



March 22, 2022

Mr. Chris Beale, AICP, Senior Planner
City of Puyallup
333 S Meridian
Puyallup, WA 98371

Re: East Town Crossing Project: 3rd Party Review of Habitat Technologies' Biological Evaluation, Essential Fish Habitat Assessment and Floodplain Habitat Impact Assessment

Dear Chris:

Confluence Environmental Company (Confluence) has reviewed the Biological Evaluation, Essential Fish Habitat Assessment and Floodplain Habitat Impact Assessment, revised December 14, 2021, submitted by Habitat Technologies for the East Town Crossing project (Biological Evaluation; Habitat Technologies 2021). Confluence reviewed an earlier version of the Biological Evaluation and prepared a review letter, dated November 21, 2021.

REVIEW FOR COMPLETENESS

Confluence found that this report was complete according to the regulations outlined in Puyallup Municipal Code (PMC) Chapter 21.07.050 for Floodplain Damage Protection.

TECHNICAL REVIEW

Confluence conducted a technical review of relevant sections of the Biological Evaluation (Habitat Technologies 2021) for compliance with PMC 21.07.050(1)(C). We have the following comments and requests for additional clarity or information:

Section 8.0 – Action Area: The revised report still does not describe how an action area of 300 feet was determined. Please explain the approach used to determine a 300-foot action area. We understand and agree that onsite development has the potential to impact migratory corridors, freshwater habitats, water quality, stormwater runoff, and flood elevations. However, there is no explanation of how a 300-foot action area was determined to be the appropriate distance.

For example, if the extent of the action area is driven by stormwater (both quantity and water quality), then what methodology/manual was used to determine how the stormwater would be treated? Does the manual used provide technically sound stormwater management practices to protect water quality and instream habitat such that the water discharged from the proposed stormwater management system is presumed to meet Washington State's surface water quality standards (Chapter 173-201A WAC), sediment management standards (Chapter 173-204 WAC),

groundwater quality standards (Chapter 173-200 WAC), and human health based criteria in the National Toxics Rule (40 CFR Part 131.36)? And as such, would stormwater meeting the RCW and WAC requirements not be expected to have measurable effects or impacts beyond 300 feet downstream of the project area?

Section 10.0 – Analysis of Project Effects: In review of the stormwater management plans, I understand that porous pavement is proposed across the site. However, the site soils are very poorly draining. I understand that a top layer of infiltrating soil will be placed on the site before pavement is installed. However, having only a shallow layer of soils that allow for infiltration before hitting poorly infiltrating soils means that stormwater will move laterally, and it is not truly an infiltration system. An analysis of the likelihood of lateral movement of stormwater into streams and the impacts from that need to be included in the analysis. The analysis also needs to include culvert and ditch size issues associated with increases in stormwater volume.

The City of Puyallup project engineers have several concerns about the proposed stormwater treatment system. Based on the design of the bioretention facility, it appears that high groundwater in the facility would result from the outlet of the control structure. This would result in permanently saturated soils. Confluence’s understanding is that the storm water standards require facility drain down within a regulated time period to ensure proper function of water quality features. With a permanently saturated condition, this would not occur, and thus, the bioretention facility would not work properly. This would result in impacts to water quality. It is my understanding that the City of Puyallup reviewers will be providing additional details and concerns about the stormwater treatment system. Based on these concerns, it is highly likely that the proposed stormwater system will need to be modified. Modifications to the stormwater system will need to be analyzed for effects to Endangered Species Act-listed species and habitats. The Biological Evaluation needs to be reconciled with the storm water design. Per PMC 21.07.050.1.C, the Biological Evaluation also needs to properly describe and document that water quality and quantity impacts are considered and mitigated to ensure a take to ESA listed species and habitats does not occur. ESA listed species are present in the receiving water body (Deer Creek) in near proximity to the site.; therefore, further documentation is needed.

Section 14.0 – Floodplain Habitat Effects Determination: The revised report still states under the water quantity section of the table, “All seasonal surface water runoff from the proposed new multi-family residential community would be captured, conveyed, detained, and treated onsite prior to release. This action would not allow for the movement of seasonal surface water from the newly developed areas into the City stormwater system or the adjacent streams leading eventually into the Lower Puyallup River.” It is still unclear if stormwater will be released into the stream or not. The first sentence states that the seasonal stormwater would be treated and released. But the second sentence states that no seasonal surface water from the site

would be allowed into the stormwater system or stream. So where is the water being released to?

There is also no discussion of how the filling of approximately 11 acres of floodplain mapped as Zone A0 would not impact flood storage. Typically, both FEMA and the City (PMC 21.07.060.f) require equivalent volume compensatory mitigation for any loss of floodplain storage volume. If compensatory flood storage is not proposed, please state so and provide the rationale as to why it is not proposed.

CORRECTIONS REQUIRED

1. We recommend that the Biological Evaluation not be revised until the City of Puyallup's concerns regarding the stormwater system have been addressed. Based on my discussions with the City, I anticipate design changes to the stormwater system will be needed and this will affect the effects analysis.
2. Once the issues with the stormwater system are resolved:
 - a. Please provide a discussion of how 300 feet around the project area was determined to be the action area.
 - b. Please provide an updated analysis of project effects incorporating any revisions to the stormwater system or provide a discussion and analysis of the lateral movement of stormwater into streams and how the bioretention facility can work with permanently saturated soils. The Biological Evaluation needs to be reconciled with the storm water design. Per PMC 21.07.050.1.C the Biological Evaluation also needs to properly describe and document that water quality and quantity impacts are considered and mitigated to ensure a take to ESA listed species and habitats does not occur. ESA listed species are present in the receiving water body (Deer Creek) in near proximity to the site; therefore, further documentation is needed.
 - c. Please provide a discussion of how the filling of approximately 11 acres of floodplain mapped as Zone A0 would not impact flood storage or provide a compensatory floodplain storage mitigation plan. Providing this information may require collaboration with the project engineer.

Mr. Chris Beale
March 22, 2022



If you have any comments or questions, please feel free to contact me.

Respectfully yours,

A handwritten signature in blue ink that reads "Kerrie McArthur".

KERRIE McARTHUR, PWS, CERP

Senior Biologist

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REFERENCES

Habitat Technologies. 2021. Biological evaluation, essential fish habitat assessment and floodplain habitat impact assessment, East Town Crossing residential community, revised December 14, 2021. Prepared for @ East Town Crossing, Puyallup Washington by Habitat Technologies, Puyallup, Washington.

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