part of the scenic analysis, field review was conducted on the visual character of existing cannabis cultivation operations to determine the potential for new and/or modified cultivation operations could result in a substantial alteration of visual character. While some cultivation equipment, structures, and materials were visible from a publicly accessible location, the cannabis cultivation operations were not distinguishable from other agricultural operations. As identified in Chapter 2, "Project Description," cannabis cultivation operations include structures and features that are similar to other agricultural activities. These include water storage ponds, accessory structures (e.g., barns and nurseries), caretaker housing, fencing, and roads. These structure and feature types are common in views along scenic vistas and along the state highways and are components of the rural and agricultural landscape character of the County. Thus, new and/or modified cannabis cultivation operations would adversely alter the existing rural/agricultural landscape character of views along a scenic vista or along an eligible state scenic highway.

Implementation of the ordinance would also involve the presence of commercial cannabis supporting land uses that include processing, distribution, microbusinesses, nurseries, and testing facilities. The ordinance would require that these uses placed in areas zoned for commercial, agricultural, or industrial uses and would complement such existing uses by using similar building styles, and in some cases, use of existing buildings.

In addition to the requirements outlined in the proposed ordinance, regulations set forth in County Code would also protect and maintain scenic resources and vistas within Humboldt County. For example, County Code regulation 69.1.5, Permitted Agricultural Accessory Structures, limits the size, coverage, and location of structures. Development standard 313-103.1, Industrial Performance Standards, provides regulations for lighting and visibility of equipment for operations that have the potential to affect both residential and nonresidential zones. Regulation 313-125, Wetland Buffer Areas, provides regulations to prevent development permitted in lands adjacent to coastal wetlands from degrading the natural resource value of a given area.

As identified above, the potential future commercial cannabis uses would blend with the existing character of the County as viewed from scenic vistas and state highways and would not visually conflict with the rural/agricultural landscape character. Implementation of the proposed ordinance, in addition to regulations provided in County Code, would also provide protection measures, development standards, and additional regulations to prevent substantial adverse changes to scenic vistas and resources. Impacts to scenic vistas or resources would be **less than significant**.

## Mitigation Measures

No mitigation is required.

### **Impact 3.1-2: Substantially degrade the existing visual character or quality of the project area.**

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Improvements to existing cannabis operations and new cannabis operations permitted under the proposed ordinance would be visually consistent with the existing rural and agricultural character of the County. Cannabis operations are aesthetically not substantially different in appearance from other agricultural operations. This impact would be **less than significant**.

---

#### **Construction Activities**

Activities associated with the development of new commercial cannabis facilities and/or the improvement of existing cannabis operations may include tree removal and/or clearing of vegetation, grading of terrain to construct new roads (or reclaim abandoned ones), water storage ponds, and areas for cultivation; and construction and installation of new structures including greenhouses, water storage tanks, and residential dwellings. These activities would take place as individual cultivations and other facilities are permitted, and may not occur concurrently. During construction, equipment including haul trucks and excavators, materials stockpiles, partially constructed buildings, and environmental protection measures, such as runoff control, may be visible on individual sites for limited periods of time.

Regulations under the proposed ordinance would apply to all new cultivation sites. As noted in Chapter 2, "Project Description." Cultivation sites must maintain a 30-foot setback from all property lines, a 300-foot setback from residences and neighboring properties, and a 600-foot setback from any school, church, or other place of public worship, public park, or tribal cultural resource. This would buffer adjoining land uses from the temporary impacts of construction. As noted in Impact 3.1-1, development of new, non-cultivation facilities, such as cannabis testing, processing, distribution, and microbusinesses, would occur in commercial, industrial, and agricultural designated areas where similar agricultural structures and activities exist. The construction of such facilities would be temporary, and as discussed, these operations would be similar to the surrounding existing development.

#### **Operation**

As stated in Impact 3.1-1, future commercial cannabis operations would be consistent with the existing character of the County and would not conflict with the rural/agricultural landscape character. The proposed ordinance, in addition to regulations in the County Code, would provide protection measures, development standards, and additional regulations to preclude substantial adverse changes to scenic resources. These include setbacks between cultivation sites and sensitive land uses (300 to 600 feet), restrictions on the size of the cultivation area in relation to the parcel size, and restrictions on placement of cultivation on steep slopes (see Chapter 2, "Project Description"). Therefore, implementation of the project would have a **less-than-significant** impact on the visual character and quality of the County.

#### **Mitigation Measures**

No mitigation is required.

### **Impact 3.1-3: Create a new source of substantial light or glare that would adversely affect views.**

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Commercial cannabis operations permitted under the proposed ordinance could involve the use of lighting. The proposed ordinance includes lighting performance standards to reduce lighting impacts. This impact is **less than significant**.

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Mixed-light cultivation operations may use lighting to extend the photoperiod for the cannabis plants. Such lighting may create a nuisance to adjacent and nearby properties, residences, and/or motorists traveling on nearby roadways. As expressed by the California Department of Fish and Wildlife (CDFW) comments, artificial night lighting used for cannabis cultivation operations could result in adverse ecological effects on terrestrial, aquatic, and marine resources. Security lighting could affect nighttime views or disturb neighboring residents. The degree to which such lighting would have adverse impacts on sensitive receptors would vary among proposed cultivation sites. Lighting used for cultivation purposes could create additional

ambient lighting within the area and be intrusive to neighboring residents. Depending on the location of lighting for outdoor and/or mixed-light cultivation, spillover of lighting could occur to varying degrees and result in additional light and glare at off-site locations, including nearby residences.

New security lighting and lighting used in the cultivation and processing of cannabis could increase exterior lighting within the County. Security lighting would be similar to that used for residential security and would meet the California Energy Commission's Building Energy Efficiency Standards for Outdoor Lighting. The proposed ordinance would require that all security lighting be shielded and angled in such a way as to prevent light from spilling outside of the boundaries of the site.

Some mixed-light cultivation operations use hoop houses, or non-permanent structures supported with PVC pipes draped with opaque plastic sheeting. Nurseries may also use nighttime lighting to manipulate growth. At night, for mixed-light cultivation to take place, lights are placed over the plants to trigger plant flowering and produce more harvests. With lights on in the hoop houses at night, the structures emit a glow of light and are illuminated. The hoop houses and associated light have the potential to be visible from roadways, hillsides, and neighboring residences and be viewed as out of character with the rural and agricultural uses in the area. However, under the proposed ordinance, artificial lighting used for mixed-light cultivation or nurseries in a greenhouse would be prohibited from allowing any light from escaping the structure between sunset and sunrise. No mixed-light cultivation would be allowed within 200 feet of riparian zones. Thus, because the ordinance would not allow for increased nighttime lighting to be visible, this impact would be **less than significant**.

## **Mitigation Measures**

No mitigation is required.

## **3.2 AGRICULTURE AND FOREST RESOURCES**

This section evaluates the potential impacts to agricultural and forestry resources resulting from the implementation of the proposed ordinance. Comments regarding agriculture and forestry resources received in response to the Notice of Preparation included concern about conversion of timberland and potential effects on old growth forest. Impacts related to conversion of forestland and timberland are assessed in Impact 3.2-2. The project's effects on old growth forest resources are addressed in Impact 3.4-3 in Section 3.4, "Biological Resources."

With implementation of the proposed ordinance, water use by cannabis operations could potentially affect other agricultural uses from water supply competition, such as groundwater drawdown from neighboring wells. Section 3.8, "Hydrology and Water Quality," includes further discussion of water resources.

### **3.2.1 Regulatory Setting**

#### **FEDERAL**

No federal laws or regulations are applicable to agriculture and forest resources.

#### **STATE**

##### **California Land Conservation Act of 1965**

The California Land Conservation Act of 1965, better known as the Williamson Act, created a program for counties to protect viable agricultural land by offering a tax incentive to property owners to keep their land in agricultural production. The Act provides an arrangement wherein private landowners voluntarily restrict their land to agricultural and compatible open space uses under a contract with the County, known as a land conservation contract, or Williamson Act contract, in exchange for property tax relief. Lands under Williamson Act contract in Humboldt County are shown on Exhibit 3.2-1.

The Williamson Act contract is an enforceable restriction on land and is binding on successors to both the landowner and the local government. The minimum term for a contract is 10 years, and the contract is automatically renewed annually, unless either party gives advanced notice on non-renewal. Contracts may be canceled immediately, terminating the restriction to agricultural uses, only if the local legislative body finds that termination or canceling of the contract would be consistent with the Act and in the public interest. The purpose of the Act is to encourage property owners to continue to farm their land and to prevent the premature conversion of farmland to urban uses.

State payments were substantially reduced several years ago and were halted when the State stopped subvention in the 2009-2010 fiscal year because of the State's budget problems. The Board of Supervisors continues to support the Williamson Act program despite the state eliminating subvention funding in 2010 by establishing grant funding to cover the costs of enrollment for new preserves, and by upholding County policies that strive to protect and enhance existing contracted lands.

In December 2015, the Humboldt County Williamson Act Advisory Committee found cannabis cultivation to be a compatible use on lands subject to Williamson Act contracts.

## CALIFORNIA PUBLIC RESOURCES CODE

California Public Resources Code (PRC) Section 21060.1 contains the following definition of agricultural land:

- a) “Agricultural land” means prime farmland, farmland of statewide importance, or unique farmland, as defined by the United States Department of Agriculture land inventory and monitoring criteria, as modified for California.
- b) In those areas of the state where lands have not been surveyed for the classifications specified in subdivision (a), “agricultural land” means land that meets the requirements of “prime agricultural land” as defined in paragraph (1), (2), (3), or (4) of subdivision (c) of Section 51201 of the Government Code.

The California Public Resources Code provides the following definition for forest land:

- ▲ Section 12220(g) defines forest land as land that can support 10 percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits.
- ▲ Section 4526 defines timberland as land, other than land owned by the federal government and land designated by the board as experimental forest land, which is available for, and capable of, growing a crop of trees of a commercial species used to produce lumber and other forest products, including Christmas trees.

## CANNABIS AS AN AGRICULTURAL PRODUCT

Health and Safety Code Section 11362.777(a) and Business and Profession Code Section 26067(a) define medical and adult-use cannabis as agricultural products.

## CALIFORNIA GOVERNMENT CODE

California Government Code definitions applicable to the project include the following.

- ▲ Section 51104(g) defines “timberland production zone” to mean an area which has been zoned pursuant to Section 51112 or 51113 and is devoted to and used for growing and harvesting timber, or for growing and harvesting timber and compatible uses. Compatible uses are defined under Section 51104(h) and include the construction and maintenance of electric transmission facilities.
- ▲ Section 51112 identifies situations which would warrant a decision that a parcel is not devoted to and used for growing and harvesting timber or for growing and harvesting timber and compatible uses.
- ▲ Section 51113 allows the opportunity for a landowner to petition that his or her land be zoned timberland production.
- ▲ Section 51201(c)(5) of the Government Code defines “prime agricultural land” as land that has returned from the production of unprocessed agricultural plant products an annual gross value of not less than \$200 per acre for 3 of the previous 5 years.

## Forest Practices and Z'berg-Warren-Keene-Collier Forest Taxation Reform Act

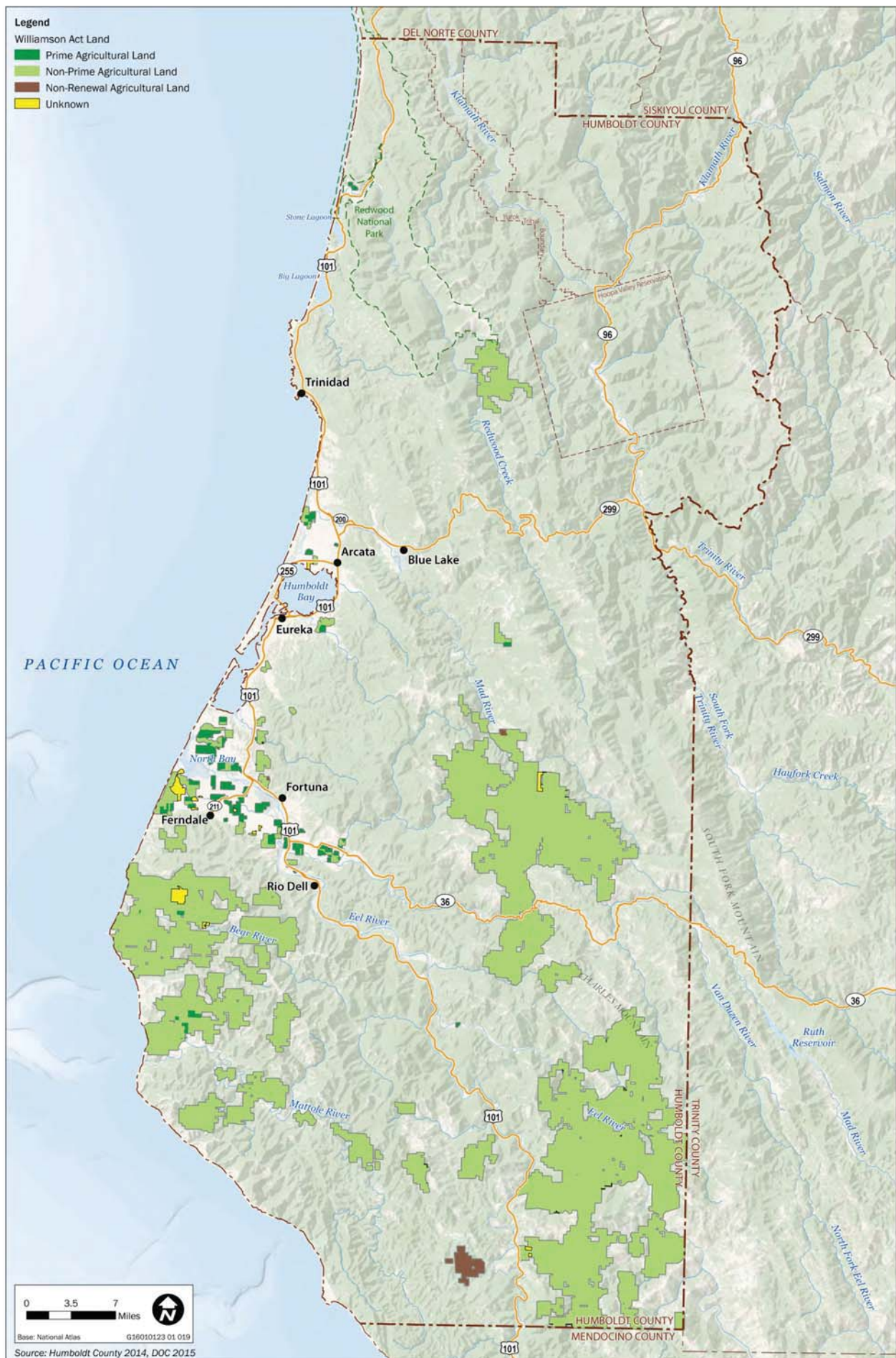
According to the Z'Berg-Warren-Keene-Collier Forest Taxation Reform Act (California Government Code - Sections 51110-51119.5: Article 2), enacted in 1976, counties must provide for the zoning of land used for growing and harvesting timber as Timberland Production Zones (TPZs). TPZs were established to preserve and protect timberland from conversion to other uses and avoid land use conflicts.



