Department of Toxic Substances Control

Meredith Williams, Ph.D., Director
700 Heinz Avenue
Berkeley, California 94710-2721

Yana Garcia
Secretary for
Environmental Protection

Gavin Newsom
Governor

March 28, 2024

Sent Via E-Mail

Mike Buck
On Behalf Of:
Mendocino Railway
Foot of Laurel Street
Fort Bragg, California 95437
mikebuck@radian-advisors.com

REQUIREMENT TO COMPLETE FEASIBILITY STUDY ADDENDUM FOR FORMER GEORGIA-PACIFIC MILL SITE, 90 WEST REDWOOD AVENUE, FORT BRAGG, MENDOCINO COUNTY, CALIFORNIA (SITE CODE 202276)

Dear Mike Buck:

DTSC received your letter dated September 6, 2023, which was sent in reply to DTSC's December 27, 2022 letter, and following DTSC's September 5, 2023 email, notifying Mendocino Railway of its obligation to perform additional alternatives analysis in a Feasibility Study Addendum to the Operable Unit E Feasibility Study (OU-E FS Addendum) for the former Georgia-Pacific Mill Site. DTSC also received your letter dated January 16, 2024 regarding coastal development permitting for the recommended alternative in the OU-E Feasibility Study (OU-E FS) dated September 12, 2019.

DTSC hereby re-asserts its requirement for Mendocino Railway to submit an OU-E FS Addendum, pursuant to Section 5.7 of the Site Investigation and Remediation Order, Docket No. HSA-RAO 06-07-150, issued February 16, 2007, and amended on June 9, 2022 (Order). Under Section 5.7(d) of the Order, Mendocino Railway is obligated to prepare and submit a Feasibility Study Report to DTSC for review and approval, which includes the evaluation of alternatives.

DTSC previously granted approval on October 24, 2019 for the OU-E FS submitted by Mendocino Railway dated September 12, 2019. Since that approval, scoping exercises for the Operable Unit E Remedial Action Plan (OU-E RAP) and Coastal Development Permit (CDP) Environmental Impact Report (EIR) identified the need for the evaluation of alternatives not included in the OU-E FS. In addition, DTSC received information from the California Coastal Commission (CCC), the City of Fort Bragg (City), and community members regarding the need to evaluate remedial alternatives that could avoid armoring, and other potential unmitigable significant environmental impacts. Further, in January 2024, the CCC provided the enclosed letter describing the Coastal Act and City of Fort Bragg Local Coastal Plan requirements for coastal armoring. DTSC has determined that evaluation of additional remedial alternatives is needed for Mendocino Railway to meet the Feasibility Study requirement in Section 5.7 of the Order for OU-E.

DTSC recommends the OU-E FS Addendum reevaluate the on-site terrestrial containment and on-site terrestrial treatment process options. DTSC also recommends that the OU-E FS Addendum include variations on the containment alternative such as hybrid alternatives that include removal/containment/treatment technologies. The potential for on-site terrestrial consolidation/treatment of sediments could affect the feasibility of the removal of the contaminated sediments from Ponds 1, 2, 3, 4, 6, 7, 8 and the North Pond. DTSC acknowledges that the City's letter to DTSC, dated September 25, 2018, regarding applicable or relevant and appropriate requirements (ARARs) indicated that certain hybrid alternatives would not be permittable under Coastal General Plan Policies. However, DTSC also notes that the City concluded that one hybrid alternative was potentially permittable (City of Fort Bragg, 2018). DTSC urges Mendocino Railway to work with CCC and the City of Fort Bragg to develop additional remedial alternatives that meet ARARs including the Coastal Act and Local Coastal Plan requirements.

Mendocino Railway must submit an OU-E FS Addendum to receive DTSC approval of the Feasibility Study requirement in Section 5.7 of the Order for OU-E. This approval is required before DTSC can approve the OU-E RAP. In consideration of your request to extend the deadline, DTSC hereby extends the deadline for Mendocino Railway to submit the draft set of alternatives to be evaluated in OU-E FS Addendum from December 4, 2023 to May 28, 2024, which is 60 days from the date of this letter.

If you have any questions, please contact me at (510) 540-2732 or via email at Morgan.Bigelow@dtsc.ca.gov.

