



**Seepage and Conveyance Technical Feedback Group**

August 4, 2011  
 11704 Henry Miller Avenue  
 Dos Palos, CA

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**Agenda**

- Introductions and Technical Feedback Group (TFG) Purpose
- Action Item Review and Update
- Seepage Project Implementation Steps
- Book of Seepage Parcel Groups
- Site Evaluation Process
- Plan Formulation Criteria Brainstorming
- 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
<b>Projects Intro</b>			
Introduction Background Purpose Potential Projects	<b>Site Evaluation</b> Data Collection Investigations Groundwater Soil Salinity Conductivity Water Quality	<b>Prioritization</b> Project Types Site-Specific Considerations	<b>Plan Formulation</b> Selection Criteria Weighting

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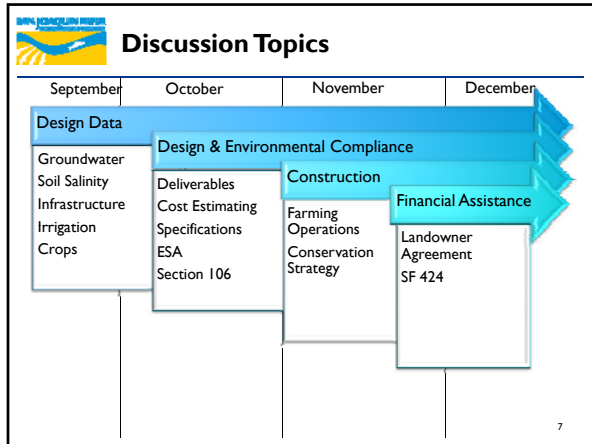
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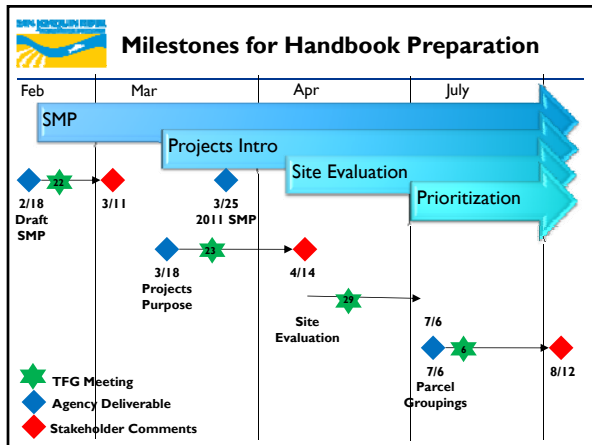
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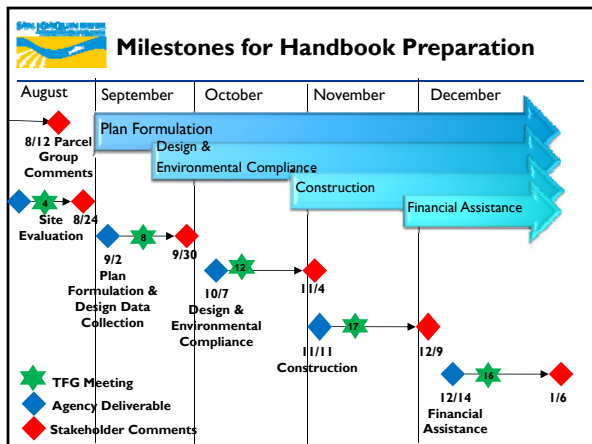
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Review and Update

## ACTION ITEMS

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### Action Items

Action Items	ID'd	Due	Assigned to:	Status
1. Restart weekly operators call to discuss transition of flows	7/6/11	7/13/11	Mooney	Completed
2. Add crop type to parcel data	7/6/11	8/4/11	Harrison	Completed
3. Can parcel groups include individual APNs?	7/6/11	8/4/11	Harrison	
4. Provide RMC with list of landowner names from priority parcel groupings	7/6/11	Prior to RMC Exec Team Mtg.	Harrison	Complete
5. Confirm times/locations of upcoming meetings	7/6/11	7/6/11	All	Complete
6. Post deliverables from July 6 meeting on website upon approval from landowners via RMC	7/6/11	7/30/11	Harrison, Ransdell	
7. Have a general conversation with Kings River area Regional Board Staff about types of info they like to see on permits	7/6/11	8/4/11	Sarge Green	