**Legend**

Williamson Act Land

- Prime Agricultural Land
- Non-Prime Agricultural Land
- Non-Renewal Agricultural Land
- Unknown



0 3.5 7 Miles  
 Base: National Atlas G16010123 01 019  
 Source: Humboldt County 2014, DOC 2015





## LOCAL

### Humboldt County General Plan

Humboldt County General Plan includes goals and policies related to agriculture and forest resources that are described below.

#### Timberlands

**2513 Goal:** To actively protect and conserve timberlands for long-term economic utilization and to actively enhance and increase county timber production capabilities.

#### **2514 Policies:**

- ▲ **Policy 1.** Timberlands shall be retained for timber production, harvesting and compatible uses, and reclassification of Timberland Production Zones (TPZ) shall be done in accordance with statutory requirements.
- ▲ **Policy 3.** Encourage the long-term management of timberlands.
- ▲ **Policy 7.** The County supports zoning correction of land from the Timberland Production Zone when it can be found that:
  - A. The original inclusion was in error or inappropriate; or
  - B. The conversion is necessary to provide for the logical expansion of an existing community.

#### Agricultural Lands

**2522 Goal:** The optimum amount of agricultural land shall be conserved for and maintained in agricultural use to promote and increase Humboldt County's agricultural production.

#### **2523 Policies**

- ▲ **Policy 4.** Prime agricultural land should be retained in parcel sizes large enough to provide for an economic management base.
- ▲ **Policy 9.** Agricultural production requiring smaller parcels and more intensive management, including aquaculture, shall be encouraged wherever feasible consistent with the Remote Rural Development Section 2550 and other policies of this section.
- ▲ **Policy 10.** The conversion of agricultural land should only be considered where continued agricultural production is not economically feasible and proposed development is consistent with Remote Rural Development Section 2550.

### Humboldt County Zoning Code

Allowable uses within Humboldt County zoning designations relevant to the project are described below.

**Commercial Timberland (Coastal) (TC).** Allowable uses include residential, civic, industrial, and commercial timber uses.

**Timberland Production Zone (TPZ).** Allowable uses include residential, civic, industrial, and commercial timber uses.

**Agriculture Exclusive (AE).** Allowable uses include residential, civic, industrial, and agricultural uses. Conditionally permitted uses include farm employee housing, single family residential, and utility lines.

**Rural Residential Agriculture (RA).** Allowable uses include residential, civic, commercial, industrial, commercial timber, and agricultural uses.

### **Right to Farm Ordinance**

The Humboldt County Right to Farm Ordinance declares that it is the County's policy to enhance and encourage agricultural operations within the county. Implementation of this ordinance helps reduce urban and rural conflicts by limiting the circumstances under which existing and planned agricultural operations may be considered a nuisance. The ordinance promotes a good neighbor policy between agricultural and non-agricultural property uses by advising purchasers and users of property adjacent to or near agricultural operations of the inherent potential problems associated with agricultural uses, including the noises, odors, dust, chemicals, smoke, and hours of operation that may accompany agricultural operations.

## **3.2.2 Environmental Setting**

### **AGRICULTURAL RESOURCES**

The substantial amount of precipitation, fertile soils, and the mild coastal climate make for productive farming conditions in Humboldt County. Agriculture production is an important component of both the local economy and community character.

Agricultural lands in the county can be divided by land type, such as delta land, river and mountain alluvial flats, and upland grazing. Most areas are actively engaged in ranching, row cropping, or specialty agriculture, such as organic foods and organic/grass-fed meats, while some areas are occupied by rural residential development or are being acquired by public agencies for resource protection and parkland.

### **Prime and Non-Prime Agricultural Lands**

The land best suited for a wide range of agricultural crops is called "prime" agricultural land. The California Farmland Mapping and Monitoring Program (FMMP) is a nonregulatory program and provides a consistent and impartial analysis of agricultural land use and land use changes throughout California. The modern soil surveys produced by the Natural Resources Conservation Service (NRCS) are the basis for the FMMP. Humboldt County is currently in the process of having a countywide soil survey produced by the NRCS. Therefore, Humboldt County is not included in the latest FMMP released by the California Department of Conservation (DOC). New surveying and mapping under this effort has been completed within limited areas of the county.

### **Agricultural Soils**

The county's agricultural soils were mapped in 1965 in a cooperative project between the Department of Soils and Plant Nutrition, University of California, Davis, and the County of Humboldt utilizing the Storie Index Rating system (SIR). The NRCS is currently in the process of updating the soils survey. Approximately 75 percent of the county has been mapped. Because the new soil survey information is not available countywide and has not been incorporated into the Humboldt County geographic information system (GIS) mapping system, for purposes of this Environmental Impact Report, the SIR has been utilized for providing guidance on determining prime agricultural lands.

The SIR is a quantitative system that rates four soil factors on the basis of 0 to 100 points. This system rated agricultural land according to its quality which was determined based on productivity data from a number of major soils in California that were classified in the 1920s and 1930s. These factors included soil profile, soil texture, slope, and soil limitations (such as drainage, pH, nutrient levels, and erosion). Each of these factors were rated and then multiplied together to produce the composite index rating. Thus, a poor rating in any one factor may greatly affect the overall grade. Prime agricultural land was not a part of the SIR but "excellent" agricultural land was considered to rate between 80 to 100 points.

The rating of soils according to the Storie Index Grade, expresses the relative suitability of the soil for general intensive agriculture. Storie Index Grade 1 soils (those with a composite index rating from 80 to 100) are well suited to general intensive agriculture. Grade 1 soils are easily worked, very productive, and irrigation is simple and efficient. The Lower Eel watershed has the greatest amount of land in agricultural production and by far the most Grade 1 soils in proportion to other areas. Grade 2 soils (index rating 60 to 80) are moderately well suited for agriculture and Grade 3 (index rating 40 to 60) indicates only fair suitability. Grades 4, 5, and 6 (index rating below 40) indicate poor suitability for agriculture.

Soil types in Humboldt County can be generalized as alluvial or upland. Alluvial soils occur in the river flood plains and deltas and are used for pasture and crop lands. Seasonal flooding replenishes these soils. Upland soils sustain both forests and open rangelands.

### **Prime Agricultural Lands**

Under the General Plan, prime agricultural lands are identified by any of the following definitions (Humboldt County 1984).

- a) Rated Class I or II by the U.S. Soil Conservation Service.
- b) Rated 80 through 100 percent in the Storie Index.
- c) Land that has a livestock carrying capacity of one animal unit per acre.
- d) Land planted with fruit or nut-bearing trees, vines, bushes or crops which have a non-bearing period of less than five years and which will normally provide a return adequate for economically viable operations during the commercial bearing period on an annual basis from the production of unprocessed agricultural plant production.
- e) Land capable of producing an unprocessed plant production adequate for economically viable operations.
- f) Additional lands in proximity to a, b, or c above which are necessary to provide for physically and economically viable, coherent agricultural areas. These lands are included to prevent the establishment of incompatible land uses within an area defined by natural or man-made boundaries.

The highly productive soils of the Mad River, Redwood Creek, Eel River Deltas, Humboldt Bay, as well as other areas, provide the basis for Humboldt County's agricultural resources. The majority of the county's prime agricultural lands, which contain prime soils, are found in these areas (see Figure 3.2-1). Prime soils under Williamson Act contracts in the county encompass about 6,200 acres (0.3 percent of the county; DOC 2015). The non-prime soils, that are also under Williamson Act contract, identified in this exhibit encompass approximately 268,000 acres (12 percent of the county).

### **Agricultural Productivity**

By California standards, Humboldt County's agricultural production is small. The county produced approximately \$197 million of the state's \$47 billion of annual farm goods in 2015, 0.5 percent of state production (California Department of Food and Agriculture [CDFA] n.d.). However, agriculture is a large part of the local economy, sustaining hundreds of farm and ranch families and workers.

Excluding timber production values, Humboldt County ranked 32nd in the state for gross value for agriculture production in 2015 (with timber receipts, it ranked 31st) (CDFA n.d.). The top four valued agricultural crops in 2014 and 2015, based on the Humboldt County 2015 Crop and Livestock Report published by the Humboldt County Agricultural Commissioner were:

- 1. Livestock (includes aquaculture) - \$91 million (2014); \$108 million (2015)
- 2. Timber Production - \$82 million (2014); \$71 million (2015)
- 3. Milk and Milk Products - \$79 million (2014); \$60 million (2015)

#### 4. Nursery Stock - \$53 million (2014); \$57 million (2015)

### **Cannabis Cultivation**

Humboldt County is said to be the heart of the Emerald Triangle (Humboldt, Mendocino and Trinity counties), considered by many to be the epicenter of domestic marijuana (also known as cannabis) cultivation in the United States, if not the world. A study of 2012 satellite imagery conducted by Butsic and Brenner (2016), revealed 4,428 outdoor cultivation sites within 60 of the 112 subwatersheds visible in Humboldt County. In 2015, during a presentation before the Humboldt County Board Supervisors, Mr. Butsic confirmed that the 60 watersheds were chosen as part of a random sample and that it was therefore reasonable to extrapolate almost double that number existed within Humboldt County in 2012 (Mintz 2016). Anecdotal information received from observations by local regulatory and enforcement agencies suggests a pattern of near-exponential growth in the industry during the past decade, with some estimates of as many as 10,000 to 15,000 cultivation operations currently in existence.

For most of this history, growing marijuana was an illicit, clandestine, contraband activity, and is still prohibited by federal criminal law (Humboldt County 2017a). As a consequence, it developed in remote rural locations, dispersed in relatively small areas of cultivation on large tracts of land. The primary value of these remote locations to illicit growers is concealment and difficulty of enforcement. Most marijuana cultivation operations are in areas that were previously suited only for forest or grazing lands, too steep and without sufficient water or adequate soils to support commercially viable cultivation of other legal field or orchard crops. Furthermore, the demand for remote sites for marijuana cultivation is believed to have played a role in illegal land divisions in violation of the Subdivision Map Act, and contravening Williamson Act land conservation contracts in several large areas of the county, resulting in parcelization of agricultural and timberlands.

As of 2014, outdoor and greenhouse marijuana cultivation was most prevalent in southern Humboldt County (Humboldt County 2017a). In some areas of the county the density of grows evident from Google Earth were as high as 27 grow sites per square mile in 2014. One 3-square-mile area southwest of Alderpoint, known as Rancho Sequoia with 158 parcels, included more than 82 separate grow areas in 2012 through 2014. Parcel sizes in this area range from about 4 acres to over 112 acres, with the average about 10 acres. About 41 percent of the parcels appeared to have one or more grow sites on them from 2012 through 2014. The largest site incorporated over 3 acres of cleared forest and 36 separate hoop houses as of 2012.

Estimates of the value of marijuana produced in Humboldt County are speculative and based on wholesale value that can vary widely depending on whether sold for legitimate medical use in California under state law, or for black market national and international export (Humboldt County 2017a). Annual figures range from \$1 to 4 billion in street value. A study of outdoor and greenhouse production in 60 of 112 randomly sampled watersheds in the county estimated a wholesale gross value to growers of \$150,000,000 in 2014 (Butsic and Brenner 2016). One study conservatively estimated that cash spending of revenue from marijuana cultivation in the Humboldt County economy may have amounted to as much as \$500,000,000 in 2016 (Vartabedian 2016). By any measure, marijuana accounts for a substantial proportion of the economic activity in the county.

### **Agricultural Land Conversion**

Agriculture remains an important industry in Humboldt County; however, operators are facing increasing challenges to maintain economically viable operations. The long-term sustainability of the agricultural industry depends on continued profitability and the availability of productive farmlands. Agricultural operations near population centers are being moved to areas farther away, frequently on poorer farmland requiring more labor and energy use and attendant increases in costs of transportation, fertilization, and irrigation. A study of the county's agricultural and timberland conversions between 1985 and 2001 identified the major contributors to land potentially lost to production were zone reclassifications, subdivisions, and conditionally permitted uses that conflict with agricultural and timber operations (Humboldt County 2003).





Exhibit 3.2-2

Timberland





Between 1992 and 2012, farmland fluctuated slightly but overall lost approximately 4,200 acres or 0.7 percent of farmland, but added 56 farms. The average farm size decreased in those ten years from 684 acres to 638 acres.

