



# The Dalles Watershed Council

Fostering stewardship of Threemile Creek, Mill Creek and Chenoweth Creek watersheds

c/o Wasco County Soil and Water Conservation District

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## Mill Creek: A Ten-year Transformation

The Dalles Watershed Council (drafted by Board Member Dan Richardson)  
Adopted November 2009

### INTRODUCTION

As a central aspect of our community representation and action, The Dalles Watershed Council has taken on the rehabilitation of lower Mill Creek, the prominent stream flowing through the heart of the community. Mill Creek has been much impacted by more than a century of urban development and agriculture along its banks. Lower Mill Creek, for approximately 1.5 miles upstream from its confluence with the Columbia River, is an urban stream, with attendant impacts. Invasive weeds that choke out native vegetation, people who cut riparian trees and dump trash along the banks, and unexplained spikes in *E. coli* concentration are several of the most evident impacts. This or worse is often expected along urban streams. Still, there is life in and along Mill Creek. Native winter steelhead, Coho and fall Chinook salmon make runs up the stream, and there has been evidence of otters, beaver, ducks, great blue heron and osprey in recent years. For all the impacts on it, lower Mill Creek retains its promise of being a vital, functioning ecosystem and an asset to the community of The Dalles.

### BACKGROUND and PURPOSE of this DOCUMENT

The Dalles Watershed Council completed a stream health and mapping survey of lower Mill Creek in September 2008. Subsequently, the Council has begun rehabilitation efforts and planning along lower Mill Creek. To date, the rehabilitation has focused on public property between the Sixth and Ninth Street Bridges, particularly in the "Creek View" site. Work here has included removal of dense blackberry brambles, the planting of a few native shrubs and trees, considerable trash removal, and an experimental pruning of invasive *Ailanthus altissima* (Tree-of-heaven) thickets. There is much more to be done, at this site and others. The purpose of this document is to provide a succinct vision and action plan to guide that rehabilitation.

### VISION

Our ultimate vision: a 10-year transformation of lower Mill Creek from neglected waterway to a treasure in the heart of The Dalles.

The Council envisions working with streamside landowners and community partners to rehabilitate lower Mill Creek from a neglected urban drainage to a community natural area. We do not intend to embark on the restoration to a wild stream, but rather, that the public property along the stream would be encouraged to return to a semi-natural state that enhances fish habitat, serves native wildlife, improves ecological functions, and provides a minimally-developed community asset.

Reflecting our multidimensional vision for lower Mill Creek, the Watershed Council has articulated its vision in several descriptive statements. Our vision is that the stream area will become:

- Home to both city residents and natural systems;
- An aesthetically pleasing site for relaxation;
- Ecologically functional;

- Widely and gently used;
- Minimally polluted and impacted;
- A source of connection with the natural world; and
- Designed and protected for long-term, multigenerational use.

## **FUNCTIONS**

We will attain our vision by describing exactly what functions we hope to strengthen or reintroduce to the lower Mill Creek natural area during the long-term rehabilitation effort. This will provide measurable outcomes for ourselves and the public to monitor our progress. The Council believes that essential functions of lower Mill Creek should include three broad areas:

- **Biodiversity [Physical]**

- Habitat compatible with native plants, birds, mammals, pollinators, and other invertebrates.
- Rehabilitation for improved salmonid fish passage, refugia and spawning areas.
- Reduced invasive plant species (e.g. Himalayan blackberries, knapweed, Ailanthus, rush skeletonweed).
- “Heritage trees” (large native trees that will thrive in situ, providing both habitat and aesthetic value; e.g., Ponderosa pine in the immediate uplands).

- **Water Quality [Chemical]**

- Stream water that meets state water quality standards for basic parameters, including temperature, dissolved oxygen, pH, etc.
- Stream water that is monitored for chemical parameters and for pollutants, including *E.coli*, nitrates, lawn chemicals, and agricultural runoff.
- Shading and filtering provided by healthy riparian vegetation.
- Point-source pollutant filtering provided by vegetated swales at storm drain outlets, or similar measures.

- **Community Amenity [Cultural]**

- Natural area for relaxation and low-impact, non-motorized outdoor recreation.
- Open public access.
- Maintenance to keep trash and vandalism to a minimum.
- Opportunities for education and appreciation (class field trips, bird-watching, etc).

## **APPROACH**

We envision a unified, three-part approach to our rehabilitation effort:

- **Natural area enhancement** (to improve/encourage biodiversity),
- **Monitoring** (of water quality, invasive species, and trash), and
- **Community involvement** (to strengthen work projects, take ownership of the public space, and participate in educational opportunities).

**Project sites:** we propose to undertake our rehabilitation efforts by focusing work on public properties (i.e., the “Creek View” restoration site, and the Thompson Park streamside area); and secondly, by engaging, educating and assisting streamside private property owners. We hope to gain attention for the rehabilitation work by partnering with appropriate volunteer groups, working with streamside property owners, and by hosting public events near/along lower Mill Creek. Events might include an annual salmon festival, public Mothers Day nature walks/picnics, streamside concerts, and/or other streamside happenings.

## GOALS / ACTION PLAN

Our goals are laid out starting in winter 2009-10 and are organized in one-, three- and ten-year outlines. These are not expected to comprise an exhaustive list of rehabilitation efforts, but rather a framework of essential projects we believe will move toward strengthening the three broad functions listed above for lower Mill Creek. We propose to review this Action Plan annually, and update goals and timelines accordingly. The timelines (“Calendar year 2010,” etc.) are the proposed **deadlines** for each grouping of actions.

