DEPARTMENT OF ECOLOGY
State of Washington

Addendum #1 to

Upper Yakima River Tributaries Temperature Total Maximum Daily Load (TMDL)

December 2020

Publication 20-10-044

Publication and Contact Information

This document is available on the Department of Ecology's website at:
https://fortress.wa.gov/ecy/publications/summarypages/2010044.html

The related report for this addendum is: Upper Yakima River Tributaries Temperature Total Maximum Daily Load (TMDL): Water Quality Improvement Report and Implementation Plan[1]

Water Resource Inventory Area (WRIA): WRIA: 39 – Upper Yakima
Study Area Hydrologic Unit Code (HUC): 17030002 (Naches basin)

Data for this project are available at Ecology's Environmental Information Management (EIM) website at www.ecology.wa.gov/eim/index.htm.

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[1] https://fortress.wa.gov/ecy/publications/SummaryPages/1410037.html

Upper Yakima River Tributaries Temperature Total Maximum Daily Load (TMDL)

Addendum #1: December 2020

The Upper Yakima River Tributaries Temperature Total Maximum Daily Load (TMDL): Water Quality Improvement Report and Implementation Plan ("the TMDL") was approved by the U.S. Environmental Protection Agency (EPA) in 2016.

Since that time, the Washington State Department of Ecology (Ecology) has noted that some elements of the water quality implementation plan (WQIP) section of the TMDL need to be expanded or modified. There is also an update needed in the TMDL's executive summary, in the discussion of implementation activities.

The necessary additions and changes to the WQIP include:

- Final completion dates for performance measures for all activities in the entire table should be updated to 2026 (from 2024).
- Add this line to the bulleted list at the top of p. xix:
  - "Encourage beaver re-establishment, where possible and appropriate.[1]" … and add this footnote:
    - [1] Beaver re-establishment is an important tool available to help achieve water temperature reduction in the Upper Yakima River watershed. Beavers construct dams that impound water and retain sediment. In turn, beaver dams help to raise water tables, reconnect and expand floodplains, increase hyporheic exchange, increase summer stream base flows, and expand wetlands. All of these benefits help to cool streams during the TMDL critical period.
- Modify Table 18, as follows:
  - Under "Impairment Source: Solar radiation"/ "Causes of impairment: Lack of shade over creek," add "USFS" and "Other restoration partners" to "Groups Responsible for Actions"
  - After "Impairment Source: Lack of stream connectivity with hyporheic zones and floodplains,"
    - Add these elements to "Required Implementation Measures":
      - "Large woody debris (LWD), also known as large wood, should be added to streams where possible"
      - "Encourage beaver re-establishment, where possible and reasonable [1]". … and add this footnote:

- [1] Beaver re-establishment is an important tool available to help achieve water temperature reduction in the Upper Yakima River watershed. Beavers construct dams that impound water and retain sediment. In turn, beaver dams help to raise water tables, reconnect and expand floodplains, increase hyporheic exchange, increase summer stream base flows, and expand wetlands. All of these benefits help to cool streams during the TMDL critical period. Additionally, because beavers build and maintain their own dams, these water quality improvement structures are typically more cost effective and longer-lasting solutions than any created by humans.

- Under "Group(s) Responsible for Actions," add "Ecology, USFS, and other restoration partners."
- Under "Performance Measures / What," add "Miles of stream with added sinuosity, increased LWD and/or beaver re-establishment."