Balancing Wetland Protection with Landowner Interests in Utah County, Utah

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Alpine Ecological Resources (AlpineEco)
Denver, CO

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Association of State Wetland Managers
Western State Workshop
Park City, Utah
Balancing Wetland Protection with Landowner Interests: Outline

- Project Overview
- Project Setting
- Wetland Description
- Trail Alignment/Working with Landowners
- Mitigation Plan
- Status Report
- Conclusions
Wetland Protection and Landowner Interests: Project Overview

- Provo/Jordan River Parkway
  - Utah County Public Works Department
  - Project purpose
  - 14.5 miles of paved trail
- Jordan River
- Dry Creek
- Spring Creek
- American Fork Drain
- American Fork Boat Harbor
- Timpanogos Sewer Ponds
- Battle Creek
- Lindon Boat Harbor
- Geneva Ponds
- Orem-Sleepy Ridge GC
- Powell Slough
- Provo River
Wetland Protection and Landowner Interests: Project Overview
Wetland Protection and Landowner Interests: **Project Overview**

- **Section 404 of the Clean Water Act**
  - Wetland delineation
  - Threatened and endangered species surveys
  - Cultural Resources survey
Wetland Protection and Landowner Interests: Project Setting
Wetland Protection and Landowner Interests: Project Setting

- **Lake Fringe Habitats**
  - Mesic meadow (includes agricultural areas)
  - Disturbed
  - Riparian
  - Wetland
Wetland Protection and Landowner Interests: **Project Setting**

- Lake Fringe Habitats (Mesic Meadow)
Wetland Protection and Landowner Interests: Project Setting

- Lake Fringe Habitats (Disturbed)
Wetland Protection and Landowner Interests: **Project Setting**

- Lake Fringe Habitats (Riparian)
Wetland Protection and Landowner Interests: *Project Setting*

- Lake Fringe Habitats (Wetland)
Wetland Protection and Landowner Interests: **Project Setting**

- **Consortium for Protection**
  - June Sucker Recovery Implementation Program
    - USFWS, USBR, DOI
    - DNR, CUWCD, Utah Reclamation Mitigation and Conservation Commission, Provo River Water Users Association, Provo Reservoir Water Users Company, other local outdoor and environmental groups
  - Utah Lake Commission
Wetland Protection and Landowner Interests: **Project Setting**

- **Importance of Lake**
  - Irrigation
  - Recreation
    - Fishing
    - Boating
    - Birding
  - Wildlife Habitat
### Wetland Protection and Landowner Interests: *Wetland Description*

#### Summary of Field Work

<table>
<thead>
<tr>
<th>Uplands</th>
<th>Acres</th>
<th>% of Study Area</th>
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<tbody>
<tr>
<td>Mesic Meadow (uplands)</td>
<td>16.31</td>
<td>47</td>
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<td>8.42</td>
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**Total Vegetated Area:** 33.32 ac 95%
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Wetland Description

- **Wetland Types: Wet Meadow**

**Common Plants:**
- Distichlis spicata
- Phalaris arundinacea
- Phragmites australis
- Xanthium strumarium
- Lepidium latifolium
- Cirsium arvense
Wetland Protection and Landowner Interests: Wetland Description

- Wetland Types: Wet Meadow

**Primary Functions:**
- TES Habitat
- Groundwater discharge

**Secondary Functions:**
- Flood attenuation
- Water quality improvement
- Food chain support
- Shoreline stabilization

Suitable *Spiranthes diluvialis* habitat
Wetland Protection and Landowner Interests: **Wetland Description**

- **Wetland Types: Wet Meadow**

*Xanthium strumarium* monoculture several years after a utility line installation
Wetland Protection and Landowner Interests: *Wetland Description*

- **Wetland Types: Shallow Marsh**

  **Common Plants:**
  *Phragmites australis*

  **Primary Functions:**
  Groundwater discharge

  **Secondary Functions:**
  Flood attenuation
  Water quality improvement
  Food chain support
  Shoreline stabilization
Wetland Types: Deep Marsh

**Common Plants:**
- Schoenoplectus acutus
- Schoenoplectus tabernaemontani
- Schoenoplectus maritimus
- Typha latifolia
Wetland Types: Deep Marsh

