



**Seepage and Conveyance Technical
Feedback Group**

September 6, 2011
11704 Henry Miller Avenue
Dos Palos, CA



Agenda


- Introductions and Technical Feedback Group (TFG) Purpose
- Action Item Review and Update
- Interim Flows Update
- Seepage Parcel Groups Wrap Up
- Site Evaluation Process Wrap Up
- Environmental Compliance
- Design
- Plan Formulation / Design Data Collection Discussion
- Information & Data Exchange
- Next Steps and Follow-through

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Review and Context

**TECHNICAL FEEDBACK
GROUP OBJECTIVES**


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TFG Objectives

- Convey Interim and Restoration Flows while avoiding seepage impacts
- Identify potential projects that would avoid seepage impacts
- Identify locations for projects with potential for seepage impacts
- Develop a common understanding of the process, procedures and expectations for projects


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Process & Decision-making

- Monthly Meetings
 - Focused on Seepage Project Handbook and identifying projects to avoid seepage impacts
- Additional topics and meetings identified and considered as we proceed
 - Update Charter in Fall 2011
- Reclamation and its partner agencies retain decision authority for Program implementation

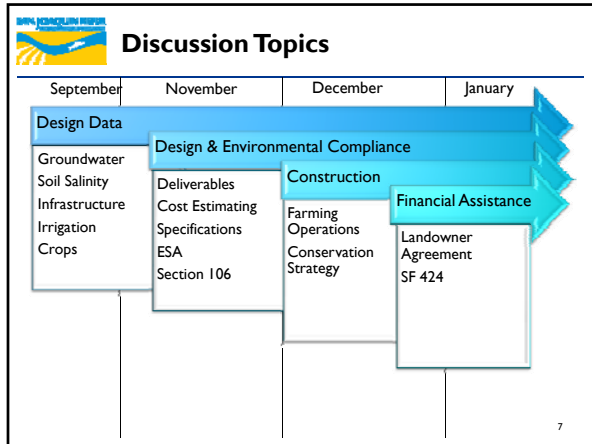
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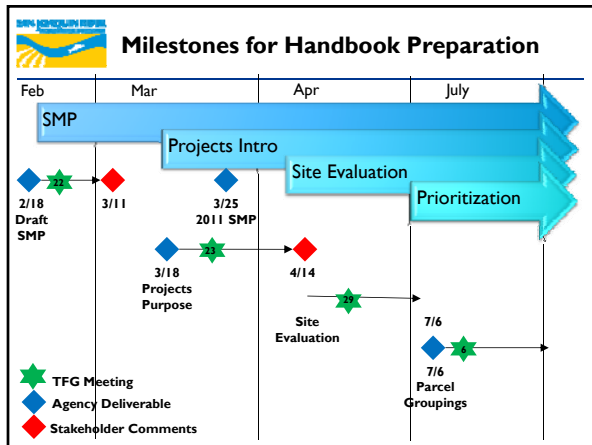


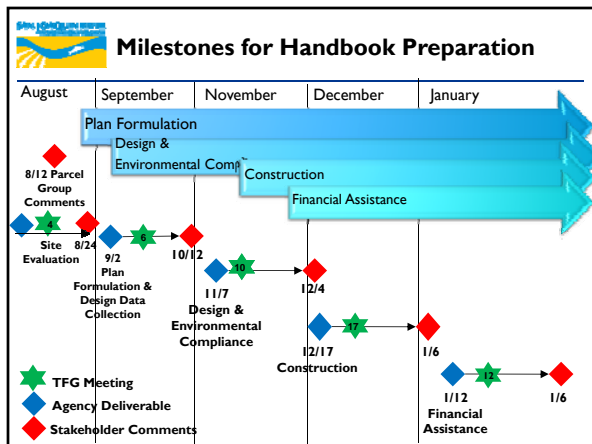
Discussion Topics

Mar	Apr	June/July	August
Projects Intro			
Introduction Background Purpose Potential Projects	Site Evaluation Data Collection Investigations Groundwater Soil Salinity Conductivity Water Quality	Prioritization Project Types Site-Specific Considerations	Plan Formulation Selection Criteria Weighting

