

# RECLAMATION

*Managing Water in the West*

## Schaake Property Habitat Improvement Project

## Planning Group Meeting #1



U.S. Department of the Interior  
Bureau of Reclamation

October 28, 2009

# Introduction

- Reclamation welcome and opening comments
- Meeting objectives and agenda review
- Planning Group participant self-introductions

RECLAMATION

# Project Overview: Site Location and History

- Approximately 285 acres located southwest of the City of Ellensburg
- Previously supported a slaughterhouse and stockyards
- Adjacent to City's Wastewater Treatment Plant
- Currently used as spray fields for wastewater (vegetable processing) by Twin City Foods
- Reclamation purchased site in August 2003 because of the high potential for floodplain habitat improvement

RECLAMATION

# Project Overview: Schaake Property



# Project Overview: Goal and Objectives

- **Goal**
  - Work with local community to improve habitat for salmon and steelhead
- **Objectives**
  - Create more side channels for salmon and steelhead habitat
  - Relocate levees to create access to floodplains and side channels
  - Protect the Wastewater Treatment Plant and I-90
  - Work with stakeholders
  - Work with the City and Twin City Foods to incorporate the lagoon into the site uses
  - Design project to be self-sustaining

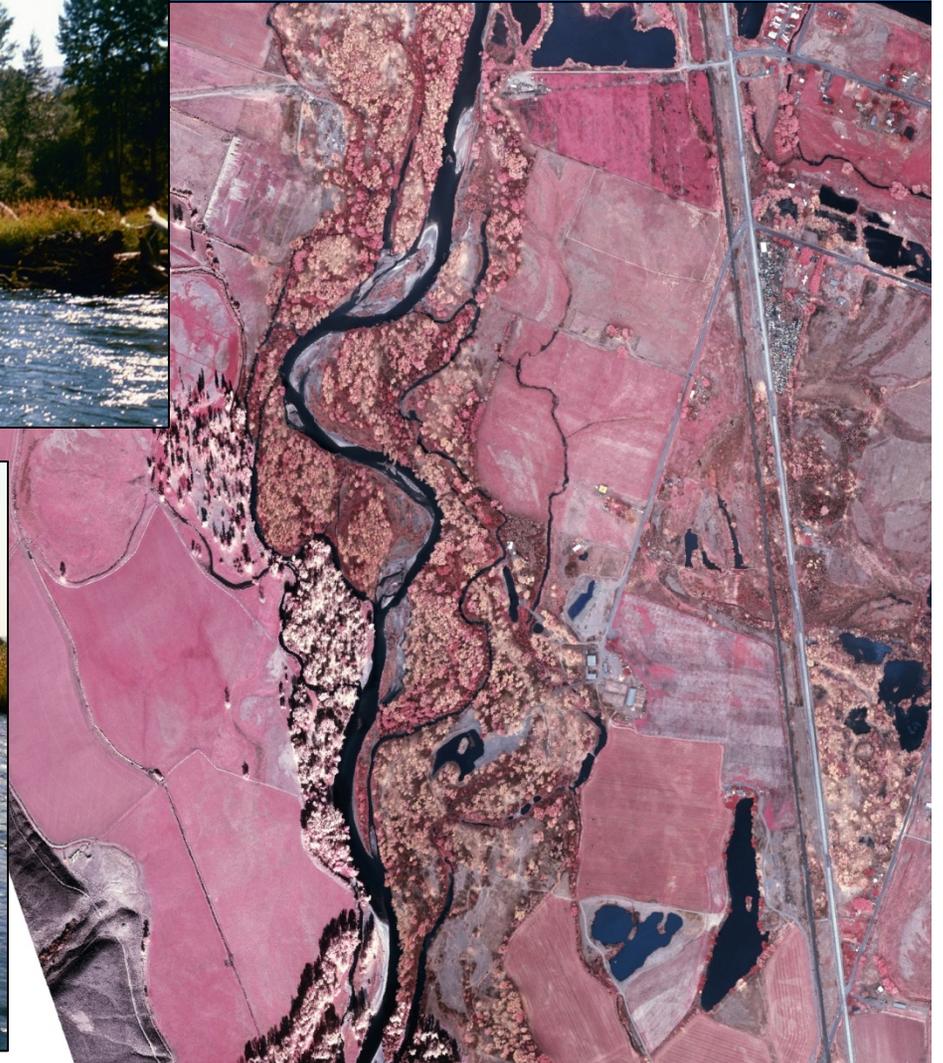
RECLAMATION

# Project Overview: Yakima River through Schaake Reach (with levees)



RECLAMATION

# Project Overview: Yakima River Downstream Reach (no levees)



# Project Overview: Expected Benefits

- **Reduced flooding impacts**
  - Floodplains help reduce peak water surface elevations by increasing channel capacity
- **Improved fisheries habitat**
  - Steelhead spawning and rearing habitat
  - Spring Chinook and coho rearing habitat
  - Cooler water in side channels due to upwelling
- **Enhanced public recreation opportunities**
  - Access as part of “Town to Canyon” trails system

RECLAMATION

# Previous Project Activities and Outcomes: Stakeholder Meetings

- City of Ellensburg
- Twin City Foods
- Kittitas County Public Works
- Right Bank Landowners
- “Town to Canyon” Trails Committee

RECLAMATION

# Stakeholder Meetings: City of Ellensburg & Twin City Foods

- **April 2009**
  - Purpose – Discuss left bank levee alignment
  - Outcome – The City and TCF expressed their concerns with Wilson Creek flooding.
- **September 2009**
  - Purpose – Discuss left bank levee alignment and TCF lagoon
  - Outcome – Reclamation has agreed to allow TCF to build a lagoon on Reclamation property, and the City and TCF will work with Reclamation on a levee alignment extending south through City property and TCF spray fields.