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Dave Mooney

## SEEPAGE PROJECT IMPLEMENTATION STEPS

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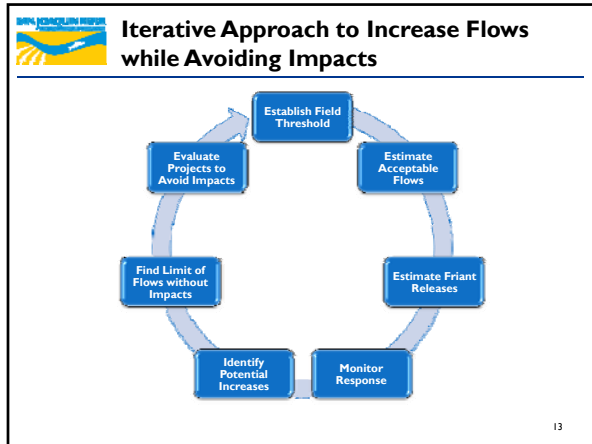
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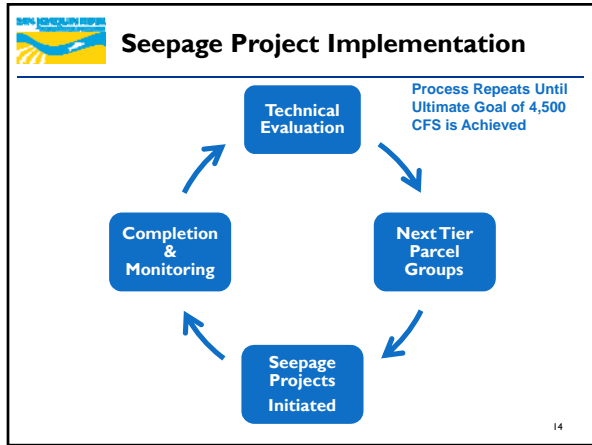
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- Elements of the Seepage Project Handbook**
- Introduction
  - Site Evaluation
  - Plan Formulation ← Today
  - Data Collection
  - Design
  - Environmental Compliance
  - Construction
  - Financial Assistance
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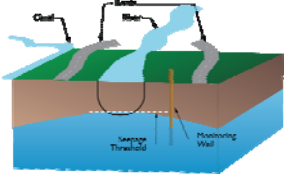
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**Identification of Constraints**



- Technical Evaluation – Book of Seepage Parcel Groups from SMP
- First Tier Parcels Identified
- One of these is Parcel Group “A”
- Flows held below thresholds

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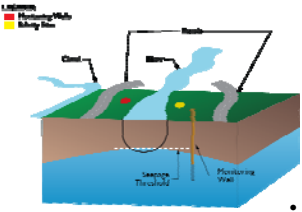
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**Construction of a Project**



- Projects Initiated – Seepage Project Handbook Process
  - Site Evaluation
  - Plan Formulation
  - Design Data & Design
  - Environmental Compliance
  - Construction
  - Financial Assistance
  - Project Landowner Agreement
- Flows held below thresholds

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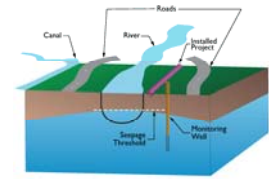
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**Adjust Flow Release Limitations**



- Project Complete – Monitoring and Evaluation
- Long-term Monitoring
- Is the project functioning?
- Increase flows to new flow constraint

