

Water Resource Protection Plan Assessment of Standard Conditions

for APN 208-341-007

A. Standard Conditions, Applicable to All Dischargers

1. Site maintenance, erosion control and drainage features

a. Roads shall be maintained as appropriate (with adequate surfacing and drainage features) to avoid developing surface ruts, gullies, or surface erosion that results in sediment delivery to surface waters.

The roads onsite appear well maintained with no significant ruts or erosion.

b. Roads, driveways, trails, and other defined corridors for foot or vehicle traffic of any kind shall have adequate ditch relief drains or rolling dips and/or other measures to prevent or minimize erosion along the flow paths and at their respective outlets

The driveway and roads are primarily sloped and do not appear to require relief drains.

c. Roads and other features shall be maintained so that surface runoff drains away from potentially unstable slopes or earthen fills. Where road runoff cannot be drained away from an unstable feature, an engineered structure or system shall be installed to ensure that surface flows will not cause slope failure.

No irrigation runoffs are being generated, resulting in no risk of flows being directed to unstable feature areas.

d. Roads, clearings, fill prisms, and terraced areas (cleared/developed areas with the potential for sediment erosion and transport) shall be maintained so that they are hydrologically disconnected, as feasible, from surface waters, including wetlands, ephemeral, intermittent and perennial streams.

Currently, road surfaces are maintained so as to not generate sediment with the potential of becoming hydrologically connected.

e. Ditch relief drains, rolling dip outlets, and road pad or terrace surfaces shall be maintained to promote infiltration/dispersal of outflows and have no apparent erosion or evidence of soil transport to receiving waters.

Not applicable.

f. Stockpiled construction materials are stored in a location and manner so as to prevent their transport to receiving waters.

Construction materials have been securely stockpiled and kept away from open areas that would create a flow for parts or debris. They would benefit from an underlying tarp or similar containment method.

2. Stream Crossing Maintenance

- a. Culverts and stream crossings shall be sized to pass the expected 100-year peak streamflow.
- b. Culverts and stream crossings shall be designed and maintained to address debris associated with the expected 100-year peak streamflow.
- c. Culverts and stream crossings shall allow passage of all life stages of fish on fish-bearing or restorable streams, and allow passage of aquatic organisms on perennial or intermittent streams.
- d. Stream crossings shall be maintained so as to prevent or minimize erosion from exposed surfaces adjacent to, and in the channel and on the banks.
- e. Culverts shall align with the stream grade and natural stream channel at the inlet and outlet where feasible.
- f. Stream crossings shall be maintained so as to prevent stream diversion in the event that the culvert/crossing is plugged, and critical dips shall be employed with all crossing installations where feasible.

Culverts on the property currently require repair. They need to be cleared of debris and armored to prevent sediment flow to the nearby creek.

3. Riparian and Wetland Protection and Management

- a. For Tier 1 Dischargers, cultivation areas or associated facilities shall not be located within 200 feet of surface waters. While 200 foot buffers are preferred for Tier 2 sites, at a minimum, cultivation areas and associated facilities shall not be located or occur within 100 feet of any Class I or II watercourse or within 50 feet of any Class III watercourse or wetlands. The Regional Water Board or its or its Executive Officer may apply additional or alternative conditions on enrollment, including site-specific riparian buffers and other BMPs beyond those identified in water resource protection plans to ensure water quality protection.
- b. Buffers shall be maintained at natural slope with native vegetation.
- c. Buffers shall be of sufficient width to filter wastes from runoff discharging from production lands and associated facilities to all wetlands, streams, drainage ditches, or other conveyances.
- d. Riparian and wetland areas shall be protected in a manner that maintains their essential functions, including temperature and microclimate control, filtration of sediment and other pollutants, nutrient cycling, woody debris recruitment, groundwater recharge, streambank stabilization, and flood peak attenuation and flood water storage.

Not applicable. No Class I or II watercourses, or wetlands are within 100 feet of the cultivation site. No Class III watercourses are within 50 feet .

4. Spoils Management

- a. Spoils shall not be stored or placed in or where they can enter any surface water.
- b. Spoils shall be adequately contained or stabilized to prevent sediment delivery to surface waters.

c. Spoils generated through development or maintenance of roads, driveways, earthen fill pads, or other cleared or filled areas shall not be sidecast in any location where they can enter or be transported to surface waters.

