



June 20, 2022

Mr. Steve Lazar, Senior Planner
Humboldt County Planning & Building Department
3015 H Street
Eureka, CA 95501
Submitted via email to planningclerk@humboldt.ca.gov

Re: Initial Study and Proposed Mitigated Negative Declaration for Royal Gold Soil Operation, Case Number PLN-2021-17077, 1619 Glendale Drive, Arcata

Dear Mr. Lazar,

I submit these comments on the Initial Study and Proposed Mitigated Negative Declaration for Royal Gold Soil Operation on behalf of Humboldt Baykeeper, which was launched in 2004 with a mission to safeguard coastal resources for the health, enjoyment, and economic strength of the Humboldt Bay community through education, scientific research, and enforcement of laws to fight pollution. One of our top priorities since our founding is the identification and remediation of lumber mill sites contaminated by dioxins and pentachlorophenol, a fungicide used in lumber mills and other industrial processes until it was eliminated from such use in the late 1980s. Dioxins are among the most toxic, long-lasting chemicals ever manufactured, and are known to cause cancer and reproductive harm in people and wildlife. Dioxins that contaminate aquatic environments are especially concerning, since they biomagnify up the food chain, putting people and wildlife that eat fish and shellfish particularly at risk.

On many sites, dioxins persist in soil, so the prevention of sedimentation and erosion on such sites is critical to protect downstream aquatic habitats. In the case of the McNamara & Peepe Lumber Mill, upon which the Royal Gold facility has been operating since 2009, groundwater has unusually high levels of dioxins as well as pentachlorophenol, and the plume of contamination has been detected well beyond the concrete cap that was installed in the 1990s to prevent such mobilization.

In 2008, the Department of Toxic Substance Control (DTSC) declared the site an Imminent and Substantial Endangerment to public health and safety due to the rise in groundwater, which now floods the site from below, pushing the toxic plume out from under the cap. In 2018, DTSC declared the remediation a failure, and began sampling to better understand the extent of contamination both on- and off-site (IS/MND, page 136).

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Although a complete assessment has not yet been completed, DSTC has determined that the toxic plume has moved off-site via surface water in a seasonal stream on the south side of the site. This seasonal stream is connected to Hall Creek, a tributary to Mad River just 1.1 mile upstream of the intake wells for the Humboldt Bay Municipal Water District, which provides drinking water to approximately 90,000 residents (two-thirds of the County's population).

We agree with the statement in the Soil and Groundwater Management Plan (SGMP) in which "SHN recommends presuming that the entirety of the property's soil and groundwater may be impacted with PSCs (Potential Site Contaminants: chlorinated solvents, pentachlorophenol (PCP) and tetrachlorophenol (TCP), dioxins/furans, volatile organic compounds (VOCs), or petroleum hydrocarbons)." (IS/MND Appendix 5.8, page 11).

We recognize the fact that the dioxin contamination at the site predates Royal Gold's operations at the site (see Appendix 5.8, page 12). However, we remain deeply concerned about ground disturbance anywhere on the site – including what has been done in the past as well as what is now being proposed – due to the potential for further mobilizing undocumented contamination. The contaminated soil and groundwater cannot be assumed to be contained beneath the cap, as has been stated in previous County and DTSC documents, including the outdated 1998 Land Use Covenant, which is no longer adequate to protect human health and the environment. Indeed, DTSC has identified contamination well beyond the cap in soil, groundwater, and stormwater runoff that flows off-site into a Coho-bearing stream (Hall Creek, a.k.a. Mill Creek). In addition, Humboldt Baykeeper recently documented contamination of a private domestic well off-site on a residential parcel.¹

Mitigation Measure HHM-1 proposes testing for contamination in both soil and groundwater (if the latter is encountered) in all areas proposed for ground disturbance. The proposed test pits will provide important information in areas of the site which have not been adequately characterized, and we wholeheartedly support this plan. However, we have some outstanding concerns that must be incorporated, as follows.

Clarification of Appropriate Screening Levels

Mitigation Measure HHM-1 states that "Based on the PSCs, the applicable regulatory screening levels are contained in DTSC Human Health Risk Assessment (HHRA) Note Number 2 and Note Number 3. It is recommended that any sampling results that exceed residential screening levels be submitted to DTSC for review" (Appendix 5.8, page 7) and that "Prior to [soil] reuse, a letter will be prepared and submitted to DTSC with the total volume of reuse proposed for placement and supporting laboratory analytical data" (Appendix 5.8, page 9).

