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Managing Water in the West

Odessa Subarea Special Study Columbia Basin Project

**Open House
Moses Lake, WA
February 22, 2006**



**U.S. Department of the Interior
Bureau of Reclamation**

Study Purpose

The Odessa Subarea Special Study will investigate the continued incremental development of the Columbia Basin Project to deliver project water to lands currently using groundwater in the Odessa Ground Water Management Subarea.

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Columbia Basin Project

- Authorized to irrigate 1,029,000 acres
- Currently serves about 671,000 acres
- Most development occurred in 1950's and 1960's
- Beneficial uses: irrigation, power production, flood control, municipal water supply, recreation, and fish and wildlife benefits
- Average annual Columbia River diversion – 2.65 million acre-feet
- Additional 1 million acre-feet acquired from recapture and reuse of water

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Columbia Basin Project History

July 16, 1933	Construction of Grand Coulee Dam
August 30, 1935	Grand Coulee Project authorized
March 10, 1943	Columbia Basin Project Act, renaming and reauthorizing the Project
May 10, 1945	Secretary submitted Feasibility Report (House Document 172) to President and Congress

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Recent History

Mid-1970s	Ecology issued groundwater permits in Odessa Subarea
August 27, 1976	Master Water Service Contract between Reclamation and irrigation districts
Dec. 31, 1979	Second Bacon Siphon and Tunnel completed, allowing delivery to a fully developed Columbia Basin Project

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Recent History (Continued)

- | | |
|-----------------------|---|
| September 1989 | Draft Environmental Impact Statement (DEIS) for Continued Development of Columbia Basin Project |
| September 1993 | Supplement to 1989 DEIS issued to consider new information, including anadromous fish flows |
| February 1994 | Reclamation instituted moratorium on Columbia River withdrawals because of uncertainty surrounding flow requirements for anadromous fish |

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Recent History (Continued)

- | | |
|----------------------------|---|
| November 2003 | Reclamation's Regional Director lifts Columbia River withdrawal moratorium |
| FYs 2005 & 2006 | Congress provides appropriations for Reclamation to study Odessa Subarea |
| September 2005 | State agrees to cost-share and partner with Reclamation |

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Study Scope

Reclamation will examine alternatives that...

- Reduce irrigation use of Odessa Subarea aquifer
- Maximize use of existing Project infrastructure
- Do not preclude full development of Project in future
- Are economically justified, financially feasible, and environmentally acceptable
- Can be studied with available funding

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Study Team

Management Team

Technical Teams

- Engineering
- Water Supply and Operations
- Geologic
- Economics
- Soils and Drainage
- Environmental Compliance

Support Teams

- Public Communications
- Report Production
- Geographic Information System
- Project Authority and Contracts Research

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Study Schedule and Phases

Spring 2005 - Fall 2006

**Phase 1: Organize & Develop
Plan of Study**

Fall 2005 - Spring 2007

Phase 2: Pre-Plan Formulation

Spring 2007 - Fall 2008

Phase 3: Plan Formulation

Fall 2007 - Summer 2010

**Phase 4: Feasibility-level
Analysis & Environmental
Compliance**

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Phase 1 – Organize Study (completed)

- **Determine regulatory requirements**
- **Identify study issues that need to be addressed**
- **Develop a study purpose and scope**
- **Conduct literature review of previous relevant investigations**
- **Develop study process and schedule**
- **Estimate funding needs and opportunities to cost-share**
- **Determine study expertise required**

Phase 2 - Pre-Plan Formulation (in process)

Surface and Groundwater Studies

- Describe current aquifer condition
- Develop groundwater model
- Describe Columbia River hydrologic conditions and water availability
- Model Columbia Basin Project operations

Economic Study

- Determine initial irrigation benefits and payment capacity

Engineering Studies

- Conduct literature review
- Inventory existing infrastructure and capacities
- Conduct Potential Alternative Solutions Study (PASS)

PASS (Potential Alternative Solutions Study)

- Is a process to efficiently generate and evaluate engineering concepts
- Involves two teams
 - **Objectives Team**
 - Comprised of stakeholders
 - Develops criteria, objectives, and factors of acceptance used to evaluate engineering concepts
 - **Technical Team**
 - Develops engineering concepts
 - Evaluates concepts using criteria developed by Objectives Team
- PASS will be completed Fall 2006

Phase 3 – Plan Formulation

- Prepare feasibility-level engineering designs
- Prepare engineering cost estimates
- Conduct geologic field investigations, including soil and rock testing

Phase 4 – Feasibility-level Analysis & Environmental Compliance

- Prepare combined Environmental Impact Statement (EIS) and Feasibility-level Planning Report
 - Describe alternatives considered
 - Evaluate alternatives
 - Conduct economic and financial feasibility analyses
 - Select agency preferred alternative
- Conduct Endangered Species Act consultation
- Conduct public meetings and hearings

Project Feasibility Criteria

The agency preferred alternative must . . .

- Be technically viable
- Protect Indian Trust Assets
- Comply with the National Environmental Policy Act, the Endangered Species Act, and other environmental regulations
- Be socially and environmentally acceptable
- Be economically justified and financially feasible

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www.usbr.gov/pn/programs/ucao_misc/odessa/index.html

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