

## REVIEW COMMENTS

DOCUMENT: Agency Review Revised Draft Remedial Investigation Work Plan for Upland Areas, Georgia-Pacific Consumer Operations LLC, Camas Pulp and Paper Mill (March 31, 2023) DATE: July 11, 2023

REVIEWER: Downtown Camas Association Community Advisory Group PAGE: 1 of 3

Comment No.	PDF Page & Section	Review Comments	CAG Theme
1	17/501 (Section 3)	<p>Additional historical information was added to this section. In addition, the proposed analyte (chemical) list to be evaluated and areas to be investigated was expanded.</p> <p>However, the work plan does not propose to evaluate all chemicals of potential concern (COPCs) at all locations. This may result in data gaps in understanding the nature and extent of contamination because not all locations throughout the Site were analyzed for all COPCs.</p>	Consideration of COPCs
2	42/501 (Section 3.5.2.4.3)	<p>This section notes there are no records of spills in the Fuel Oil Day Tank area. However, Washington State Department of Ecology (Ecology) comment on work plan for this section notes: <i>"Per the public record the largest single oil spill in recent mill history occurred at the No. 1 Day Tank on November 16, 1989. The spill was caused by the failure of a gauge on a fuel oil heater line. When the gauge blew out approximately 2,300 gallons of No. 6 Fuel Oil sprayed beyond containment. Of this total about 5 gallons reached the Camas Slough through a storm drain. Corrective measures following the incident included replacing the failed gauge, improving containment, and connecting the storm drain to the process sewer so that it would receive both primary and secondary treatment."</i></p> <p>This spill should be discussed in the site history discussion for this area.</p>	Operations Accuracy
3	47/501 (Section 3.5.3.2.1)	<p>This section indicates that all of the COPCs have low solubility and are typically associated with soil, not groundwater. However, this is only accurate for a few of the COPCs not all.</p> <p>In addition, there are no soil samples proposed for the Mill Modernization Debris Area. Soil mixed with the debris or beneath the debris should be analyzed for COPCs.</p>	Consideration of COPCs
4	54/501 (Section 3.5.4.1.2)	<p>COPCs for the former wastewater ditches are listed to include petroleum hydrocarbons, dioxin, polychlorinated biphenyls (PCBs), per- and polyfluoroalkyl substances (PFAS), and metals.</p> <p>Per Ecology comment to the draft work plan, COPCs should include other potential contaminants from historical process wastewater discharges, such as pesticides, because this ditch conveyed discharges from the Camas Business Center (CBC) property. Georgia Pacific should provide additional information regarding selection and/or exclusion of COPCs that could have been present in historical wastewater conveyed in the ditches.</p>	Consideration of COPCs

