Appendix F:

CCNRD Mission Creek Outreach Plan

Chelan County Natural Resource Department
Mission Creek Restoration Phase I

Mission Creek Outreach Plan
May 2018

I. Background

The Mission Creek sub-basin has a long history of very low stream flow and water quality issues including 303(d) listings for in-stream flow, DDT/DDE, fecal coliform, temperature, dissolved oxygen, and pH. The Washington Department of Ecology has completed TMDL studies for temperature, fecal coliform, and DDT/DDE (for Mission Creek), which established target reductions of contamination and recommended actions to achieve those reductions. Most of the improvements rely on voluntary Best Management Practices (BMPs) to be implemented by landowners.

The TMDL studies were completed in coordination with the development of the Wenatchee Watershed Plan and regional Salmon Recovery Plan so that all recommended actions are consistent. The Watershed Plan and subsequent Detailed Implementation Plan (DIP) have extensive community support and contain prioritized actions specific to Mission Creek and its tributaries. However, very little has been implemented in Mission Creek since these reports were completed in 2008. Recent community meetings and discussions with stakeholders and Wenatchee Watershed Plan members indicate that a comprehensive effort is needed in Mission Creek with a strong outreach component to make measurable improvements to the watershed.

This draft public Mission Creek Outreach plan is intended to cover initial outreach through development of the Mission Creek Restoration Plan and project development. Chelan County Natural Resources Department (CCNRD) developed this Outreach Plan based on project stakeholders and their interests. The purpose of this Outreach Plan is to identify opportunities to engage stakeholders and landowners to improve water quality in the Mission Creek basin as well as provide CCNRD feedback throughout on the development of restoration actions which may have impacts on the community. Additionally this Outreach Plan aims to increase awareness about the importance of water quality, habitat, and watershed healgh in Chelan County and the efforts of CCNRD to address these important issues.

II. Goals and Objectives

a. Mission Creek Outreach Goals:
   i. Foster an engaged community that is aware of quality issues throughout the Mission Creek Watershed.
   ii. Improve community, landowner and stakeholder action to address water quality issues.
   iii. Establish simple, clear channels of communication in which information is shared with affected stakeholders tailored to their interests and communication styles
   iv. Sponsor coordination between landowners and stakeholder agencies/departments

b. Mission Creek Outreach Objectives:
    i. Provide technical support and written information to assist landowners at least 10 separate landowners between 2018-2020.
    ii. Communicate with the public and small groups twice annually in a group setting 2018-2024.
    iii. Raise awareness and leverage investment into restoring Mission Creek water quality by presenting at least 5 times to planning and funding committees between 2018 – 2020
    iv. Distribution of informational fliers to 1,500 local residents once annually 2018-2023

III. Target Audiences

a. *Mission Creek Watershed Council*- Interested landowners who participate in regular small meetings to direct CCNRD water quality improvement efforts
b. *Private Landowners*- Citizens who own property on or adjacent to Mission Creek
c. *Decision Makers and Key Stakeholders*- Commercial and Public entities who have key interest in the future management of Mission Creek which include but are not limited to: Department of Ecology, Chelan County Public Works, City of Cashmere, Icicle-Peshastin Irrigation District, Chelan-Douglas Health District, Chelan County Public Utility District No. 1, Washington Department of Fish and Wildlife, Washington Department of Natural Resources, US Fish and Wildlife Service, and US Forest Service
d. *General Public*- Private citizens who may live in or outside of the Mission Creek sub-basin but to whom the information provided within the Mission Creek Water Quality Restoration is pertinent

IV. Key Messages and Issue Statements –

a. Significance of Mission Creek Watershed
    i. Mission Creek is the smallest tributary to the Wenatchee River but is home to approximately 21 percent of the Wenatchee watershed population including the City of Cashmere, which draws a portion of its municipal water from the Wenatchee River. The U.S. Forest Service manages most of the uppermost portion of the watershed, with some privately owned forest.
    ii. Agriculture: The Mission Creek mainstem is home to approximately 500 acres of agriculture, mainly tree fruit. These agriculturists are currently not within any regional irrigation system service area and therefore rely solely on Mission Creek surface water and its groundwater aquafer for their irrigation and domestic needs
    iii. The Mission Creek watershed is home to a myriad of aquatic, terrestrial, and avian species but specifically provides confirmed breading and rearing habitat for two Endangered Species Act listed species in Native Summer Steelhead and the Northern Spotted Owl.

b. Fecal Coliform
    i. Fecal Coliform is a bacteria present in the feces of all warm-blood animals and humans.
    ii. Fecal Coliform can cause illness and epidemics in humans and can be contracted through not only ingestion but also skin expose to contaminated water. Fecal

