

**From:** [Dyan Cushing](#)  
**To:** [Planning Clerk](#)  
**Subject:** Humboldt's Own, LLC Special Permit  
**Date:** Tuesday, August 31, 2021 6:00:15 PM  
**Attachments:** [letter for dyan.docx](#)

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Re: Record Number PLN-2021-11786  
Date of hearing 9/2/2021 10:00 am

I would like to raise the following issues/questions regarding this project.

1. Why is a special permit required? What specifically does not conform to county codes?
2. Are the 24,800 sq feet of existing outdoor grow being relocated currently in APN 105-071-006?
3. What change is being made to the EIR?
4. Can neighbors be assured their well levels will not be negatively effected by this project? How can this be monitored?
5. Can it be proven that the well will not impact the streams and water tables? If not full forbearance should be required.
6. Can an assessment by a groundwater hydrologist determine transmissivity in order to assess if the water usage will negatively impact ground water and common or separate aquafers?
7. Can the growers take steps to reduce the amount of water required per plant?
8. Does the project water use adhere to California Water Board regulations including metering, monitoring and recording all cannibas water usage and reporting to the state Water Quality Division?
9. Attached is a letter from a Petrolia residence and I would like his concerns to be part of my submission

Dyan Cushing

Sent from my iPad

John Williams  
[jgwill@frontiernet.net](mailto:jgwill@frontiernet.net)  
8/31/2021

Dyan Cushing  
By email

Dear Dyan,

Here are some comments on the proposed expansion of cannabis cultivation on AP #105-071-006, which is just west of your property on Chambers Rd. The proposal contemplates increasing diversions from a well to 1,018,450 gallons per year. Unfortunately, there is no information on how the pumping will be distributed over the year, but presumably it will be concentrated in the summer.

I am commenting simply as a friend, and not as a paid consultant, but I do have some qualifications. I am not a groundwater hydrologist, but I have a Ph.D. in Physical Geography and worked for years as a surface water hydrologist. I am also generally familiar with groundwater from my time on the board of the Monterey Peninsula Water Management District, since groundwater issues in the Carmel Valley were of great concern in the district. On that account, I paid close attention to various well tests, and to monitoring the effects of pumping on riparian vegetation.

In short, I think you have good reason to be concerned that the proposed pumping will affect your well, which is used by a tenant for an organic truck farm that uses ~120,000 gallons per season. Your well, on parcel # 105-101-004, is about 250 ft. from the applicant's well, as estimated on Google Earth. Using that distance, and assuming that the pumping happens at a constant rate for 180 days, I used a simple calculator from the New Mexico Office of the State Engineer<sup>1</sup> to estimate that the applicant's pumping would lower the groundwater level at your well by between 1.3 and 1.9 ft., depending on the values entered for transmissivity and the storage coefficient. This is not a lot, but these calculations ignore pumping from your well, and the interaction of the cones of depression of the two wells. They also ignore the temporal distribution of pumping.

The calculations also assume that the aquifer is isotropic, or homogeneous in all directions. This is always more or less unrealistic, and is especially so in alluvial aquifers. Your land and the applicant's are on a terrace that was formed by the river depositing sediment about thirty thousand years ago, during a previous high stand of sea level (Merritts et al. 1994). (The high

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<sup>1</sup> Available at <https://www.ose.state.nm.us/Hydrology/Theis/index.html>.

rate of tectonic uplift in the area accounts for your elevation of ~200 ft.) Rivers do not deposit sediments isotropically. Instead, there are usually ribbons of coarse grained channel deposits surrounded by finer grained overbank deposits. The coarse grained deposits have higher hydraulic conductivity, so the influence of a well will extend further along such buried channel deposits. Thus, depending on the unknown subsurface composition of the terrace, your well could be either more or less affected by the applicant's well than conventional estimates would suggest. However, since a line between your well and the applicant's well is roughly parallel to the general trend of the river, the potential existence of such a thread of high conductivity deposits between the two wells is cause for reasonable concern on your part.

