



COUNTY OF HUMBOLDT

For the meeting of: 7/20/2021

File #: 21-1004

To: Board of Supervisors

From: Planning and Building Department Drought Task Force

Agenda Section: Time Certain Matter

SUBJECT:

10:00 AM - Report of Drought Task Force Findings with Recommended Actions

RECOMMENDATION(S):

That the Board of Supervisors:

1. Receive the report of the Drought Task Force and consider the following Actions:
2. Adopt the Drought Proclamation contained in Attachment 1.
3. Direct Staff to come back on August 10, 2021, with alternatives to consider a moratorium on new nondomestic wells.
4. Direct staff to develop a scope of work to develop regulations for permitting groundwater wells addressing the unique hydrological and geological conditions in Humboldt County and the need to maintain groundwater resources at sustainable levels.
5. Direct staff to prepare a resolution for Board of Supervisors' adoption on August 10, 2021 effectuating Section 55.4.5.10 of the CCLUO to prohibit new cannabis planting after August 11, 2021 unless the water source is a legal source of stored water.
6. Direct the Drought Task Force to continue to meet to monitor drought conditions, collaborate with other agencies, and provide information to the Board about actions and potentially needed direction through the end of December 2021 or as determined necessary by the Board of Supervisors.

SOURCE OF FUNDING:

Funding comes from the budgets of the Sheriff's office, Department of Environmental Health, Agricultural Commissioner's office, Planning and Building Department, and U.C. Extension.

DISCUSSION:

Local Emergency Proclamation:

After nearly two months of the Drought Task Force meeting to examine and discuss local drought conditions and expected local impacts, this task force recommends that the Board take the action of

proclaiming a countywide emergency for drought. Dry conditions this past year have contributed to lower than average river levels, degradation or threatened degradation of natural and cultural resources, and have paved the way for potential public health risks and high fire potential in Humboldt County.

By proclaiming a local emergency for drought, this will signify to the entire county that we are experiencing a crisis and are likely to see worsening impacts in the months to come. A local proclamation opens the door for immediate response and mitigation actions to be implemented through local policy and will better enable us to dedicate staff time towards addressing drought related issues. The draft proclamation prepared for the Board's consideration provides a timeline of various local, state, tribal and federal emergency proclamations or designations for the County of Humboldt, as well as providing a brief synopsis of the current and projected impacts faced in our County. There are a number of other actions proposed in this report proposed in response to the drought condition. Other actions may be appropriate in response to the drought. The local proclamation is the first step in recognizing and declaring that action is needed.

Fire and fuel conditions

The potential for significant fire activity remains very high. The National Interagency Fire Center (https://www.predictiveservices.nifc.gov/outlooks/monthly_seasonal_outlook.pdf) already reports increased fire activity across the West during June and as live and dead fuels, in the form of trees and shrubs, and downed logs and branches, are already at critically low moisture levels. The climate outlook reports that conditions are likely to remain drier and warmer than normal for the entire summer season. This condition means that when a wildfire ignites, there is greater difficulty in fire control because live and dead fuels will continue to dry over the summer season, and fuels in the forested areas are already ready to burn. Cal Fire Unit Chief Kurt McCray briefed the Board of Supervisors on May 25th and shared the State's readiness and strategies for this fire season.

In anticipation of the enhanced fire activity, Humboldt's U.C. Cooperative Extension, Public Works, Office of Emergency Services, Humboldt County Fire Safe Council, and the County Administrative Office have been collaborating on educational campaigns to increase awareness of anticipated fire issues and help reduce accidental fire ignitions, increase usage of alert systems to facilitate safe evacuations, and to support fuel reduction and home hardening activities. This has included the development of print media releases and 20 radio spots for KMUD and other radio stations.

