



ROCHE MERE
CONSULTING

MEMORANDUM

DATE: October 13, 2022

TO: Rose Longoria, Yakama Nation Fisheries

FROM: R. Elena Ramirez Groszowski, L.G., R.G.

RE: **Comments on the Agency Review Draft Remedial Investigation Work Plan
Georgia Pacific Camas Mill Site, Camas, Washington**

BACKGROUND

Kennedy Jenks (KJ) and Georgia Pacific Consumer Operations LLC (GP) submitted the *Agency Review Draft Remedial Investigation Work Plan* (draft work plan), dated January 3, 2022 for the Camas Mill Site (Site) located in Camas, Washington as a requirement of Agreed Order No. DE 18201. The Washington State Department of Ecology (Ecology) has requested comments from Yakama Nation Fisheries Superfund Section on this Site. This memorandum provides high-level comments on this draft work plan.

GENERAL COMMENTS

There are significant issues with the draft work plan. The detail presented in the draft work plan does not provide adequate information given the size of the Site, length and variety of operational history and use, changes in the facility over time, and the presence of and the number of areas potentially impacted by adverse environmental conditions. The comments presented here are not exhaustive, but illustrative of the types of issues observed.

1. The draft work plan Site History section is lacking sufficient detail to evaluate historical and current environmental conditions. It does not do an adequate job communicating Site ownership history, illustrating (figures, maps, summary tables) the long operational history and changes at the facility over time, or present previous environmental investigations and remediation activities without meaningful details. Without appropriate documentation, a remedial investigation that only targets current and recently known structures, operations and recent documented spills or releases will perpetuate data gaps and miss key environmental impacts. Information from aerial photographs, Sanborn maps, company records and files, insurance records, and other historical sources should be used to show the evolution of the facility overtime and where potential adverse environmental conditions may be located based on past and recent/current use, opportunity, and relevant documentation.

For example, in the early history of the facility, the location of the original sawmill is not

discussed or shown, nor any other support facilities from the early operation. There is record of an industrial fire at the facility. What was the footprint of that original facility at the time? Where would we potentially see impacts from this historical industrial fire? Were ashes/debris/fire materials pushed into the slough? Was this material interned or buried on the Site?

2. It is not clear why the draft work plan does not include aquatic resources used or leased by the facility during operations or those that may be impacted by adjacent facilities or activities. The Site is split by a slough, at the convergence of two rivers with operational activities on both sides of the waterways. There are also several overwater and in-water structures, berthing areas and docks, areas used historically for log rafting, and conveyance lines of various types from the upland facility to Lady Island. There is also a wastewater treatment facility and landfill adjacent to a both Camas Slough and the Columbia River.
3. Maps showing the location of and tables summarizing the location, size, installation/construction dates, contents of present/past/historical equipment or facilities containing or using potentially hazardous substances, transformers, water/wastewater conveyance systems piping, treatment systems or facilities, wastewater discharge outfalls, above and below ground storage tanks, pipelines, log storage areas or in-water rafts areas, boilers and powerhouse facilities, storage areas for chemicals and wastes, and any other items that have the potential to release hazardous materials to the environment should be included.

For example, there should be maps showing all present and past aboveground and underground storage tanks, pipelines, and fuel conveyances at the facility. Information on their size, type of tank, date of installation, materials stored, and summary of any known releases should be included in summary tables. Aerial photos show significant and large numbers of tanks or silos visible through the operational history, but there is no explanation to what these structures are, when they were in use, and if they once or currently contain any potentially hazardous substances.

4. A summary of all known previous environmental investigations, follow up to spills and releases, and summary of previous and existing environmental permits and associated monitoring should be included for the whole facility over its operational history.

For example, there should be a detailed history of the wastewater and stormwater conveyance system and wastewater treatment system at the Site. When was the water conveyance system constructed? What parts of the facility utilized this system? Was it for process water, wastewater, or stormwater? What were the potential chemicals and potentially hazardous substances that may have been carried by this system? The location of the conveyance system and water flow paths should be identified on figures. What happened to wastewater and stormwater runoff prior to the development of the current conveyance system and wastewater treatment plant? Where was this water discharged? Did it go to Camas Slough? Was it conveyed to the Columbia River? Did discharge locations change over time?