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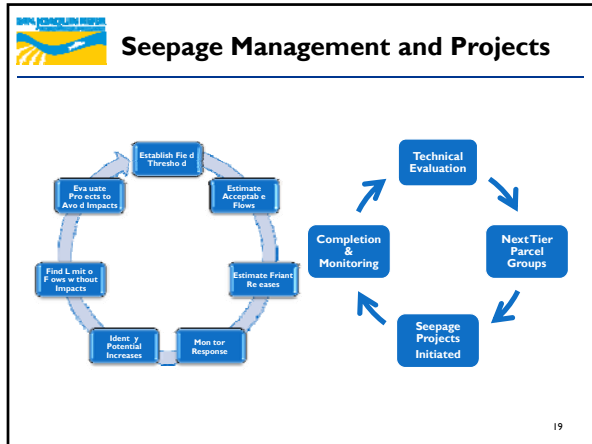
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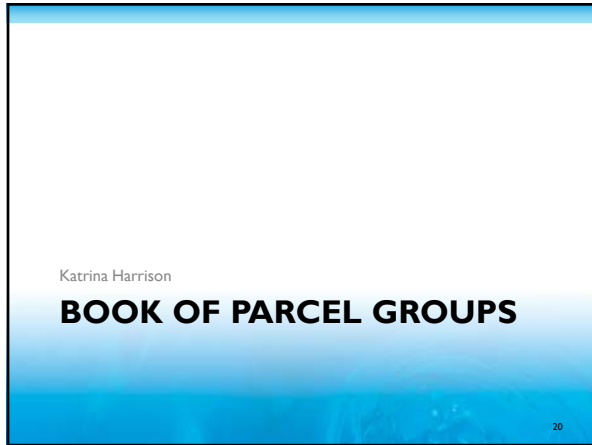
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- Input Needed on Parcel Groups**
- Are there other boundaries we should consider?
  - New ownership lines?
  - Others?
  - Comments due Friday, August 12
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**Input needed on Parcel Group Data**

- Existing Data Includes:
  - Groundwater Data
  - Anecdotal Inundation Data
  - Cross-sections
  - Profiles
  - Locations
- Comments due Friday, August 12