The Office of Emergency Services (OES) is currently developing a restricted area access pass program in coordination with the Agricultural Commissioner's Office and Planning & Building Department. This program will allow both traditional agriculture producers and commercial cannabis cultivators to pre-register for potential access to their property during evacuation orders, if conditions are determined to be safe enough to do so. In tandem with the access pass program, a Disaster Animal Rescue Team (DART) has been established to assist with animal evacuation and/or feeding animals in evacuation order zones and assist with disaster animal sheltering.

Another significant project that OES is working on in preparation for wildfire is the development of countywide evacuation zones in partnership with Zonehaven. The Zonehaven evacuation management

platform will enable OES to provide real-time mapping updates as well as incident information, including ingress/egress routes, traffic control points and roadblocks, and information on relief stations such as evacuation points and/or shelters. Due to the extremely dry year that we’ve experienced and the high potential for fire activity this summer through fall, OES is prioritizing implementing these projects in an effort to mitigate some of the human and financial loss associated with wildfire.

North Coast Resource Partnership

Humboldt County serves as the regional grant administrator for the North Coast Resource Partnership, a regional collaboration with the counties of Del Norte, Mendocino, Modoc, Siskiyou, Sonoma, and Trinity and the tribal governments within these seven counties. The North Coast Resource Partnership coordinates planning and implementation of projects throughout the region related to water supply and water quality, healthy forests and watersheds, and energy conservation and independence. Since 2006, Humboldt County has managed approximately \$85 million in grants issued to the North Coast Resource Partnership with funding from state water bonds and other sources. The Public Works Department administers sub-grants to cities, districts, tribes, non-profit organizations, and other entities to implement projects, many of which achieve infrastructure improvements and restoration to enhance water availability and drought resilience. Recent projects funded through the North Coast Resource Partnership within Humboldt County include:

Project Sponsor	Project Title	Grant Amount
Bear River Band of Rohnerville Rancheria	Reclaimed Water Project	\$558,562 (Prop. 84)
Blue Lake Rancheria	Water Storage Project	\$382,085 (Prop. 1)
Briceland Community Services District	Water Supply Enhancement Project	\$1,076,625 (Prop. 1)
City of Rio Dell	Rio Dell Metropolitan Well Project	\$783,000 (Prop. 84)
Fieldbrook-Glendale Community Services District	Water Tank Seismic Retrofit Project	\$314,744 (Prop. 1)
Hoopa Valley Tribe	Public Utility District Conservation Project	\$131,253 (Prop. 84)
Mattole Restoration Council	Lower Mattole River and Estuary Enhancement and Drought Resiliency Project	\$491,100 (Prop. 84)
Sanctuary Forest	Mattole flow program (mainstem and tributary storage and forbearance)	\$270,750 (Prop. 84)
Sanctuary Forest	Mattole Flow Program: Storage and Forbearance	\$255,180 (Prop. 84)
Sanctuary Forest	Drought and Emergency Water Project	\$558,501 (Prop. 1)

Shelter Cove Resort Improvement District	Shelter Cove water recycling project (planning study)	\$95,000 (Prop. 84)
Weott Community Services District	Additional tank storage (planning study)	\$75,000 (Prop 84)
Westhaven Community Services District	Water storage tank and roof replacement project	\$151,500 (Prop. 84)
Westhaven Community Services District	Water loss reduction project	\$489,505 (Prop. 84)

Eel River Valley Groundwater Sustainability Plan

Humboldt County serves as the groundwater sustainability agency for the Eel River Valley groundwater basin which includes the communities of Ferndale, Fortuna, Loleta, Carlotta, Hydesville, Rio Dell, and Scotia. The County is currently developing a Groundwater Sustainability Plan for this groundwater basin for compliance with the Sustainable Groundwater Management Act (“SGMA”). Humboldt County Public Works received a grant of \$1.9 million from the California Department of Water Resources to develop the plan, which is due in January 2022. SGMA established that it is state policy for groundwater resources to be managed sustainably for long-term reliability and multiple economic, social, and environmental benefits for current and future beneficial uses. The Eel River Valley groundwater basin is the only basin in Humboldt County where development of a Groundwater Sustainability Plan is mandatory. The purpose of the Groundwater Sustainability Plan is to ensure high quality and abundant groundwater resources for human consumption, agricultural irrigation, and environmental services without causing significant and unreasonable adverse impacts (undesirable results). The work to develop the plan includes extensive data collection and analysis to characterize the groundwater basin (including interactions with surface waters), develop reliable estimates of water budgets, and quantify the basin’s sustainable yield. This work will create computer modeling tools to investigate the presence or absence of undesirable results associated with groundwater pumping and support the development of sustainable management criteria. The plan will address water availability under current conditions and with climate change scenarios. The plan is being developed in collaboration with the Humboldt County Resource Conservation District and United States Geologic Survey.