There are no spoil piles adjacent to wetlands and/or watercourses. The site was not wet or unstable, or in an area where slope stability could be adversely affected. Cultivation soil is a living soil and reused, not discarded. It was seen properly set on a tarp to be reworked. There is no runoff as a result of administering soil amendments.

Fertilizers were seen currently housed in a storage facility with tarped floor to prevent leaching within the building.

5. Water Storage and Use:

- a. Size and scope of an operation shall be such that the amount of water used shall not adversely impact water quality and/or beneficial uses, including and in consideration with other water use by operations, instream flow requirements and/or needs in the watershed, defined at the scale of a HUC-12 watershed or at a smaller hydrologic watershed as determined necessary by the Regional Water Board Executive Officer.
- b. Water conservation measures shall be implemented. Examples include use of rainwater catchment systems or watering plants with a drip irrigation system rather than with a hose or sprinkler system.
- c. For Tier 2 Dischargers, if possible, develop off-stream storage facilities to minimize surface water diversion during low flow periods.
- d. Water is applied using no more than agronomic rates.
- e. Diversion and/or storage of water from a stream should be conducted pursuant to a valid water right and in compliance with reporting requirements under Water Code section 5101.
- f. Water storage features, such as ponds, tanks, and other vessels shall be selected, sited, designed, and maintained so as to insure integrity and to prevent release into waters of the state in the event of a containment failure.

A well serves as the site's water source. Approximately 113,000 gallons are pumped prior to the grow season, into storage tanks and bladders for irrigation. The remaining 31,000 gallons are acquired from rain catchment. The site distributes water at agronomic rates and without diversion.

The bladders do not have engineering designed containment or proper anchoring. The nearby area is vulnerable in the event of a bladder failure.

6. Irrigation

Runoff implementing water conservation measures, irrigating at agronomic rates, applying fertilizers at agronomic rates and applying chemicals according to the label specifications, and maintaining stable soil and growth media should serve to minimize the amount of runoff and the concentration of chemicals in that water. In the event that irrigation runoff occurs, measures shall be in place to treat/control/contain the runoff to minimize the pollutant loads in the discharge. Irrigation runoff shall be managed so that any entrained constituents, such as fertilizers, fine sediment and suspended organic particles, and other oxygen consuming materials are not discharged to nearby watercourses.

Management practices include, but are not limited to, modifications to irrigation systems that reuse tailwater by constructing off-stream retention basins, and active (pumping) and or passive (gravity) tailwater recapture/redistribution systems. Care shall be taken to ensure that irrigation tailwater is not discharged towards or impounded over unstable features or landslides.

Water is applied on a timed system, along with amendments periodically at an appropriate agronomic rate to prevent excessive use and runoff. Occasional site inspections of the cultivation site are conducted to determine if there are any signs of overwatering. As a result, there is no evidence of hydrologic connectivity via surface flow from the cultivation site to any downstream watercourses.

7. Fertilizers and Soil Amendments

- a. Fertilizers, potting soils, compost, and other soils and soil amendments shall be stored in locations and in a manner in which they cannot enter or be transported into surface waters and such that nutrients or other pollutants cannot be leached into groundwater.
- b. Fertilizers and soil amendments shall be applied and used per packaging instructions and/or at proper agronomic rates.
- c. Cultivation areas shall be maintained so as to prevent nutrients from leaving the site during the growing season and post-harvest.

Amendments and natural fertilizers are used upon delivery which minimizes the need for storage. With the exception of a few items seen on-ground, items were properly stored, properly labeled, and kept off ground in sheds or storage buildings. This eliminates risk of materials leaching into groundwater or flowing as sediment into any nearby waterflows.

8. Pesticides/Herbicides

At the present time, there are no pesticides or herbicides registered specifically for use directly on cannabis and the use of pesticides on cannabis plants has not been reviewed for safety, human health effects, or environmental impacts. Under California law, the only pesticide products not illegal to use on cannabis are those that contain an active ingredient that is exempt from residue tolerance requirements and either registered and labeled for a broad enough use to include use on cannabis or exempt from registration requirements as a minimum risk pesticide under FIFRA section 25(b) and California Code of Regulations, title 3, section 6147. For the purpose of compliance with conditions of this Order, any uses of pesticide products shall be consistent with product labeling and any products on the site shall be placed, used, and stored in a manner that ensures that they will not enter or be released into surface or ground waters.

Trifecta and natural materials are administered on the property on an as needed basis. There was no evidence of overuse or improper storage.