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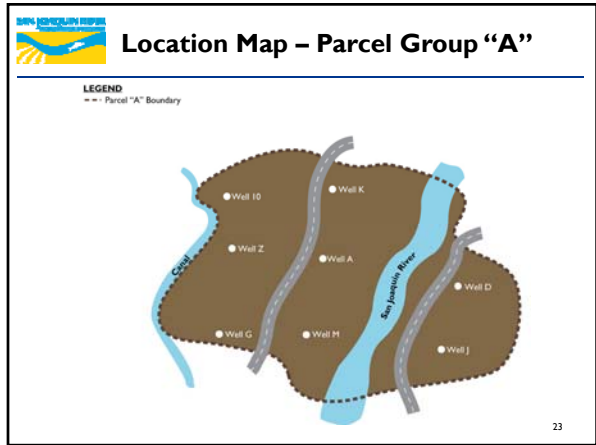
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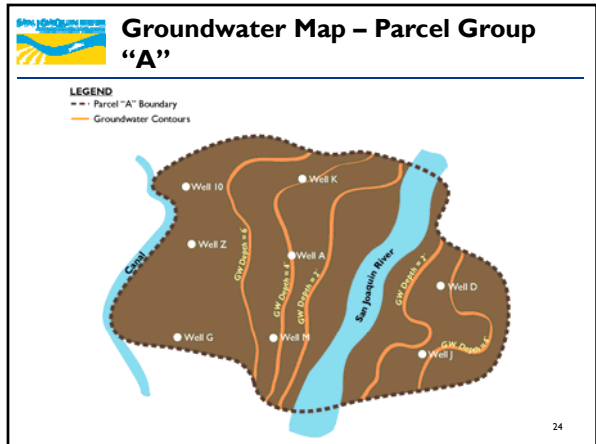
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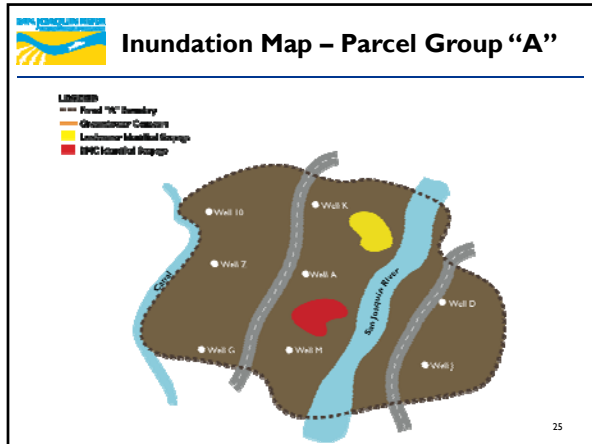
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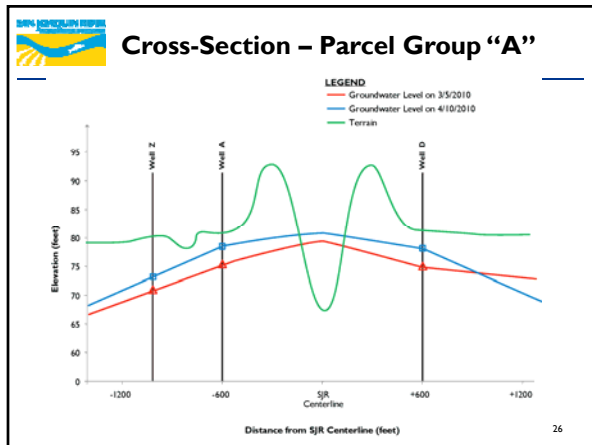
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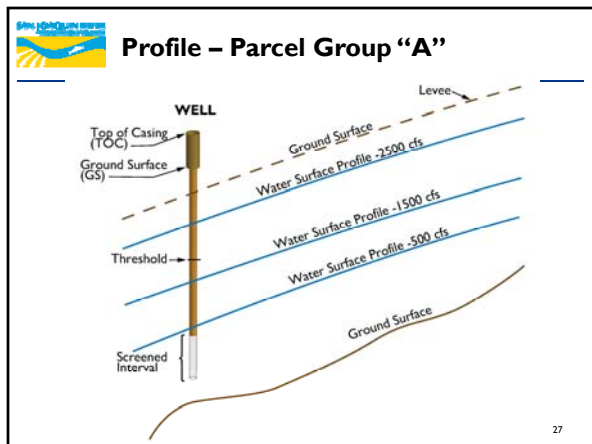
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Katrina Harrison

## SITE EVALUATION PROCESS

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 **Seepage Project Handbook Sections**

- A. Introduction
- B. Site Evaluation
  - 1. Records Review
  - 2. Fieldwork
  - 3. Analysis
  - 4. Reporting
    - 1. Initial Screening
    - 2. Initial Alternatives

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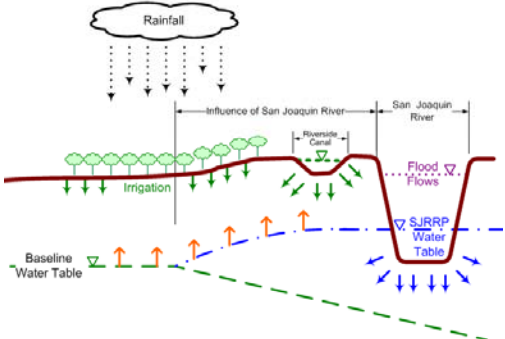
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 **Site Evaluation Physical Processes**



The diagram illustrates the physical processes of site evaluation. It shows a cross-section of the ground with various water sources and flows. Rainfall is shown as vertical arrows from a cloud. Irrigation is shown as green arrows from a canal to the ground. The influence of the San Joaquin River is shown as a dashed line. Flood flows are shown as red arrows. The water table is shown as a blue dashed line, with the SJRRP Water Table level indicated. A baseline water table is also shown as a green dashed line. The diagram includes labels for Rainfall, Influence of San Joaquin River, San Joaquin River, Riverside Canal, Flood Flows, SJRRP Water Table, and Baseline Water Table.

