

24 June 2022

## Technical Memorandum

To: City of Fort Bragg Community Development Department

From: Jeremie Maehr, Kennedy Jenks

Subject: Scope of Work - Coastal Development Permit Planning Application Form  
Former Georgia-Pacific Wood Products Facility  
90 West Redwood Avenue, Fort Bragg, Mendocino County, California  
KJ 1965021\*21

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This technical memorandum provides a summary of the scope of work for proposed improvements to address California Division of Safety of Dams (DSOD) requirements at the Mill Pond Dam and Pond 8 (the Mill Pond) at the former Georgia-Pacific Wood Products Facility (site) located at 90 West Redwood Avenue, Fort Bragg, Mendocino County, California. Improvements to the Mill Pond Dam will also provide even more secure containment for sediment, as called for in Mendocino Railway's Draft Operable Unit E Remedial Action Plan (RAP) required by the California Department of Toxic Substances Control (DTSC). See attachment to CDP Application.

The proposed project is the culmination of several years of coordination between multiple agencies, including DSOD, DTSC, Regional Water Quality Control Board (RWQCB), California Coastal Commission, and the City of Fort Bragg (City). Coordination was previously completed under Georgia-Pacific, LLC ownership and will continue under Mendocino Railway ownership. Consistent with discussions among the aforementioned agencies in meetings on-site and at the City and DSOD offices in February and April 2018, proposed construction tasks include the following:

### 1. Construct Rock Slope Protection (RSP) Buttress

The purpose of the proposed RSP buttress being proposed by Mendocino Railway on the downstream side of the crib wall section of the dam is to improve seismic stability of the portion of the dam, which is currently supported with timber cribbing to the south of and adjacent to the existing spillway. The RSP buttress will also protect the downstream dam slope from wave run-up and surface erosion. The downstream toe of the southern portion of the dam is adjacent to the beach, and will therefore, accommodate tidal changes and other considerations. Additional details regarding construction of the RSP buttress at downstream side of the crib wall section include the following:

- Approximately 1,375 cubic yards (CY) of armor rock and aggregate will be added to the slope.

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- Construction activities are to remain above mean high tide line (MHTL).
- A temporary ramp is to be installed along the beach berm to access beach during construction.

### **2. Complete Ground Improvements and Construct Earthfill Buttress**

The purpose of the northern dam section modifications being proposed by Mendocino Railway is to improve the seismic stability of the eastern portion of the Mill Pond Dam, also referenced as the north berm, by mitigating the liquefaction hazard identified in the embankment and foundation soils and providing additional buttressing to reduce deformations during strong ground shaking. Additional details regarding ground improvements and construction of an earthfill buttress at the downstream side of the eastern dam section include the following:

- Cement deep soil mixing (CDSM) columns will be installed to improve soil stability. Installation of 2-foot diameter columns, spaced 1.5 feet apart (center to center), and approximately 15 feet to 25 feet deep are assumed. CDSM columns will be installed 1 foot into bedrock.
- Approximately 230 CY of soil will be removed.
- Approximately 1,730 CY of soil and 5,704 CY of rockfill will be added.
- A rockfill workpad will be installed during construction.

### **3. Construct Cutoff Wall**

The purpose of the cutoff wall proposed by Mendocino Railway is to hydraulically divide Pond 8 into two smaller ponds that are operated independently and meet the DSOD criteria for non-jurisdictional dams. Additional details regarding construction of the cutoff wall in the center of Pond 8 include the following:

- Cutoff wall is designed to be approximately 63 feet wide and 21 feet deep. Construction methods and wall design are expected to consist of a combination of precast concrete units, soil fill, and cast-in-place reinforced concrete.
- In the Mill Pond, cattail vegetation, where present in the work footprint, will be cleared prior to start of work and set aside. Removed vegetation will be replaced over the excavation area to aid in revegetation from native seed and root stock.
- Cutoff Wall construction will require either installation of sheet pile walls or temporary excavation of sediment to slope excavation sidewalls to facilitate sediment removal from the cutoff wall footprint. Excavated sediment is expected to be placed in the pond area adjacent to the construction area.

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### General Notes

- Proposed construction task details are based on 60% Design Drawings (enclosed), a level of design appropriate for agency constructability review, and are subject to DSOD approval.
- Consistent with previous work completed at the site, pond water that is incidentally removed with soil and sediment will be allowed to drain back into the pond.

Further project information is provided in the attached enclosures:

1. 60% Design Drawings for Former Georgia-Pacific Wood Products Facility, Retrofit of Mill Pond Dam (Slate Geotechnical Consultants 2022).
2. Wave Study at Mill Site and Sizing of Primary Layer of Rock Slope Protection (ESA 2017).
3. Draft Remedial Action Plan – Operable Unit E, Former Georgia-Pacific Wood Products Facility Fort Bragg, California (Kennedy Jenks 2020).
4. Operable Unit E Draft Remedial Action Plan and Confirmation of No Further Action for Operable Unit E Soil and Ponds 5 and 9, Former Georgia-Pacific Wood Products Facility, Fort Bragg, California (DTSC 2020).