9. Petroleum products and other chemicals

- a. Petroleum products and other liquid chemicals, including but not limited to diesel, biodiesel, gasoline, and oils shall be stored so as to prevent their spillage, discharge, or seepage into receiving waters. Storage tanks and containers must be of suitable material and construction to be compatible with the substance(s) stored and conditions of storage such as pressure and temperature.
- b. Above ground storage tanks and containers shall be provided with a secondary means of containment for the entire capacity of the largest single container and sufficient freeboard to contain precipitation.
- c. Dischargers shall ensure that diked areas are sufficiently impervious to contain discharged chemicals.
- d. Discharger(s) shall implement spill prevention, control, and countermeasures (SPCC) and have appropriate cleanup materials available onsite.
- e. Underground storage tanks 110 gallons and larger shall be registered with the appropriate County Health Department and comply with State and local requirements for leak detection, spill overflow, corrosion protection, and insurance coverage.

Storage is available to house the generator and store gasoline. Some other generators and gas cans were seen on-ground without proper containment. An SPCC kit should be added to maintain compliance with best practices identified in the Water Resources Protection Plan.

10. Cultivation-related wastes

Cultivation-related wastes including, but not limited to, empty soil/soil amendment/ fertilizer/pesticide bags and containers, empty plant pots or containers, dead or harvested plant waste, and spent growth medium shall, for as long as they remain on the site, be stored at locations where they will not enter or be blown into surface waters, and in a manner that ensures that residues and pollutants within those materials do not migrate or leach into surface water or groundwaters.

Garbage and plant waste is collected, contained, and disposed of at an appropriate facility, including for recycling where available. However, few waste cans were seen onsite, indicating a potential need for additional ones or a larger storage bin.

11. Refuse and human waste

- a. Disposal of domestic sewage shall meet applicable County health standards, local agency management plans and ordinances, and/or the Regional Water Board's Onsite Wastewater Treatment System (OWTS) policy, and shall not represent a threat to surface water or groundwater.
- b. Refuse and garbage shall be stored in a location and manner that prevents its discharge to receiving waters and prevents any leachate or contact water from entering or percolating to receiving waters.
- c. Garbage and refuse shall be disposed of at an appropriate waste disposal location.

Currently there is no domestic sewage system on the property.

Refuse and garbage is recycled or contained and ready for transport to offsite facilities.

12. Remediation/Cleanup/Restoration

Remediation/cleanup/restoration activities may include, but are not limited to, removal of fill from watercourses, stream restoration, riparian vegetation planting and maintenance, soil stabilization, erosion control, upgrading stream crossings, road outcropping and rolling dip installation where safe and suitable, installing ditch relief culverts and overside drains, removing berms, stabilizing unstable areas, reshaping cutbanks, and rocking native-surfaced roads. Restoration and cleanup conditions and provisions generally apply to Tier 3 sites, however owners/operators of Tier 1 or 2 sites may identify or propose water resource improvement or enhancement projects such as stream restoration or riparian planting with native vegetation and, for such projects, these conditions apply similarly. Appendix B accompanying this Order includes environmental protection and mitigation measures that apply to cleanup activities such as: temporal limitations on construction; limitations on earthmoving and construction equipment; guidelines for removal of plants and revegetation; conditions for erosion control, limitations on work in streams, riparian and wetland areas; and other measures.

**Currently only culvert repair has been identified as a key item for improvement.
Construction efforts will be conducted consistent with standard practices as noted in the
Water Resources Protection Plan.**

Pictures and Maps

- Image 1 - Roadway
- Image 2 - Grow area with inground plants
- Image 3 - Grow area with potted plants
- Image 4 - Grow area with troughed plants
- Image 5 - Grow area ground
- Image 6 - Generation and construction materials
- Image 7 - Grow area sidewall
- Image 8 - Storage shed
- Image 9 - Well
- Image 10 - Culvert
- Image 11 - Bladders
- Image 12 - Water tanks
- Map #1 - Showing key sites
- Map #2 - Showing grow areas
- Map #3 - Showing topography and water flow
- Map #4 - Assessor's parcel map



Image 1 - Roadway

Roads are in good condition, showing no ruts or erosion.



Image 2 - In ground plants in grow area

In ground plant roots are covered in mulch to retain water and prevent runoff.



Image 3 - Potted plants, grow area 2

Potted plants are also covered with beneficial mulch.



Image 4 - Grow area 3

Some plants are contained in troughs to conserve water and prevent runoff



Image 5 - Grow area ground

Some items in use were left on the ground..