5. It is not clear what criteria are used to evaluate Site Operational Units (SOU) and Operational Areas (OA) for data gaps, but it needs to be clearly laid out as there appear to be obvious oversights.
 - a. For examples, in SOU-A, the Woodyard, OA1, Woodmill in the Dock Warehouse area, the dock warehouse is described as being used for product storage and paper and shipped product and that there are no known chemicals used for operations at the Dock Warehouse. Despite this area being identified as having no data gaps, the draft work plan states that the Dock Warehouse was previously used for chemical storage. Even if no releases are known; unknown and unreported releases must be considered, especially prior to GP ownership. This area should be evaluated for all chemical groups known or suspected to be or stored, handled, or received at this warehouse dock.
 - b. In addition, it is unclear why impacts to other media (beyond groundwater and soil) are not considered. Site documentation indicates that some areas, potentially along the slough, may have up to 16 feet of remnant wood chips and materials that are at depth and that contaminants moving from the Site through groundwater may impact surface water and sediments. In addition to soil and groundwater, soil gas, sediment, surface water, and air quality may also have been or be impacted by environmental conditions at the Site. Soil gas may contain methane (from wood decomposition), or volatile organics from petroleum or solvent releases. Sediments may have been impacted from over water work/spills or early pre-wastewater treatment plant discharges to surface water. Because bleaching of pulp occurred at this Site for nearly one hundred years, persistent organic pollutants like dioxins and furans are a concern at and downstream of the Site. There is also no discussion on air quality at the site or wastes (ashes) potentially derived from boilers and power houses or discussion on air-quality equipment or its management that may have impacted environmental conditions at the Site.
6. The Preliminary Conceptual Site Model is incomplete, even for a preliminary discussion.
 - a. The list of chemicals of potential concern (COPCs) is incomplete due to the limited information included in the draft work plan and the associated sampling and analysis plan (SAP).
 - For example, chemicals potentially released to air during the operational history from kiln flue gases, powerhouse exhaust stacks, recovery and other boilers, pulp production and bleaching process, and equipment exhaust or dusts that would have impacted surface soils or sediments are not included. This might include chemicals or parameters like asbestos, dioxins and furans, heavy metals, carcinogenic PAHs, and pH with a potential distribution throughout the entire Site. If the Site is paved, a history of when it was paved and what areas were paved when, should be evaluated relative to air emissions and wind direction. It is

also possible that fugitive emissions impacted areas around the mill offsite in the surrounding community. If the facility was operating under any air quality permits, this history should be included.

- In areas where petroleum USTs or petroleum pipelines are present or petroleum impacts are observed or have been encountered, the suite of contaminants evaluated should be expanded beyond just petroleum hydrocarbons. VOCs (at a minimum BTEX compounds), cPAHs, heavy metals (or metals commonly associated with hydrocarbon releases and/or fuel additives), naphthalene (by VOCs/SVOC methods), PCBs, and TPH (NWTPD-Gx/-Dx), and fuel additives like EDB and EDC, as appropriate to the fuel source, are additional associated chemicals/chemical groups.
 - Potential receptors should be included for in-water impacts including aquatic organisms and other surface water users including any applicable tribal receptors.
- b. Data gap analysis for each of the areas show in the draft work plan is incomplete and neglects potential sources.
- Existing data not well characterized or included in discussion. For example, the summary of previous sampling and cleanup activities, if they have occurred, does not include basic information like volumes or mass of impacted materials, quantity of potentially hazardous substances released into the environment, numbers and locations of samples collected and analyzed, concentrations of chemicals identified, summary of mitigation activities, and quantities of impacted materials left in place, if the removal was not complete. There are no summary tables of the previous sampling results beyond descriptive statements and historical data is not included in original or summarized formats. There are also no data included for permitted features were monitoring and environmental sampling are already occurring (i.e., limited use landfill, wastewater treatment plant discharges, air emission collections and wastes). Most activities were 2011 or later and only two pre-2000 (1991 and 1994).
 - Historical practices and operational activities by all previous owners should be considered, not just those practices used by GP since 2000.
- c. A complete list of proposed analytes for the chemical groups proposed and applicable screening criteria from applicable or relevant and appropriate requirements (ARARs) is not included in the draft work plan or SAP. This information is essential for ensuring that the prescribed analytical program is appropriate to general adequate data quality for evaluating impacts at the Site and appropriately evaluating exposure routes for potential receptors.

7. Areas designated as inaccessible either due to the density of structures and below-grade features (red dashed line) or due to ongoing operations (green shading) are significant (Figures 4 and 14) and will not allow for the full evaluation of nature and extent of impacts at the Site. It is not appropriate to remove these areas from the remedial investigation scope, but to develop an approach that address concerns in those areas so that subsurface investigation work can continue.