Potter Valley Project Two-Basin Solution

Humboldt County is working with Cal-Trout, Mendocino Inland Water and Power Commission, Round Valley Indian Tribes, and Sonoma County Water Agency (collectively the “Two Basin Partners”) and many other stakeholders to develop a plan for fundamentally changing the facilities and operations of Potter Valley Project, which is a hydropower project owned by Pacific Gas & Electric Company on the main stem of the Eel River in Lake County. This regional initiative is intended to achieve the goals and principles for a Two-Basin Solution established by Congressman Huffman’s Potter Valley Project Ad Hoc Committee. Currently the Potter Valley Project blocks fish passage to important salmon and steelhead habitat and diverts water from the Eel River to the Russian River watershed almost year-round. The overall approach includes removing Scott Dam, modifying or removing Cape Horn Dam, and discontinuing water diversions during the dry season when flow thresholds are reached. Humboldt County is negotiating with the Two Basin Partners to develop a specific plan for licensing the modified

project with the Federal Energy Regulatory Commission or working with PG&E to surrender the license and convert the project to a non-power generating facility. Once implemented, the modifications to the Potter Valley Project will result in a more natural flow regime and improved fish access to cold-water refugia habitat.

Trinity River Water Contract

Humboldt County holds a water contract executed in 1959 with the U.S. Bureau of Reclamation for water releases from the Trinity Reservoir. However, the Bureau of Reclamation has never released water to fulfill the contract. In 2014, the Department of the Interior issued a memorandum affirming the Bureau of Reclamation's obligation to release water under the 1959 contract. Since then, Humboldt County has been working to address outstanding legal and administrative barriers to releasing the contract water. In April 2021, the state Wildlife Conservation Board approved a grant award to Humboldt County to develop a water management plan for the water contract. Completion of the water management plan is necessary to make Humboldt County's contract water available to support fishery resources and other beneficial uses in the Trinity River and lower Klamath River. The grant will be used to perform technical studies and address unresolved questions regarding water rights and regulatory compliance. The studies will identify needs and priorities for releasing additional water from Trinity Reservoir into the Trinity River to help restore natural processes and improve fisheries and water quality. The studies will address existing conditions and a range of climate change scenarios over the 25-year planning period. The water management plan will provide a structure and process for annual decision-making to optimize the beneficial use of Humboldt County's contract water and provide tangible benefits for fisheries. The plan is expected to be completed in 2023.

Drought Related Impacts to Agriculture

In Humboldt County, drought events most commonly impact livestock producers who are dependent upon seasonal rains to support rangeland grass growth. As droughts develop, producers experience growing management challenges and increased costs to maintain herds. When producers recognize and anticipate drought conditions, they must assess and evaluate their resources, nutritional and health requirements of the herd, and the economic considerations of input costs and the potential sale value of animals. Drought conditions require producer actions which may include modified pasture and water management, supplemental feeding, and relocation or reduction of herd sizes. The severity and extent of the 2021 drought, which extends across much of the western United States, has resulted in lower cattle prices because of the high influx of animals being sent to market and significant shortages in feed and other inputs.