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5	58/501 (Section 3.5.5.1)	<p>COPCs associated with the former service station (OA-E1) and former gas station (OA-E3) are listed as petroleum hydrocarbons and benzene, toluene, ethylbenzene, and xylenes.</p> <p>Depending on the era these stations operated, gasoline may have been leaded. In addition, there may be other analytes associated with diesel and oil productions. Recommend COPC consideration and sample analysis be consistent with Ecology Table 830-1.</p>	Consideration of COPCs
6	63/501 (Section 4.1)	<p>The work plan does not recognize some COPCs as potentially being site wide issues. The work plan specifies testing for specific COPCs in areas where products were known to be used or there are known spills. However, after 140 years of operations, it is likely that there are unknown spills of COPCs or other mechanisms (e.g., tracking, spills while transporting the chemicals, historical air stack emissions) that could have spread them to other areas beyond where they originated.</p>	Consideration of COPCs
7	66/501 (Section 4.2) 67/501 (Section 4.3)	<p>Historical air emission and subsequent deposition is not recognized or discussed as a potential release mechanism and resulting exposure pathway.</p> <p>These sections also do not address Ecology's concerns of potential impacts to the wooded areas adjacent to the Site.</p>	Extent of Site
8	68/501 (Section 4.3)	<p>The work plan states: In accordance with Ecology's Terrestrial Ecological Evaluations under the Model Toxics Control Act (MTCA, Ecology 2017), which describes the Terrestrial Ecological Evaluation process, this site may qualify for an exclusion based on incomplete exposure pathways between ecological receptors and soil, and therefore, ecological risks are not required to be evaluated.</p> <p>Per Ecology comment to the draft work plan, Ecology's "Terrestrial Ecological Evaluations under the Model Toxics Control Act" (Ecology 2017) is required to be followed to determine whether ecological risks are required to be evaluated. Potential ecological receptors also include the benthic community and aquatic organisms as well as higher trophic level aquatic organisms. As part of the RI, a Terrestrial Ecological Evaluation should be completed to determine whether ecological receptors should be evaluated for cleanup level selection.</p>	MTCA Regulations
9	68/501 (Section 4.3)	<p>The work plan states: Groundwater underlying the Site is not currently used as drinking water supply. There are no current or future plans to use Site groundwater for drinking water. Areas surrounding the Site are served by municipal water supplies. Therefore, an exposure point for groundwater underlying the site does not currently exist and the exposure pathway is currently incomplete.</p> <p>Per Ecology comment to the draft work plan, MTCA defines "potable water" in Washington Administrative Code (WAC) 173-340-720(2) and lists specific criteria for not meeting this definition. "Lack of current drinking water use" is one of the criteria but does not in itself mean the groundwater is not "potable." The exposure pathway of groundwater as a drinking water source is still valid unless it can be shown that the potable water criteria of WAC 173-340-720(2) are not met. In the future, a restrictive covenant may be put in place to prevent the use of groundwater, but such restrictions are not yet in place and should not necessarily be presumed.</p>	MTCA Regulations
10	71/501 (Section 5)	<p>Section 5 has a new statement that "...if a COPC is either non-detect or detected at a concentration below the relevant MTCA cleanup level, monitoring for that parameter at that location will be considered complete."</p> <p>COPCs should only be removed from testing once sufficient data has been obtained to understand the nature and extent of COPCs at a Site. For example, seasonal groundwater fluctuations may affect chemical concentrations; therefore, additional monitoring beyond one event should be completed to establish the nature and extent of a COPC.</p>	Consideration of COPCs

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11	75/501 (Section 5.4.3)	<p>A description of test pit sampling activities has been added. It is noted that test pits will be excavated up to 5 feet deep and one soil sample will be collected from the bottom of the test pit. Additional samples at various depths during excavation may be collected based on field observations.</p> <p>If the release mechanism for contamination is from the surface, collecting a sample only at the base of the test pit excavation may not capture where contamination may be most concentrated. Some analytes do not provide field indications of contamination (e.g., metals, PCBs, PFAS). A surface soil sample should be collected and analyzed from each test pit, in addition to a soil sample at the base of each excavation.</p>	Consideration of COPCs
12	100/501 (Table 6)	<p>Note (m) indicates groundwater samples from CBC existing monitoring wells that are being analyzed for volatile organic compounds (VOCs) will be analyzed for tetrachloroethylene, trichloroethylene, 1,1,1-trichloroethane, 1,1-dichloroethene, and cis-1,2-dichloroethene. The historical investigations at the CBC site have shown a variety of VOCs to be present at the site. Method 8260 provides analysis for a full suite of VOC parameters. Samples should be analyzed for the full suite of VOC parameters.</p>	Consideration of COPCs
13	169/501 (Table 2)	<p>Pesticides have now been added as an analyte to be tested in soil and groundwater sample locations. However, it appears that the only pesticide proposed for analysis is dimethyl sulfoxide at the CBC area. Footnote 8 on PDF page 17/501 notes that based on available records, pesticides relevant to the CBC area include dimethyl sulfoxide. In addition, pesticides via analytical method EPA 8081 are not included on Table 5A (soil) or Table 5B (groundwater).</p> <p>Consider analyzing samples from the CBC area for a more complete suite of pesticides, rather than just dimethyl sulfoxide. List on Table 5A and 5B what pesticides will be analyzed in soil and groundwater samples and include applicable screening level values.</p>	Consideration of COPCs