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Review and Update

ACTION ITEMS


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Action Items

Action Items	ID'ed	Due	Assigned to:	Status
1. Brainstorm on seepage project scenarios at future meeting	8/4/11	9/6/11	Team	
2. Coordination with NULE- report on opportunities for cross evaluation work and exchange information on drilling permit	8/4/11	9/6/11	Scott Rice, DWR	
3. Post Plan Formulation Criteria from brainstorming session in tabular form on website	8/4/11	9/6/11	Ransdell	Complete

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Elements of the Seepage Project Handbook

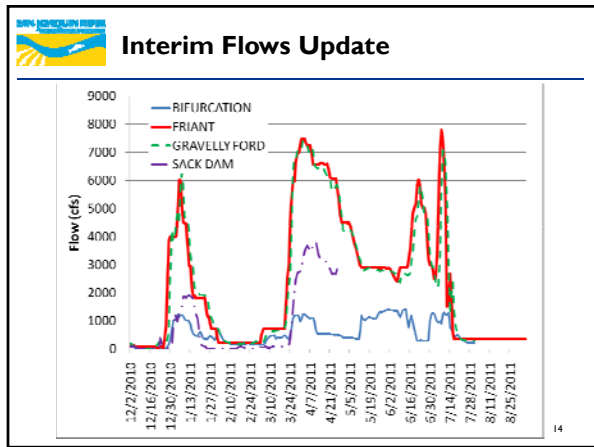
- Introduction
- Site Evaluation
- Plan Formulation
- Design Data Collection ← Today
- Design
- Environmental Compliance
- Construction
- Financial Assistance

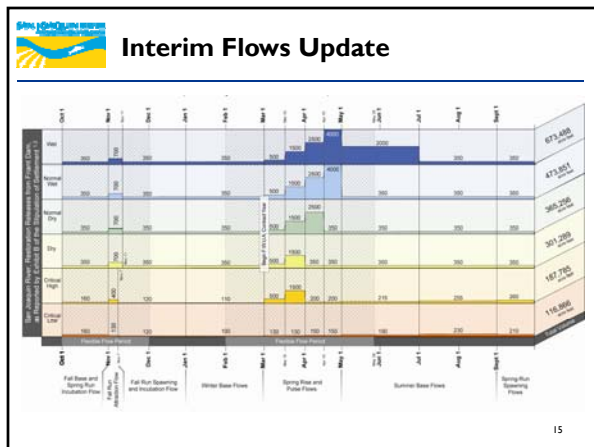
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INTERIM FLOWS UPDATE

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Interim Flows Update


- Fall Pulse
 - Default schedule: November 1 – 10
 - Fall run chinook-salmon attraction pulse
 - 2011 pulse may change due to Mendota Pool draining

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SEEPAGE PARCEL GROUPS


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Parcel Group Comments


- No written comments received
- The book is still under development
- An additional opportunity to comment will occur once existing site-specific data is collected for all seepage parcel groups

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 **Project Implementation Scenarios**


- Purpose:
 - Think through seepage projects from a regional perspective
 - Identify scenarios with potential issues
 - Brainstorm solutions

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 **Project Implementation Scenarios**

- Assumptions / Simplifications:
 - Continued agricultural use between a property and the river reduces water quality beyond acceptable levels for interceptor lines
 - 'Easement with riparian habitat' represents all types of non-agricultural use

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 **Project Implementation Scenarios**

- Project Types
 - Easement with riparian habitat
 - Easement with ag use
 - Interceptor Line
 - Slurry Wall
 - Others?
- Potential Solutions




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SITE EVALUATION PROCESS


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Site Evaluation Process Comments

- Include assessment criteria for regional benefits such as habitat quality, air quality, etc.
- Needs timelines
- Clarify opportunities for non-landowner third parties to provide input
- Suggested review panel to evaluate projects and public workshops before plan formulation


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Site Evaluation Process Comments


- Include additional project types such as riparian habitat & plantings along drains
- Solve habitat constraints if found on site for a seepage project
- Include a search for prior encumbrances in records review
- Records review to search for property's inclusion in other projects such as water quality, species recovery, general plans