**Table 3.2-1 Farmland Statistics in Humboldt County**

Item	1992	1997	2002	2007	2012
Farms	874	792	993	852	930
Land in Farms (acres)	597,766	584,538	613,931	597,477	593,597
Land in Farms – Average Size of Farm (acres)	684	738	638	701	638
Average Market Value of Products per Farm	\$70,835	\$95,297	\$97,604	\$175,813	\$218,559
Source: USDA 1994, 1999, 2004, 2009, 2014					

## FORESTED AREAS AND TIMBERLANDS

As of 2014, Humboldt County contains over 1.8 million acres of forest land (see Table 3.4-1 in Section 3.4, “Biological Resources”), covering approximately 80 percent of the county’s total land area. Within these forest lands are public lands, including National Forests, national and state parks, national and state wildlife areas, County and community parks, and Bureau of Land Management forest reserves. Forest resources, much like agricultural resources, are dependent on the quality of the climate and soils. Humboldt County’s mild and wet climate is conducive to timber production. Of the approximately 1.8 million acres of forest land in Humboldt County, over 1,000,000 acres are designated by the County as TPZ. The Coastal Zone contains 634 acres designated as Commercial Timberland. Combined, TPZ lands and Commercial Timberland comprise approximately 47 percent of the total land acreage in the county. Exhibit 3.2-2 depicts TPZs and commercial timberland in Humboldt County.

Humboldt County has one of the highest value timber harvest each year of any county in the state of California; however, the county’s timber industry has been in decline. In 2000, the county’s total gross value of timber production was over \$285 million (Humboldt County n.d.a). By 2005, the total gross value of timber dropped to \$199 million (Humboldt County n.d.b). In 2015, the county’s total gross value of timber production was \$71 million (Humboldt County 2017b).

### Forest Types

Trees are generally classified as hardwood (including oak, alder, and other deciduous or broadleaf species) or softwood (including fir, spruce, pine, redwood and all other coniferous or needle-bearing species), although some “hardwoods” are softer than softwoods. Land cover types, including forest types, are described under “Environmental Setting” in Section 3.4, “Biological Resources.” As shown in Exhibit 3.4-1 and listed in Table 3.4-1, Douglas fir, montane hardwood-conifer, redwood forest types dominate the planning area. Collectively, these forest types cover over 1.4 million acres (approximately 64 percent) of the planning area.

### Timberland Conversion

The market value of timberland for the growing and harvesting of trees has fallen relative to the value of the land for residential uses and conservation purposes (Humboldt County 2017a). In the conservation realm, large tracts of timberland have been sold to state and federal agencies to create parks. These parklands have increased conservation and open space values and made Humboldt County a worldwide tourist destination, but at a cost of decreased commercial timber production.

Change in land management priorities, based upon parcel size, market conditions, and ownership values, also contribute to timberland conversion (Humboldt County 2017a). As parcel sizes go down, the cost of timber harvest per acre (permitting and harvest costs) increases, and timber production may no longer be the most economical use of the property. When this occurs, timberlands become more valuable as rural



residential properties. In addition, when houses are placed on timberlands, the value of the structures may be greater than the standing timber and can render infeasible purchase of the land for timber production. Due to rising market demand for rural homes and falling timber profits, forest land property that has an adequate building site and road access is often priced too high to be purchased for profitable commercial timber production.

The remote nature of most of the county has historically helped conceal and attract cannabis cultivation. Clandestine cannabis operations throughout the county have contributed to the loss of timberland on private, public, and tribal lands. Forest land in portions of the county that have been cleared for cannabis cultivation are apparent from satellite images available through Google Earth and show that cultivation sites are most prevalent in the southern portion of the county (Butsic and Brenner 2016).

### **3.2.3 Environmental Impacts and Mitigation Measures**

#### **METHODS AND ASSUMPTIONS**

The analysis below evaluates reasonably foreseeable compliance responses with the proposed ordinance. The analysis focuses specifically on actions that could result in conversion of farmland to non-agricultural uses, conversion of designated timberlands, and conflicts with policies and regulations intended to protect farmland and timberlands. The reader is referred to Chapter 2, "Project Description," for a description of proposed regulation of commercial cannabis operations and anticipated extent of new commercial cannabis operations.

#### **THRESHOLDS OF SIGNIFICANCE**

Thresholds of significance are based on Appendix G of the State CEQA Guidelines. The project would result in a significant impact on agricultural and forest (including timber) resources if it would:

- ▲ convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use;
- ▲ conflict with existing zoning for agricultural use, or a Williamson Act contract;
- ▲ conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))
- ▲ result in the loss of forest land or conversion of forest land to non-forest use; or
- ▲ involve other changes in the existing environment which, because of their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use.

As noted above, NRCS is in the process of producing a countywide soil survey. Therefore, Humboldt County is not included in the latest FMMP released by DOC. The SIR was used to identify prime agricultural lands and potential impacts to these lands.

## IMPACT ANALYSIS

### **Impact 3.2-1: Conversion of farmland to nonagricultural use or conflict with existing zoning for agricultural use or a Williamson Act contract.**

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Implementation of the proposed ordinance would result in an increase in commercial cannabis cultivation and supporting activities in unincorporated Humboldt County. Cannabis is defined under the proposed ordinance and by the state as an agricultural product and as such, the ordinance would not result in conversion of farmland to nonagricultural uses nor conflict with existing zoning for agricultural use or a Williamson Act contract. The County has determined that cannabis cultivation is a compatible use on lands under Williamson Act contracts. There would be **no impact** on conversion of farmland to nonagricultural use or conflict with zoning for agricultural use or a Williamson Act contract.

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Important farmland (prime, farmland of Statewide importance, and unique farmland) has not been mapped by DOC for Humboldt County. However, the County has an established definition for prime soils consistent with the definition of prime soils established for Williamson Act and has mapped those areas (see Exhibit 3.2-1). Cannabis is defined by the proposed ordinance and by state (Health and Safety Code Section 11362.777[a] and Business and Professions Code Section 26067[a]) as an agricultural product and, therefore, cultivation activities on prime soils would not result in conversion of prime soils to a nonagricultural use.

Retail nurseries, manufacturing, and distribution facilities that provide related services but that are not directly connected to cultivation activities would not be permissible in areas zoned for agricultural use, including lands zoned AE or RA. The ordinance identifies cannabis cultivation (outdoor, mixed-light, and indoor cultivation operations) and supporting uses, such as on-site processing of cannabis and community propagation centers, as permissible uses on parcels zoned AE and RA. Because cannabis cultivation and supporting uses are agricultural uses for which AE and RA zoning designations are established, implementation of the ordinance would not conflict with existing zoning for agricultural use. Additionally, the County has determined that cannabis cultivation is a compatible use on lands subject to Williamson Act contracts. Implementation of the ordinance would result in **no impact** with respect to conversion of farmland to nonagricultural use, conflicts with zoning for agricultural use, or a Williamson Act contract.

### **Mitigation Measures**

No mitigation is required.

### **Impact 3.2-2: Convert substantial forest land, conflict with or cause rezoning of forest land or Timberland Production Zone, or involve other changes in the existing environment which, because of their location or nature, could result in substantial conversion of forest land to a non-forest use.**

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The proposed ordinance would result in an increase in commercial cannabis cultivation in unincorporated Humboldt County; however, no new commercial cultivation sites would be allowed lands zoned as TPZ. For existing cultivation sites, timberland conversion may only occur in association with on-site remediation and reconfiguration activities, including reforestation, subject to performance standards. Therefore, cannabis cultivation and associated activities would not cause conflicts that could result in substantial conversion of forest land to a non-forest use or rezoning of TPZ lands. This impact would be **less than significant**.

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Forest land represents approximately 80 percent of the county and lands zoned TPZ cover close to half of the county (Humboldt County 2017c). Implementation of the proposed ordinance would result in new or expanded commercial cannabis cultivation activities throughout unincorporated county. New cultivation sites would be allowed on lands zoned for agricultural, commercial, business park, industrial, and rural residential uses. Some existing cannabis cultivation sites are located on lands zoned as TPZ and, as part of the existing conditions, have already converted forest land to non-forest uses. These cultivation sites would not be

allowed to expand the total area of conversion. The ordinance would not permit new cannabis cultivation sites on forest land; thus, there would be no new conversion of forest lands. For existing cultivation sites, timberland conversion may only occur in association with on-site remediation and reconfiguration activities, including replanting with native vegetation and tree species, subject to performance standards. Cultivation and associated activities such as manufacture, storage, and distribution near forest land or lands zoned TPZ would not cause conflicts that could result in substantial conversion of forest land to a non-forest use or rezoning of TPZ lands. This impact would be **less than significant**.

### **Mitigation Measures**

No mitigation is required.

### 3.3 AIR QUALITY AND GREENHOUSE GAS EMISSIONS

This section includes a discussion of existing air quality conditions and greenhouse gas (GHG) emissions, a summary of applicable regulations, and an analysis of potential air quality- and GHG-related impacts that could result from commercial cannabis cultivation operations and non-cultivation facilities permitted under the proposed ordinance. The method of analysis for construction, operational, local mobile-source, and toxic air emissions is consistent with the recommendations of the North Coast Unified Air Quality Management District (NCUAQMD) (NCUAQMD 2017a), the California Air Resources Board (CARB) (CARB 2017), and the California Air Pollution Control Officers Association (CAPCOA) (CAPCOA 2016). In addition, mitigation measures are recommended as necessary to reduce significant environmental impacts.

#### 3.3.1 Regulatory Setting

##### FEDERAL

##### Criteria Air Pollutants

###### Clean Air Act

The U.S. Environmental Protection Agency (EPA) oversees implementing national air quality programs. EPA's air quality mandates are drawn primarily from the federal Clean Air Act (CAA), enacted in 1970. Congress made the most recent major amendments to the CAA in 1990.

The CAA required EPA to establish national ambient air quality standards (NAAQS). As shown in Table 3.3-1, EPA has established primary and secondary NAAQS for the following criteria air pollutants: ozone, carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), sulfur dioxide (SO<sub>2</sub>), respirable and fine particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>), and lead. The primary standards protect the public health and the secondary standards protect public welfare. The CAA also required each state to prepare an air quality control plan referred to as a State implementation plan (SIP). The federal Clean Air Act Amendments of 1990 (CAAA) added requirements for states with nonattainment areas to revise their SIPs to incorporate additional control measures to reduce air pollution. The SIP is modified periodically to reflect the latest emissions inventories, planning documents, and rules and regulations of the air basins as reported by their jurisdictional agencies. EPA is responsible for reviewing all SIPs to determine whether they conform to the mandates of the CAA and its amendments, and whether implementation will achieve air quality goals. If EPA determines a SIP to be inadequate, a federal implementation plan that imposes additional control measures may be prepared for the nonattainment area. If an approvable SIP is not submitted or implemented within the mandated time frame, sanctions may be applied to transportation funding and stationary air pollution sources in the air basin.

**Table 3.3-1 Ambient Air Quality Standards**

Pollutant	Averaging Time	California	National Standards <sup>1</sup>	
		Standards <sup>2,3</sup>	Primary <sup>3,4</sup>	Secondary <sup>3,5</sup>
Ozone	1-hour	0.09 ppm (180 µg/m <sup>3</sup> )	-	-
	8-hour	0.070 ppm (137 µg/m <sup>3</sup> )	0.075 ppm (147 µg/m <sup>3</sup> )	
Carbon monoxide (CO)	1-hour	20 ppm (23 mg/m <sup>3</sup> )	35 ppm (40 mg/m <sup>3</sup> )	-
	8-hour	9.0 ppm (10 mg/m <sup>3</sup> )	9 ppm (10 mg/m <sup>3</sup> )	
Nitrogen dioxide (NO <sub>2</sub> )	Annual Arithmetic Mean	0.030 ppm (57 µg/m <sup>3</sup> )	53 ppb (100 µg/m <sup>3</sup> )	Same as Primary Standard
	1-hour	0.18 ppm (339 µg/m <sup>3</sup> )	100 ppb	-
	Annual Arithmetic Mean	20 µg/m <sup>3</sup>	-	Same as Primary Standard

**Table 3.3-1 Ambient Air Quality Standards**

Pollutant	Averaging Time	California	National Standards <sup>1</sup>	
		Standards <sup>2,3</sup>	Primary <sup>3,4</sup>	Secondary <sup>3,5</sup>
Respirable particulate matter (PM <sub>10</sub> )	24-hour	50 µg/m <sup>3</sup>	150 µg/m <sup>3</sup>	
Fine particulate matter (PM <sub>2.5</sub> )	Annual Arithmetic Mean	12 µg/m <sup>3</sup>	15.0 µg/m <sup>3</sup>	Same as Primary Standard
	24-hour	No Separate State Standard	35 µg/m <sup>3</sup>	
Sulfur dioxide (SO <sub>2</sub> ) <sup>6</sup>	24-hour	0.04 ppm (105 µg/m <sup>3</sup> )	–	–
	3-hour	–	–	0.5 ppm (1,300 µg/m <sup>3</sup> )
	1-hour	0.025 ppm (655 µg/m <sup>3</sup> )	75 ppb (196 µg/m <sup>3</sup> )	–
Lead <sup>7</sup>	30-day Average	1.5 µg/m <sup>3</sup>	–	–
	Calendar Quarter	–	1.5 µg/m <sup>3</sup>	Same as Primary Standard
	Rolling 3-Month Average	–	0.15 µg/m <sup>3</sup>	
Sulfates	24-hour	25 µg/m <sup>3</sup>	No National Standards	
Hydrogen Sulfide	1-hour	0.03 ppm (42 µg/m <sup>3</sup> )		
Vinyl Chloride <sup>7</sup>	24-hour	0.01 ppm (26 µg/m <sup>3</sup> )		
Visibility-Reducing Particle Matter	8-hour	Extinction coefficient of 0.23 per kilometer—visibility of 10 mi or more		

Notes: ppb = parts per billion; ppm = parts per million; µg/m<sup>3</sup> = micrograms per cubic meter; mg/m<sup>3</sup> = milligrams per cubic meter

<sup>1</sup> National standards (other than ozone, particulate matter, and those standards based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration in a year, averaged over three years, is equal to or less than the standard. The PM<sub>10</sub> 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m<sup>3</sup> is equal to or less than 1 day. For PM<sub>2.5</sub>, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. Environmental Protection Agency for further clarification and current federal policies.