Image 6 - Onsite generator and stockpiled construction materials

A generator needing containment and placement on stable ground.
Construction materials are stable but without ground covering.



Image 7 - Grow area sidewall

Grading around some cultivations areas may be prone to erosion without a retaining wall or other method of prevention.



Image 8 - Storage site internal and external

Items are properly kept in a storage building.

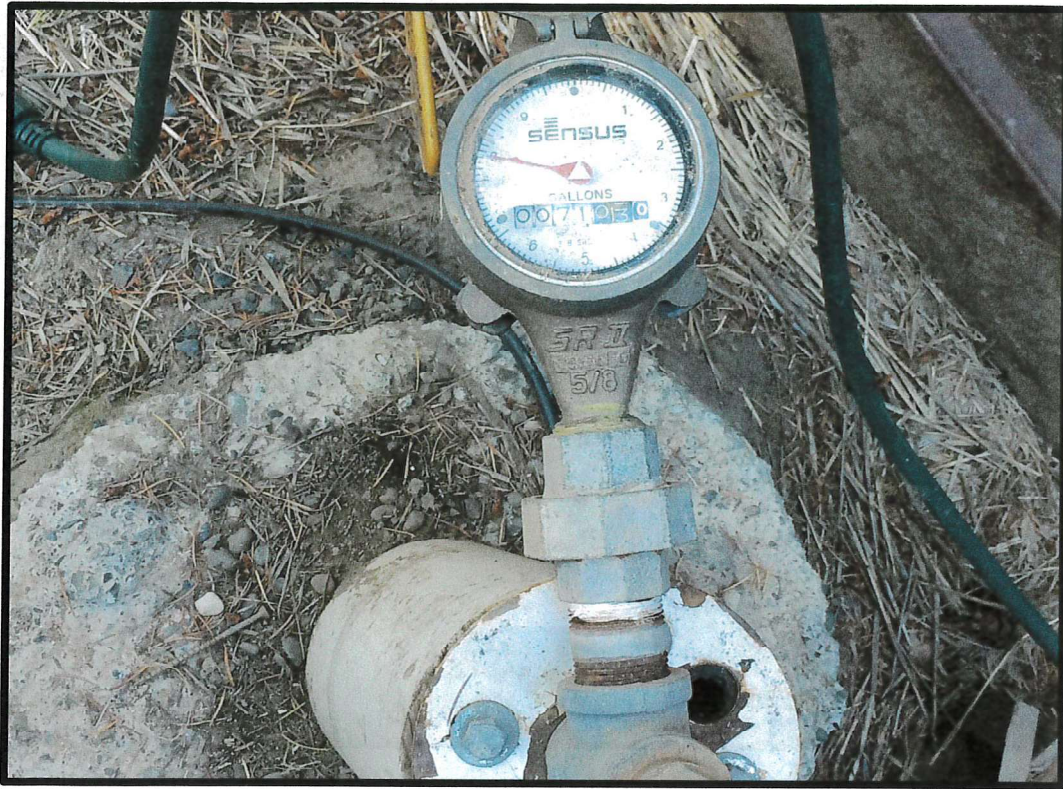


Image 9 - Onsite well

Well has an attached metered, but due to age and wear it may need to be replaced.



Image 10 - Culvert bottom and top

Downside of culvert appears clear, upside of culvert appears blocked. Culvert needs to be cleared out and armored to contain sediment



Image 11 - Bladders

A row of bladders provides the primary source of water storage. They currently do not have engineered containment or anchoring.