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**Salinity Sources**

- Irrigation Water
- Fertilizer
- Soil Amendments
- Natural Soil Minerals
- Shallow Groundwater Rise



Example of salt buildup (Colorado)

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**Groundwater Rise Sources**

- Rainfall
- Irrigation
- Canal Seepage
- Flood Flow Seepage
- SJRRP Seepage



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**Existing Records Review**

<p>Reclamation has:</p> <ul style="list-style-type: none"> <li>• Precipitation Records</li> <li>• Historic Aerial Photos</li> </ul>	<p>Landowners may have:</p> <ul style="list-style-type: none"> <li>• Yield Data</li> <li>• Irrigation Records</li> <li>• Fertilizer Applications</li> </ul>
<p>Reclamation may have:</p> <ul style="list-style-type: none"> <li>• Soil Texture</li> <li>• Soil Salinity Sampling</li> <li>• Groundwater Monitoring</li> <li>• Surface Water Monitoring</li> </ul>	<ul style="list-style-type: none"> <li>• Aerial Photos</li> <li>• Soil Texture</li> <li>• Soil Salinity</li> <li>• Infrastructure</li> </ul>

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### Site Evaluation Report

- Standard technical write-up of Site Evaluation
  - Methods
  - Results
  - Discussion
  - Conclusion
- Initial Screening
- Initial Alternatives
  - Those project types that pass the initial screening

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### Seepage Project Handbook

- Comments:
  - Any additional site evaluation techniques?
  - Does initial screening make sense?
  - Any additional reporting that would help?
- Written Comments due by August 24

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Katrina Harrison

## PLAN FORMULATION CRITERIA BRAINSTORMING

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 **Plan Formulation**

- 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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 **Brainstorm Selection Criteria**

- How do you want to chose a seepage project given the information available?
  - Design/Feasibility
  - Suitability to Site Conditions
  - Landowner Acceptability
  - Cost
  - Ownership / Project Agreement
  - Environmental Compliance
  - Others?

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**Brainstorm Selection Criteria**

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Are some criteria more important than others?

How should we weight these criteria?

Brainstorm weightings:

- High
- Medium
- Low

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**Projects Next Steps**

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- Comments back on parcel groups, data
  - Due Friday, August 12
- Comments back on Site Evaluation SPH section
  - Due Wednesday, August 24
- Agency deliverable for Plan Formulation and Design Data Collection
  - September 2

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Dave Mooney

**INFORMATION & DATA EXCHANGE**

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### Landowner Input

- Preparation for next meeting:
  - What additional data needs to be collected for design?
  - What should design considerations be?

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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**

- Feedback from Landowners on Parcel Groups, considerations for parcel groups, and priority parcel groups
  - Due Friday, August 12
- Feedback on Draft Seepage Project Handbook Section
  - Due Wednesday, August 24
- Next Meeting Date:
  - Thursday, September 8

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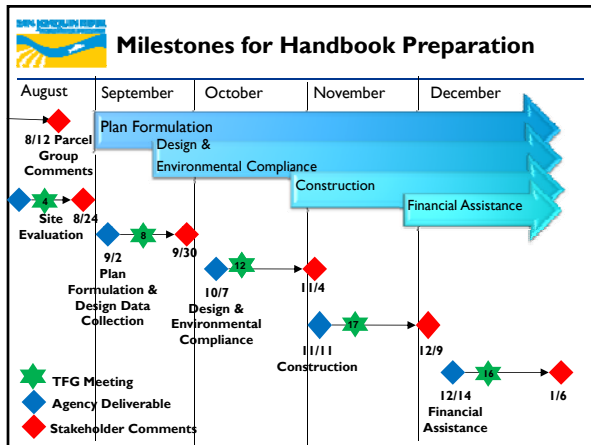
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**Action Items and Review**

- Update Action Items
  - Revised Actions
  - New Actions

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**Contact**

- Technical Feedback Group – David Mooney
  - 916-978-5458
  - [dmmooney@usbr.gov](mailto:dmmooney@usbr.gov)
- Seepage Concerns – Seepage Hotline
  - 916-978-4398
  - [interimflows@restoresjr.net](mailto:interimflows@restoresjr.net)

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