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 **Site Evaluation Process Comments**

- Determine flooding frequency and extent on property during records review
- Search for inclusion in ESA habitat corridors, potential to host ESA species, other ESA sighting resources
- Conduct biological site assessments

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 **Site Evaluation Process Comments**

- Next Steps:
 - Updated text in the next draft Seepage Project Handbook to address comments



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Michelle Banonis

ENVIRONMENTAL COMPLIANCE PROCESS

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Overview of the Federal Compliance Process for Seepage Management


SCTFG Meeting

September 6, 2011



**Background:
Why Do We Have Regulations?**



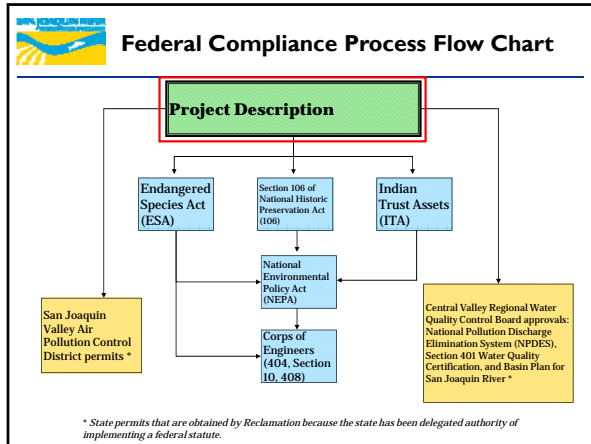


**Background:
Federal Undertaking**

What is a “federal undertaking”?

A federal undertaking is any action that:

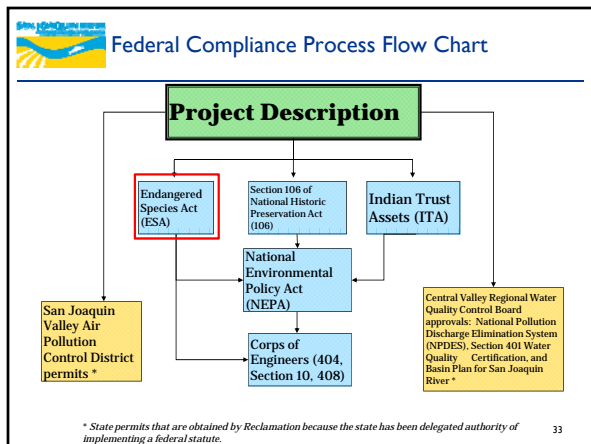
- Has **federal discretion**
(i.e., permits, approvals, etc.)
- Is on **federal property**
- Is **funded** wholly or in part **through a federal source**



Project Description

What is a Project Description?

- Explanation of proposed action and the methods used to get to an expected outcome.
- Used to explain to agencies and the public what you are planning on doing in order to assess impacts that could be reasonably foreseeable.
- Consists of:
 - Alternatives considered
 - Objective of proposed action
 - Project limits (depths, quantities, length, staging areas, etc.)
 - Construction methods and best management practices (types of equipment needed, dust abatement, etc.)

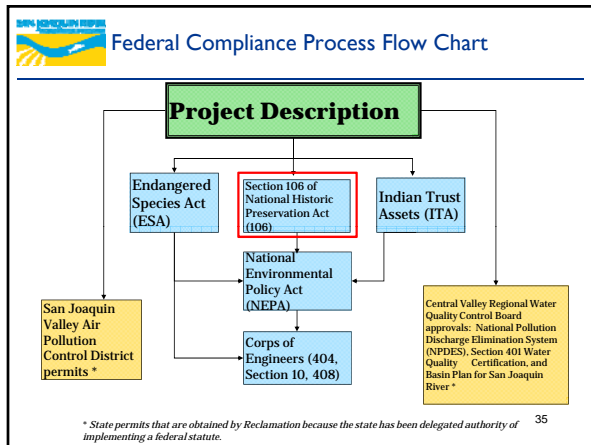


Endangered Species Act (ESA)

What does ESA mean for implementing projects identified in the Seepage Management Plan?


