

**Reclamation Manual**  
Design Data Collection Guidelines  
Chapter 6 – Sample Design Data Package

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The documents linked to this page contain the Sample Design Data Package in PDF format. The Table of Contents will take you directly to each section.

This chapter contains two sample specifications level design data packages and one sample appraisal level design data package in PDF format:

- [Block 9 Pumping Plants and Laterals, Stage 2, Navajo Indian Irrigation Project, New Mexico, May 3, 2001 \(prepared by the Farmington Construction Office\).](#)
- [Durango Pumping Plant, Colorado – The design data package was originally submitted on October 1991 by the Durango Projects Office. The design data was updated on January 2002 by the Farmington Construction Office.](#)
- [Yakima Basin Water Enhancement Project, Washington – The Appraisal level design data package was submitted in January 1984 by the Pacific Northwest Regional Office. Only the data for Wymer Dam and Reservoir and Afterbay Dam are included in this chapter.](#)

**1. Block 9 Pumping Plants and Laterals, Stage 2, Navajo Indian Irrigation Project (May 2001)**

- A. Introduction (General description of proposed facilities)
- B. Scope of Stage 2 (More General description)
- C. Survey Control
- D. Hydraulic Design Criteria and Operating Data
  - 1. General
  - 2. Deliveries
  - 3. Laterals
  - 4. Pumping Plants
  - 5. Elevated Tanks
- E. Pipe Requirements
- G. Hydrology
- H. Access Roads
- I. Road Crossings
- J. Pipelines and Transmission Line Crossings
- K. Gallegos Discharge Line Crossing
- L. Permanent Power Supply
- M. Supervisory Control and Communications
- N. General Information
  - 1. Transportation and Shipping
  - 2. Access for Construction

- 3. Housing and Population
  - 4. Weather
  - 5. Clearing Vegetation
  - 6. Right-of-Way
  - O. Geologic Investigations (separate report)
  - P. Construction Material
  - Q. Environmental Considerations
    - 1. General
    - 2. Cultural Resources
    - 3. Water Quality
    - 4. Topsoil and Seeding
- Appendix A Drawings
- Appendix B Delivery Data

## **2. Durango Pumping Plant**

### **The original design data submittal package (October 1991)**

The submittal package starts with an Introduction which includes a Design and Construction schedule.

- A. General Maps (General maps, Site map, and a Utility relocation map)
- B. General Description of Local Conditions
- C. Surface Data
- D. Foundation Data
- E. Construction Materials Data
- F. Hydrologic Data
- G. Operating Data – Pumping Plants
- H. Miscellaneous Data
- I. Cost Data
- J. Environmental Considerations
- K. Design Data Photographs
- L. Plant Upgrading (Not Applicable)
- M. Large Synchronous Machine Armature Rewinds (Not Applicable)

#### Photographs

- Appendix A – Restricted Use Plan
- Appendix B – Climatologically Data
- Appendix C – Animas River Gaging Stations
- Appendix D – Water Quality Data
- Appendix E - Environmental Commitment Plan

#### Preliminary Geologic Design Data Submittal for Durango Pumping Plant

- 1. Volume I:
  - i. Introduction
  - ii. Historic Background
  - iii. Geologic Investigations and Data Base

- iv. Regional Geology
  - v. Seismicity
  - vi. Site Geology
  - vii. Geologic Considerations
  - viii. Additional Exploration
  - ix. References
  - x. Appendixes:
    - a) Logs of Exploration
    - b) Laboratory Data
    - c) Drawings
- 2.
3. Volume II – Geologic logs of drill holes and test pits, physical property test results

### **Update design data package (January 2002)**

#### Division A Design Data Update

- Introduction
- A. General Maps
- B. General Description of Local Conditions
- C. Surface Data
- D. Foundation Data
- E. Construction Materials Data
- F. Hydrologic Data
- G. Operating Data – Power Plants (Not Applicable)
- H. Operating Data – Pumping Plants
- I. Miscellaneous Data
- J. Cost Data
- K. Environmental Considerations

#### Division B – Response to: Review of Design Data Package (October 1991) - Durango Pumping Plant

##### Appendix:

- Attachment 1 – Maps
- Attachment 2 – Flood analysis information
- Attachment 3 – Animas River information
- Attachment 4 – Flood Plain Development Study, City of Durango/FEMA requirements for Floodplain Study
- Attachment 5 – Fish Screen Design Elements
- Attachment 6 – Table A-2 and Table 7 from Draft Ground Water Quality Report
- Attachment 7 – Additional Historic Information
- Attachment 8 – Cover sheet for Draft Technical Memorandum DUDXC-3130-1
- Attachment 9 – Joint Survey (4/11/96)
- Attachment 10 – Water Surface Elevations DH110 through 118 TDS of the Animas River
- Attachment 11 – Survey Data collected on 1/15/02
- Attachment 12 – Meeting Notes (7/7/92); covers general control features
- Attachment 13 – City Ordinance 10-1-9; Illumination

Attachment 14 – Update Restricted Use Plan (RUP) (11/30/2001)

Attachment 15 – Recent Aerial Photographs

Attachment 16 – Meeting Notes (1/25/02); Relevant Drawings

**3. Yakima River Basin Water Treatment Enhancement Project, Washington – Wymer Dam and Reservoir and Afterbay Dam**

- Introduction
- Description
- Hydrology
- Environmental Considerations
- Geology of the Site
- Design
  - Preliminary Findings Report
  - Geology Appraisal Study of Potential Dam Sites
  - Preliminary Assessment Report, Squaw Creek Off Channel Storage Project
- Structural Features
  - Embankment dam
  - Spillway and outlet works for rockfill dam
  - RCC (Roller-Compacted Concrete) or Concrete Buttress
- Additional data required
  - Topography
  - Geologic mapping
  - Structural height requirements for afterbay
  - Reconnaissance for borrow availability
  - Hydrology data
  - Power and pumping plant operating criteria
  - Outlet works discharge vs. head requirements
  - Reservoir operation requirements
  - Highway relocation information
  - Site access
  - Power availability