Coliform in surface and groundwater is most often linked to nearby non-functioning septic systems.

iii. Corrective Action to eliminate Fecal Coliform from the Mission Creek basin relies on septic inspection, maintenance, and repair/replacement of defunct systems owned by private landowners and therefore is a keystone of outreach efforts

c. DDT/DDE
   i. DDT and its subsequent byproduct DDE are chemical compounds developed originally as an insecticide and widely used throughout the Mission Basin until its application was banned in 1972
   ii. DDT/DDE are persistent toxins which is easily absorbed into soils, bioaccumulate within aquatic and terrestrial organisms, and have a pro-longed half-life of up to 30 years. Effects vary between acute and chronic toxicities but include birth defects, infertility, developmental delays and cancers, in both humans and wildlife.
   iii. Reduction of DDT/DDE inputs rely on stabilizing stream banks and tracts of land previously occupied by orchard but converted to residential housing from eroding into Mission Creek. Bank protection will be executed through riparian plantings and bio-engineered stabilization techniques, new construction will depend on compliance with *Stormwater Management Manual for Eastern Washington.* The crux of both actions rely on public outreach

d. High Stream Temperature
   i. Water temperature exerts a major influence on biological activity and growth, as water temperatures rise overall water quality is degraded and aquatic species are adversely impacted
   ii. High stream temperatures are directly linked to the reduction of stream shading, disconnection from natural floodplains and the reduction of instream flows; all of which are present within the Mission sub-basin
   iii. The keys to curtailing high stream temperatures in Mission Creek are maximizing riparian buffer potential within the lower watershed, and restoring natural process in the upper. The former relies on outreach to private landowners, the latter rests on inter-agency coordination.

e. Low Stream Flow
   i. Mission Creek has been listed on the Department of Ecology's 303(d) list since 1996 for inadequate instream flow. As part of the Watershed Planning Process (effective January 2008) the Instream Resource Protection Program (IRPP) established a Mission Creek interim reservation of 0.03 CFS to meet short-term projected growth but requires the implementation of flow improvement projects and Rulemaking to increase the quantity of the Mission Reserve.
   ii. Strategies to improve instream flow for both instream and consumptive use include: Water Banking, Surface to Groundwater Right Transfer, Wenatchee Pump Exchange, Reserve Exchange, Regional Water Provider Expansion, Groundwater Streamflow Augmentation, and Natural Storage Reservoirs. To achieve success each of these strategies require both public entity and private landowner support and therefore are shared and negotiated through public forum and inter-agency coordination.

V. Tools

a. The Mission Creek specific Restoration Plan provides a process to improve water quality that will be shared with the public and stakeholder agencies alike. The Restoration Plan builds upon the Wenatchee Watershed Plan and Detailed Implementation Plan to synthesize previous efforts with the current studies, appraisals, and assessments to provide a multi-faceted tool to address the spectrum of water quality issues listed above on both public and private land.

b. Additional Outreach Tools include:
    i. Establishment and support of the Mission Creek Watershed Council
    ii. Large Community Meetings to inform the greater public on a regular basis of ongoing and future actions.
    iii. Targeted Small Group meetings focused on specific areas or needs, such as convening a group of the largest water right holders
    iv. Individual landowner consultation to develop discrete restoration projects on privately owned property that support water quality restoration
    v. Landowner to landowner communication carried out by Watershed Council members to inform neighbors
    vi. Meetings and coordination with key stakeholders agencies including but not limited to: Department of Ecology, Chelan County Public Works, City of Cashmere, Icicle-Peshastin Irrigation District, Chelan-Douglas Health District, Chelan County Public Utility District No. 1, Washington Department of Fish and Wildlife, Washington Department of Natural Resources, US Fish and Wildlife Service, and US Forest Service
    vii. Presentations to inter-disciplinary groups operating within the region such as the Wenatchee Habitat Subcommittee, Wenatchee Watershed Planning Unit, Public Utility Tributary Committee
    viii. A Mission Creek specific website to provide updates, meeting schedules and document distribution
    ix. Direct mailers to landowners to announce meetings, updates, and BMP factsheets
    x. Media articles in the local newspaper The Wenatchee World to inform the readers of Chelan County on the ongoing efforts within Mission Creek

c. Washington State Department of Ecology is responsible for effectiveness monitoring of the TMDL impairments, which will directly inform the effectiveness of this plan; this is especially true of DDT/DDE and Fecal Coliform as these main mechanism to address these impairments is through public outreach and education
    i. As other mechanisms to monitor effectiveness become available, such as a sponsor held targeted monitoring plan to track all water quality impairments or coordination with monitoring agencies conduction studies within Mission Creek, this plan shall be adapted on a two year cycle to reflect the greatest needs.