- Field reviews/surveys needed to identify both:
 - i) presence/absence of species
 - ii) presence/absence of potential habitat
- Reclamation then prepares an effects analysis and makes one of the following determinations:
 - No Effect
 - May effect, not likely to adversely affect (NLTA)
 - Likely to adversely affect (LTA)
- If the determination is NLTA or LTA, consultation must be undertaken with U.S. Fish and Wildlife Service and/or National Marine Fisheries Service

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National Historic Preservation Act (Section 106)

What does Section 106 mean for implementing projects identified in the Seepage Management Plan?



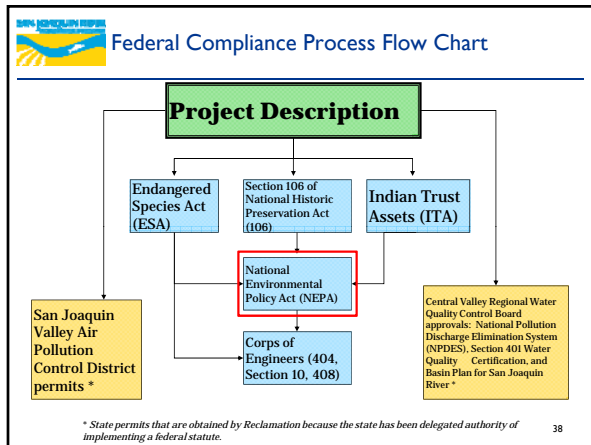
- Field surveys will be needed to identify:
 - i) Surface cultural and archaeological resources
 - ii) Subsurface cultural and archaeological resources
 - iii) Eligibility status of resources

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National Historic Preservation Act (Section 106)
Continued

- Reclamation gathers findings in a report and sends a letter to the California State Historic Preservation Officer (SHPO) with a request for concurrence with the finding of:
 - No Historic Properties Affected – No eligible resources in the area that will be effected
 - No Effect – No change to an eligible resource
 - No Adverse Effect – A change to the resource, but not damaging
 - Adverse Effect – Will alter, damage, destroy, or change the resource and its eligibility
- SHPO has 30 days to respond with their concurrence with Reclamation's findings
- If action has an Adverse Effect, then need additional coordination through a Memorandum of Agreement (MOA).

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National Environmental Policy Act (NEPA)

- NEPA documents impacts to environmental resources including, but not limited to:
 - Aesthetics
 - Air Quality
 - Biological Resources
 - Cultural Resources
 - Environmental Justice
 - Geology and Soils
 - Hydrology (water quality, groundwater, etc.)
 - Noise
 - Public Health
 - Recreation
 - Socioeconomics
 - Transportation
 - Utilities
 - Etc.

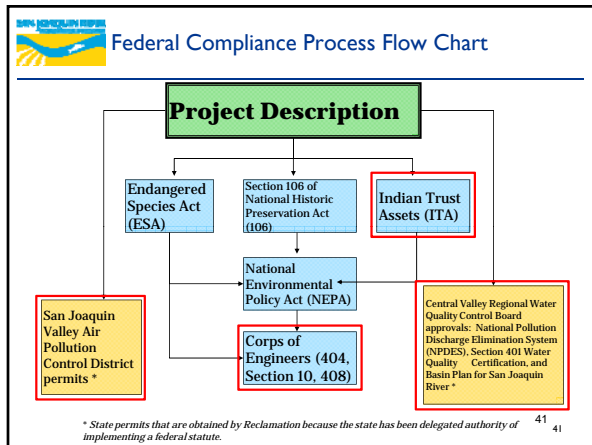
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National Environmental Policy Act (NEPA)
continued

Public disclosure process is the heart of NEPA

- Requires all federal agencies to fully and publicly disclose any reasonably foreseeable adverse impacts that could result from the federal undertaking
- Reclamation may prepare and distribute the following documents for NEPA:
 - i) Categorical Exclusion Checklist (CEC)
 - ii) Environmental Assessment (EA) and Finding of No Significant Impact (FONSI)
 - iii) Environmental Impact Statement (EIS) and Record of Decision (ROD)
- An EA and EIS both require public comment periods.