As of June 2021, the Farm Service Agency has received 67 Notices of Loss for drought-related impacts to rangeland forage crops covering a reported 287,783 acres in Humboldt County. Common responses reported by livestock producers to drought-caused losses of rangeland forage and low surface water flows include reducing (selling) stocking rates, supplemental feeding with hay and minerals, and careful stock rotations. The 2019 estimated total gross production value of the livestock industry in Humboldt County was estimated to be over \$19 million (unpublished data) based on an estimated 16,500 head of beef cows.

Other agriculture producers, especially those in the Eel River Basin, are in a different condition,

though the availability and price of feed have been significantly impacted. This is in part because many fields in the Eel River Basin receive natural subsurface irrigation. In 2016 the Humboldt County Resource Conservation District estimated that approximately 13,558 acres of agricultural lands were irrigated using groundwater, of which more than 85% was applied to grazed pasture or hay crop production for livestock. Other common basin crop types include corn, quinoa, and cannabis.

Agriculture producers have deployed significant water-saving and water storage enhancements over the last decade. These improvements have included the use of technical and financial assistance from the Natural Resources Conservation Service, and they report that 40 farms in the lower Eel River Basin have utilized their services. This has resulted in improved irrigation systems, upgraded pumps and wells, and the installation of moisture monitors and flow meters. Other producers have made these improvements without their services though the exact number and the nature of these improvements are unknown. Additionally, upland ag producers have also been making spring and water storage improvements in anticipation of future droughts and to improve water quality for their animals.

Disaster Designations for Agriculture

Agriculture-related disasters and disaster designations are common. The Secretary of Agriculture is authorized to designate counties as disaster areas to make emergency loans (EM) to producers suffering losses in those counties and in counties that are contiguous to a designated county. In addition to EM eligibility, other emergency assistance programs, such as Farm Service Agency (FSA) disaster assistance programs, have historically used disaster designations as an eligibility requirement trigger. In 2012, the USDA streamlined the disaster designation process for droughts. This streamlined process provides for nearly an automatic designation for any county in which drought conditions, as reported in the U.S. Drought Monitor (<http://droughtmonitor.unl.edu/>) when that county, or any portion of that county, meets the D2 (Severe Drought) drought intensity value for eight consecutive weeks. A county that has a portion of its area in a drought intensity value of D3 (Extreme Drought) or higher at any time during the growing season also would be designated as a disaster area. On March 5, 2021, the U.S. Department of Agriculture granted a Secretarial disaster designation to Humboldt County based on the drought monitor reporting severe drought conditions for 8 consecutive weeks. Currently, the drought monitor indicates that large portions of Humboldt are in an extreme drought.

Federal Disaster Assistance Programs for Agriculture:

Currently the United States Department of Agriculture FSA is offering the following programs to assist agricultural producers suffering losses as the result of drought related impacts:

Livestock Forage Program (LFP): The LFP provides payments to eligible livestock owners and contract growers who have covered livestock and who are also producers of grazed forage crop acreage (native and improved pastureland with permanent vegetative cover or certain crops planted specifically for grazing) that have suffered a loss of grazed forage due to a qualifying drought during the normal grazing period for the county.

Non-Insured Crop Disaster Assistance Program (NAP): NAP provides financial assistance to producers of non-insurable crops when low yields, loss of inventory, or prevented planting occur due to natural disasters.

Emergency Loan Program <<https://www.fsa.usda.gov/programs-and-services/farm-loan-programs/emergency-farm-loans/index>>: Provides loans to help producers recover from production and physical losses due to drought, flooding, other natural disasters, or quarantine by animal quarantine laws or imposed by the Secretary under the Plant Protection Act.

Public Health concerns related to drought

On May 10, 2021, Governor Newsom expanded the drought emergency proclamation to 41 counties, including Humboldt County. With this proclamation comes the acknowledgement of the challenges presented to our communities and environment: droughts can cause changes in our environment that have effects on public health, watersheds, and ecosystems.

