NEWS RELEASE, October 8, 2013

Moses Lake North Dam

Curt Carpenter General Manager, and Julie Smith of Moses Lake Irrigation and Rehabilitation District (MLIRD) met with State Rep. Judy Warnick and Kyle Lynch of her office on September 11, 2013 after Chris Comstock of STRATA Geotechnical Engineering and completed testing, inspected the Dam and, declared it to be in "imminent failure" of collapse.

Rep. Judy Warnick within a few hours of the meeting had not only alerted her constituents and various strategic agencies, but also began looking for Dam replacement funding. She immediately scheduled an on-site meeting of the various State and Federal agencies the following day that was well attended. Robert Schneider Grant County Emergency Management, Sheriff Tom Jones, Chris Comstock of STRATA Engineering, Barb Lisk of Congressman Doc Hastings' office, Derek Sandison – Director of the Department of Ecology Office of the Columbia River, Cort Anderson United States Bureau of Reclamation, Jeff Tincher, Grant County Public Works Director/Engineer, and Commissioner Richard Stevens were there to lend support to MLIRD and it's rate payers, the Columbia Basin Project, our State's economy and our quality of life. Her efforts continue to be paramount in the quest for funding of this very expensive project to assist locally so MLIRD can avert the financial burden from local rate payers.

History: The current structure was originally built in 1929 and 1930 replacing a timber crib dam. The existing Dam consists of six 6 foot-diameter, corrugated metal (CMP) outfall pipes that are approximately 60 feet long and encased in concrete headwalls at the upstream and downstream ends of the facility. The United State Bureau of Reclamation transmits approximately 2,500 cubic feet per second (CFS) through the reservoir for downstream irrigation and recreation purposes. Over the years the rough maintenance road across the top of the Dam was improved multiple times, extended into the sand dunes and, as ORV's have become popular to run in the sand dunes to the south of the Dam, the entire sand filled structure has been subjected to increased traffic of big rigs, haulers and farm equipment. Weight, vibration and hydraulics have taken a toll on a structure that was never engineered for such activity.

Importance: The Moses Lake North Dam is an integral part of the Columbia Basin Project and has impact to the welfare of our State's economy and quality of life throughout the region. Dam failure would bring economic impacts, which include direct and indirect impacts of agricultural and individual irrigation rights, property values to Moses Lake home owners, flow capacity and water elevation in the reservoir, control of rising water during winter runoff and emergency flood control.

Maintenance: MLIRD has kept a close watch on the integrity of the Dam for the past several years. In 1985 concrete was pumped into the structure when voids were discovered. In 2011 voids were once again filled by sealing small voids with Bentonite, but there was no reason to believe the Dam was in imminent danger of immediate failure at that point in time. August 31, 2013 heightened MLIRD's concerns when several sinkholes began through the roadway surface. The road was closed, testing was done, and MLIRD proceeded with inspections.

Engineering: Chris Comstock of STRATA Engineering reported: "The structure does not appear to rely on deep foundations for vertical support, seepage cutoff, or typical conventional design aspects to help control seepage and material loss from below the dam. In addition he reports the structure has been substantially undermined, caused by material loss to the downstream pool. This opinion was confirmed recently through our geotechnical investigation and sampling program. Although no major structural deficiencies are currently evident, voids below the structure have a strong potential to create distress and substantially reduce the serviceability of the structure and overlying county roadway. Our initial cost estimates and preliminary design analysis suggest repairing the facility may be cost prohibitive relative to constructing a new facility."

Temporary Solution: MLIRD has installed an emergency cut-off wall (cofferdam) using 40-foot-long steel sheet piles driven across the channel on the upstream side of the structure, taking hydraulic pressure off the Dam. This has cut off the majority of water flowing across and below the structure. However, the underming disintegration continues well beneath the Dam as material continues to flow out on the downstream side. The roadway across the entire structure has been closed by Grant County and will remain closed until a new Dam and crossing are completed.