Image 12 - Water tanks

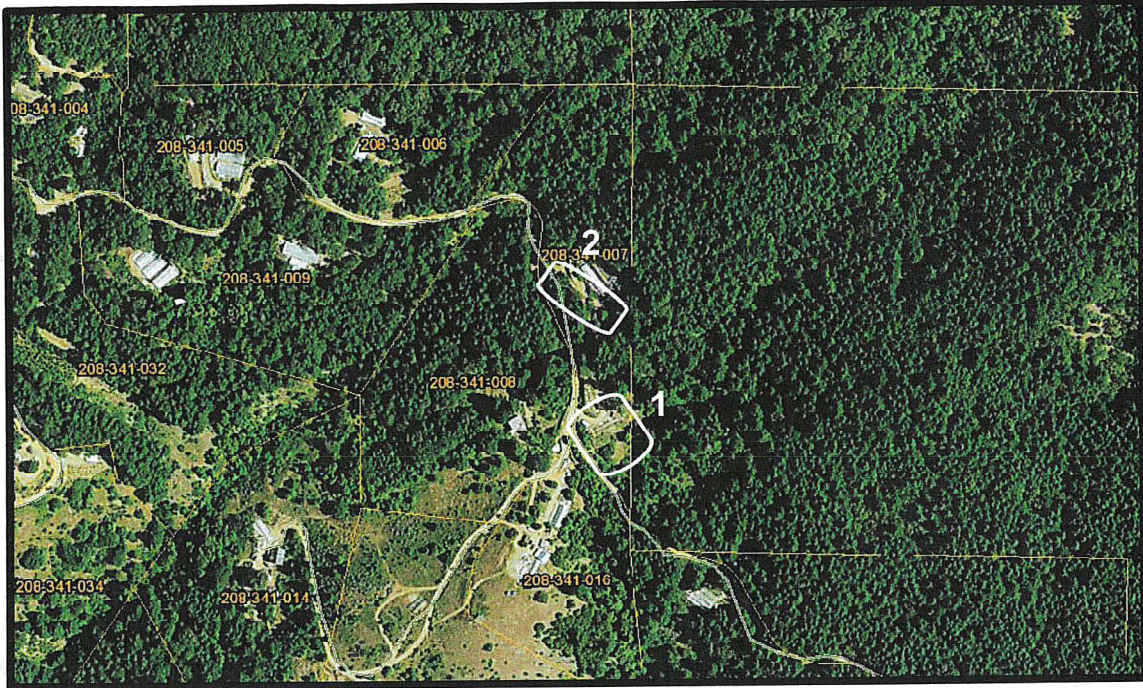
A set of tanks provide a secondary method of water storage.



Map #1 - Aerial view showing compliance points

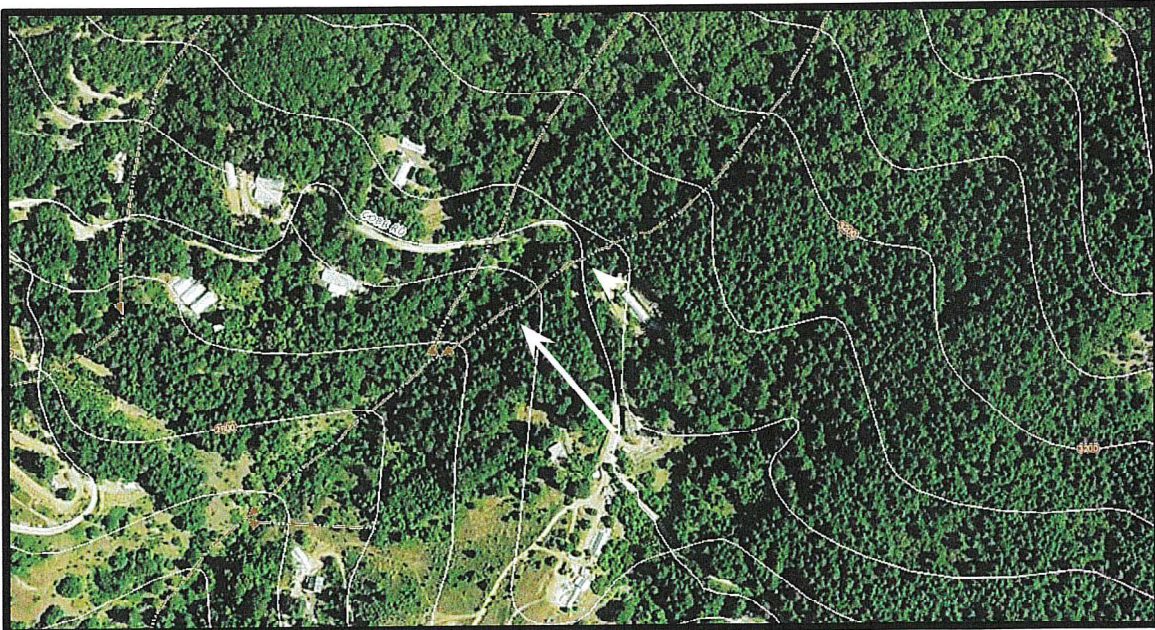
Compliance Improvement Map Points:

- 1 - Tanks and bladders water storage area
- 2 - Well
- 3 - Cultivation Areas
- 4 - Storage Area
- 5 - Culvert