<sup>2</sup> California standards for ozone, CO (except Lake Tahoe), NO<sub>2</sub>, and particulate matter are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

<sup>3</sup> Concentrations are expressed first in units in which they were issued (i.e., ppb, ppm or µg/m<sup>3</sup>). Equivalent units given in parentheses are based on a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

<sup>4</sup> National Primary Standards: The levels of air quality necessary, with an adequate margin of safety, to protect the public health.

<sup>5</sup> National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

<sup>6</sup> The EPA strengthened the NAAQS for SO<sub>2</sub> on June 2, 2010 by establishing a new 1-hour standard. The EPA has also revoked the annual and 24-hour standards because they will not add additional public health protection given the new 1-hour standard.

<sup>7</sup> CARB has identified lead and vinyl chloride as TACs with no threshold of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

Sources: EPA 2017; CARB 2016a.

## Toxic Air Contaminants and Hazardous Air Pollutants

Toxic air contaminants (TACs), or in federal parlance, hazardous air pollutants (HAPs) are a defined set of airborne pollutants that may pose a present or potential hazard to human health. A TAC is defined as an air pollutant that may cause or contribute to an increase in mortality or in serious illness, or that may pose a hazard to human health. TACs are usually present in minute quantities in the ambient air; however, their high toxicity or health risk may pose a threat to public health even at low concentrations.

A wide range of sources, from industrial plants to motor vehicles, emit TACs. The health effects associated with TACs are quite diverse and generally are assessed locally, rather than regionally. TACs can cause long-term health effects such as cancer, birth defects, neurological damage, asthma, bronchitis, or genetic

damage; or short-term acute effects such as eye watering, respiratory irritation (a cough), running nose, throat pain, and headaches.

For evaluation purposes, TACs are separated into carcinogens and non-carcinogens based on the nature of the physiological effects associated with exposure to the pollutant. Carcinogens are assumed to have no safe threshold below which health impacts would not occur. This contrasts with criteria air pollutants for which acceptable levels of exposure can be determined and for which the ambient standards have been established (Table 3.3-1). Cancer risk from TACs is expressed as excess cancer cases per one million exposed individuals, typically over a lifetime of exposure.

EPA and, in California, CARB regulate HAPs and TACs, respectively, through statutes and regulations that generally require the use of the maximum available control technology or best available control technology for toxics to limit emissions.

## **Greenhouse Gases**

### **National Program to Cut Greenhouse Gas Emissions and Improve Fuel Economy for Cars and Trucks**

On August 28, 2014, the EPA and the Department of Transportation's National Highway Traffic Safety Administration (NHTSA) finalized a new national program that would reduce GHG emissions and improve fuel economy for all new cars and trucks sold in the U.S. (NHTSA 2012). EPA proposed the first-ever national GHG emissions standards under the federal Clean Air Act, and NHTSA proposed Corporate Average Fuel Economy standards under the Energy Policy and Conservation Act. This national program requires automobile manufacturers to build a single light-duty national fleet that meets all requirements under both federal programs and the standards of California and other states. This program will increase fuel economy to the equivalent of 54.5 miles per gallon (mpg) for the fleet of cars and light-duty trucks by model year 2025, and, as of 2016, NHTSA and EPA are developing additional phases to address GHG emission standards for new medium- and heavy-duty trucks (NHTSA 2016). This program is currently under review by EPA, but at the time of publication of this DEIR had not been changed.

### **Clean Power Plan**

The Clean Power Plan was unveiled by President Obama on August 3, 2015. The plan aims to reduce carbon dioxide emissions from electrical power generation by 32 percent within twenty-five years relative to 2005 levels. The plan aims to reduce carbon dioxide emissions from electrical power generation by 32 percent below 2005 levels within twenty-five years. President Donald Trump signed an executive order on March 28, 2017 mandating EPA to review the plan. The review has not been completed and made public at the time of writing this EIR.

## **STATE**

### **Criteria Air Pollutants**

CARB is the agency responsible for coordination and oversight of State and local air pollution control programs in California and for implementing the California Clean Air Act (CCAA). The CCAA, which was adopted in 1988, required CARB to establish California ambient air quality standards (CAAQS).

CARB has established CAAQS for sulfates, hydrogen sulfide, vinyl chloride, visibility-reducing particulate matter, and the above-mentioned criteria air pollutants. In most cases, the CAAQS are more stringent than the NAAQS. Differences in the standards are generally explained by the health effects studies considered during the standard-setting process and the interpretation of the studies. In addition, the CAAQS incorporate a margin of safety to protect sensitive individuals.

The CCAA requires that all local air districts in the state endeavor to achieve and maintain the CAAQS by the earliest date practical. The act specifies that local air districts should focus attention on reducing the



emissions from transportation and area-wide emission sources, and provides air districts with the authority to regulate indirect sources.

## **Toxic Air Contaminants and Hazardous Air Pollutants**

Toxic air contaminants (TACs) in California are regulated primarily through the Tanner Air Toxics Act (Assembly Bill [AB] 1807, Chapter 1047, Statutes of 1983) and the Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588, Chapter 1252, Statutes of 1987). AB 1807 sets forth a formal procedure for CARB to designate substances as TACs. Research, public participation, and scientific peer review are required before CARB can designate a substance as a TAC. To date, CARB has identified more than 21 TACs and adopted EPA's list of HAPs as TACs. Most recently, particulate matter (PM) exhaust from diesel engines (diesel PM) was added to CARB's list of TACs.

Once a TAC is identified, CARB adopts an airborne toxics control measure for sources that emit that particular TAC. If a safe threshold exists for a substance at which there is no toxic effect, the control measure must reduce exposure below that threshold. If no safe threshold exists, the measure must incorporate best available control technology for toxics to minimize emissions.

The Hot Spots Act requires that existing facilities that emit toxic substances above a specified level prepare an inventory of toxic emissions, prepare a risk assessment if emissions are significant, notify the public of significant risk levels, and prepare and implement risk reduction measures.

CARB has adopted diesel exhaust control measures and more stringent emissions standards for various transportation-related mobile sources of emissions, including transit buses, and off-road diesel equipment (e.g., tractors, generators). Over time, the replacement of older vehicles will result in a vehicle fleet that produces substantially lower levels of TACs than under current conditions. Mobile-source emissions of TACs (e.g., benzene, 1-3-butadiene, diesel PM) have been reduced significantly over the last decade and will be reduced further in California through a progression of regulatory measures (e.g., Low Emission Vehicle/Clean Fuels and Phase II reformulated gasoline regulations) and control technologies. With implementation of CARB's Risk Reduction Plan, it is expected that diesel PM concentrations will be 85 percent less in 2020 than in the year 2000 (CARB 2000). Adopted regulations are also expected to continue to reduce formaldehyde emissions from cars and light-duty trucks. As emissions are reduced, it is expected that risks associated with exposure to the emissions will also be reduced.

## **Greenhouse Gas Emissions**

### **Executive Order S-3-05**

Executive Order (EO) S-3-05, signed by Governor Arnold Schwarzenegger in 2005, proclaims that California is vulnerable to the impacts of climate change. It declares that increased temperatures could reduce the Sierra Nevada snowpack, further exacerbate California's air quality problems, and potentially cause a rise in sea levels. To combat those concerns, the executive order established total GHG emission targets for the state. Specifically, emissions are to be reduced to the 2000 level by 2010, the 1990 level by 2020, and to 80 percent below the 1990 level by 2050.

The California Supreme Court took up the question, among other things, whether the EO as a *de facto* CEQA significance threshold, and concluded "... that the Executive Order does not specify any plan or implementation measures to achieve its goal." And was not, per se, required to be adopted as a significance threshold. However, the Court held that the "Executive Order's 2050 goal of reducing California's greenhouse gas emissions to 80 percent below 1990 levels expresses the pace and magnitude of reduction efforts that the scientific community believes necessary to stabilize the climate. This scientific information has important value to policymakers and citizens in considering the emission impacts of a project [like SANDAG's regional transportation plan]." (*Cleveland National Forest Foundation v. San Diego Association of Governments*, S223603, July 13, 2017).

### **Assembly Bill 32, the California Global Warming Solutions Act of 2006 as Updated by Senate Bill 32 (2016)**

In September 2006, Governor Schwarzenegger signed the California Global Warming Solutions Act of 2006, Assembly Bill (AB) 32. AB 32 establishes regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions and a cap on statewide GHG emissions. AB 32 requires that statewide GHG emissions be reduced to 1990 levels by 2020. AB 32 also requires that these reductions “...shall remain in effect unless otherwise amended or repealed. (b) It is the intent of the Legislature that the statewide greenhouse gas emissions limit continue in existence and be used to maintain and continue reductions in emissions of greenhouse gases beyond 2020. (c) The [California Air Resources Board] shall make recommendations to the Governor and the Legislature on how to continue reductions of greenhouse gas emissions beyond 2020.” [California Health and Safety Code, Division 25.5, Part 3, Section 38551] In August 2016, Governor Brown signed SB 32 and AB 197, which serve to extend California’s GHG reduction programs beyond 2020. SB 32 amended the Health and Safety Code to include Section 38566, which contains language to authorize CARB to achieve a statewide GHG emission reduction of at least 40 percent below 1990 levels by no later than December 31, 2030. SB 32 codified the targets established by EO B-30-15 for 2030, which set the next interim step in the State’s continuing efforts to pursue the long-term target expressed in EOs S-3-05 and B-30-15 of 80 percent below 1990 emissions levels by 2050.

### **AB/SB 32 Climate Change Scoping Plan and Updates**

In December 2008, CARB adopted its Climate Change Scoping Plan, which contains the main strategies California will implement to achieve reduction of approximately 118 million metric tons (MMT) of CO<sub>2</sub>-equivalent (CO<sub>2</sub>e) emissions, or approximately 21.7 percent from the State’s projected 2020 emission level of 545 MMT of CO<sub>2</sub>e under a business-as-usual scenario (this is a reduction of 47 MMT CO<sub>2</sub>e, or almost 10 percent, from 2008 emissions). In May 2014, CARB released and subsequently adopted the *First Update to the Climate Change Scoping Plan* to identify the next steps in reaching AB 32 goals and evaluate progress that has been made between 2000 and 2012 (CARB 2014a:4 and 5). According to the update, California is on track to meet the near-term 2020 GHG limit and is well positioned to maintain and continue reductions beyond 2020 (CARB 2014a:ES-2). The update also reports the trends in GHG emissions from various emissions sectors (e.g., transportation, building energy, agriculture).

On January 20, 2017, CARB released its proposed 2017 Climate Change Scoping Plan Update (proposed 2017 Scoping Plan Update), which lays out the framework for achieving the 2030 reductions as established in SB 32 (CARB 2017). The proposed 2017 Scoping Plan Update identifies the GHG reductions needed by each emissions sector to achieve a statewide emissions level that is 40 percent below 1990 levels before 2030.

The proposed update also identifies how GHGs associated with proposed projects could be evaluated under CEQA. Specifically, it states that achieving “no net increase” in GHG emissions is the correct overall objective of projects evaluated under CEQA if conformity with an applicable local GHG reduction plan cannot be demonstrated. CARB recognizes that it may not be appropriate or feasible for every development project to mitigate its GHG emissions to no net increase and that this may not necessarily imply a substantial contribution to the cumulatively significant environmental impact of climate change. At the time of writing this environmental document, CARB has not approved its proposed 2017 Scoping Plan Update.

### **Senate Bill 375 of 2008**

Senate Bill (SB) 375, signed by Governor Schwarzenegger in September 2008, aligns regional transportation planning efforts, regional GHG emission reduction targets, and land use and housing allocation. SB 375 requires metropolitan planning organizations (MPOs) to adopt a Sustainable Communities Strategy (SCS) or Alternative Planning Strategy, showing prescribed land use allocation in each MPO’s Regional Transportation Plan. CARB, in consultation with the MPOs, is to provide each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in their respective regions for 2020 and 2035. The Humboldt County Association of Governments is not one of the 18 federally-designated MPOs in California required to prepare an SCS (King, pers. comm., 2017).

### **Advanced Clean Cars Program**

In January 2012, CARB approved the Advanced Clean Cars program which combines the control of GHG emissions and criteria air pollutants, as well as requirements for greater numbers of zero-emission vehicles,

into a single package of standards for vehicle model years 2017 through 2025. The new rules strengthen the GHG standard for 2017 models and beyond. This will be achieved through existing technologies, the use of stronger and lighter materials, and more efficient drivetrains and engines. The program's zero-emission vehicle regulation requires battery, fuel cell, and/or plug-in hybrid electric vehicles to account for up to 15 percent of California's new vehicle sales by 2025. The program also includes a clean fuels outlet regulation designed to support the commercialization of zero-emission hydrogen fuel cell vehicles planned by vehicle manufacturers by 2015 by requiring increased numbers of hydrogen fueling stations throughout the state. The number of stations will grow as vehicle manufacturers sell more fuel cell vehicles. By 2025, when the rules will be fully implemented, the statewide fleet of new cars and light trucks will emit 34 percent fewer GHGs and 75 percent fewer smog-forming emissions than the statewide fleet in 2016 (CARB 2016b:1).

**Senate Bill X1-2, the California Renewable Energy Resources Act of 2011 and Senate Bill 350, the Clean Energy and Pollution Reduction Act of 2015**

SB X1-2 of 2011 requires all California utilities to generate 33 percent of their electricity from renewables by 2020. SB X1-2 sets a three-stage compliance period requiring all California utilities, including independently-owned utilities, energy service providers, and community choice aggregators, to generate 20 percent of their electricity from renewables by December 31, 2013; 25 percent by December 31, 2016; and 33 percent by December 31, 2020. SB X1-2 also requires the renewable electricity standard to be met increasingly with renewable energy that is supplied to the California grid from sources within, or directly proximate to, California. SB X1-2 mandates that renewables from these sources make up at least 50 percent of the total renewable energy for the 2011-2013 compliance period, at least 65 percent for the 2014-2016 compliance period, and at least 75 percent for 2016 and beyond. In October 2015, SB 350 was signed by Governor Brown, which requires retail sellers and publicly-owned utilities to procure 50 percent of their electricity from renewable resources by 2030.