### 1-year goals: Calendar year 2010

- Create biodiversity & water quality metrics for long-term lower Mill Creek monitoring (e.g., salmon redds, invertebrates, pollinators, shading). These will be reasonable, useful, and repeatable. Has been discussed in recent years but never got started. Dan Richardson is lead.
- Collect first season of baseline data. See above.
- Evaluate fish habitat restoration opportunities. Done through Inter-Fluve project. See their Tech Memo from their visual survey/walking tour of lower Mill Creek.
- Adopt a short, descriptive vision statement of lower Mill Creek (“Natural area?” “Greenway?”) for use in public communication and discussion. Done. See minutes from 5/11/11 meeting.
- Identify 1 primary + 2 secondary project sites (Creek View area, Thompson park, condos); and areas of concentration for each (e.g., Creek View: restoration work and planting). Sort of done through Inter-Fluve project, but no action has been taken on suggested project sites.
- Work with landscape artist/architect to draw up plan for Creek View site. Priority for 2013. Inter-Fluve drew up a plan for the Creek View site but it seems cost-prohibitive. Need to come up with plan for managing riparian area until more extensive stream restoration is possible. Riparian improvements to date have been piecemeal.
- Create opportunities for combined education and restoration activities with students from local schools. Some events have been done with St. Mary’s (though the main teacher involved with TDWC left St. Mary’s a year or two ago) and the Gorge Explorers (summer program with Columbia Gorge Ecology Institute). Contact CGEI about plans for summer 2013.
- Identify and contact several appropriate partner groups (e.g., Scouts, CGCC, etc.). Determine needs and potential partner roles based on plan for site; then contact relevant partners.
- Begin working with trail group to incorporate trail into restoration vision. Ongoing. Bruce Lumper is contact for trail group (Friends of Mill Creek Greenway).
- Begin riparian restoration at identified project sites: reduce invasive species, plant natives in as many locations as possible (start planting early in the long-term plan, due to the time necessary for plants to establish).
  - Creek View: blackberries removed (follow-up to 2009 work); grass/wildflowers planted.
  - *Ailanthus altissima* cutting: evaluate 2009 cutting on thickets, repeat if successful.

- Acquire + plant 5-10 large (“heritage”) native trees in upland at Creek View?

Volunteer planting projects in previous years have made some progress at the Creek View site. Long-term volunteer Paul Halliday helps keep weeds down and plantings maintained. Need long-term plan to guide future planting efforts.

• Draw up a public relations plan, including plans for a community event on Mill Creek (float the tunnel on Halloween?) and for engagement projects (e.g., “drains-to-stream” stenciling). Public events will be easier once public access is more readily available through the trail. In the meantime, public volunteer events have been successful (planting, trash cleanup). Some kind of walking tour would be good, especially after the Council has a clear plan for the future.

• Outline a long-term management plan for restoration sites: Who will manage them, remove trash, etc? Still needed!

• Partner with Wasco Co. SWCD to put on a “Landscaping for Healthy Streams” workshop for streamside property owners.

- Create brochure: “streamside neighbors,” about how residents living along the stream can reduce impact, plant native species, increase shading.

Done in 2010. Continue to promote the material presented at the workshop.

• Identify desired grant-application topics/programs for future submission to OWEB, etc.

• Hold an annual public presentation on Mill Creek projects.

Council has done at least one public event annually. Current idea is “watershed fair” but plans are not solid yet.

### **3-year goals: 2012**

• Have majority of site restoration and plantings completed at primary site (Creek View). As noted above, there have been several volunteer planting days but a new assessment and plan are needed.

• Have restoration projects in progress at both secondary sites. No secondary sites were ever identified.

• Link the three identified sites via one or more longitudinal projects (e.g., in-stream habitat creation, linking trail, plantings, bird/bat boxes). Not yet addressed, though plans for Mill Creek trail are moving forward.

• Have 3 years of metric data (see 1-year goals) gathered; analyze, report and incorporate trend data into rehabilitation efforts. Not yet started.

• [Related] Have established a long-term water quality monitoring effort; possibly with partner groups, such as citizen volunteers or school group(s). Pesticide monitoring in partnership with DEQ has been ongoing, but no monitoring specific to lower Mill Creek has been established.

- Conduct additional riparian vegetation plantings, both at secondary restoration sites and on a spot-available basis; incorporate private property owners in planting effort. Plantings done for the following purposes:

- Stream shading,
- Reduction of invasives/establishment of native species,
- Habitat structural diversity (i.e, a variety of habitats, including snags, shrubs, etc),
- Pollinator habitat.

- Locate and establish 2 streamside private properties for rehabilitation/planting/habitat emphasis (i.e., establish 2 tertiary restoration sites).

- Create bioswales at streamside drainpipes. No progress to date.

- Public relations plan put into action.

- Draw up updated list of grant priorities.

- Hold first streamside community event.

#### **10-year goals: 2020**

- Compile 10 year's of metric data + 8-10 year's of water quality data; analyze, report to public.

- Primary and secondary sites restored and maintained with long-term plans established.

- Tertiary sites rehabilitated/in progress; active cooperation and positive working relationship with numerous (>4) streamside property owners.

- Sites linked via layers of longitudinal projects (see above).

- Have wide community and streamside property owner participation in two annual events (cleanup day + streamside appreciation event).

- Establish Action Plan for extending the greenway upstream or, alternatively, for implementing a second greenway on either Chenoweth or Threemile Creek.