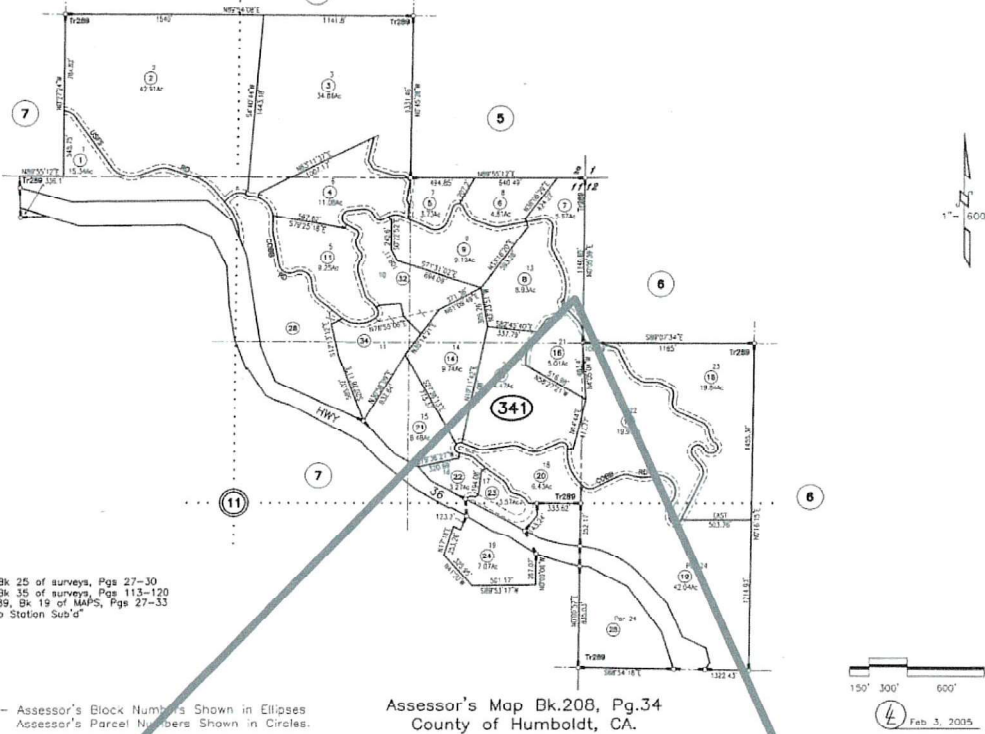
Map #2 - Aerial view showing grow areas.

Two cultivation areas are currently being maintained on the property.



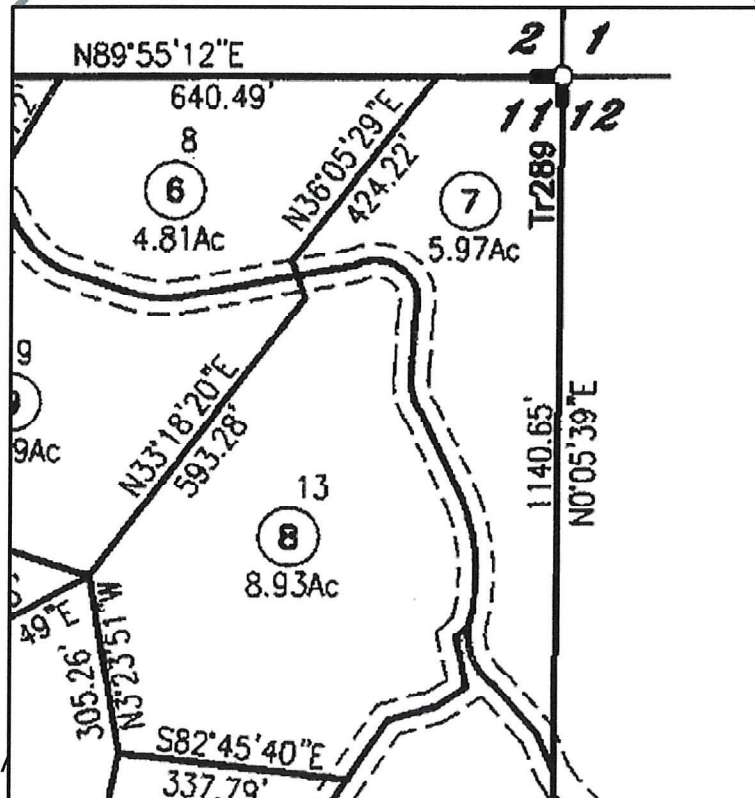
Map #3 - Aerial view showing topography and closest waterflows

Waterflow to the first cultivation site is over 500 feet. The second is over 100 ft.