**California Building Efficiency Standards of 2016 (Title 24, Part 6)**

Buildings in California are required to comply with California's Energy Efficiency Standards for Residential and Nonresidential Buildings established by the California Energy Commission (CEC) regarding energy conservation standards and found in Title 24, Part 6 of the California Code of Regulations. These standards were first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption and are updated on an approximately 3-year cycle to allow consideration and possible incorporation of new energy efficient technologies and methods. All buildings for which an application for a building permit is submitted on or after January 1, 2017 must follow the 2016 standards (CEC 2015). Energy efficient buildings require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases GHG emissions.

**California Integrated Waste Management Act**

To minimize the amount of solid waste that must be disposed of in landfills, the State Legislature passed the California Integrated Waste Management Act of 1989 (AB 939), effective January 1990. According to AB 939, all cities and counties were required to divert 25 percent of all solid waste from landfill facilities by January 1, 1995, and 50 percent by January 1, 2000. Through other statutes and regulations, this 50 percent diversion rate also applies to State agencies. In order of priority, waste reduction efforts must promote source reduction, recycling and composting, and environmentally-safe transformation and land disposal.

In 2011, AB 341 modified the California Integrated Waste Management Act and directed CalRecycle to develop and adopt regulations for mandatory commercial recycling. The resulting Mandatory Commercial Recycling Regulation (2012) requires that on and after July 1, 2012, certain businesses that generate four cubic yards or more of commercial solid waste per week shall arrange recycling services. To comply with this requirement, businesses may either separate recyclables and self-haul them or subscribe to a recycling service that includes mixed waste processing. AB 341 also established a statewide recycling goal of 75 percent; the 50 percent disposal reduction mandate still applies for cities and counties under AB 939, the Integrated Waste Management Act.

### **Low Carbon Fuel Standard**

In January 2007, Executive Order S-01-07 established a Low Carbon Fuel Standard (LCFS). The Order calls for a statewide goal to be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020, and that a LCFS for transportation fuels be established for California. The LCFS applies to all refiners, blenders, producers, or importers ("Providers") of transportation fuels in California, including fuels used by off-road construction equipment (Wade, pers. comm. 2017). The LCFS is measured on a full fuels cycle basis, and may be met through market-based methods by which providers exceeding the performance required by an LCFS receive credits that may be applied to future obligations or traded to Providers not meeting LCFS.

In June 2007, CARB adopted the LCFS as a Discrete Early Action item under AB 32 pursuant to Health and Safety Code Section 38560.5, and, in April 2009, CARB approved the new rules and carbon intensity reference values with new regulatory requirements taking effect in January 2011. The standards require providers of transportation fuels to report on the mix of fuels they provide and demonstrate they meet the LCFS intensity standards annually. This is accomplished by ensuring that the number of "credits" earned by providing fuels with a lower carbon intensity than the established baseline (or obtained from another party) is equal to or greater than the "deficits" earned from selling higher intensity fuels.

## **Local**

### **North Coast Unified Air Quality Management District**

#### **Criteria Air Pollutants**

NCUAQMD is the primary agency responsible for planning to meet NAAQS and CAAQS in Humboldt, Del Norte, and Trinity Counties' portions of the North Coast Air Basin (NCAB). NCUAQMD works to maintain the NAAQS for all criteria air pollutants and attain the CAAQS for PM<sub>10</sub>. The NCAB has been designated as nonattainment with respect to the for PM<sub>10</sub> since the 1980s (NCUAQMD 1995: III-1).

NCUAQMD has developed brief guidance for use by lead agencies when preparing environmental documents. However, NCUAQMD has not formally adopted significance thresholds (NCUAQMD 2017a), but rather recommends using the Best Available Control Technology (BACT) emission rates for stationary sources as defined and listed in the NCUAQMD Rule 110, New Source Review And Prevention of Significant Deterioration, Section 5.1 - BACT. NCUAQMD does not currently recommend any thresholds for toxics, but recommends the use of the latest version of the CAPCOA's *Health Risk Assessments for Proposed Land Use Project* to evaluate and reduce air pollution impacts from new development. After the air quality impacts of a project have been assessed, the lead agency's analysis undergoes a review by NCUAQMD. NCUAQMD submits comments and suggestions to the lead agency for incorporation into the environmental document.

All projects are subject to adopted NCUAQMD rules and regulations in effect at the time of construction. Specific rules applicable to the construction of new cannabis cultivation operations and related facilities include Regulation I, General Provisions, Permits & Prohibitions. Any project that includes the use of equipment capable of releasing emissions to the atmosphere may be required to obtain permit(s) from NCUAQMD before equipment operation. The applicant, developer, or operator of a project that includes an emergency generator, boiler, or heater should contact NCUAQMD early to determine whether a permit is required, and to begin the permit application process. Portable construction equipment (e.g., generators, compressors, pile drivers, lighting equipment) with an internal combustion engine greater than 30 horsepower must have a NCUAQMD permit or CARB portable equipment registration, per Rule 102.

#### **Air Quality Plans**

According to the PM<sub>10</sub> Attainment Plan adopted by NCUAQMD (NCUAQMD 1995), Humboldt County's air quality has violated the CAAQS for PM<sub>10</sub>, and as a result, the district has been classified as a PM<sub>10</sub> non-attainment area. PM<sub>10</sub> emissions in Humboldt County are generated by a variety of sources. The PM<sub>10</sub> Attainment Plan includes control strategies that are intended to achieve attainment of the CAAQS. Control strategies include transportation control measures such as encouraging the use of public transit and



replacing the diesel-powered bus fleet with natural gas fueled models, encouraging car-pooling and bicycle commuting, removal or repair of vehicles with inefficient emission control systems, and traffic flow improvements that reduce idling and vehicle miles traveled (VMT). Land use control measures encourage mixed use or more dense development. The PM<sub>10</sub> Attainment Plan also includes measures that limit residential burning as well as various measures to encourage the installation of EPA-certified woodstoves.

#### **Toxic Air Contaminants**

NCUAQMD Regulation III enforces CARB's control measures for TACs requiring all sources that possess the potential to emit TACs to obtain permits from NCUAQMD. Permits may be granted to these sources if they are constructed and operated in accordance with applicable regulations, including air toxics control measures.

#### **Naturally-Occurring Asbestos**

Pursuant to NCUAQMD regulations, all construction, grading, quarrying, and surface mining operations must notify the Air District. These activities must comply with CARB's Airborne Toxic Control Measures for naturally-occurring asbestos (NOA), as well as NCUAQMD's Rule 401, "Asbestos Fee," which covers the cost of implementing NOA-control programs.

#### **Greenhouse Gases**

NCUAQMD Regulation VII, Greenhouse Gas Mitigation & Control. This regulation includes GHG control measures for methane emissions generated by municipal solid waste landfills and emission of refrigerants from stationary, non-residential refrigeration equipment and from the installation and servicing of stationary refrigeration and air-conditioning appliances.

NCUAQMD does not recommend any thresholds of significance for evaluating GHG emitted by proposed projects. In its brief CEQA guidance, NCUAQMD states that the thresholds used for determining whether New Source Review and federal Title V permitting applies to a stationary source "should not be used as a [CEQA] threshold of significance for stationary source projects" (NCUAQMD 2017a).

#### **Humboldt County**

##### **Humboldt County General Plan Air Quality Element**

The 1988 Humboldt County General Plan does not include policies applicable to air quality or GHG emissions.

##### **Humboldt County Climate Action Plan**

In January 2012, as part of the General Plan Update, Humboldt County prepared a Draft Climate Action Plan (CAP) to reduce GHG emissions in the unincorporated County (Humboldt County 2012). The target set forth in the 2012 Draft CAP was to reduce county emissions to 1990 levels by 2020, consistent with the statewide target for 2020 mandated by AB 32 of 2006. The 2012 Draft CAP also set an additional target to achieve no net increase of CO<sub>2e</sub> emissions compared to building-as-usual emissions from the 1984 General Plan for new residential development within the County by the year 2025.

To comply with AB 32 and SB 32, the County anticipates adopting county-wide GHG emissions targets for the years 2020 and 2030 (and possibly also 2040) as part of a Climate Action Plan that will incorporate an updated 1990 GHG Inventory, to be prepared in accordance with General Plan Policy AQ-P9 (Humboldt County 2017b:3.13-17).

The Humboldt County General Plan that is adopted and in place at the time of writing this EIR does not include policies directly addressing air quality or GHGs.

### 3.3.2 Environmental Setting

#### EXISTING AIR QUALITY CONDITIONS

Humboldt County is in the NCAB. The NCAB includes Humboldt County, Mendocino County, and Northern Sonoma County. NCUAQMD regulates air pollutant point sources in the NCAB. The ambient concentrations of air pollutant emissions are determined by the amount of emissions released by the sources of air pollutants and the atmosphere's ability to transport and dilute such emissions. Natural factors that affect transport and dilution include terrain, wind, atmospheric stability, and sunlight. Therefore, existing air quality conditions in the area are determined by such natural factors as topography, meteorology, and climate, in addition to the amount of emissions released by existing air pollutant sources, as discussed separately below.

#### Climate, Meteorology, and Topography

In general, the climate of northern coastal California is characterized by cool summers and mild winters with frequent fog and significant amounts of rain. In coastal areas, the ocean helps to moderate temperatures year-round. Further inland, the summers are hotter and drier and the winters colder and snowier. At higher elevations in inland areas, it is cooler in the summers and snowier in the winter. The average annual rainfall in Humboldt County ranges from 38 inches in Eureka to 141 inches in Honeydew. Approximately 90 percent of the annual precipitation falls between October and April. Higher rainfall in winter often influences high river levels. Winter snowfall is common at higher elevations. The dry season is between May and September.

Average temperatures on the coast in Eureka range from the low 60s in the summer to the low 40s during the winter. Inland average temperatures, such as in Willow Creek or Hoopa, range from the 90s to the 30s. On the coast, summer fog is common when inland temperatures rise.

Atmospheric conditions such as wind speed, wind direction, and air temperature gradients interact with the physical features of the landscape to drive the movement and dispersal of air pollutants. Winds control the rate and dispersion of local pollutant emissions. In the California North Coast Air Basin, dominant winds exhibit a seasonal pattern, especially in coastal areas. In the summer months, strong north to northwesterly winds are common and during the winter, storms from the South Pacific increase the percentage of days with winds from southerly quadrants. Wind direction often assumes a daily pattern in the river canyons that empty into the Pacific. In the morning hours, cool air from higher elevations flows down the valleys while later in the day as the lower elevation air heats up, this pattern is reversed and the airflow heads up the canyon. These airflows are often quite strong. Offshore and onshore flows are also common along the coast and are associated with pressure systems in the area. Onshore flows frequently bring foggy cool weather to the coast, while offshore flows often blow fog away from the coast and bring sunny warm days.

Humboldt County commonly experiences two types of inversions, vertical and horizontal, that affect the vertical depth of the atmosphere through which pollutants can be mixed. Vertical air movement is important in spreading pollutants through a thicker layer of air. Horizontal movement is important in spreading pollutants over a wider area. Upward dispersion of pollutants is hindered wherever the atmosphere is stable; that is, where warm air overlies cooler air below.

Because of the region's topography and coastal air movements, inversion conditions are common in the NCAB. Inversions are created when warm air traps cool air near the ground surface and prevents vertical dispersion of air. Valleys, geographic basins, and coastal areas surrounded by higher elevations are the most common locations for inversions to occur. During the summer, inversions are less prominent, and vertical dispersion of the air is good. However, during the cooler months between late fall and early spring, inversions last longer and are more geographically extensive; vertical dispersion is poor, and pollution may be trapped near the ground for several concurrent days.

Radiation inversion occurs when the air layer near the surface of the ground cools and may extend upward several hundred feet. Radiation inversion in Humboldt County is found in the night and early mornings



almost daily, but is more prominent from late fall to early spring when there is less sunlight and it is cooler. Radiation inversion tends to last longer into the morning during the winter months than in the summer.

Subsidence inversion is caused by downward moving air aloft, which is common in the area of high pressure along and off the coast. The air warms at a rate of 5.5 degrees Fahrenheit (°F) per 1,000 feet as it descends. Thus, it arrives at a lower height warmer than the air just below and limits the vertical mixing of air. Subsidence inversion often affects a large area and is more common during the summer months. This inversion, which usually occurs from late spring through the early fall, can be very strong and shallow given the cooling of the lower layers from the cool ocean water.

In the NCAB, air quality is predominantly influenced by the climatic regimes of the Pacific. In summer, warm ground surfaces draw cool air in from the coast, creating frequent thick fogs along the coast and making northwesterly winds common. In winter, precipitation is high, winter time surface wind directions are highly variable, and weather is more affected by oceanic storm patterns (NCUAQMD 1995: II-1 to II-3).

## Criteria Air Pollutants

Concentrations of criteria air pollutants are used to indicate the quality of the ambient air. Table 3.3-2 provides a brief description of key criteria air pollutants in the NCAB, their common health effects, and sources.

**Table 3.3-2 Sources and Health Effects of Criteria Air Pollutants**

Pollutant	Sources	Acute <sup>1</sup> Health Effects	Chronic <sup>2</sup> Health Effects
Respirable particulate matter (PM <sub>10</sub> ), Fine particulate matter (PM <sub>2.5</sub> )	fugitive dust, soot, smoke, mobile and stationary sources, construction, fires and natural windblown dust, and formation in the atmosphere by condensation and/or transformation of SO <sub>2</sub> and ROG	breathing and respiratory symptoms, aggravation of existing respiratory and cardiovascular diseases, premature death	alterations to the immune system, carcinogenesis
Ozone	Secondary pollutant resulting from reaction of ROG and NO <sub>x</sub> in presence of sunlight. ROG emissions result from incomplete combustion and evaporation of chemical solvents and fuels; NO <sub>x</sub> results from the combustion of fuels	increased respiration and pulmonary resistance; cough, pain, shortness of breath, lung inflammation	permeability of respiratory epithelia, possibility of permanent lung impairment
Carbon monoxide (CO)	Incomplete combustion of fuels; motor vehicle exhaust	headache, dizziness, fatigue, nausea, vomiting, death	permanent heart and brain damage
Nitrogen dioxide (NO <sub>2</sub> )	combustion devices; e.g., boilers, gas turbines, and mobile and stationary reciprocating internal combustion engines	coughing, difficulty breathing, vomiting, headache, eye irritation, chemical pneumonitis or pulmonary edema; breathing abnormalities, cough, cyanosis, chest pain, rapid heartbeat, death	chronic bronchitis, decreased lung function
Sulfur dioxide (SO <sub>2</sub> )	coal and oil combustion, steel mills, refineries, and pulp and paper mills	Irritation of upper respiratory tract, increased asthma symptoms	Insufficient evidence linking SO <sub>2</sub> exposure to chronic health impacts
Lead	metal processing	reproductive/ developmental effects (fetuses and children)	numerous effects including neurological, endocrine, and cardiovascular effects

Notes: NO<sub>x</sub> = oxides of nitrogen; ROG = reactive organic gases.

