

## **Modern Era – Tougher Standards - 2000 to 2004**

Although originally a “natural” lake, Moses Lake has been manually controlled since 1928. Especially since 1942, when Grand Coulee dam first began providing water for crop production on previously dry land, Moses Lake has evolved into a more complex, “managed” lake. It was designated for water storage and distribution by the U.S. Bureau of Reclamation in the 1950’s as part of the Columbia Basin Irrigation project. While this resulted in an economic boom for the region, profound changes in lake ecology also appeared; many unintended consequences have forever altered the lake which supports our community. In 1962, the state enacted a lake “re-habilitation” statute specifically to allow MLIRD to “rehabilitate” Moses Lake. The 125 acre Airmen’s Beach /Connelly Park site was purchased by the District in 1968 for community recreation.

Especially since 2000, the lake and its drainage area has been subject to evaluations by state Department of Ecology as part of water quality compliance standards involving Total Maximum Daily Load (TMDL), values related to nutrients (e.g., phosphorus) entering Moses Lake. The state held public meetings to assess needs in 2002, while MLIRD sponsored a water quality monitoring survey for the recreation season. The “*Moses Lake Area Water Quality Monitoring Report*” was published in December. The District and Bureau of Reclamation in 2003 lowered the lake level 2-feet below normal for soil sample retrieval and study of sedimentation in Parker Horn.

## **Present Day – Overcoming Unintended Consequences**

Try to imagine 50-60 new homes, or 10-12 football fields, being constructed under the surface of Moses Lake - that’s roughly equivalent to the 50,000 cubic yards of sediment [\*] currently estimated to flow into Moses Lake. Every year! This is due to both natural and human-accelerated causes. However, left unchecked, clogged channels, loss of boat access, and further negative impacts to water, wetland and wildlife habitats are certain to follow. Though many agency permits are required, legal responsibility for dealing with these problems lies primarily with the Moses Lake Irrigation and Re-habilitation District. Over time, the District’s once-simple “irrigation” mission has expanded. Today, annual district rate payer assessments are used to assure effective management of “**IRRIGATION, RECREATION AND RE-HABILITATION.**”

[\*source: Moses Lake Sediment Management Plan, Grette Associates, 2009]

## **2007 - 2011 Multi-use Lake Management Integration**

More recently, as recreation uses and water quality standards both intensified, and in recognizing that three inter-dependent “missions” (irrigation, recreation, re-habilitation)

would require more sophisticated planning, equipment and integrated management, district commissioners in 2007 hired its first-ever professional manager. Since then, with more efficient irrigation and harvesting operations now managed in-house rather than contracted out, the range and pace of other support activities has increased to meet tougher standards on all fronts. Long overdue equipment repair and replacement got underway quickly, with well-qualified workers hired for maintenance, installation and a host of improvement projects at Connelly Park. MLIRD commissioners became more involved, putting in over 300 hours in 2008 working with staff and representing the district. The Bureau of Reclamation agreed to extend the water flow season.

The “*Water Quality Institute*” and scholarship fund was initiated in 2007 to help educate and prepare the next generation of student-leaders about the inherent economic and social values of a healthy lake ecosystem. A \$30,000 grant was secured to complete an “*Integrated Aquatic Vegetation Management Plan,*” a state requirement for the aquatic herbicide-milfoil treatment project subsequently begun in 2009.

### **Investing in the Future – District Asset Growth**

Anticipating major expense outlays for sediment removal, intricate work on permits and the dredging plan began in 2007. After a “low-bid” process review of lease/purchase options, used dredge equipment and a dump truck were purchased by the District and completely overhauled and rebuilt by staff during the slower winter months of 2008-09. A similar analysis was performed before using staff to replace flood control gates at the North Outlet Dam in 2010. Many other equipment upgrades and projects have been completed.

Meanwhile, during this 4-year period, audited District assets have grown substantially, from \$360,000 to over \$3,500,000. While tending to the usual irrigation, weed abatement and water quality maintenance programs, the District’s 5-person staff has demonstrated capacity and efficiency in a diverse range of lake re-habilitation operations. MLIRD has acquired the federal and state permits, plus the in-house capacity and equipment needed to address the looming challenge of sediment removal from Moses Lake.