Sincerely,

Morgan Bigelow
Environmental Scientist
Site Mitigation and Restoration Program – Berkeley Office
Department of Toxic Substances Control

Enclosure: CCC. 2024. Letter from the California Coastal Commission to the Department of Toxic Substances Control re: Coastal Act and LCP Requirements Related to Coastal Armoring. January 11.

CC: (via e-mail)

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January 11, 2024

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RE: Coastal Act and LCP Requirements Related to Coastal Armoring

Dear Morgan Bigelow:

This letter responds to your recent request for clarification on and specification of regulatory requirements under the Coastal Act and the City of Fort Bragg's Local Coastal Program (LCP) related to coastal armoring. This letter transmits the Commission staff's perspective, based on past actions that the Coastal Commission has taken on coastal armoring projects throughout the State's coastal zone. Our reference to "armoring" is in the context of building a shoreline protective device that alters natural shoreline processes to protect existing structures or public beaches in danger from erosion or when required to serve coastal-dependent uses, so long as they are designed to eliminate or mitigate adverse impacts on local shoreline sand supply. "Shoreline protective structures" (or devices) generally are interpreted broadly in reference to constructed features such as seawalls, revetments, riprap, breakwaters, groins, harbor channels, cliff retaining walls, earthen berms, cave fills, and bulkheads that block the landward retreat of the shoreline and the replenishment of shoreline sand supply along the coast.

The Coastal Act regulates shoreline armoring because shoreline protective structures are understood to have a variety of negative impacts on coastal resources, including adverse effects on sand supply, public access, coastal views, natural landforms, and overall shoreline beach dynamics on and off site, ultimately resulting in the loss of beaches. Shoreline protection devices also directly interfere with public access to tidelands by impeding the ambulatory nature of the mean high tide line (the boundary between public and private lands) during high tide and severe storm events, and potentially throughout the entire winter season. Construction of rock revetments and seawalls to protect existing structures artificially fixes the landward extent of the ocean and prevents any current or future migration of the shoreline and mean high tide line landward, thus reducing or entirely eliminating the distance between the high-water mark and low-water mark. As the distance between the high-water mark and low-water mark becomes obsolete, a seawall or similar shoreline protective device effectively eliminates lateral access opportunities along the beach, as the entire area seaward of the fixed high tideline is inundated during low tide periods. The ultimate result of a fixed tideline boundary (which would otherwise normally migrate and retreat landward while

maintaining a passable distance between the high-water mark and low-water mark overtime) is a reduction or elimination of the area of sandy beach available for public access and recreation.

In addition to coastal resource impacts, shoreline protective devices can result in adverse effects on the dynamic shoreline system and the public's beach ownership interests. Changes in the shoreline profile, particularly changes in the slope of the profile that result from a reduced beach berm width, alter the usable area under public ownership. A beach that rests either temporarily or permanently at a steeper angle than under natural conditions will have less horizontal distance between the mean low water and mean high water lines. Access also is affected through the progressive loss of sand supply as shoreline sand supply material landward of the shoreline protective device is not available to nourish the nearshore sand bar because it prevents sand supply on bluffs and cliffs landward of the device from eroding onto the beach. Sand bar loss in turn results in higher wave energy on the shoreline, which impacts the ability of sand to accrete and nourish the beach. Again, this affects public access through a loss of area between the mean high-water line and the actual water. Furthermore, shoreline protective devices can cause accelerated and increased erosion on adjacent beaches because the devices can cause waves to rebound off the devices and direct the rebounded waves towards beach areas adjacent to the area protected by the shoreline protective devices. This effect may not become clear until such devices are constructed individually along a shoreline. Finally, if not sited landward in a location that ensures that the shoreline protective device is only acted upon during severe storm events, beach scour during the winter season will be accelerated because there is less beach area to dissipate the wave's energy.