<sup>1</sup> "Acute" refers to effects of short-term exposures to criteria air pollutants, usually at fairly high concentrations.

<sup>2</sup> "Chronic" refers to effects of long-term exposures to criteria air pollutants, usually at lower, ambient concentrations.

Sources: EPA 2017

Humboldt County is in attainment of all the CAAQS and NAAQS for criteria air pollutants, except the 24-hour CAAQS for PM<sub>10</sub> (NCUAQMD 2017b). The attainment status for each criteria air pollutant is based on measurements collected at monitoring stations throughout the county. Monitoring results have shown that the principal pollutant in the NCAB, including Humboldt County, is PM<sub>10</sub>. Primary sources of PM<sub>10</sub> in the NCAB are on-road and off-road vehicles (engine exhaust and fugitive dust generated by travel on paved and unpaved roads), open burning of vegetation (both residential and commercial), residential wood stoves, and stationary industrial sources (factories).

Cars and trucks and other vehicles are considered a source of PM<sub>10</sub> within NCUAQMD's jurisdiction. Fugitive PM<sub>10</sub> emissions generated by vehicular traffic on unpaved roadways is the largest source of particulate matter emissions within NCUAQMD's jurisdiction. Its control and mitigation plays a key role in the District's attainment strategy (NCUAQMD 2017a).

NCAB is in attainment of the CAAQS and NAAQS for ozone (NCUAQMD 2017b).

### **Naturally-Occurring Asbestos**

NOA was identified as a TAC in 1986 by CARB. NOA is located in many parts of California, and is commonly associated with ultramafic rocks, according to a special publication published by the California Geological Survey (Churchill and Hill 2000). Asbestos is the common name for a group of naturally-occurring fibrous silicate minerals that can separate into thin but strong and durable fibers. Ultramafic rocks form in high-temperature environments well below the surface of the earth. By the time they are exposed at the surface by geologic uplift and erosion, ultramafic rocks may be partially to completely altered into a type of metamorphic rock called serpentinite. Sometimes the metamorphic conditions are right for the formation of chrysotile asbestos or tremolite-actinolite asbestos in the bodies of these rocks, along their boundaries, or in the soil.

Asbestos could be released from serpentinite or ultramafic rock if the rock is broken or crushed. Asbestos could also be released into the air because of vehicular traffic on unpaved roads on which asbestos-bearing rock has been used as gravel. At the point of release, asbestos fibers could become airborne, causing air quality and human health hazards. Natural weathering and erosion processes act on asbestos bearing rock and soil, increasing the likelihood for asbestos fibers to become airborne if disturbed (California Geological Survey 2002: 22).

According to the report, *A General Location Guide to Ultramafic Rocks in California—Areas More Likely to Contain Naturally Occurring Asbestos*, there are areas of Humboldt County in which asbestos is likely to occur, particularly in the eastern part of the County (California Department of Conservation 2000).

### **Sensitive Receptors**

Sensitive receptors are generally considered to include those land uses where exposure to pollutants could result in health-related risks to sensitive individuals, such as children or the elderly. Residential dwellings, schools, hospitals, playgrounds, and similar facilities are of primary concern because of the presence of individuals particularly sensitive to pollutants and/or the potential for increased and prolonged exposure of individuals to pollutants. These types of land uses exist in all developed areas of Humboldt County.

## **GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE**

### **The Physical Scientific Basis**

Certain gases in the earth's atmosphere, classified as GHGs, play a critical role in determining the earth's surface temperature. Solar radiation enters the earth's atmosphere from space. A portion of the radiation is absorbed by the earth's surface and a smaller portion of this radiation is reflected back toward space. This absorbed radiation is then emitted from the earth as low-frequency infrared radiation. The frequencies at which bodies emit radiation are proportional to temperature. The earth has a much lower temperature than the sun; therefore, the earth emits lower frequency radiation. Most solar radiation passes through GHGs; however, infrared radiation is absorbed by these gases. As a result, radiation that otherwise would have

escaped back into space is instead “trapped,” resulting in a warming of the atmosphere. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate on earth.

Prominent GHGs contributing to the greenhouse effect are carbon dioxide (CO<sub>2</sub>), methane, nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Human-caused emissions of these GHGs more than natural ambient concentrations are found to be responsible for intensifying the greenhouse effect and leading to a trend of unnatural warming of the earth’s climate, known as global climate change or global warming. It is “extremely likely” that more than half of the observed increase in global average surface temperature from 1951 to 2010 was caused by the anthropogenic increase in GHG concentrations and other anthropogenic forcing (IPCC 2014:3, 4).

Climate change is a global problem. GHGs are global pollutants, unlike criteria air pollutants and toxic air contaminants, which are pollutants of regional and local concern. Whereas most pollutants with localized air quality effects have relatively short atmospheric lifetimes (about one day), GHGs have long atmospheric lifetimes (one to several thousand years). GHGs persist in the atmosphere for long enough time periods to be dispersed around the globe. Although the lifetime of any particular GHG molecule is dependent on multiple variables and cannot be determined with any certainty, it is understood that more CO<sub>2</sub> is emitted into the atmosphere than is sequestered by ocean uptake, vegetation, and other forms of sequestration. Of the total annual human-caused CO<sub>2</sub> emissions, approximately 55 percent is estimated to be sequestered through ocean and land uptake every year, averaged over the last 50 years, whereas the remaining 45 percent of human-caused CO<sub>2</sub> emissions remains stored in the atmosphere (IPCC 2013:467).

The quantity of GHGs in the atmosphere that ultimately result in climate change is not precisely known, but is enormous; no single project alone would measurably contribute to an incremental change in the global average temperature, or to global, local, or micro climates. Thus, from the standpoint of CEQA, GHG impacts relative to global climate change are inherently cumulative.

### Greenhouse Gas Emission Sources

GHG emissions are attributable in large part to human activities associated with the transportation, industrial/manufacturing, utility, residential, commercial, and agricultural emissions sectors (CARB 2014a). In California, the transportation sector is the largest emitter of GHGs, followed by electricity generation (CARB 2014b). Emissions of CO<sub>2</sub> are byproducts of fossil fuel combustion. CH<sub>4</sub>, a highly potent GHG, primarily results from off-gassing (the release of chemicals from nonmetallic substances under ambient or greater pressure conditions) and is largely associated with agricultural practices and landfills. N<sub>2</sub>O is also largely attributable to agricultural practices and soil management. CO<sub>2</sub> sinks, or reservoirs, include vegetation and the ocean, which absorb CO<sub>2</sub> through sequestration and dissolution (CO<sub>2</sub> dissolving into the water), respectively, two of the most common processes for removing CO<sub>2</sub> from the atmosphere.

A GHG inventory for the unincorporated portion of Humboldt County is provided in the County’s Draft General Plan Update and summarized in Table 3.3-3.

**Table 3.3-3 Unincorporated Humboldt County Greenhouse Gas Emissions Inventory for 2005 and Business-as-Usual Forecast Years (MT CO<sub>2</sub>e)**

Emissions Sector	2005	2020	2030	2040
Residential Energy Use	112,477	117,291	119,417	117,207
Commercial Energy Use	117,436	123,751	128,452	135,119
Industrial Point Sources	197,641	206,101	209,836	205,954
On-Road Transportation	346,162	333,759	334,802	324,277
Off-Road Transportation	58,177	61,305	63,634	66,937
Solid Waste	39,898	41,764	42,821	43,135
Landfill	41,991	28,717	19,641	13,434

**Table 3.3-3 Unincorporated Humboldt County Greenhouse Gas Emissions Inventory for 2005 and Business-as-Usual Forecast Years (MT CO<sub>2</sub>e)**

Emissions Sector	2005	2020	2030	2040
Water & Wastewater	2,984	3,124	3,203	3,227
Fugitive Leakage of Refrigerants	1,532	1,604	1,644	1,656
Livestock	227,025	353,718	353,718	353,718
Total	1,145,323	1,271,134	1,277,170	1,264,663
Notes: Totals may not add due to rounding. MT = metric tons, CO <sub>2</sub> e = carbon dioxide equivalent Sources: Humboldt County 2017a:3.13-15				

## EFFECTS OF CLIMATE CHANGE ON THE ENVIRONMENT

According to the IPCC, which was established in 1988 by the World Meteorological Organization and the United Nations Environment Programme, global average temperature is expected to increase by 3 to 7 °F by the end of the century, depending on future GHG emission scenarios (IPCC 2007). According to the California Natural Resources Agency (CNRA), temperatures in California are projected to increase 2 to 5 °F by 2050 and by 4 to 9 °F by 2100 (CNRA 2009).

Other environmental resources could be indirectly affected by the accumulation of GHG emissions and resulting rise in global average temperature. In the recent years, California has been marked by extreme weather and its effects. According to CNRA's draft report, *Safeguarding California Plan: 2017 Update* (CNRA 2017), California experienced the driest four-year statewide precipitation on record from 2012 through 2015; the warmest years on average in 2014, 2015, and 2016; and the smallest and second smallest Sierra snowpack on record in 2015 and 2014 (CNRA 2017). In contrast, the northern Sierra Nevada range experienced its wettest year on record in 2016 (CNRA 2017:20). The changes in precipitation exacerbate wildfires throughout California with increasing frequency, size, and devastation. As temperatures increase, the increase in precipitation falling as rain rather than snow also could lead to increased potential for floods because water that would normally be held in the snowpack of the Sierra Nevada and Cascade mountains until spring would flow into the Central Valley concurrently with winter rainstorm events. This scenario would place more pressure on California's levee/flood control system (CNRA 2017:21). Furthermore, in the extreme scenario involving the rapid loss of the Antarctic ice sheet, sea level along the California's coastline could rise up to 10 feet by 2100, which is approximately 30 to 40 times faster than sea level rise experienced over the last century (CNRA 2017:102).

Changes in temperature, precipitation patterns, extreme weather events, and sea-level rise have the potential to effect and decrease the efficiency of thermal power plants and substations, decrease the capacity of transmission lines, disrupt electrical demand, and threaten energy infrastructure with the increased risk of flooding (CNRA 2017:26).

Locally, in Humboldt County, rainfall is expected to decline by 5 to 7 inches on average each year by 2050 (CNRA 2017:46).

The State Department of Transportation (Caltrans) owns and operates more than 51,000 miles along 265 highways, as well as three of the busiest passenger rail lines in the nation. Sea level rise, storm surge, and coastal erosion are imminent threats to highways, roads, bridge supports, airports, transit systems and rail lines near sea level and seaports. Shifting precipitation patterns, increased temperatures, wildfires, and increased frequency in extreme weather events also threaten transportation systems across the state. Temperature extremes and increased precipitation can increase the risk of road and railroad track failure, decreased transportation safety, and increased maintenance costs (CNRA 2017:59).

Water availability and changing temperatures, which effects prevalence of pests, disease, and species, directly impact crop development and livestock production. Other environmental concerns include decline in water quality, groundwater security, and soil health (CNRA 2017:69). Vulnerabilities of water resources also include risks to degradation of watersheds, alteration of ecosystems and loss of habitat, impacts to coastal areas, and ocean acidification (CNRA 2017:115). The ocean absorbs approximately a third of the CO<sub>2</sub> released into the atmosphere every year from industrial and agricultural activities, changing the chemistry of the ocean by decreasing the pH of seawater. This ocean acidification is harmful to marine organisms especially calcifying species such as oysters, clams, sea urchins, and corals (CNRA 2017:101).

### 3.3.3 Environmental Impacts and Mitigation Measures

#### METHODS AND ASSUMPTIONS

The environmental analysis in this EIR is general in nature and does not evaluate the air quality impacts or GHG emissions of multiple cultivation operations. Instead, the analysis focuses on reasonable air quality- and GHG-related impacts that could occur from the distinct types of cultivation and non-cultivation operations that would be permitted under the proposed ordinance. Limitations and restrictions regarding the types, sizes, and intensity of permitted cultivation and non-cultivation operations are summarized in Chapter 2, "Project Description." It is important to note that a single cultivation site could include multiple cultivation operations, each with a different license type. It is unknown how many cannabis licenses would be issued for a single site; thus, this analysis focuses on the construction and operation of an individual operation, shown by license type.

Permitted commercial cannabis cultivation and non-cultivation operations could result in an incremental increase in emissions from short-term construction-related activities and long-term operational-related sources. The California Emissions Estimator Model (CalEEMod) Version 2016.3.1 computer program was used to estimate emissions of criteria air pollutants and precursors associated with the construction and operation of the types of indoor, outdoor, mixed-light, and non-cultivation operations that could be approved under the proposed ordinance, including size limits; and default values in CalEEMod based on the climatic conditions in the county.

The potential for construction and operation of a single cultivation or non-cultivation operation to create objectionable odors affecting a substantial number of people is discussed qualitatively with a focus on the types of odor sources, their intensity, and their proximity to nearby receptors.

Regarding the evaluation of GHG emission impacts under CEQA, GHG emissions and their contribution to global climate change are inherently cumulative. To that end, an individual project participates in this potential impact by its incremental contribution, combined with the cumulative contributions of all other sources of GHGs, which, when taken together, cause potential global climate change impacts. Therefore, the cumulative global climate change analysis presented in this section of the EIR analyzes the GHG emissions associated with construction and operation of commercial cannabis cultivation and non-cultivation operations that would develop under the proposed ordinance.