In Humboldt County, we rely on groundwater, springs, and rivers and tributaries to meet residential, agricultural, and industrial water needs. With low precipitation and increased evaporation of surface water, groundwater supplies may not be replenished at a reliable rate. As a result, drinking water supplied from private wells and surface water diversions may be at higher risk for drought-related infectious disease. The elderly, very young, and people with compromised immune systems may be susceptible to waterborne disease(s).

Homeowners relying on groundwater wells in some areas within Humboldt County are already seeing diminishing performance. If the drought persists (which we anticipate will likely occur), some families and commercial users will be forced to haul water to meet their essential needs, which is an expensive and unsustainable endeavor. With regards to potable water and access to it, the public should obtain potable water only from the California Department of Public Health, Food and Drug Branch, or licensed haulers, of which there are only six in Humboldt County. Risks associated with using unlicensed haulers include delivery of contaminated water for drinking and unlawful extractions from rivers and streams.

Reduced stream flows increase the concentration of pollutants in water, and cause water stagnation and elevated temperatures. Warmer waters can increase the growth some pathogens (*e.g.* *V. cholera*, *N. fowleri*, *Giardia*, *Cryptosporidium*, *Campylobacter*, *Salmonella*, etc.) and lead to harmful algal blooms that could harm pets, bathers, and aquatic ecology. Additionally, lower water levels can increase the risk of injury from jumping or diving accidents at recreational river locations.

Water Well Program and Groundwater

Looking at historical trends in well permit applications (see 2014 increase), we anticipate an increased interest in drilling wells to supplement or replace wells with waning productivity or to provide additional sources. The well permit program is currently in transition.

Recent precedent setting court cases have changed how local authorities review and approve applications for well permits. The California Supreme Court's August 27, 2020, ruling on *Protecting Our Water and Environmental Resources v. County of Stanislaus* (the "POWER" case) results in most well permits being considered "projects" under the California Environmental Quality Act (CEQA). Impacts must be evaluated and disclosed during the evaluation of the project, whether limited to the

well alone or as a component of a larger discretionary project (e.g., a cannabis project, or municipal water supply). Additionally, the drought and climate change has raised concerns over the relationship of water removed from groundwater aquifers and the associated effects on surface waters not only in Humboldt County, but throughout the State. Though this area of law is evolving, lawsuits have been filed in similarly situated counties by plaintiffs who are concerned about the impacts to surface waters and associated public trust resources. This is a growing concern for issuing well permits in Humboldt County which is complicated drought-related issues.

There are two issues associated with wells, one is immediate and related to the drought, and one is longer term. First is the concern with potentially declining groundwater resources during this drought and continuing to issue well permits which may affect existing well production. There is a need to understand the effects of the drought on our water supply and our watersheds. The highly variable geologic and hydrologic conditions within Humboldt County make it difficult to know without comprehensive testing the impact of continued well permitting. There is no comprehensive data or understanding of the capacity of the upper reaches and headwaters of our watersheds to support continued well permitting. This points to the second and larger issue which is to understand the cumulative effects of well permitting. Studies need to be completed and criteria developed for permitting wells in such a manner to protect the ground water resources. Unfortunately, response to the drought and well permitting criteria are related issues, and a comprehensive study and development of appropriate permitting criteria is a several year process. The question before the County is what to do in the interim.

It is recommended that the Board of Supervisors take the following two actions:

1. Direct staff to return with a draft temporary moratorium on well permits for non-domestic uses to provide time to develop well permitting criteria which consider the capacity of local groundwater resources to provide a sustainable water supply, and
2. Direct staff to develop a scope of work to develop well permitting criteria and explore funding sources and timing needs.

Cannabis Permitting

The issues raised above relative to the use of well water extends to cannabis permitting. In 2016, the first year of cannabis permitting, there was a significant increase in the number of well permits and the number of well permits for the last five years is nearly double that of the previous five years (2010 - 2015). The public is expressing concern with continued permitting of cannabis farms utilizing wells as the water source. The primary concern is whether the water used to irrigate cannabis will result in their domestic wells being adversely affected.

