Site/Monitoring Plan
Granger Ranch In Lieu Fee Wetland Mitigation Site
Upper Missouri Watershed – O'Dell Creek Headwaters
Prepared by
Montana Fish, Wildlife and Parks
1420 East Sixth Avenue
Helena, MT 59620-0701

INTRODUCTION

Pursuant to an agreement between the Corps of Engineers and Montana Fish, Wildlife and Parks, FWP collected fees associated with wetland impacts for twelve Section 404 permit applications in five watersheds from March 2004 until December 2006. FWP notified the Corps of its intent to terminate the program in December, 2006. The Corps responded in agreement to this request in January 2007 with the provision that FWP would complete one or more mitigation projects using the accumulated fees before June 30, 2008. FWP informed the Corps of its intent to withhold a portion of the accumulated fees beyond June 30, 2008 in order to defray monitoring costs for the site. Both agencies agreed by September 2007 that a single mitigation site would be developed in the Upper Missouri River watershed where eight of the twelve 404 permitted activities involved in the program are located. This Site/Monitoring Plan will describe how and when the proposed mitigation site will be developed, and the steps that FWP will follow to demonstrate to the Corps that it has met its obligation to create 16.64 acres of wetland mitigation.

SITE PLAN

A. Location, size, baseline condition (extent and inventory of existing wetlands and aquatic resources), site history, and type of aquatic resource compensation to be provided

The O'Dell Creek Headwaters (OCH) mitigation site is located in Madison County, Montana in Section 4, T7S, R1W.

This site is an historic wetland based on review of aerial photographs and maps of the site which date back to the late 1930's. Construction of three previous phases of restoration on the OCH site have clearly demonstrated the presence of a relict peatland under at least part of the OCH, some of which has a peat layer several inches in depth.

16.64 acres of compensatory mitigation resulting from this project is proposed to emanate from restoration of surface hydrology, reestablishment of primarily wetland vegetation, and rewetting of the wetland soils such that they meet the 1987 Corps Wetland Delineation Manual criteria. The baseline wetland delineation to document the pre-construction condition of the proposed mitigation site was conducted by Calypso Ecological Consulting in early October 2007 for DJP Aquatic Consulting Ltd.

converted from upland, as identified by the 2007 delineation of Calypso Ecological Consulting, to wetland. The post project monitoring and wetland delineations will facilitate identifying the exact location of the most substantial area of conversion.

B. Construction methods, timing and sequence

Project design and layout will be completed by April 30, 2008. Securement of necessary 404, 310, and other permits as well as cultural resource evaluation and SHPO clearance will also be accomplished by this date. The current conceptual design for the proposed project is the same as that for the 2005-2007 phases of the project. This involves plugging existing drainage ditches with fill available on the site, and constructing a meandered stream channel to convey primary stream flow across the site. The combined effect of the ditch plugging and directing the previous ditched water through a created channel running the length of the wetland is expected to bring the surface hydrology back up to historic level. Construction will be accomplished with appropriate excavation equipment and track hoes to minimize disturbance to the surface vegetation. The project will be built in May and June, 2008 with construction completed by the end of June.

C. Source of water supply and connectivity to other aquatic resources

The water source for this project is an unknown number of springs that arise within the OCH area, some within the exterior boundaries of the mitigation site. These water sources are believed to represent water emanating from the toe of the Cedar Creek Alluvial Fan, the primary geologic feature of the area which feeds wetlands along the east side of the Madison Valley from Ennis Lake south beyond the OCH area. The Granger Ranch holds at least two senior water rights to Madison River water upstream from the mitigation site as well as at least one water right from O'Dell Creek downstream from the proposed mitigation site. None of these rights are currently dedicated to restoration of the OCH site, either for the 2008 Phase IV project or Phases I or II. This is based on stream flow data maintained since the beginning of Phase I by DJP Consulting which clearly show that discharge from the restoration area at the downstream end of the OCH site has increased since the restoration began in 2005 (Don Peters, pers.comm.). Although there is anticipated to be some evaporative and evapotranspirative loss from the Phase IV mitigation site, this will be more than offset by the enhanced surface water flow from the site due to recharging of the now nonfunctioning wetland areas with the mitigation site. If at any point, it is determined that a Change Application is needed to dedicate surface water from existing Madison River rights owned by the Granger Ranch to offset water used in this or future phases of the OCH restoration, the Granger Ranch has indicated that they will consider filing that Change Application with DNRC.

D. Topographical/microtopographical requirements related to hydrology and vegetation establishment

The OCH area is relatively flat. A LIDAR flight completed over the area in September, 2007 may inform the project design to take advantage of all microtopographical features on the proposed restoration site, ensuring appropriate surface water elevations on both low and higher elevation sites to maximize resulting wet meadow and emergent wetland acres. Grading of

G. Weed control

Vegetative surveys completed on the site by Aquilavision, a Missoula-based firm contracted by Madison County to aerially map weed infestations in the county, have shown that there are mixed stands of upland grasses and forbs on the restoration site with a moderate density of Canada thistle. Spotted knapweed, leafy spurge, Dalmatian toadflax, and other noxious weeds found elsewhere in the Madison Valley have not been documented on the proposed OCH site. The standard for weed tolerance on the site will be adhered to, that is, that there will be less than 5% noxious weed infestation on the site. During the monitoring period, we intend to demonstrate a declining trend in the percentage of noxious weed infestation on the site.