GHG emissions associated with construction and operation of cultivation operations and non-cultivation facilities associated with the proposed ordinance were evaluated qualitatively for consistency with adopted regulations, plans, and policies aimed at reducing GHG emissions. These include the proposed 2017 Scoping Plan Update, Title 24, SB X1-2, and the Low Carbon Fuel Standard.

This approach is consistent with one of the pathways to compliance presented in the recent California Supreme Court (Court) ruling, *Center for Biological Diversity v. California Department of Fish and Wildlife*. The Court identified three pathways to evaluate the cumulative significance of a proposed land use development. One pathway suggests looking at compliance with regulatory programs designed to reduce GHG emissions from particular activities, especially regarding the goals of AB (and now SB) 32.



## THRESHOLDS OF SIGNIFICANCE

### Air Quality

NCUAQMD developed mass emission thresholds of significance, which are considered to be the allowable incremental contribution by a single stationary source while still progressing toward overall attainment within Humboldt County and the NCAB. The thresholds are intended to regulate stationary sources throughout the NCAB, which are evaluated on an individual basis, not a cumulative one. Thus, individual stationary sources that do not exceed these established thresholds, even when combined with additional sources throughout the county, would not result in emissions that would contribute to the nonattainment status of the NCAB.

NCUAQMD's recommended mass emission thresholds are also used to determine whether emissions from a stationary source could expose sensitive receptors to substantial pollutant concentrations of criteria air pollutants, and are not intended to evaluate individual projects under CEQA. The NCAB is in attainment for all criteria air pollutants and ozone precursors except PM<sub>10</sub>, thus a project that exceeds the recommended PM<sub>10</sub> thresholds can be considered to contribute to the nonattainment status of the NCAB. For the purposes of this analysis, an air quality impact from cultivation operations and associated non-cultivation facilities permitted under the proposed ordinance are considered significant if they would:

- ▲ result in construction-generated or operation-generated criteria air pollutant or precursor emissions that exceed NCUAQMD-recommended mass emission thresholds of 80 pounds per day (lb/day) for PM<sub>10</sub> and an annual mass emissions thresholds of 15 tons per year (tons/year) for PM<sub>10</sub>;
- ▲ result in long-term operational local mobile-source CO emissions that would violate or contribute substantially to concentrations that exceed the 1-hour CAAQS of 20 parts per million (ppm) or the 8-hour CAAQS of 9 ppm;
- ▲ expose sensitive receptors to substantial pollutant concentrations; or
- ▲ create objectionable odors affecting a substantial number of people.

### Greenhouse Gas Emissions

CEQA Guidelines Section 15064 and relevant portions of Appendix G recommend that a lead agency consider a project's consistency with relevant, adopted plans, and discuss any inconsistencies with applicable regional plans, including plans to reduce GHG emissions. In Appendix G of the State CEQA Guidelines, two questions are provided to help assess if the project would result in a potentially significant impact on climate change. These questions ask whether the project would:

- ▲ generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, or
- ▲ conflict with any applicable plan, policy or regulation of an agency adopted for reducing the emissions of GHGs?

## ISSUES NOT DISCUSSED FURTHER

The establishment of new commercial cannabis cultivation operations and non-cultivation operations permitted under the proposed ordinance could result in ground disturbance activities in areas known to contain NOA. However, NCUAQMD requires projects conform with CARB's Airborne Toxic Control Measures for NOA, which requires control measures during activities that involve ground disturbance. Any ground disturbance activity in locations where asbestos-containing soils are suspected or identified would be required to prevent exposure of NOA to nearby receptors in accordance with adopted rules and regulations.



Regarding the potential for CO “hot spots” at local intersections, these types of effects only occur at intersections experiencing extremely high volumes of traffic. Operational activities at individual operations are not anticipated to generate more than 30 trips per day during harvest time, two daily trips per each of the 15 workers, as explained in section 3.12, “Transportation and Circulation.” Moreover, the cultivation operations would generally be spread throughout the County. Thus, it is not anticipated that vehicle trips generated by cultivation operations would result in excessive congestion at any intersection that experiences high volumes of vehicles experiencing long wait times. For these reasons, it is not anticipated that the additional trips associated with new cultivation would contribute substantially to traffic congestion at affected intersections such that local CO “hot spots” may occur that exceed the CAAQS or NAAQS for CO.

Construction and operation of the permitted cultivation and non-cultivation operations may involve the use of diesel-powered equipment that emit diesel PM. However, construction activities would be limited and would be temporary. Operational activities would not include any major sources of TACs and all new operations would be subject to setback requirements of the proposed ordinance resulting in at least a 300-foot buffer between operations and existing residential land uses. Given the minimal construction activities, no major sources of TACs, and the distance requirements to existing residential land uses, individual cannabis operations would not expose existing receptors to substantial TAC concentrations and this issue not discussed further.

The NCAB is in attainment for all criteria air pollutants and precursors except PM<sub>10</sub>. Individual cultivation sites may include small back-up generators (i.e., less than 30 horsepower) but would not include new stationary sources that could potentially exceed established emissions limits for ROG, NO<sub>x</sub>, PM<sub>2.5</sub>, CO, and SO<sub>2</sub>, and therefore these sources are not evaluated in this DEIR.

## IMPACT ANALYSIS

### Impact 3.3-1: Construction-generated emissions of criteria air pollutants and precursors.

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Short-term, construction-generated emissions would not exceed NCUAQMD-recommended daily emission threshold for PM<sub>10</sub>. Although the NCAB is in nonattainment for PM<sub>10</sub> emissions, construction of a single cultivation operation or non-cultivation operation would not contribute substantially to an existing or projected air quality violation, expose sensitive receptors to substantial pollutant concentrations, and/or conflict with air quality planning efforts in Humboldt County and the NCAB. This impact would be **less than significant**.

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Construction of commercial cultivation operations would require minimal earthwork and use of heavy off-road equipment that would temporarily generate exhaust emissions and fugitive dust. Generally, the intensity of construction activity would be similar to a residential renovation or building addition project. Construction of outdoor cultivation operations could involve the clearing of vegetation, grading or other earth disturbance activities to establish a grow area, the laying of a gravel pad to support the containers in which the cannabis is planted, installation of a water storage tank or pond, and approximately 1,800 square feet (sq. ft.) of indoor non-cultivation space. Construction of indoor and mixed-light cultivation operations would involve the construction of a greenhouse or grow building of up to 22,000 sq. ft., as well as a water storage tank or pond, and non-cultivation indoor space.

The construction of new individual cultivation operations would last approximately four months at each cultivation site, and use of heavy-duty off-road equipment at a single new cultivation operation would occur for approximately two weeks. Emissions of fugitive PM<sub>10</sub> dust would primarily be associated with ground-disturbance activities during site preparation and grading, and may vary as a function of such parameters as travel on unpaved roads, soil silt content, soil moisture, wind speed, acreage of disturbance area. PM<sub>10</sub> is also contained in vehicle and equipment exhaust.

Construction-related PM<sub>10</sub> emissions were estimated using CalEEMod and compared to NCUAQMD stationary thresholds, as shown below in Table 3.3-6. Emissions of ROG, NO<sub>x</sub>, PM<sub>2.5</sub>, and CO were also estimated but because of the attainment status of the NCAB for these pollutants, the temporary nature of

construction activities, minimal level of emissions, and lack of construction-related thresholds of significance, were not evaluated herein.

To be conservative, the modeling estimates the total maximum daily emissions that could occur if 10 of the individual cultivation operations with the most intense construction period and two non-cultivation facilities would be under construction simultaneously. Based on current cultivation approval rate, this level of simultaneous construction is unlikely to occur. Refer to Appendix B for detailed modeling input parameters and results.

**Table 3.3-6 New Facility Maximum Daily Construction Emissions of PM<sub>10</sub> (lb/day)**

	PM <sub>10</sub>
<b>Cultivation Operations</b>	
1-Outdoor	0.5
2-Outdoor	0.5
3-Outdoor	0.5
1B-Mixed-Light	0.5
2B-Mixed-Light	0.5
3B-Mixed-Light	0.5
1A-Indoor	0.7
2A-Indoor	0.6
3A-Indoor	0.6
<b>Non-Cultivation Operations</b>	
Non-Cultivation Operations	1.5
<b>Maximum Daily Emissions</b>	
10 Cultivation Operations	7.0
2 Non-Cultivation Operations	3.0
Unpaved Road Dust	0.7
<b>Maximum Daily Total</b>	<b>10.7</b>
Threshold of Significance	80
Exceeds Threshold?	No
Notes: lb/day = pounds per day; PM <sub>10</sub> = respirable particulate matter with an aerodynamic diameter of 10 micrometers or less.	
Refer to Appendix B for detailed assumptions, modeling parameters, and output files.	
Source: Modeling performed by Ascent Environmental in 2017.	

As shown in Table 3.3-6, construction-generated emissions of PM<sub>10</sub> would not exceed the NCUAQMD-recommended daily emission threshold, even if 10 cultivation operations and two non-cultivation operations were constructed simultaneously, with the most intense period of construction overlapping regardless of license type. Based on emissions modeling conducted for ROG, NO<sub>x</sub>, PM<sub>2.5</sub>, and CO, construction of any one cultivation or non-cultivation site would not exceed established stationary thresholds for these pollutants. Due to the attainment status of the NCAB for these pollutants, the temporary nature of construction activities, and minimal level of emissions, construction-related emissions of these pollutants would not be significant. Refer to emissions summary included in Appendix B for disclosure of estimated construction emissions from all criteria air pollutants.

As discussed previously, estimated emissions were compared to thresholds of significance recommended for operational emissions of a single stationary source and would not exceed thresholds for any air pollutant. Further, modeling assumptions for emissions estimates are considered to be conservative, as it is unknown how many commercial cannabis cultivation operations and commercial cannabis non-cultivation facilities would be constructed simultaneously. Therefore, construction activities resulting from the proposed ordinance would not contribute substantially to the NCAB's nonattainment status for PM<sub>10</sub>, and this impact would be **less than significant**.

## Mitigation Measures

No mitigation is required.

### Impact 3.3-2: Long-term operational emissions of criteria pollutants and precursors.

Operation of commercial cannabis cultivation operations and non-cultivation operations in the County would result in peak emissions of PM<sub>10</sub> during the harvest season. Operation of a new single cultivation operation during the harvest season would exceed NCUAQMD-recommended maximum daily thresholds for PM<sub>10</sub>. Because the NCAB is in nonattainment for PM<sub>10</sub>, operation of a single cannabis cultivation would contribute to an existing or projected air quality violation. This impact would be **significant**.

New cultivation and non-cultivation sites established under the proposed ordinance would result in long-term operational emissions of PM<sub>10</sub>, for which the NCAB is in nonattainment. PM<sub>10</sub> emissions would primarily be generated from fugitive dust from travel of workers on unpaved roads, as well as from vehicle exhaust. Emissions associated with the operation of cannabis-related sites across the county would be highest when the most cultivation operations are in harvest at the same time because 10 to 15 workers are needed at each commercial cannabis cultivation site to work the harvest. However, commercial cultivation sites may provide on-site housing for workers, which would eliminate worker trips during the harvest period. The harvest of a single cultivation operation would occur over a 6-week period.

As described in Chapter 2.0, "Project Description," new cultivation and non-cultivation operations are required to generate 100 percent of their energy demand through renewable sources under the proposed ordinance. Existing cultivation operations that are not on the grid for electrical service can reduce their renewable energy requirement to 80 percent with the other 20 percent derived from fossil-fuel based power, possibly through the use of a diesel generator. Diesel generators would contribute to PM<sub>10</sub> emissions from the operation of cultivation operations. Per Rule 102, NCUAQMD requires that generators with over 30 horsepower capacity apply for a separate discretionary permit to operate and would be required to comply with NCUAQMD daily and annual emissions limits, thus not resulting in substantial increases in criteria air pollutants. Generators under 30 horsepower capacity are considered to not conflict with the PM<sub>10</sub> reduction plans of the NCAB, and thus are excluded from the emissions estimate for cultivation operations.

Regional area- and mobile-source emissions of PM<sub>10</sub> associated with operation of the project were modeled using CalEEMod. Emissions of ROG, NO<sub>x</sub>, PM<sub>2.5</sub>, and CO were also estimated, but because of the attainment status of the NCAB for these pollutants, they were not evaluated herein. Table 3.3-7 summarizes the modeled operation-related emissions of PM<sub>10</sub> that could occur from an individual cultivation operation or non-cultivation operation. Refer to Appendix B for detailed modeling input parameters and results.

**Table 3.3-7 Operational Emissions of PM<sub>10</sub>**

	Maximum Daily PM <sub>10</sub> <sup>1</sup> (lb/day)	Annual PM <sub>10</sub> (tons/year)
<b>Cultivation Operations (Representative Individual Site)</b>		
Mobile-Source	<0.01	<0.01
Road Dust	108.3	7.3

**Table 3.3-7 Operational Emissions of PM<sub>10</sub>**

	Maximum Daily PM <sub>10</sub> <sup>1</sup> (lb/day)	Annual PM <sub>10</sub> (tons/year)
<b>Non-Cultivation Operations<sup>2</sup> (Representative Individual Site)</b>		
Non-Cultivation Operation	<0.01	0.1
Mobile-Source	<0.01	<0.01
<b>Maximum Total</b>	<b>108.3</b>	<b>7.3</b>
Threshold of Significance	80	15
Exceeds Threshold?	Yes	No

Notes: lb/day = pounds per day; tons/year = tons per year; PM<sub>10</sub> = respirable particulate matter with an aerodynamic diameter of 10 micrometers or less.

<sup>1</sup> Daily emissions are estimated for the harvest season.

<sup>2</sup> It is assumed all non-cultivation sites would be located on paved roads, thus there would be no road dust from travel on unpaved roads.

Refer to Appendix B for detailed assumptions, modeling parameters, and output files.