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Other Approvals with Federal Authority

- **Indian Trust Assets** – Approval of a Department of Interior undertaking for the protection of property interests held by the U.S. for the benefit of Indian Tribes or Individuals.
- **San Joaquin Valley Air Pollution Control District (SJVAPCD)**– Permits for ozone, particulate matter
- **U.S. Army Corps of Engineers Permits** - Permits for work within Waters of the U.S., navigable waterways, and for modifications to federal flood control projects
- **Central Valley Regional Water Quality Control Board (CVRWQCB)** – Permits for construction activities in relation to water quality protections (stormwater and activities within state waters), basin plan authorities and enforcement



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General Compliance Timelines for Projects

If project expected to have no or minor impacts to cultural resources, ESA, etc.:

- Field surveys for Section 106 and ESA: ~1 day -2 weeks (includes time to schedule staff and coordinate with property owners, depends on size of site, etc.)
- Compilation of field results: ~ 2 weeks
- NEPA (assuming CEC): ~ 3 days
- Section 106 SHPO concurrence: 30 days

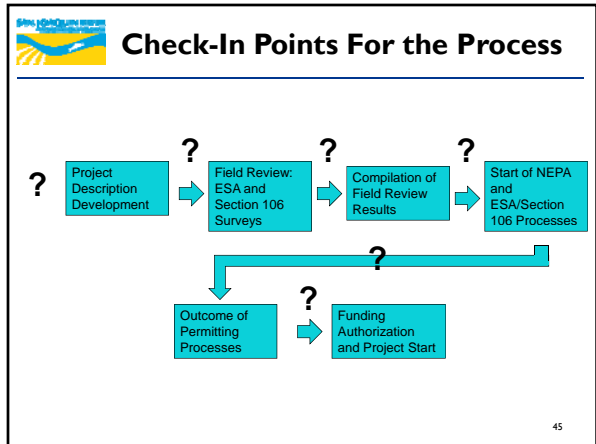
Total compliance time for minor project with no adverse or significant impacts to resources: ~ 2 months


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General Compliance Timelines for Projects
continued

- If greater impacts to resources are suspected from a project based on field reviews, then would need to assess timelines on a case-by-case basis
- Reclamation would develop a schedule for these projects that outlines the process and expected timelines

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Contact Information

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Dave Mooney

DESIGN PROCESS


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Design Process

- Purpose of Design Section of the Seepage Project Handbook
 - Common understanding of Reclamation design process
 - Process provides accountability during design
 - Defines design team and individual roles in the final design process
 - Provides guidelines for final design and specifications


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 **Final Design Process**


- PREWORK – Request work and establish funding source
- SCHED – Scheduling, staffing, define design data requirements
- CONCEPT – Conceptual design (30%)
- DESIGN – Final Design (60%)
- DRAFT SPEC – Preparation of draft specifications (90%)




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 **Final Design Process**


- REVIEW – Specifications review
- FINAL SPEC – Final specifications and design
- BOOKPRE – Prepare bid solicitation
- BID – Bids solicited, amendments issued, etc.
- AWARD – Contract Awarded
- CONSTR – Construction




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 **Design Process Details**

- Identify design team
 - Reclamation
 - End User
 - Establish End User level of involvement
- Develop scope of design
 - Functional requirements
 - Operational requirements




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 **Design Process Details**

Design - CONCEPT Stage (30%)

- Field exploration
- Materials testing
- Hydraulic studies
- Cost estimate and schedule
- TM's
- Value engineering




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 **Design Process Details**

Design - DESIGN Stage (60%)


- Selected conceptual design is refined
- Design data collection, testing and analysis should be completed
- Cost estimate and schedule updated
- Permit requirements are initiated
- Preliminary drawings completed

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 **Design Process Details**

Design - DRAFT SPEC Stage (90%)

- Lab testing reports completed
- TMs finalized and approved
- Specifications sent for review
- Quantities and bid schedules complete