H. Erosion control

Because of the flat topography of the entire restoration site and the relatively constant flow of the springs and spring creek channels in the vicinity, erosion is not a significant concern for the project. Where it does occur, seeding and woody plantings will be used to promote bank stability and to encourage native plants to compete with invasive species. Significant transport of soil and gravel from the stream banks, ditch banks, and streambed has not been observed in any of the Phase I, II, or III construction or post-construction phases. Based on the type of machinery that will be employed during construction and the small, patchy nature of sod mat harvest, there will be a very small area of disturbance, minimizing potential for erosion in upland and other sites. As part of the project's monitoring phase, there will be some replicated stream profile surveys to ensure that the completed project maintains the desired stream profile and grades. General bank stability will be monitored through ocular surveys and replicated photo points. Rather than installing groundwater-monitoring wells, the project will include continued maintenance and data gathering utilizing staff gauges in and near the restoration site. These data will be supplemented with data collected from 2005-2007, providing a multi-year, season-to-season overview of surface hydrology in the restoration area including stream discharge rate as well as demonstrating gaining and losing reaches of the channels in the OCH.

I. Management considerations including fencing and grazing and access

Management of the site in perpetuity will be guided by conservation provisions in an existing conservation easement between the Granger Ranch, NRCS, and Montana Land Reliance which was completed in 2007. All uses permitted by the existing conservation easement between Granger Ranch, NRCS, and Montana Land Reliance will continue to be permitted uses hereunder, except to the extent limited by the FWP-Granger Ranches Conservation Easement and this Site/Monitoring Plan. Such permitted uses which shall continue to be allowed under the existing conservation easement and this Site/Monitoring Plan shall include the right to access and use existing two-track roads and trails as provided in the existing conservation easement between Granger Ranch, NRCS, and Montana Land Reliance. As part of a subordinate conservation easement with the Granger Ranches to the above-referenced MLR/NRCS conservation easement, FWP has worked out the following grazing prescription that ensures protection of soil, vegetation, and overall wildlife habitat, and such grazing prescription will be monitored and enforced by FWP. The grazing prescription will take effect in 2020 when the

PERFORMANCE STANDARDS

A. Restore at least 16.64 acres of wet meadow and emergent marsh wetland
B. Maintain as-built streambed profile and detection/arrest of any head cuts that develop
C. Meet 1987 Corps Wetland Delineation Manual criteria for A. To ensure verification of the hydrology standard, install groundwater monitoring wells to demonstrate a saturated soil profile for at least 12.5% of the growing season. One well will be placed within each wetland polygon of at least 5 acres in size. If there is a single wetland polygon, two wells will be installed.
D. Protect mitigation site in perpetuity via easement between Granger Ranch and FWP. Secure conservation easement with Granger Ranch by June 30, 2008.
E. (There will be no streambed standard because no stream mitigation credits are needed to result from this project).
F. Less than 5% noxious weed infestation on the site
G. Water surface profile will be developed and monitored as the hydrology performance standard

REPORTING PROTOCOLS AND MONITORING PLAN

FWP will gather data through its monitoring program for the site that will meet the Corps' requirements for successful mitigation of wetlands on the site. This documentation will include:

1. Monitoring wetland boundaries during mid-growing season
2. Monitoring borrow sites to include replicated photos and estimated foliar cover and determination of dominants (estimated cover of at least 20%)
3. Wetland vs. open water mapping
4. Vegetation community mapping (general community overlay on aerial image)
5. Vegetation transects to detect community changes including status of noxious weed populations
6. Wetland delineation to gather wetland soils data
7. Stream monitoring, including stream gauge maintenance and data gathering to develop water surface profile and to add to the hydrologic dataset as well as to demonstrate maintenance of the as-built stream profile
8. General wildlife use including observations of reptiles, amphibians, mammals and other vertebrates
9. Maintain representative photo points as part of normal wetland delineation activities
10. Complete MDT functional assessment for the site preconstruction and at the end of the monitoring period
11. Project site maintenance will be facilitated by GPSing site boundary corners for long-term site visits and relocations. During the monitoring phase of the project, delineation transects and flag locations will be maintained and markers replaced as needed to ensure consistency and comparability of data collected.

Construction will occur in the spring of 2008. Monitoring will be conducted in 2009 and again in either 2010 or 2011 depending on the results of the 2009 data gathering effort. If wetland conditions develop on the site by 2010 or 2011 monitoring will end and a final report

THIS SITE/MONITORING PLAN IS ACCEPTED AND AGREED TO BY:

Granger Ranches Limited Partnership
By: Granger Ranch Management, Inc.
General Partner

Jeffrey A. Laszlo VP

Jeffrey A. Laszlo
Vice-President and Secretary

5/19/08

Date

Notice Addresses:

c/o Ann G. Laszlo
3 Locust Lane
Glen Head, NY 11545

c/o Jeffrey A. Laszlo
P.O. Box 691
Ennis, MT 59729

Montana Department of Fish, Wildlife and Parks

Kenneth P. McDonald

Kenneth P. McDonald
Administrator, Wildlife Division

5/18/08

Date

Notice Address:

Wildlife Division Administrator
Montana Fish, Wildlife and Parks
P.O. Box 200701
Helena, MT 59620