As a result of the potential impacts arising from shoreline protective device projects, it is critical to have an alternatives analysis based upon the technical and resource data specific to the site. The Coastal Act requires such projects to be sited and designed to protect views to and along the ocean and scenic coastal areas; to eliminate or mitigate adverse impacts on local shoreline sand supply; to avoid impediments to public access; to be compatible with the continuance of sensitive habitat and recreation areas; and to prevent impacts which would degrade sensitive habitats, parks, and recreation areas. Some of the Coastal Act policies that relate to coastal hazards and the use of shoreline protective devices include, but are not necessarily limited to, the following (emphasis added):

> ***Section 30235****. Revetments, breakwaters, groins, harbor channels, seawalls, cliff retaining walls, and other such construction that alters natural shoreline processes shall be permitted when required to serve coastal-dependent uses or to protect existing structures or public beaches in danger from erosion, and when designed to eliminate or mitigate adverse impacts on local shoreline sand supply. Existing marine structures causing water stagnation contributing to pollution problems and fish kills should be phased out or upgraded where feasible.*

> ***Section 30250* (in part)**. *New residential, commercial, or industrial development, except as otherwise provided in this division, shall be located within, contiguous with, or in close proximity to, existing developed areas able to accommodate it or, where such areas are not able to accommodate it, in other areas with adequate public services and where it will not have significant adverse effects, either individually or cumulatively, on coastal resources…*
>
> ***Section 30251* (in part)**. *The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality of visually degraded areas…*
>
> ***Section 30253***. *New development shall do all of the following: (a) Minimize risks to life and property in areas of high geologic, flood, and fire hazard. (b) Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs. (c) Be consistent with requirements imposed by an air pollution control district or the State Air Resources Board as to each particular development. (d) Minimize energy consumption and vehicle miles traveled. (e) Where appropriate, protect special communities and neighborhoods that, because of their unique characteristics, are popular visitor destination points for recreational uses.*
>
> ***Section 30270***. *The commission shall take into account the effects of sea level rise in coastal resources planning and management policies and activities in order to identify, assess, and, to the extent feasible, avoid and mitigate the adverse effects of sea level rise.*

The Coastal Commission certified a comprehensive update of the City of Fort Bragg's LCP [Coastal General Plan (Land Use Plan) and Coastal Land Use and Development Code (Implementation Plan)] in 2008. The LCP includes policies similar to and consistent with the Coastal Act policies cited above, including, but not limited to:

> ***Policy SF-1.1***. *Minimize Hazards: New development shall: (a) Minimize risks to life and property in areas of high geologic, flood, and fire hazard; and (b) Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs.*

Policy SF-1.2. *All ocean-front and blufftop development shall be sized, sited and designed to minimize risk from wave run-up, flooding, and beach and bluff erosion hazards, and avoid the need for a shoreline protective structure at any time during the life of the development.*

Policy SF-1.5. *Siting and design of new blufftop development and shoreline protective devices shall take into account anticipated future changes in sea level. In particular, an acceleration of the historic rate of sea level rise shall be considered. Development shall be set back a sufficient distance landward and elevated to a sufficient foundation height to eliminate or minimize to the maximum extent feasible hazards associated with anticipated sea level rise over the expected 100-year economic life of the structure.*

Policy SF-1.7*. Alterations to Landforms: Minimize, to the maximum feasible extent, alterations to cliffs, bluff tops, faces or bases, and other natural land forms in the Coastal Zone. Permit alteration in landforms only if erosion/runoff is controlled and either there exists no other feasible environmentally superior alternative or where such alterations re-establish natural landforms and drainage patterns that have been eliminated by previous development activities.*

Policy SF-1.9*. Bluff Face and Bluff Retreat Setback: Prohibit development on the bluff face and within the bluff retreat setback because of the fragility of this environment and the potential for resultant increase in bluff and beach erosion due to poorly-sited development except that the following uses may be allowed with a conditional use permit:*

(1) engineered accessways or staircases to beaches, boardwalks, viewing platforms, and trail alignments for public access purposes;

(2) pipelines to serve coastal dependent industry;

(3) habitat restoration;

(4) hazardous materials remediation; and

(5) landform alterations where such alterations re-establish natural landforms and drainage patterns that have been eliminated by previous development activities.

Findings shall be made that no feasible, less environmentally damaging, alternative is available and that feasible mitigation measures have been provided to minimize all adverse environmental impacts. Require as a part of the conditional use permit, a full environmental, geological, and engineering study as specified in Policy LC-6.1. Such structures shall be constructed and designed so as to neither create nor contribute to erosion of the bluff face and to be visually compatible with the surrounding area to the maximum extent feasible.