So what could be done about it? A conventional well test using your well as the observation well would not be useful to generate a response, since such tests do not last long enough given the distance between the wells. Instead, another observation well closer to the test well would be needed. This would allow for a better estimate of the transmissivity of the aquifer, which would allow for more realistic estimates, but these would still not be definitive. If another well is to be drilled, it would make more sense for it to be another production well; given the shape of the applicant's property, the new well could be placed much farther from yours than the existing well. Or, the county could require the applicant to pay for an assessment of the situation by a qualified groundwater hydrologist that the county selects, with the understanding that the assessment would include appropriate recommendations for permit conditions. Or, you could ask for a permit condition requiring the applicant to provide your tenant with water, should your well not be able to. Since your well has held up through the current drought, it is clearly reliable under the status quo.

Sincerely,

John Williams

Merritts, D.J., K.R. Vincent, and E.E. Wohl, 1994, Long river profiles, tectonism, and eustacy: a guide to interpreting fluvial terraces. *Journal of Geophysical Research* 99 (B7):14,031-14,050.



**From:** [Jessica Brown](#)  
**To:** [Planning Clerk](#)  
**Subject:** Public Comment for Humboldt's Own, LLC. PLN-2021-11786, to be held on 9/02/21  
**Date:** Wednesday, September 01, 2021 9:35:12 PM

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Humboldt's Own, Inc.

Record Number PLN-2021-11786

Date of hearing 9/2/2021 10:00 am

We are next door neighbors possibly impacted by the water usage proposed, and wish to submit a plea of water usage reassessment to Humboldt's Own Inc.

In times of uncertain water futures and drought, using 15.7gal/SF is exceeding reasonable usage for cannabis. Normal watering in warmer climates is somewhere between 8gal/SF and 10gal/SF, and there are local growers succeeding on less than 3gal/SF.

We believe that in the current drought, the strain on the aquifer from over 1 million gallons a year could have lasting deleterious consequences. Cutting the proposed usage by half, or half again, might make all the difference for both continued livelihoods and sustainable living situations.

Thanks for hearing this,

-River Walker and Jessica Brown

**From:** [Marcia](#)  
**To:** [Planning Clerk](#)  
**Subject:** Special Permit PLN-2021-11786  
**Date:** Friday, August 27, 2021 4:20:29 PM

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Regarding a Special Permit for Parcel # 105071-006 on Chambers Road in Petrolia.

To the Humboldt County Zoning Administrator:

The request for a Special Permit to expand an existing agricultural enterprise in a rural housing area has special drawbacks because we do not have city water in Petrolia. Everyone needs to have well water for their families and livestock. Well water for trees and gardens. Well water for the wildlife, birds, lizards and even the bugs that feed the fish in the streams.

I am very concerned that the permit requested makes no provision for capturing rainwater and storing it for this agricultural project over the summer. No matter how excellent a well is, whether it be adjacent to a creek bed or even in it, all water taken from the ground affects ground water for every resident in the neighborhood. Draw down the water in one area and water for adjacent areas try to fill the void. Water does not respect property boundaries. Lack of well water nearby affects trees that depend upon reaching ground water during the long dry period of our Mediterranean climate. Without water trees are vulnerable to fire and we have very drying winds in Petrolia that further make ground water precious to trees and plants growing above ground. The wildlife forage all summer, now earlier and earlier, in daylight when their hides have no protection from the sun. Rural residents see this drama played out daily.

It is essential that the Humboldt County Planning Department take into consideration the current drought conditions and probable future drought conditions of the county. This is critical to make a fair and equitable decision regarding usage of land and the natural resources shared by all in this residential community.

The project represented by this Special Permit Application should have water that is captured during the rainy season, no matter how fine a well exists on the property. This may sound unreasonable but please consult with a hydrologist to understand just how interconnected all ground water is and how necessary it is to take this into consideration.

Respectfully submitter,  
Marcia Ehrlich  
Resident on Chambers Road  
Petrolia, California  
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