ASSESSOR'S PARCEL MAP

1. THIS MAP WAS PREPARED FOR ASSESSMENT PURPOSES ONLY.
2. NO LIABILITY IS ASSUMED FOR THE ACCURACY OF THE DATA HEREIN.
3. ASSESSOR'S PARCELS MAY NOT COMPLY WITH LOCAL LOT-SPLIT OR BUILDING SITE ORDINANCES.



Assessor's parcel map for 208-341-07

Water Resources Management Plan

for APN 208-341-007

I. Site Maintenance, Erosion Control, Drainage Features

Roads

We periodically inspect our roads for surface rills or ruts that may require intermittent maintenance. When roads are upgraded or moved, we utilize engineering professionals to provide proper design and planning support to ensure that our onsite roads drain properly.

Easements are collectively managed. Efforts are ongoing to create collective participation when road repairs are needed. Improvements are periodically made to bring roads up to code.

Moderate road shaping and ditch-relief are used to optimize drainage to stable areas. Shaping includes out-sloping and is maintained to ensure proper capture and capacity of seasonal flow. We periodically look to improve road surfaces with gravel cover.

When maintenance occurs we are careful not to remove more leaves and vegetation than necessary and keep spoils in a stable area to prevent runoff. In addition, where possible we enable road surface drainage to be filtered through vegetation, and work to avoid sidecasting.

Ditches are graded and grass and weeds removed only when and where necessary. The site uses vegetative ground cover and gravel for added sediment control.

Site Surface

As with roads, when exposed surfaces or bare slopes appear, vegetative ground cover is applied for temporary erosion control to minimize sediment, and stabilize the surface in the event of heavy rainfall. When we utilize straw mulch it is applied at a rate of 1 pound per square foot of exposed soils.

If non-incident surface treatments are required we consult with a qualified professional for guidance. Gravel may also be used as appropriate.

Where needed, contours and slopes are used to prevent sedimentation and unnatural water flows. Wherever possible the areas are revegetated to assist in stabilizing the soil.

Flow is monitored to avoid discharge onto fill, unstable areas, or areas that can enter the nearby Van Dusen river.

II. Spoils Management

Where potted, trenched, or troughed soil is used it is tilled along with amendments for reuse. The soil is then returned to the original site. As a result there is no cultivation spoilage. Any unusable soil is placed in compost or containment for waste removal.

III. Water Storage, Use, and Irrigation Runoff

Tanks are easily accessible, installed to manufactures specifications, fitted with float valves, placed on soil free of rocks/sharp objects, and set in an area that is capable of bearing the weight when filled. Tanks are not located on a floodplain or next to generators or other heat emitting equipment.

Operations are conducted in a manner that uses primarily well water along with timed emitted irrigation to prevent runoff and enhance water conservation.

Well water is metered and periodically recorded. Tanks, lines, and connections are checked regularly for wear, damage, and leaks. Repairs are done immediately or mitigated until replacement parts are obtained.

IV. Handling of Fertilizers, Soil Amendments, Pesticides, Petroleum Products, and Other Chemicals

Plants are constantly cared for through a balance of irrigation water, soils, natural fertilizers and growth media. Plant tissue is carefully monitored to optimize plant growth and avoid over-fertilization.

Pest management strategies rely on natural methods that apply organic materials in a manner to avoid runoff and losses including organic matter from dead plant material.

Fuels are stored with a secondary containment, permanent cover, and side-wind protection. Materials are kept in their original containers with product labels in place and legible. Bagged and boxed materials are stored above ground and not allowed to accumulate on the ground.

Storage instructions are posted at all times in an open and conspicuous location. SPCC cleanup kits provide a complete supply of spill cleaning materials, and is kept near fuel and chemical storage areas.