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Design Process Details

- Specification Review
- Final Specifications and Design Summary
- Decision Memorandum Completed:
 - Final design briefing, drawings made available
 - Outstanding items and responsible parties
 - Final Specifications completed and sent to contracting office
- Bid
- Award
- Construction

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Projects Next Steps


- Next Meeting – Discuss Seepage Project Handbook sections on Design and Environmental Compliance

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PLAN FORMULATION

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 **Plan Formulation Follow Up**

- Purpose: Selection of a project from a list of initial alternatives
 - Need a defensible approach
 - Use selection criteria
 - Weight criteria according to importance
- Obtain final project type and move on to design data collection and then design


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 **Potential Projects**

- Real Estate
 - Easements
 - Acquisition
- Physical
 - Tile drains
 - Slurry walls
 - Drainage ditches
 - Shallow well pumping
 - Conveyance improvements




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 **High Priority Criteria**

- Effectiveness of project in protecting lands and giving ability to increase flows to 4500 cfs
- Landowner acceptability, including upstream and downstream landowners
- Regional solutions ranked higher
- No decrease in water quality (i.e. temp, Se)
- Site Suitability (near the seepage source)
- Long term viability & low O&M costs
- Opportunities for habitat improvements
- No barriers to fish passage (stranding)

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 **Medium Priority Criteria**

- Project ownership with landowner
- Does not increase subsidence
- Alignment with other programs (district water quality plans, regional plans)
- Creates rearing habitat for fish
- Cost




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 **Low Priority Criteria**

- Environmental Compliance
- Regulatory permitting (time)




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 **Example Criteria Table**


Topic	Criteria	Unit
Ability to increase flows to 4500 cfs	4500 cfs WSE below ground surface	Y/N
Effectiveness of project in protecting lands	-1 point for each 0.5 groundwater level above threshold at 4500 cfs	feet
Landowner acceptability, including upstream and downstream landowners	1 point for each landowner	point
Regional solutions ranked higher	+1 for each additional seepage parcel group solved	point
Temperature	-1 point for each increase in temperature	degree
Water Quality (especially Selenium)	-1 point for each 0.5 increase in Selenium	ppb

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 **Process Comments**

- Projects sited at worst locations first
- This process does not preclude the ability for fish to be in the river while projects are installed
- Temporary solutions can be used until such time as funds are available for higher dollar options

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 **Next Steps**

- Plan Formulation Seepage Project Handbook section for review by 9/16




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DESIGN DATA COLLECTION

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 **Design Data Collection Request**

- Can be lengthy process
- Important to define initial design data needs early in the process
- Begins before design concept phase

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 **Data Types**

- Geotechnical Investigation
- Surveying




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INFORMATION & DATA EXCHANGE

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Challenges


- Ownership
- Operations and Maintenance
- Water Discharge
- Water Rights
- Long-term Monitoring
- Cost-share
- Terms of an Agreement

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Patti Ransdell

NEXT STEPS AND FOLLOW-THROUGH

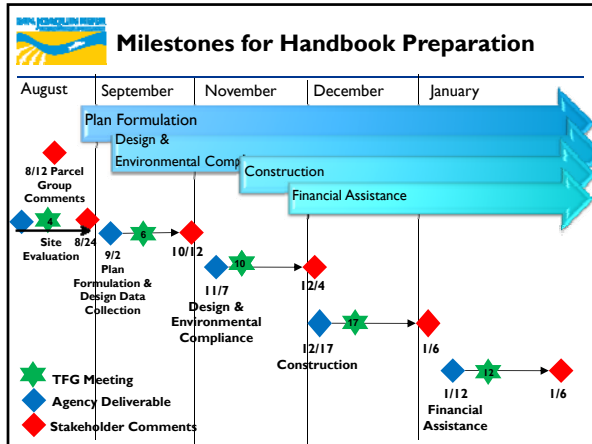
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Next Steps

- Design Data Collection, Plan Formulation sections of SPH posted
 - September 16
- Feedback from Landowners on Design Data Collection, Plan Formulation sections of SPH
 - Due October 12
- Next Meeting Date:
 - November 10

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Action Items and Review

- Update Action Items
 - Revised Actions
 - New Actions

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Contact

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