As noted above, farmers and ranchers often need to adapt to drought conditions and the same question applies to cannabis cultivation. Adoption of the Commercial Cannabis Land Use Ordinance did consider there may be circumstances when it is appropriate to curtail cultivation. *Section 55.4.5.10 Restriction of Water Use under Special Circumstance* states:

The County reserves the right to reduce the extent of any commercial cannabis activity, including but not limited to the area of cultivation, allowed under any clearance or permit issued in accordance with this section in the event that environmental conditions, such as a sustained drought or low flows in the watershed where the commercial cannabis activity is located, will not support water withdrawals without substantially adversely affecting existing fish and wildlife resources.

Some members of the public have expressed concern at Planning Commission meetings regarding whether it is appropriate to continue to approve permits for cannabis cultivation in with the current drought condition. This is compounded by peoples' concern that the climate is becoming dryer, there is less rainfall and perhaps the carrying capacity of the County's water resources is not what is once was. The drought is an important factor, but it does not seem equitable to stop processing permits provided that an applicant has a sustainable water source.

At this point, given the discussion above relative to wells, a sustainable water source should not include groundwater wells. A conservative approach would be to not allow additional new crops to be planted this year when the source of water is a groundwater well.

At this point in the year, everybody who has approval to divert water from a surface water source should be using water from storage collected over the past winter. Some cultivators were not able to fill their storage tanks and may want to pursue other sources of water. The Planning and Building Department did explore the possibility of providing water from other sources, but nothing has materialized as alternative legal water sources. Based upon this it may be appropriate to consider placing a limitation on cultivation unless there is stored water available. If a cultivator (including a newly permitted cultivator) already has sufficient water in storage, there does not appear to be a reason to restrict their water use. Allowing people with sufficient water to continue to cultivate would be appropriate. The difficult corollary to this is restricting cultivation for people who are using a well, or who do not have sufficient water in storage, or have a legal right to a surface diversion.

It is recommended the Board exercise section 55.4.5.10 of the CCLUO to curtail cannabis cultivation for any cultivator who does not have sufficient stored water to start a new cycle.

Decision Points

There are several decisions identified in this report as follows.

1. Drought Proclamation. A Drought Proclamation is attached for the Board of Supervisors' consideration. This is the first step in acknowledging the drought conditions the County faces and is the first step in taking further actions.
2. Well Moratorium. Direct staff to return with a draft temporary moratorium on well permits for non-domestic uses to provide time to develop well permitting criteria which take into account the capacity of local groundwater resources to provide a sustainable water supply.

3. Well Permitting Criteria. Direct staff to develop scope of work too develop well permitting criteria and explore funding sources and timing needs.
4. Curtail Cannabis Cultivation. Board may exercise section 55.4.5.10 of the CCLUO to curtail cannabis cultivation for any cultivator who does not have sufficient stored water to start a new cycle.
5. Task Force Status. The question for the Board of Supervisors is whether to extend the Drought Task Force into the future and whether to revise the purpose of the Task Force. Functions the Task Force could fulfill are monitoring drought conditions, collaborating with other agencies, and providing information to the Board about actions and potentially needed direction.

FINANCIAL IMPACT:

Preparation of this report is paid for from the administrative budgets of the departments participating in the Drought Task Force (Sheriff, Public Works, Agriculture Commissioner, U.C. Extension, and Planning and Building.)

STRATEGIC FRAMEWORK:

This action supports your Board's Strategic Framework by advancing local interests in natural resource discussions.

OTHER AGENCY INVOLVEMENT:

ALTERNATIVES TO STAFF RECOMMENDATIONS:

Alternatives are embedded in the discussion above. No additional alternatives are proposed.

ATTACHMENTS:

1. Drought Proclamation
2. Water Well Applications Received

PREVIOUS ACTION/REFERRAL:

Board Order No.: Click or tap here to enter text.

Meeting of: Click or tap here to enter text.

File No.: Click or tap here to enter text.