Source: Modeling performed by Ascent Environmental in 2017.

As shown in Table 3.3-7, the annual level of PM<sub>10</sub> emitted from a single cultivation operation would not exceed the NCUAQMD-recommended threshold of 15 tons/year. However, the level of PM<sub>10</sub> emitted from a single cultivation operation during harvest season (i.e., September through October) would exceed the NCUAQMD-recommended daily threshold of 80 lb/day as a result of workers traveling on unpaved roads.

Regarding operational emissions of ROG, NO<sub>x</sub>, PM<sub>2.5</sub>, and CO, emissions were estimated and included in Appendix B. Emissions for both cultivation and non-cultivation operations would not exceed established stationary thresholds for any one site. Further, because of the attainment status of the NCAB for these pollutants, minimal increases in these emissions would not be considered substantial. Given that operation of a single cultivation operation during harvest under the proposed ordinance would exceed the established threshold of 80 lb/day for PM<sub>10</sub>, the project could contribute substantially to the NCAB's nonattainment status for PM<sub>10</sub>, and this impact would be **significant**.

## Mitigation Measures

No feasible mitigation is available.

The following possible mitigation measures for the reduction of PM<sub>10</sub> emissions from travel on unpaved roads were considered by the County and determined infeasible:

**Routine Watering of Roadways:** The routine watering of the unpaved roads (two times a day) can reduce particulate matter emissions by as much as 55 percent based on modeling data provided in CalEEMod. Most of the roadway system in the County is private and unpaved. Several of the current applications for new commercial cannabis operation sites are located on unpaved private roads that range from one mile to over 15 miles in length. This extent of unpaved roadways would be infeasible to routinely water twice a day to provide effective reduction of PM<sub>10</sub> emissions.

**Use of Dust Suppressants:** Dust suppressants work by binding the particles together that form a protective layer that resists wind movement. As noted above, several of the current applications for new commercial cannabis operation sites are located on unpaved roads that range from one mile to over 15 miles in length. This extent of unpaved roadways would be difficult to apply and maintain dust suppressants to provide effective reduction of emissions. In addition, dust suppressants can result in water quality impacts associated with stormwater runoff. Thus, the use of dust suppressants is considered infeasible.

**Paving of Roadways:** Paving of roadways utilized by commercial cannabis cultivation sites would substantially reduce PM<sub>10</sub> emissions from roadway dust. The extent of roadways that would be required to be paved (1 to

over 15 miles per site) would be substantial and would likely be cost prohibitive to construct and maintain. Thus, the paving of roadways is considered infeasible.

It is important to note that harvest season lasts approximately four to six weeks, thus daily PM<sub>10</sub> emissions would only exceed the NCUAQMD-recommended threshold during that time. Annual emissions of PM<sub>10</sub> from an individual cultivation site remain below the recommended threshold. This impact would be **significant and unavoidable**.

### **Impact 3.3-3: Generation of greenhouse gas emissions.**

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Construction and operation of commercial cannabis cultivation operations permitted under the proposed ordinance would result in GHG emissions. However, it is anticipated that existing cultivation sites would apply for licenses under the proposed ordinance, which would require sites to achieve at least 80 percent of their energy demand from renewable sources; this would be a substantial reduction from current operations. The energy-related GHG emissions associated with existing sites would be reduced through the renewable requirement of the proposed ordinance, and would offset the emissions generated by new cultivation operations. Further, the proposed ordinance would include GHG efficiency measures consistent with all applicable State and local policies and regulations for reducing GHG emissions and enabling achievement of the statewide reduction targets of AB 32 of 2006 and SB 32 of 2016. The proposed ordinance would not conflict with any applicable plan, policy, or regulation of an agency adopted for reducing GHG emissions. Therefore, this impact would be **less than significant**.

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Construction and operation of new commercial cannabis cultivation operations would result in GHG emissions. During construction of cultivation operations GHGs would be emitted by construction equipment, haul trips transporting equipment and materials, and commute trips by construction workers. Commercial cannabis cultivation operations permitted under the proposed ordinance would also result in long-term operational emissions of GHGs associated with worker commute trips and supplemental energy supply (i.e., back-up generators). Electricity would be consumed to power well pumps that would supply irrigation water to outdoor, indoor, and mixed-light cultivation operations, as well as electricity used to power cultivation lights and other equipment at indoor and mixed-light cultivation operations.

As described in Section 2.0, "Project Description," energy demand for all cultivation operations and non-cultivation facilities would be required to be 100 percent renewable, which can be achieved through on-site renewable systems, purchase of carbon offsets, or continued enrollment in available utility or community clean energy programs. Existing cultivation operations that are not connected to the grid for electrical service can reduce their renewable energy requirement to 80 percent.

The grid is powered by PG&E, which reported 29.5 percent of electricity is renewably-sourced (CPUC 2017). Further, sites that obtain power from the grid would be required to supplement their non-renewable energy use by purchasing carbon offsets. In addition, after the proposed ordinance is adopted, existing cultivation operations that choose not to apply for a permit would be illegal and the County would take action to bring those sites into compliance or close the operations. Considering that up to 15,000 existing operations would be required to procure at least 80 percent of their energy needs from renewable sources or would be shut down and restored, existing energy-related GHG emissions would be substantially reduced with the proposed ordinance.

Adoption of the proposed ordinance could result in an increase in VMT associated with worker and on-site resident commute trips. New trips would be dispersed throughout the entire county and distribution of each trip would depend on actual cultivation site location. In some cases where residents live onsite, VMT may be minimal and in other cases may be higher. Further, during harvest season, VMT associated with additional workers would likely increase. Nonetheless, incremental increases in VMT would be a factor of individual site location and operational-specific parameters, including harvest quantity, number of workers/residents, and number/type of daily trips required. Mobile-source emissions are regulated at the state level through programs such as LCFS, designed to reduce carbon intensity of fuels, and therefore emissions per VMT are projected to decline into the future. In addition, VMT is a function of land use planning and site-specific parameters, which cannot be controlled by the proposed ordinance. Given the existing regulations on mobile-



source emissions, the projected decline in mobile-source related GHGs in California, the anticipated GHG reductions from existing facilities, and renewable energy requirements of all newly permitted operations, project-generated GHG emissions would not be substantial.

California has established GHG reduction targets for the year 2020 and 2030 and released the proposed 2017 Scoping Plan Update, which provides a potential strategy for California to meet overall emissions targets. The update provides details regarding local actions that land use development projects and municipalities can implement to support the statewide GHG emissions goal of 40 percent below 1990 levels by 2030. For project-level CEQA analyses, the proposed 2017 Scoping Plan Update states that projects should implement feasible mitigation, preferably measures that can be implemented on-site. Although the project is not a typical land use development project and not necessarily subject to these specific recommendations, features of the proposed ordinance would require renewable energy of at least 80 percent and up to 100 percent. Renewable energy requirements could be met through on-site renewable energy systems, carbon offsets, or utility sponsored renewable programs. Incorporation of these design features would be consistent with goals and recommendations included in the proposed 2017 Scoping Plan Update.

New cultivation operations and non-cultivation facilities using on-grid power would receive electricity from PG&E, which is subject to the requirements for utility providers, pursuant to SB X1-2 of 2011, which requires 33 percent of electricity to be procured from renewable sources. SB 350 requires state utilities to achieve a 50 percent renewable energy portfolio by 2030, thus electricity-related GHG emissions would continue to decrease. Further, state regulations such as the LCFS require vehicles to reduce the carbon intensity of transportation fuels, thus reducing GHGs emitted from tailpipes. Although there could be an increase in VMT associated with implementation of the proposed ordinance, it is anticipated that the amount of GHG emissions from existing sites required to comply with the renewable energy standard of the proposed ordinance would offset those emissions.

Implementation of the proposed ordinance would not result in substantial GHG emissions or conflict with the State's ability to meet overall GHG reduction goals. This impact would be **less than significant**.

## **Mitigation Measures**

No mitigation is required.

### **Impact 3.3-4: Exposure of people to objectionable odors.**

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Implementation of the proposed ordinance would allow for construction and operation of new commercial cannabis-related activities, which would generate localized construction and operational odors associated with equipment operation that could be sources of objectionable odors to nearby residents. However, the cultivation and processing of cannabis generates odors associated with the plant itself, which during maturation can produce substantial odors. Setbacks are provided as part of the proposed ordinance; however, they do not preclude the generation of odorous emissions in such quantities as to cause detriment, nuisance, or annoyance to a substantial number of people. This would be a **significant** impact.

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The occurrence and severity of odor impacts from cultivation operations permitted under the proposed ordinance would depend on numerous factors, including the nature, frequency, and intensity of the odor sources; wind speed and direction; the proximity to off-site receptors; and the sensitivity of exposed receptors. Although exposure to offensive odors generally do not result in physical harm, they can be perceived as objectionable leading to considerable distress among the public and can result in citizen complaints to local governments and regulatory agencies. The potential for exhaust emitted by equipment used in the construction and operation of cultivation operations, and the potential for cannabis plants to create objectionable odors affecting a substantial number of people are discussed separately below.

#### **Construction- and Operation-Related Equipment Exhaust**

Odors emitted in the exhaust of on-site engines during construction and operation, particularly diesel-fueled engines, may be considered offensive to some individuals. The generation of these odorous emissions would



vary on a day-to-day basis depending on the type of on-site activities taking place. However, the types of diesel emitting equipment would not be unlike other diesel-powered equipment used in developed areas of the county. Moreover, such emissions would be intermittent in nature and would dissipate rapidly with increasing distance from the source. For these reasons, the use of exhaust-emitting equipment for the construction and operation of cultivation operations would not result in the exposure of a substantial number of people to objectionable odors.

#### **Cannabis-Related Odors**

Cannabis plants are known to emit odors, especially during the final stages of the cultivation cycle (i.e., typically beginning in August and continuing through harvest season in September and October). The potential for odors to be perceived and considered objectionable would depend on the size of the cannabis-related operation, the receptor, the strain of cannabis being cultivated/processed, the presence of nearby vegetation, and topographic and atmospheric conditions. As a result, an appropriate buffer distance at which odors could not be perceived is not considered feasible and would depend on site-specific conditions. Generally, the larger the size of the canopy area, the greater the potential for odor to be evident to off-site receptors. Many of the potential applicants seeking coverage under the proposed ordinance are anticipated to be outdoor grow operations on large parcels (i.e., greater than 10 acres in size) where cultivation areas would be set back a greater distance from adjacent land uses, and where attendant odors would less likely be detectable by people off-site.

Odors emitted by indoor cultivation and processing activities can be controlled through the use of activated carbon filters and other manufactured odor control/masking substances (e.g., gels and sprays designed to mask odors). The proposed ordinance states that cultivation in enclosed structures (e.g., indoor) would be required to be mechanically ventilated with a carbon filter or other feature to prevent the odor from escaping the structure. The masking and/or control of odors at outdoor cannabis-related activities is largely ineffective and limited to the use of fragrant landscape plants, such as citronella, spearmint, chrysanthemums. In addition, the burning of excess organic material associated with the cultivation and processing of cannabis could result in noticeable odors at off-site locations. While the proposed ordinance requires a minimum setback of 30 feet from property lines 600 feet from schools, parks, and other facilities, and 300 feet from residences, it does not preclude the potential for off-site residential receptors to be exposed to odors emitted by mature cannabis plants that they find objectionable. As a result, this would be a **significant** impact.

#### **Mitigation Measure 3.3-4: Prohibit burning of cannabis and other vegetative material**

The County shall amend the proposed ordinance to reflect the following requirements:

- ▲ The burning of excess plant material associated with the cultivation and processing of commercial cannabis is prohibited.

#### **Significance after Mitigation**

While the mitigation identified above would reduce some outdoor cultivation and processing odors by reducing odor generating activities and increasing the distance between potential sources and receptors, it would not preclude the potential for people to perceive objectionable odors within the county attributable to commercial cannabis operations. As a result, while this impact would be reduced, it would remain **significant and unavoidable**. Odors from individual sites may be reduced to a less-than-significant level on a case-by-case basis, however, it is not possible to ensure that cannabis-related odors within the county would not be perceived as objectionable.

#### **Impact 3.3-5: Impacts of climate change on the project.**

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Climate change is expected to result in a variety of effects that would influence conditions in Humboldt County, with increased wildfire being the largest risk. However, the proposed ordinance includes various features that would reduce this wildfire risk. These features would reduce the extent and severity of climate change-related impacts to the project. For these reasons, this impact would be **less than significant**.

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Human-induced increases in GHG concentrations in the atmosphere have led to increased global average temperatures (climate change) through the intensification of the greenhouse effect, and associated changes in local, regional, and global average climatic conditions. Although there is strong scientific consensus that global climate change is occurring and is influenced by human activity, there is less certainty as to the timing, severity, and potential consequences of the climate phenomena. Scientists have identified several ways in which global climate change could alter the physical environment in California (CNRA 2012 and IPCC 2007). These include:

- ▲ increased average temperatures;
- ▲ modifications to the timing, amount, and form (rain vs. snow) of precipitation;
- ▲ changes in the timing and amount of runoff;
- ▲ reduced water supply;
- ▲ deterioration of water quality; and
- ▲ elevated sea level.

Many of these phenomena would translate into an increase in wildfire risk that may affect Humboldt County. Under the proposed ordinance, new cultivation operations and non-cultivation operations would be subject to the California Fire Code, which includes safety measures to minimize the threat of fire. This includes standards for emergency access, setbacks, signage, and water supply that would help prevent damage to structures or people. In addition, Humboldt County applies standards to proposed development within the SRA to reduce the risk of fire. New development is subject to Fire Safe regulations, and the appropriate clearance of vegetation around such development is inspected by CAL FIRE and potentially by Humboldt County with other improvements at the time of construction (Humboldt County 2017a).

Licensed facilities under the proposed ordinance would be required to have certification from Humboldt County that they comply with building, electrical, and fire codes, which would require the installation of fire suppression systems where appropriate. Therefore, this impact would be **less than significant**.

## Mitigation Measures

No mitigation is required.