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Eye On The Environment

Restoration Planning Directed At Swan And Seeley Area Wetlands

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Anyone who spends time tramping around in the forests of the Swan Valley knows the watershed is rich with wetlands. Yet, scattered across the valley are also a remarkable number of dry meadows that formerly were wet.

Homesteaders in the early part of the 20th Century attempting to prove up on their lands found it easier to drain the wet meadows than to clearcut the forests. It made more sense to create hay fields and pastures by digging ditches with shovels and horse drawn plows, than by wielding axes and crosscut saws to cut down the trees and then burn or blow up the stumps.

The rich soil in the wet meadows supported canary reed grass, which early residents apparently introduced from the Midwest for hay. Canary reed grass grows over-the-head tall with large seed heads and connecting roots that form dense mats. The tall grass is a beautiful yellow color in fall that goes nicely with turning larch needles. But the grass out-competes desirable native species wherever it is found and is now considered an exotic nuisance.

Tall as corn in an Iowa field, the canary reed grass served the needs of the early settlers. But it remains today as a monoculture where once a diverse variety of sedges, rushes and herbaceous plants thrived, providing habitat for ducks, geese, frogs, turtles, salamanders,

and likely trumpeter swans, which have long been missing from the Swan Valley but probably inhabited its lakes and wetlands at some time in the past.

Canary reed grass prefers damp soils near water. But it doesn't like wet feet. The grass can't tolerate the flooding our wet meadows receive each spring and early summer as the snow melts and the rain falls.

Many of the man-made meadows still serve landowners as originally intended. But most are no longer needed. Digital aerial mapping and wetland analysis have identified hundreds of drained wetlands on national forest and private lands, not only in the Swan Valley but also in the Clearwater and Blackfoot drainages.

Swan Ecosystem Center (SEC) is working with the U.S. Fish and Wildlife Service, the Flathead National Forest, and private landowners in the Swan Valley to restore drained wetlands no longer in service as hay fields and pastures. In 2009, a 12-acre wetland on a private parcel in the Kraft Creek area was restored by plugging an old ditch.

Ducks and geese were spotted dabbling and diving on the newly restored, seasonal pond in early summer 2010 as the waterfowl returned from their southern wintering grounds. After only one season, the native sedges had reclaimed much of the wetland area, with the canary reed grass restricted to a thin collar around the pond edges.

This fall, planning is underway on eleven additional projects encompassing 144 wetland and stream acres and involving eight private landowners, the Flathead National Forest and the Lolo National Forest.

A large wetland complex involving about eight small wetlands in the lower Cold Creek area and a single small wetland near Condon Creek on national forest land, both in the Swan Valley, are being analyzed for restoration that would occur a year or two from now.

At the same time, two wetlands on the Lolo National Forest near Seeley Lake are being considered for restoration through the collaborative effort underway among the Flathead, Lolo and Helena national forests and several nonprofits in the Southwest Crown of the Continent (Swan, Clearwater and Blackfoot watersheds).

This larger landscape effort would create efficiencies and reduce costs. Most funding would be available through federal programs initiating with the U.S. Fish and Wildlife Service and the Forest Service Collaborative Forest Landscape Restoration Program. The private landowners involved would also provide significant financial contributions and/or labor to complete the projects.

On private land, the five restoration projects being considered are in the Kraft Creek, Owl Loop, Cold Creek and Elk Creek areas of the Swan Valley. One project would restore a severely eroded stretch of Owl Creek that is important for native bull trout and westslope cutthroat trout.

The two wetland projects, on two separate private ownerships, would involve plugging or filling ditches on previously drained wetlands. Two additional Kraft Creek wetland projects would expand the ecological benefit of the restoration work already completed in the area.

Swan Ecosystem Center, working with U.S. Fish and Wildlife Service, is developing a watershed-wide prioritization process for wetland restoration, based on biological criteria, to rank potential projects and inform planning.

In June, SEC's Wetland Project Leader Mike Palladini, working with Northwest Connections field staff and several volunteers, completed a pilot season of waterfowl sampling in the Swan Valley aimed at a better understanding of how waterfowl are utilizing the Valley's wetland and stream systems. The sampling will create a template for locating, counting, and assessing glacial wetlands for waterfowl use throughout forested valleys in the Intermountain West. This survey will be repeated each summer for several years at randomly select ponds.

In October 2010, River Design Group, a Kalispell Consulting firm, was employed to assess the wetland complex in the Swan Valley's lower Cold Lakes area being considered for restoration. The company used LiDAR technology in low level, fixed-wing aircraft flights to determine the size, elevation and shape of the individual ponds and map the connecting waterways. Due to the complexity of the system this was a cost-effective method.

To assess smaller wetlands, however, conventional survey equipment and handheld GPS units operated by technicians on the ground will be the most efficient and cost-effective method of surveying the ponds. Ditch plugging and filling are relatively simple and inexpensive ways to restore wetlands, after the necessary permits have been acquired and professional design work has been completed.

Swan Ecosystem Center hosted several field tours in 2010 to the restored Kraft Creek area seasonal pond to draw attention to the wetland projects and get feedback from the public. People can expect more opportunities in coming months and years to learn about and participate in the planned wetland restoration activities.