RECLAMATION

# Stakeholder Meetings: Kittitas Co. Public Works

- **March 2009**

- Purpose – Provide an update of Reclamation's plans for levee setback and side channel establishment on Reclamation's property, left bank.
- Outcome – Reclamation expressed a desire to purchase some right bank parcels if the landowners were willing sellers.

- **September 2009**

- Purpose – Discuss left bank levee alignment, TCF lagoon, and River Bottom Road as the new right bank levee and Phase 1 contract including Wilson Creek.
- Outcome – Reclamation reaffirmed its interest in purchasing some right bank parcels if the landowners were willing sellers.

RECLAMATION

# Stakeholder Meetings: Right Bank Landowners

- **April 2009**
  - **Purpose** – Provide an update of Reclamation's plans for levee setback and side channel establishment on Reclamations property, left bank. Express an interest in purchasing their properties if they were willing sellers.
  - **Outcome** – Reclamation will continue to communicate with right bank landowners.

# Stakeholder Meetings: “Town to Canyon” Trails Committee

- **2009 to 2009**
  - Purpose – Work on the development of trails that would be available to the public. Reclamation has agreed to allow trail access through the Schaake Property.
  - Outcome – Ongoing

RECLAMATION

# Previous Project Activities and Outcomes: Studies Completed

- Former Schaake Property Soil and Site Study (Land Profile Inc., 2004)
- Former Schaake Property Soil Phosphorus Study (Land Profile Inc., 2007)
- Yakima River Habitat Improvement Study: Schaake Reach, Interim Report (Hilldale et al., 2003)
- Yakima River Habitat Improvement Study: Schaake Reach, Final Report (Hilldale et al., 2004)
- Proposed Rehabilitation for the Schaake Reach (Hilldale, 2007)

RECLAMATION

# Previous Technical Reports – Land Profile, Inc.

- **September 2004**
  - **Soil and Site Study**
    - Described site characteristics, with a focus on soil chemistry
    - Soil phosphorous levels are elevated
    - Ground water levels are within several feet of the ground surface
- **July 2007**
  - **Soil Phosphorous Study**
    - Provided more specific details on phosphorous in the vicinity of proposed side channel locations

RECLAMATION

# 2003 Report

- **Determined that rehabilitation is likely to be successful**
  - Moderately frequent inundation of the floodplain
    - Decreased frequency due to some channel incision
- **Assessment of geomorphic conditions**
  - Documents:
    - Channel change and floodplain characteristics
    - Anthropogenic changes (as far back as 1912)
- **Hydraulic modeling**
  - Examined opportunities for
    - Setting back levees
    - Side channel habitat