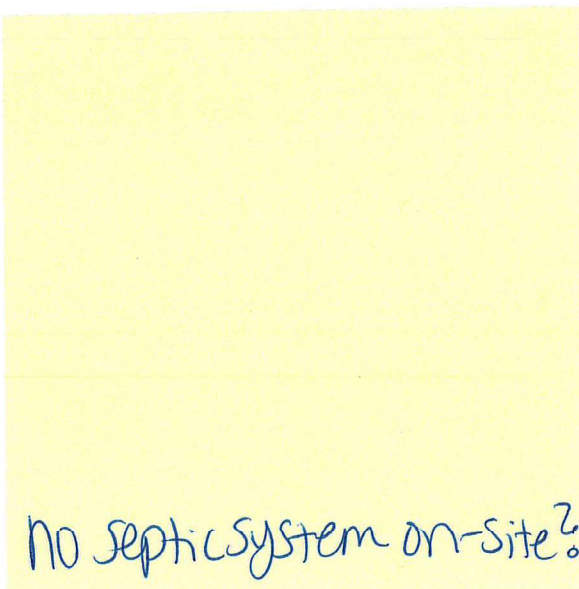
V. Refuse, Cultivation and Human Waste

Garbage, including cultivation-related waste is collected, contained, and transported in a manner that ensures residues and pollutants within those materials do not migrate or leach into surface water or groundwaters. Items are disposed of at an appropriate facility, including recycling when possible.

Spent soil is reused and unusable soils are stored in stable storage containment with proper covering while awaiting transport to a nearby waste facility.

Where there is project related waste, trash containers of proper size with lids are utilized and serviced to contain any solid waste and keep secure from wildlife.

Currently there is no human waste disposal septic system on the property. If new systems are installed they will be built to follow applicable County ordinances for human waste disposal requirements and prevent threats to local water sources.



no septic system on-site?

Current Compliance Improvement Plan

The following project items have been identified and planned with prioritization based on water protection and budget.

Map Point	Description	Current Status	Scheduled Completion Date
Storage	Add SPCC kit	Awaiting purchase	12/31/2016
Well	Install meter	Awaiting purchase and installation	03/31/2016
Tanks	Install float control valves	Awaiting purchase and installation	03/31/2016
Culvert	Clear and restore culvert	Undergoing evaluation and planning	12/31/2017

Amendments and Chemicals Inventory

Date: ____ / ____ / ____

Item	Qty Used	Qty Remaining	Application
Chicken Manure			
Kelp			
Liquid Microbes			
Epsom salt			
Gypsum			
Neem meal			
Fish Bone			
Bone meal			
Crab shell			
Primo Marinos			
Alfalfa			
Biochar			
Coco Fiber			
Green clean			
Trifecta			
Sulfate of Pot hash			
Perlite			
Vermiculite			
Microbes			
My Grow Minerals			

Periodic Inspection Checklist

Date: ____ / ____ / ____

Review Item	Condition			Notes
	Pass	Needs Review	Needs Corrections	
Road (Surface erosion and drainage)				
Irrigation Lines				
Tanks (Containers and valves)				
Bladders				
Secure Fuel Storage and Containment				
Generator				
Pesticide Storage and Inventory				
Amendments Storage and Inventory				
Meter Check				
Secure Waste Containment				
SPCC Kit				
Exposed Surface Check				
Local Surface Area Erosion				

Water Usage Log

Source: Well	Date	Qty Used	Notes
Jan	/	gal	
Feb	/	gal	
Mar	/	gal	
Apr	/	gal	
May	/	gal	
Jun	/	gal	
Jul	/	gal	
Aug	/	gal	
Sep	/	gal	
Oct	/	gal	
Nov	/	gal	
Dec	/	gal	

Water Use Plan

Crops are watered every day for 15-20 mins using timed emitters. Quantity varies with an average of 250 to 1,000 gallons per day. The process is sensitive to water conservation, and as a result, does not allow for runoff. Use is highly controlled with careful oversight.

Water Schedule (in gallons)

Water source to storage: Well

Jan	Feb	Mar	Apr	May	June
30,000	30,000	0	0	0	0

July	Aug	Sept	Oct	Nov	Dec
0	0	0	0	30,000	30,000

Water source to storage: Rain catchment

Jan	Feb	Mar	Apr	May	June
6,000	0	0	0	0	0

July	Aug	Sept	Oct	Nov	Dec
0	0	0	0	15,000	15,000

Water source and use: Rain catchment

Jan	Feb	Mar	Apr	May	June
0	0	7,500	7,500	5,500	1,500

July	Aug	Sept	Oct	Nov	Dec
0	0	1,500	7,500	0	0

Water source and use: Storage tanks (22,000 gal)

Jan	Feb	Mar	Apr	May	June
0	0	0	0	9,500	12,500

July	Aug	Sept	Oct	Nov	Dec
0	0	0	0	0	0

Water source and use: Bladders (100,000)

Jan	Feb	Mar	Apr	May	June
0	0	0	0	0	8,500

July	Aug	Sept	Oct	Nov	Dec
31,000	31,000	27,000	7,500	0	0