> ***Policy SF-1.10***. *Seawalls, Breakwaters and Other Shoreline Structures: Prohibit construction of seawalls, breakwaters, revetments, groins, harbor channels, retaining walls, and other structures altering the natural shoreline processes unless a finding is made that such structures are required: (1) to serve coastal-dependent uses; or (2) to protect public beaches in danger from erosion; or (3) to protect existing structures that were legally constructed prior to the effective date of the Coastal Act; or (4) that were legally permitted prior to the effective date of this Coastal General Plan provided that the CDP did not contain a waiver of the right to a future shoreline or bluff protection structure; or (5) for a development consistent with Section 30233(a) of the Coastal Act and only when it can be demonstrated that said existing structures are at risk from identified hazards if no feasible or less environmentally damaging alternative is available and the structure has been designed to eliminate or mitigate adverse environmental impacts, including impacts upon local shoreline sand supply. The design and construction of allowed protective structures shall respect natural landforms and provide for lateral beach access.*
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> ***Policy CD-1.1***. *Visual Resources: Permitted development shall be designed and sited to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural landforms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance scenic views in visually degraded areas.*

The above-cited policies of the Coastal Act and the City's LCP state that new development must assure stability and structural integrity in a manner that does not require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs.[1] Inherent in the cited policy directives to avoid the construction of protective devices is the need to consider appropriate shoreline setbacks and elevations for new development. Such setbacks/elevations must be based on an assessment of projected erosion and related hazards at the project site for the life of the proposed development to help ensure that seawalls and other protective devices that could lead to adverse impacts would not be necessary in the future to protect the

[1] Under Coastal Act section 30106, "development" is broadly defined to mean "*on land, in or under water, the placement or erection of any solid material or structure; discharge or disposal of any dredged material or of any gaseous, liquid, solid, or thermal waste; grading, removing, dredging, mining, or extraction of any materials; change in the density or intensity of use of land, including, but not limited to, subdivision pursuant to the Subdivision Map Act (commencing with Section 66410 of the Government Code), and any other division of land, including lot splits, except where the land division is brought about in connection with the purchase of such land by a public agency for public recreational use; change in the intensity of use of water, or of access thereto; construction, reconstruction, demolition, or alteration of the size of any structure, including any facility of any private, public, or municipal utility; and the removal or harvesting of major vegetation other than for agricultural purposes, kelp harvesting, and timber operations which are in accordance with a timber harvesting plan submitted pursuant to the provisions of the Z'berg-Nejedly Forest Practice of 1973 (commencing with Section 4511). As used in this section, "structure" includes, but is not limited to, any building, road, pipe, flume, conduit, siphon, aqueduct, telephone line, and electrical power transmission and distribution line*."

proposed development. The above-cited policies direct the Commission/City to account for the effects of sea level rise when evaluating coastal hazards of a project. Because hard armoring often conflicts with Coastal Act and LCP policies mandating the protection of public access, environmentally sensitive habitats, and visual resources, shoreline protective devices, even in areas without bluffs and cliffs, generally are inconsistent with the Coastal Act and with LCPs due to their effects on natural shoreline processes and impacts on visual resources, public access, and other coastal resources.

In sum, the Coastal Act and the City's LCP prohibit shoreline armoring except in limited cases and in those limited cases require proposals for shoreline armoring to establish that there are no other alternatives available that would avoid the need for armoring, that armoring is the only feasible alternative capable of protecting the existing structure or public beach in danger from erosion, and that the proposed alternative is the best alternative.[2] Other alternatives typically considered as part of an evaluation of alternatives include the "no project" alternative; abandonment or demolition of threatened structures or use areas; relocation or retreat of the threatened structures or use areas; sand replenishment programs; and combinations of feasible alternatives so that the project maximizes consistency with the totality of policies of the Coastal Act or LCP as applicable. The alternatives analysis must also account for the effects of sea-level rise and the resiliency of project alternatives considering a range of sea level rise scenarios as recommended in the Commission's adopted Sea Level Rise Policy Guidance.[3]

If you have any further questions regarding the regulatory requirements related to coastal armoring under the Coastal Act and the City's LCP, please let me know.

Sincerely,

Melissa B. Kraemer
North Coast District Manager

ec: Sarah McCormick, City of Fort Bragg, smccormick@fortbragg.com

[2] Under Coastal Act section 30108, "feasible" means "*capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors*."

[3] The Commission's current Sea Level Rise Policy Guidance document, adopted in 2018, is accessible from the Commission's website: https://www.coastal.ca.gov/climate/slrguidance.html