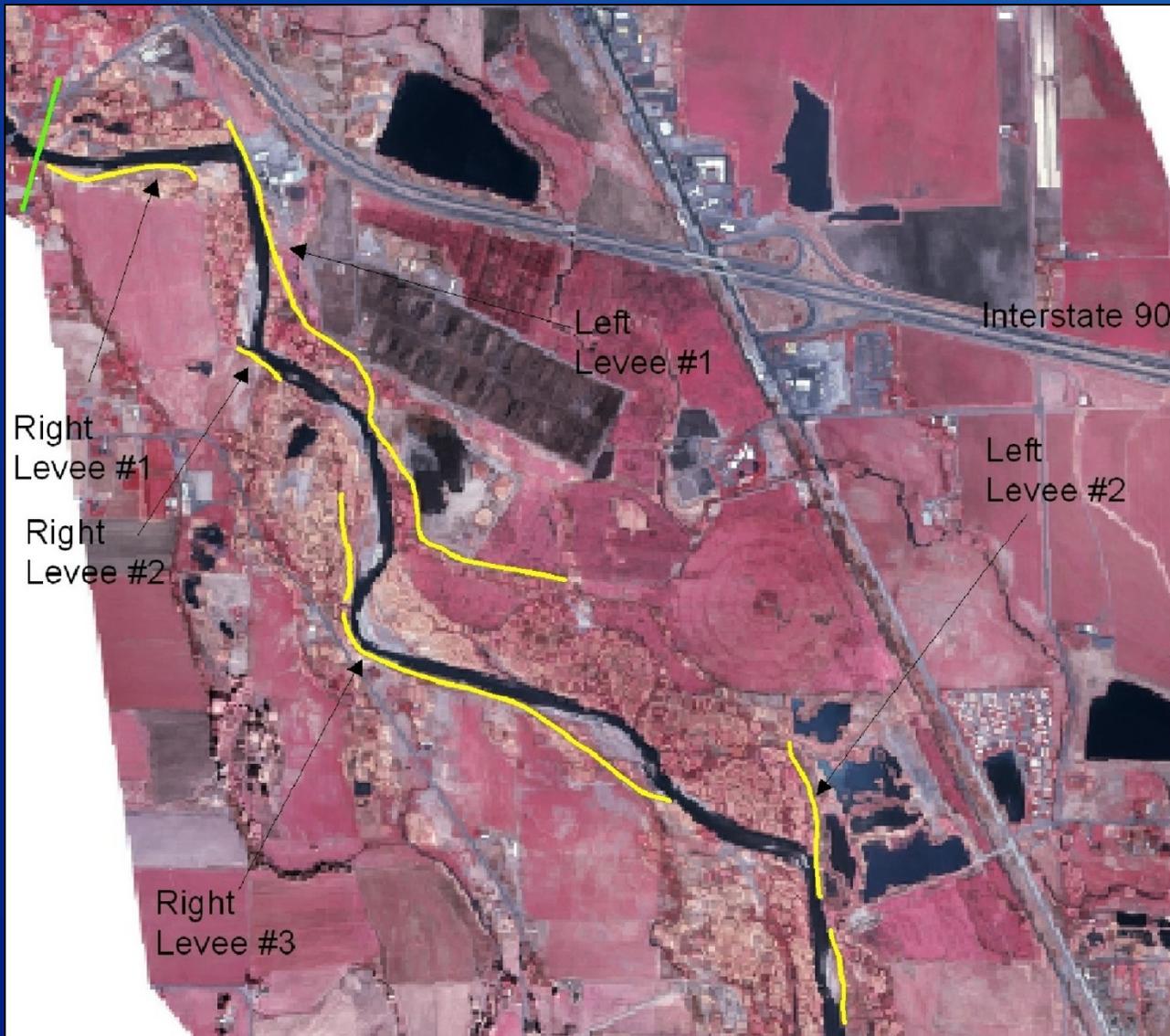
# 2000 Aerial Photo With 1966 Alignment



# 2004 Hydraulic Modeling Report

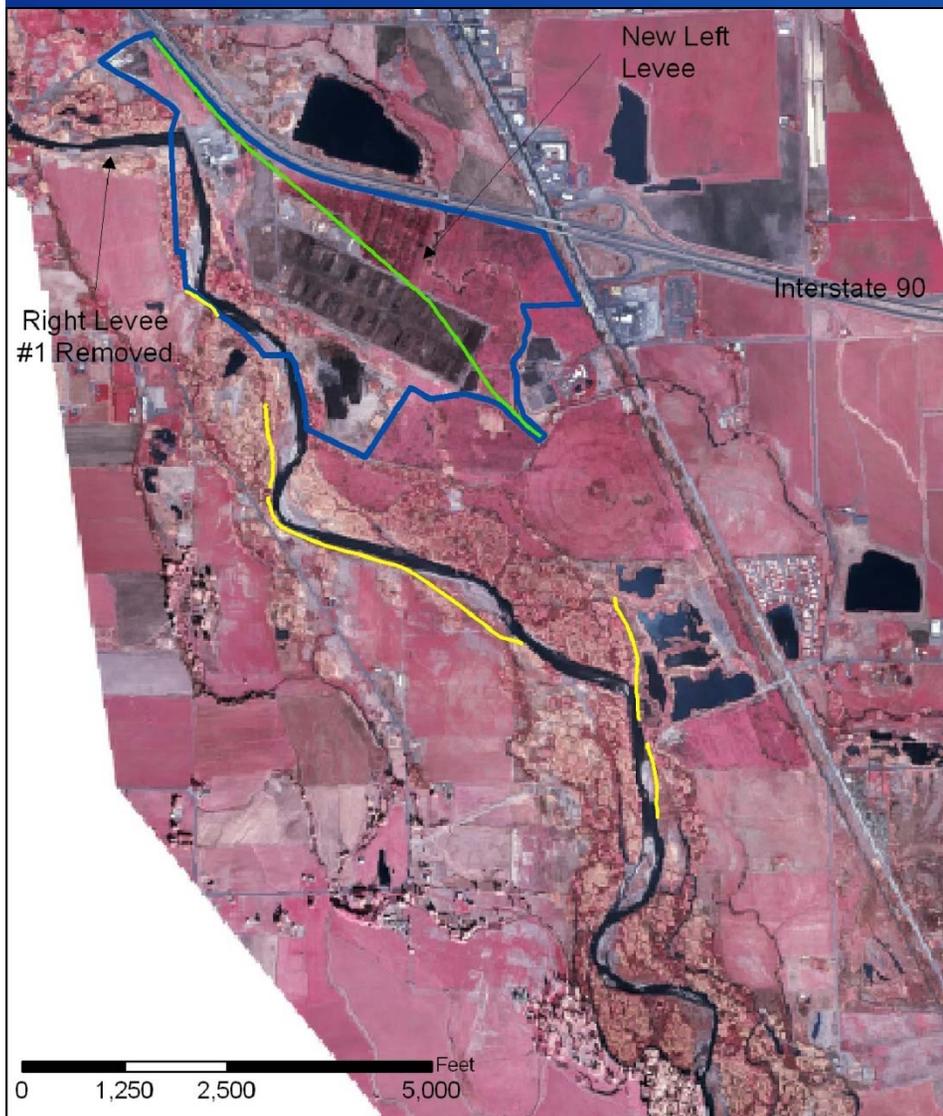
- Investigates various levee setback scenarios as well as several proposed side channel configurations
- Three levee scenarios
  - Existing conditions
  - Left levee setback (on Schaake property)
  - Left levee setback and removal of right levee #1 and setback of the upstream portion of right levee #3