**Primary Functions:**
- Water storage
- Food chain support
- Groundwater discharge

**Secondary Functions:**
- Fish and wildlife habitat
- Water quality improvement
- Shoreline stabilization
- Flood attenuation
Wetland Types: Scrub/Shrub

- **Common Plants:**
  - *Salix exigua*
  - *Tamarix ramosissima*
  - *Phalaris arundinacea*

- **Primary Functions:**
  - Wildlife habitat
  - Shoreline stabilization

- **Secondary Functions:**
  - Water quality improvement
  - Food chain support

**Wetland Description**
Wetland Protection and Landowner Interests: **Wetland Description**

- **Highly Unique Fens**
  - Permanent groundwater discharge
  - Peteetneet Peat soils
  - Historically: unique plants (and animals?)
  - ULT habitat/known populations
Wetland Protection and Landowner Interests: Trail Alignment

- Alternative Analysis: Drivers
  - Inherent value of natural habitats
  - Section 404: Avoidance and minimization/LEDPA
  - Endangered Species Act: Ute ladies’-tresses
  - Landowner interests
  - Trail useability: linkages, overall recreation potential, educational opportunities
Alternative Analysis

Four basic approaches:
- Maximum avoidance of wetlands
- Maximum avoidance of private property
- Most direct route
- Balance of wetland and private property avoidance

Preferred Alternative:
Alternative Analysis

- Four basic approaches:
  - Maximum avoidance of wetlands
  - Maximum avoidance of private property
  - Most direct route
  - Balance of wetland and private property avoidance

- Preferred Alternative:

  The Balanced Approach!!!
Preferred Alternative (Balanced Approach)

- Smart planning
- Use of existing roads, social trails, and other disturbed areas wherever possible
- Much of alignment based on current landuses and wetland functions
Wetland Protection and Landowner Interests: Trail Alignment

- **Maximum Avoidance of Wetlands**
  - Very costly; doesn’t meet project purpose (too far from lake)
- **Maximum Avoidance of Private Property**
  - Extreme wetland impacts
- **Most Direct Route**
  - Extreme wetland impacts; very costly; doesn’t meet project purpose
Landowner Interests: Current landuses

- Grazing: cattle, horses
- Agriculture: sod farm, corn, alfalfa, mink
- Rural residential (privacy)
- Recreation: hunting, camping, boating, golf
- Industrial/Commercial: Geneva Steel, Sewer District
- Wildlife habitat???
Landowner Interests (cont’d)

- Between 50 and 100 owners to negotiate with
- Many were “quick-claim” deeds
- Most parcels fallow or abandoned; likely historically agriculture/grazing
- Support from some: wetland and habitat preservation; “open space”
Wetland Protection and Landowner Interests: *Trail Alignment*

- **Landowner Interests (cont’d)**
  - Avoid condemnation
  - County is committed to teamwork/coordination
    - Dozens of landowners
    - Towns of: Lehi, Saratoga, American Fork, Orem and Vineyard
    - June Sucker Recovery Program
    - Geneva Steel
    - Timpanogos Sewer District
    - Residential developers
Wetland Protection and Landowner Interests: Mitigation Plan

- Wetland Preservation/Restoration
  - Conduct fen study
  - Purchase approximately 150 acres of wetlands currently under immanent threat (including fens)
    - Buy land from 10-20 different landowners
    - Already purchased a 30-acre parcel with at least 10 acres of deep marsh
    - Remove grazing, agriculture, development threat in perpetuity
Wetland Protection and Landowner Interests: Mitigation Plan

- Grazing Effects
Wetland Protection and Landowner Interests: Mitigation Plan

- Agriculture Effects
Wetland Protection and Landowner Interests: **Mitigation Plan**

- Development Effects
Wetland Protection and Landowner Interests: **Status Report**

- **Permit Status**
  - Summer/fall 2007

- **Construction Schedule**
  - Based on acquisitions and funding

- **Expected Opposition**
  - General support; some landowners still oppose
Strategic Mitigation Planning

- Know the players and the resource
- Look for threatened (at risk) or unique systems
- Coordinate with other agencies to work toward common goal—UDOT, Corps, USFWS, DWR
- Avoid piecemeal mitigation.
Wetland Protection and Landowner Interests: Gratuities

Paul Hawker, Utah County Public Works
Clyde Naylor, Utah County Public Works
URS Corporation
ASWM
Questions?

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