

Powder / Tongue
River Basin Plan
Status Update

HKM/Lord Consulting

Scope of Work

- Task 1 – Meetings
- Task 2 – Basin Water Use Profile
- Task 3 – Available Surface and Groundwater Determination
- Task 4 – Demand Projections
- Task 5 – Future Water Use Opportunities
- Task 6 – Basin Advisory Group Discretionary Fund
- Task 7 – Basin Planning Report

Task 2 — Basin Water Use Profile

- Agricultural Use

- Irrigated Acreage **II**

- Crop Types **II**

- Crop Consumptive Use

- Source of Supply

- Determine Surface Water Source **II**

- The water rights associated with the irrigated lands will be determined and shown on a Water rights GIS layer

- GW Wells GIS layer for > 50 gpm wells **II**

- Compile diversion records and describe operations of key ditches **II**

Task 2 — Basin Water Use Profile

- Water Use from Storage
 - Key reservoirs used to supplement water supplies for agricultural, municipal, and industrial uses will be identified II
 - Operation memorandums will be developed for each key reservoir II

Task 2 — Basin Water Use Profile

- Municipal and Domestic Use
 - Utilize State of Wyoming 2000 Water System Survey Report II
 - Update information by contacting municipal water users II
 - Source of Supply
 - GW Wells GIS layer for municipal wells > 50 gpm and for all domestic use wells. II

Task 2 — Basin Water Use Profile

- Industrial Use

- Identify industrial water users not supplied by municipal water systems **II**
- Source of Supply
 - GW Wells GIS layer for industrial wells > 50 gpm and for all CBM wells. **II**

Task 2 — Basin Water Use Profile

- Recreation Use
 - Compile existing data of recreational uses as an indicator of water-related recreational activity.
 - Reservoir storage levels and streamflows that promote maximum use will be identified.
- Environmental Use
 - **Water uses to enhance fisheries and wildlife habitat will be identified**
 - Develop GIS data theme of instream flow requirements by stream segment
 - Identify existing GIS layers of environmental uses.

Task 3 — Available Surface and Groundwater Determination

- Surface Water Data Collection and Study Period Selection
- Surface Water Data Synthesis and Spreadsheet Model Development
- Surface Water Model Calibration
- Available Surface Water Determination
- Available Groundwater Determination

Task 4 — Demand Projections

- *Performed by Watts & Associates, Gary Watts*
- **Purpose:** To project future water requirements for 3 growth scenarios (low, medium, and high)
 - municipal
 - industrial
 - agricultural
 - recreational and environmental

Task 5 – Future Water Use Opportunities

- Describe issues affecting future water use opportunities
- Define screening criteria (preliminary list)
- Develop long-list of future water use opportunities (preliminary list)
- Develop short-list of future water use opportunities
- Apply screening criteria to rank short-list of future water use opportunities