# 2004 Hydraulic Modeling Report

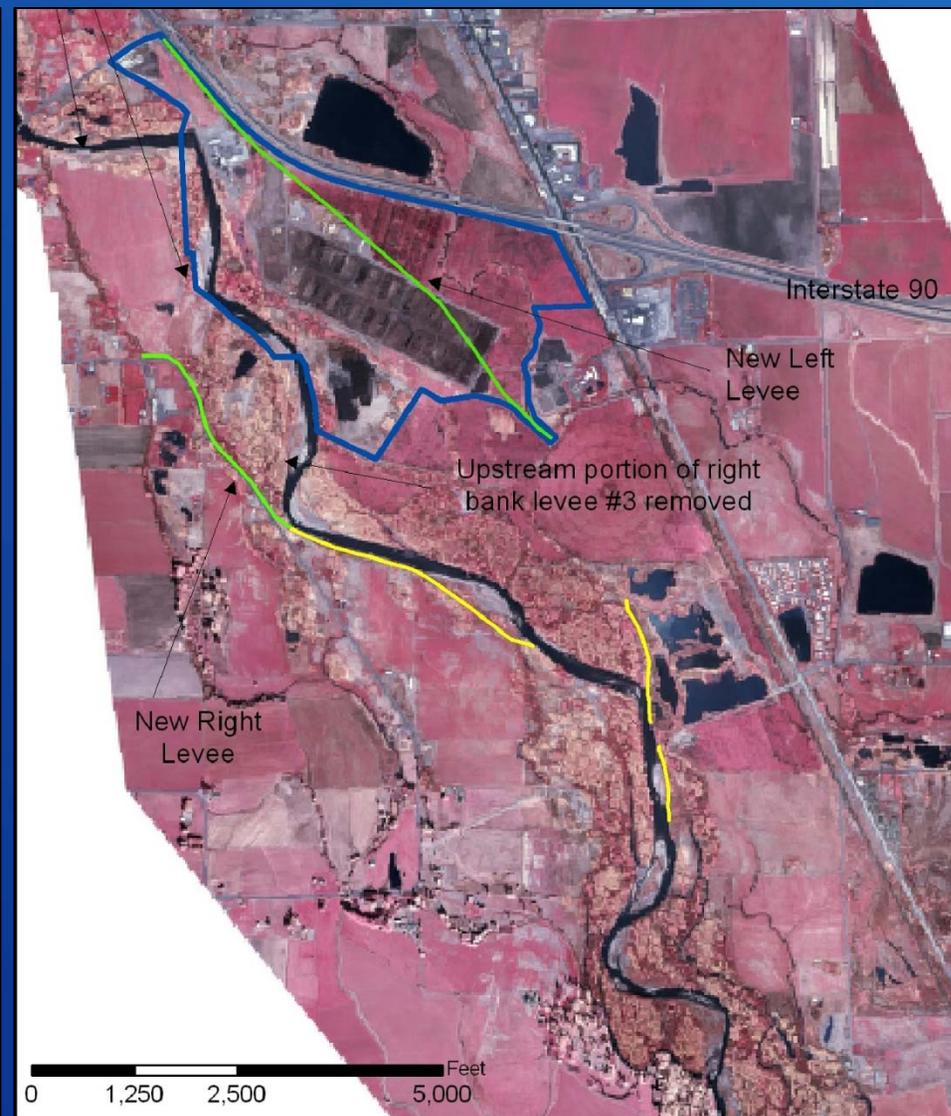


- Existing levee configuration

## Left levee setback and right levee #1 removed



## Left and right levee #3 setback with right levee #1 removed



# 2004 Hydraulic Modeling Report



- Proposed side channel locations in the 2004 report
  - Changed after consideration of the soil study and continued discussion

