

## **SUPPLEMENTAL INFORMATION #4**

For Planning Commission Agenda of:  
January 7, 2021

<input type="checkbox"/>	Consent Agenda Item
<input type="checkbox"/>	Continued Hearing Item
<input checked="" type="checkbox"/>	Public Hearing Item
<input type="checkbox"/>	Department Report
<input type="checkbox"/>	Old Business

**Re: Amendments to the Humboldt Bay Area Plan and Coastal Zoning Regulations to Allow the Samoa Peninsula Wastewater Project**

Record Number: PLN-2020-16642 - LCP

Assessor Parcel Number: Various

Samoa and Fairhaven Area

Attached for the Planning Commission's record and review is the following supplementary information item:

1. Email from Roy O'Connor, Engineering Geologist - North Coast Regional Water Quality Control Board, and Mario Kalson, Supervising Environmental Health Specialist - DHHS Public Health, Division of Environmental Health, regarding comment letters from Craig and Richard Spjut (Supplementals 2 and 3)

## ATTACHMENT 1

### Email from Roy O'Connor, Engineering Geologist – North Coast Regional Water Quality Control Board, and Mario Kalson, Supervising Environmental Health Specialist – DHHS Public Health, Division of Environmental Health

Miller, John

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**From:** Kalson, Mario  
**Sent:** Monday, January 4, 2021 8:29 AM  
**To:** Miller, John  
**Cc:** O'Connor, Roy@Waterboards  
**Subject:** RE: Samoa Peninsula Wastewater Project

Roy captures the key points. I would only add that saturated soils transport the harmful components of sewage (nutrients and pathogens) much greater distances. As sea level increases, soils become more saturated. The separation to ground water and the bay is reduced. Existing septic systems will have greater impact on the bay and we will have diminishing capacity for onsite waste water treatment system repairs.

Mario Kalson, REHS  
Supervising Environmental Health Specialist  
Land Use and LEA Programs  
[DHHS Public Health, Division of Environmental Health](#)  
707-268-2209 phone  
707-441-5699 fax



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**From:** Miller, John <jpmiller@co.humboldt.ca.us>  
**Sent:** Thursday, December 31, 2020 3:56 PM  
**To:** Kalson, Mario <MKalson@co.humboldt.ca.us>  
**Subject:** Fwd: Samoa Peninsula Wastewater Project

Mario

I am off work today. This is what Roy sent me following our conversation. If you have anything to add please respond to this email copying Roy.

Thanks

John  
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**From:** O'Connor, Roy@Waterboards <Roy.O'Connor@waterboards.ca.gov>  
**Sent:** Monday, December 28, 2020 6:44:37 PM  
**To:** Miller, John <jpmiller@co.humboldt.ca.us>  
**Subject:** RE: Samoa Peninsula Wastewater Project

Hi John,

I'll try to stick with the water quality related aspects, though certainly sewerage of under-served, disadvantaged communities on the Samoa Peninsula involves many other considerations such as public health protection, environmental justice, human right to water, etc. Here's my thoughts:

*"whether or not or the degree to which individual on-site wastewater systems contribute to pollution in the Humboldt Bay and whether individual repairs will serve to protect the Bay"*

No formal study has been made correlating the impacts from onsite waste treatment systems (OWTS) in Fairhaven to pollution in Humboldt Bay. We know that the majority of the OWTS in Fairhaven were installed before modern design and construction standards for OWTS existed. The Fairhaven OWTS discharge on very small lots, to sandy soils and shallow groundwater, which provide marginal treatment of the septic tank waste. This marginally treated waste is discharged to the shallow groundwater and impacts and contaminates the shallow groundwater. This shallow groundwater surfaces at the lower elevations in Fairhaven, and also makes its way to Humboldt Bay via overland flow during the winter and also by underdrains which discharge to Humboldt Bay. These OWTS impact groundwater quality, and where leakage from the OWTS comes in contact with Humboldt Bay, impacts the water quality of Humboldt Bay. Past individual OWTS repairs were often sparse on technology and waste treatment, and were unlikely to provide much more additional treatment, as the sandy soils paired with shallow groundwater and small lot size do not allow for sufficient treatment of septic tank waste.

Septic tank waste discharges contain a varied mixture of household wastes, not just toilet waste. The marginally treated septic tank waste discharged to the subsurface also contains many other pollutants such as nitrates, pharmaceuticals, chemotherapy drugs, birth control medication, oven cleaners, caffeine, pesticides, etc. OWTS on small lots, with sandy soils and high groundwater provide very little, if any, treatment for these pollutants.....they essentially wind up in the groundwater, or possibly wintertime overland flow or underdrain to Humboldt Bay. With centralized collection and treatment, if it is collected and sent to a central location with modern treatment, the discharge can be characterized to determine if additional contaminants in the discharge need further treatment to meet water quality objectives.

*"whether individual repairs are a cost effective way for individual homeowners to address the effects of failing on-site systems, given projected sea level rise"*

Past OWTS individual repairs in Fairhaven mainly consisted of mounded disposal systems, which, given the small lot size, sandy soil and shallow groundwater are unlikely to provide sufficient additional waste treatment to avoid groundwater impacts. In order for an OWTS repair to meet stringent groundwater quality objectives, an upgraded treatment system, with some sort of supplemental treatment to meet groundwater quality objectives would have to be installed. These higher performing systems are technically challenging to design, install and operate, they are expensive, and they need to be operated, monitored and maintained by knowledgeable people. Required reserve leach field replacement area further limits and constrains development on these small lots. Greater benefits and protections to water quality and public health exist with centralized waste collection and treatment, with a licensed operator and sufficient treatment to meet water quality objectives. For individual OWTS owners to upgrade their existing OWTS to comply with water quality objectives would be costly, and permitting intensive, either by our office or Humboldt County, and would not have access to the grant funding mechanisms of the current Samoa sewerage project. Failing septic systems are required to be corrected and repaired, both by the OWTS Policy and by Humboldt County's local agency management program which implements the OWTS policy.

I hope that helps some.

*Roy O'Connor*  
Engineering Geologist  
North Coast Regional Water Quality Control Board  
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*The governor of California has issued a statewide shelter in place order due to the COVID-19 emergency. The Water Boards are continuing day-to-day work protecting public health, safety, and the environment. However, most staff are working remotely and we continue to check email and voicemail regularly. Thank you and stay healthy and safe.*

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**From:** Miller, John <[jpmler@co.humboldt.ca.us](mailto:jpmler@co.humboldt.ca.us)>  
**Sent:** Wednesday, December 23, 2020 10:51 AM  
**To:** O'Connor, Roy@Waterboards <[Roy.O'Connor@waterboards.ca.gov](mailto:Roy.O'Connor@waterboards.ca.gov)>  
**Subject:** Samoa Peninsula Wastewater Project

**EXTERNAL:**

Roy

The county has received the attached comments regarding the Samoa Peninsula Wastewater Project. I would greatly appreciate your input on these comments. In particular we would like to hear your perspective on whether or not or the degree to which individual on-site wastewater systems contribute to pollution in the Humboldt Bay and whether individual repairs will serve to protect the Bay as well as a public system. Also, if you could comment on whether individual repairs are a cost effective way for individual homeowners to address the effects of failing on-site systems, given projected sea level rise.

By the way, Craig Spjut is very interested in talking with the RWQCB and can be reached at [REDACTED]. Thank you very much for your assistance.

John

**John Miller**  
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