¹ Letter from Humboldt Baykeeper to DTSC, https://www.envirostor.dtsc.ca.gov/public/deliverable_documents/5832152426/2022-3-7WellSamplingResults_DTSC.pdf

However, the residential screening level for dioxins described in HHRA Note 2² is not acceptable for screening contamination in soils proposed for stormwater detention, stormwater conveyance, or wetland mitigation. Environmental Screening Levels described in HHRA Note 3 must be used wherever surface water will come into contact with soil. Using residential screening levels will not achieve Mitigation Measure HHM-1's stated objective "to ensure that no significant impacts occur to nearby sensitive receptors, aquatic species, and water resources" (IS/MND, page 142). To ensure that potentially significant impacts to sensitive receptors, aquatic species, and water resources, the MND must be clarified to include Environmental Screening Levels in areas not proposed for paving. In addition, in areas where paving is proposed, adequate sediment and erosion prevention measures must be implemented during construction to protect downstream areas from contamination to prevent dioxins in sediment from being carried into surface water.

Need for Confirmation Sampling and Removal of Contaminated "Hot Spots"

Once the appropriate screening levels have been specified, simply testing soil excavated from test pits and properly disposing of soil or groundwater with exceedances is not adequate to mitigate the impacts of disturbing contaminated soils. This is particularly true in areas proposed for stormwater detention basins, stormwater conveyance features, and wetland mitigation areas. Development of stormwater detention basins and conveyance features in soil with contamination above Environmental Screening Levels has the potential to contaminate stormwater, downstream surface waters, and riparian and aquatic habitat. Restoring wetlands in areas where contamination exceeds Environmental Screening Levels will not only risk contamination of surface water, but will create an attractive nuisance for frogs, birds, and other wildlife intended to benefit from wetland restoration. A clear plan must be developed and implemented for consulting with trustee and responsible agencies, including DTSC, the North Coast Regional Water Quality Control Board, and the California Department of Fish & Wildlife, in the event of exceedances of Environmental Screening Levels in soil or groundwater samples.

Although Mitigation Measure HHM-1 states that "The SGMP includes recommended actions to address handling, onsite reuse, and offsite disposal of contaminated soil and/or groundwater, if necessary... With the incorporation of Mitigation Measure HHM-1, the project will not create a significant hazard to the public or the environment" (IS/MND, page 142-143), the proposed measures are not adequate to achieve the stated objective. Fully mitigating these impacts requires confirmation sampling in the bottom and sidewalls of test pits where exceedances are identified, followed by further excavation and confirmation until the contaminated "hot spot" has been removed.

Reporting Results

Reporting all sampling results to DTSC for uploading to Envirostor is critical to the concerned and engaged members of the public who are advocating for complete characterization and remediation of the site.

² <https://dtsc.ca.gov/wp-content/uploads/sites/31/2021/07/HHRA-Note-2-dioxin-2017-04-06-2021A.pdf>

Envirostor³ is the Department of Toxic Substances Control's data management system for tracking efforts at sites with known contamination or sites where there may be reasons to investigate further. Given the importance of the McNamara & Peepe site, making these data publicly available must be a clear requirement of the IS/MND. Humboldt Baykeeper has been active engaged in DTSC's efforts to protect our region's municipal water supply as well as private domestic wells in the area for several years, and all new information about the site is critical to our understanding of the site and its threats to public health and safety and the downstream environment.

Reporting of dioxins and furans should be in Total Equivalent Quotients ("TEQs"), the unit of measurement recommended by the World Health Organization, as well as 2,3,7,8-TCDD, since 2,3,7,8-TCDD is known to be present in very low levels in pentachlorophenol.⁴ Reporting levels of 2,3,7,8-TCDD without reporting TEQs is often misleading where pentachlorophenol is the known source of dioxins.

Potential Impacts to Protected Species

In addition to drinking water supplies, the off-site movement of dioxins threatens designated critical habitat for Coho Salmon, Chinook Salmon, and Eulachon, as well as habitat for northern red-legged frog and other Threatened & Endangered species and Species of Concern. Because dioxins biomagnify up the food chain, it is critical to protect aquatic, riparian, and wetland habitats from further contamination to prevent impacts to wildlife that relies on these habitats for prey, nesting, and other uses, including Cooper's hawk, great egret, great blue heron, American peregrine falcon, hoary bat, and other sensitive species as well as juvenile Pacific Lamprey and more widespread species.

We appreciate the opportunity to review and comment on the impacts of the proposed project and measures designed to minimize or mitigate those impacts. Please do not hesitate to contact me for more information or clarification of our comments and concerns.

Thank you for your consideration.

Sincerely,



Jennifer Kalt, Executive Director
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Cc:
Nicole Yuen, DTSC

³ <https://www.envirostor.dtsc.ca.gov/public/>

⁴ Johnson, Glenn. W. 2017. *Chlorinated Dioxin and Furan Congener Profiles from Pentachlorophenol Sources*. *Journal of Environmental Protection*, 2017, 8, 663-677.
<https://www.scirp.org/journal/paperinformation.aspx?paperid=77199>

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