RECLAMATION

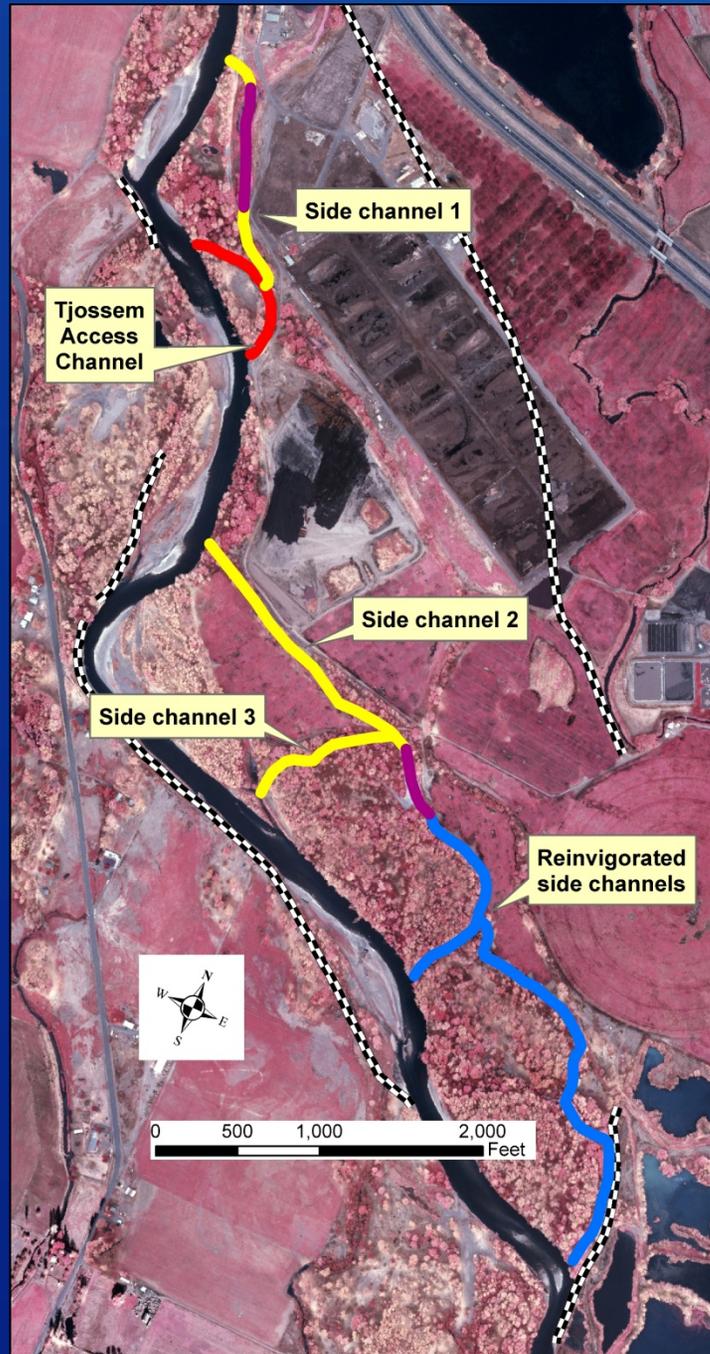
# 2007 Hydraulic Modeling Report

- **Revisited the proposed conditions**
  - Results of the soil study and other factors required re-thinking the alignment of some side channels
  - Right levee #1 could not be removed
- **Changed the alignment of some of the side channels**
- **All right bank levees were evaluated in their current configuration**
- **Also performed a sediment transport capacity analysis to examine sustainability and deposition of fine sediment**

