

Wyoming Game and Fish Commission
Category I- Sport-Fishery Development and Management

Title: Lake DeSmet Water Lease to Ensure Sufficient Water and Public Access

Water is a precious resource in the arid West and Lake DeSmet sustains the most important reservoir trout fishery in northeast Wyoming. Lake DeSmet is a 3,400 surface acre reservoir constructed for agricultural and industrial storage. The reservoir holds about 235,000 acre-feet at capacity and has an average depth of 69 feet with a maximum of 120 feet. The reservoir supports an excellent coldwater fishery where rainbow trout dominate the sport fish population with cutthroat trout, brown trout, lake trout, yellow perch, rock bass and walleye also present. Wyoming Game and Fish Department (WGFD) estimates that approximately 35,000 anglers annually fish Lake DeSmet and catch about 60,000 trout. Using the estimate of \$74.00 per angler day from the 2006 National Survey of Fishing, Hunting and Wildlife-Associated Recreation, the value of the Lake DeSmet fishery to the local economy is about \$2.6 million. This value does not include non-fishing boating use so the recreational value of the reservoir is likely much higher.

The Lake DeSmet Counties Coalition (LDCC) assumed ownership of the reservoir from Texaco in 2001. This ownership included all land up to the high water mark and storage rights totaling 159,000 acre feet. Historically public access to the reservoir was allowed but this access was not guaranteed and could possibly disappear with a change in ownership and land use.

In June 2007, a severe storm produced destructive waves that damaged the integrity of the south dam. The LDCC had to take a \$1.265 million loan from the Wyoming Water Development Commission to complete the necessary repairs. At this time there was renewed interest for developing a coal gasification facility near Lake DeSmet that had the potential to consume a significant amount of stored water. However, none of these multi-billion dollar projects went beyond speculative phases so the LDCC approached the WGFD about purchasing water rights to repay their loan obligations.

WGFD viewed this as an opportunity to accomplish several long term goals including: 1) Protect water based recreation including fishing, boating, etc., 2) Protect significant infrastructure investments including boat ramps, comfort stations and parking areas and 3) Formalize and secure public access to the reservoir.

Early negotiations focused on a water right purchase but with the Wyoming Game and Fish Commission (board that oversees WGFD operations) unwilling to commit to future unknown costs associated with being an owner, the purchase changed to a long term lease. Six years into the negotiations, the LDCC disbanded and Johnson County the vocal opponent of the lease bought out Sheridan County interests in Lake DeSmet.

A water right lease of this magnitude had never been attempted in Wyoming and it took several years for all the players to become comfortable with the idea. Following nearly 8 years

of negotiations, political maneuvering, water modeling, countless meetings and tenacity, the Lake DeSmet Water Lease was signed by all parties on April 23, 2014.

Final lease terms include \$2,971,900 for a 99 year lease. The lease is for 66,024 acre-feet of stored water consisting of 5 junior water rights that will be left in the reservoir for recreational uses. The leased water in combination with the dead pool assures nearly half of the reservoir volume and two thirds of the reservoir surface elevation is maintained for 99 out of 100 years. This assures that even with active industrial development of the remaining water rights, current levels of boating and fishing will be maintained. Lease terms also secured public access to the shoreline of the reservoir to the high water mark for the term of the lease. The operating elevations of the reservoir will also preserve the three boat launch and dock facilities previously built using Sport Fish Restoration funds.

Three appraisal methods were evaluated including Sales Comparison Approach, Income Approach and Cost Approach. Working closely with Sport Fish Restoration colleagues in Region 6, we settled on using the most conservative Sales Comparison Approach for this appraisal. Consequently this approach estimated the value of the 99 year lease at \$15,700,000. The final lease amount for \$2,971,900 was based on the willingness to pay by the Wyoming Game and Fish Commission. The willingness to pay was determined by structuring the lease payment over five years. This left the Commission's boating access budget with over \$600,000 per year, allowing for future maintenance and project development during the five year payment period.

The lease acquired water at a cost of less than \$0.45 per acre-foot per year. Of the 26 other transactions examined for the appraisal the next least expensive lease was 22 times greater than the rate paid for this lease. The Commission also set an affordable benchmark for future non-consumptive water rights acquired for our boating and fishing publics.

Need: Secure water for future fishing and boating at Lake DeSmet a regionally important trout fishery.

Objectives: Acquire sufficient water to maintain current boating and fishing use. Secure shoreline access needed for those fishing from shore or ice anglers. Preserve the use of the three boat ramp and docks built previously with Sport Fish Restoration funds. We found during negotiations it was clearly in our interests to also maintain opportunity for remaining water rights to be adequate and sufficient for industrial development by Johnson County the owners of all the available water rights.

Procedures: Model over 70 years of reservoir inflow and discharge to determine availability of water even during drought periods. The same model was used to demonstrate the availability of water for future industry. Work with the Region 6 United States Fish and Wildlife Service to determine how to best appraise the lease against the Commission's willingness to pay basis.

Results: The lease guarantees nearly half of the reservoir volume and two thirds of the reservoir maximum surface elevation of 72 feet is maintained for 99 years. The 99 year lease executed at \$0.45 per acre-foot also specifically exempts the Commission from repair and maintenance of the dam and infrastructure.

Evaluation: Ongoing but the reservoir is now full.