RECLAMATION

# 2007 Hydraulic Modeling Report

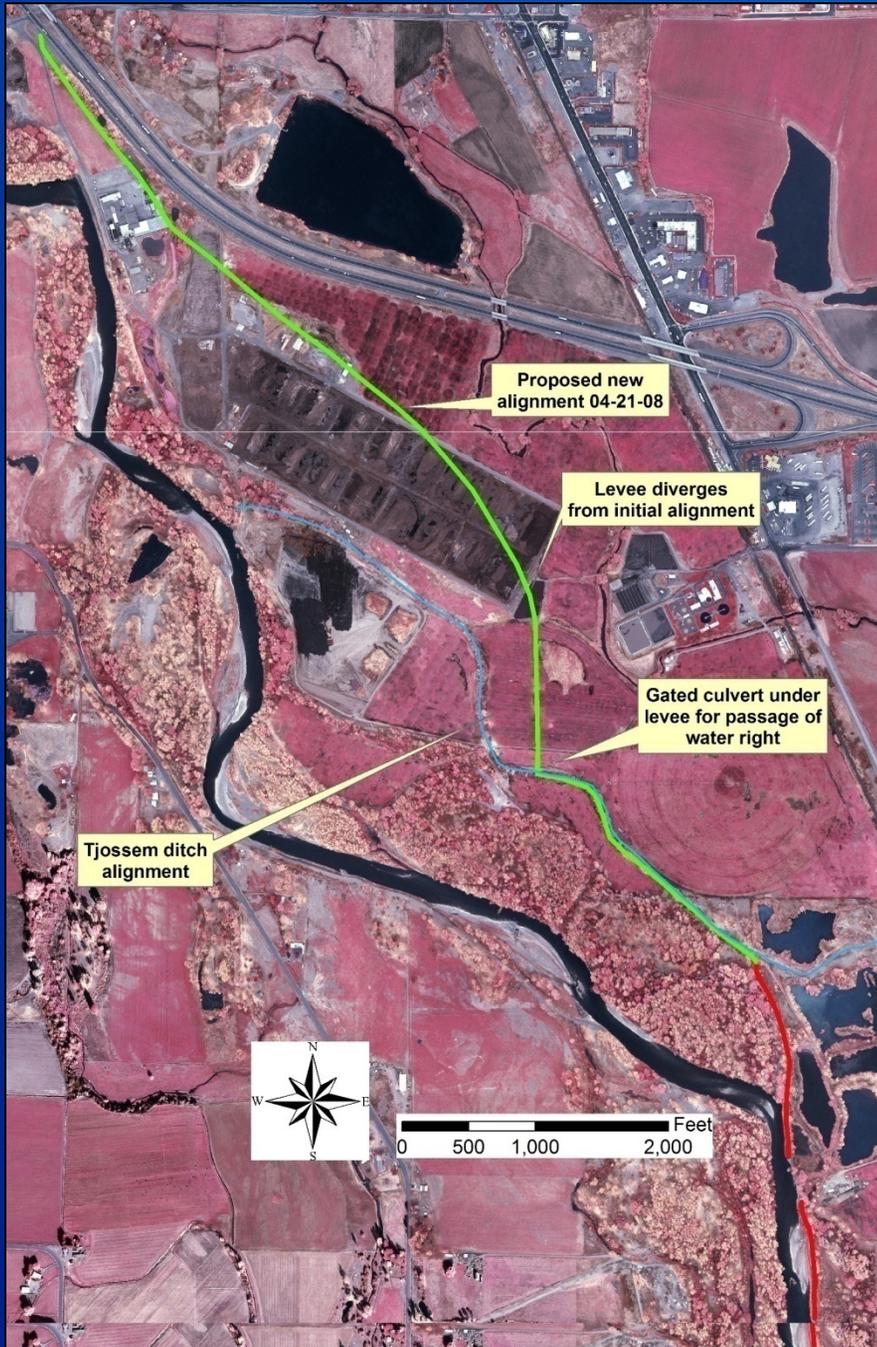
- Proposed location of side channels



RECLAMATION

# Proposed Left Bank Levee Alignment

- A final decision has not been reached regarding this alignment.



RECLAMATION

# Phase 1: Goal and Objectives

- **Goal**
  - Work with Reclamation and the local community to maintain and enhance the overall project momentum
- **Objectives (Work Plan)**
  - Build upon past work (meetings, studies).
  - Gather and synthesize stakeholder input via facilitated meetings.
  - Identify data gaps.
  - Analyze three primary technical issues:
    - Propose modeling approach for Wilson Creek flooding.
    - Describe physical process responses to levee setback.
    - Assess sustainability of side channels and relocated levee.
  - Prepare report that incorporates this work and can be shared with the public.

RECLAMATION

# Phase 1: Schedule and Deliverables

- **October to December 2009**
  - Review of existing resources
  - Site visit (10/27/09)
  - Planning Group meeting #1 (10/28/09)
  - Technical analyses
- **January to April 2010**
  - Preparation of draft Phase 1 report
  - Planning Group meeting #2 (early April)
    - Share draft report and request feedback
  - Completion and distribution of final Phase 1 report
  - Public meeting (late April)

RECLAMATION

# Potential Elements of Future Phases

- Hydraulic modeling of Wilson Creek (and possibly Yakima River) to describe current and potential flow paths with a levee setback and TCF lagoon
- Detailed field investigations of geotechnical and geomorphic site characteristics
- Design of the setback levee and side channels
- Permitting support
- On-going communication and meeting facilitation
  
- Schedule TBD
  - Dependent upon Phase 1 outcomes and funding

RECLAMATION

# Planning Group/Stakeholder/Public Outreach Process

- **Planning Group Meeting #2: Early April 2010**
  - Input from Planning Group meeting #1 incorporated
  - Technical analyses complete
  - Draft report shared
- **Public Meeting: Late April 2010**
  - Revisions based on input from Planning Group meeting #2 and feedback on draft report

RECLAMATION

# Facilitated Group Discussion, Q&A

- Open roundtable discussion of issues, comments, concerns, questions
- Discussion of success criteria

RECLAMATION

# Summary and Wrap-Up

RECLAMATION