



# Modernizing Idaho's Water Infrastructure

An Ongoing Story Series on Idaho Water Resource Board Regional Water Sustainability Projects **ISSUE No. 2**

## MHAFB Water Resilience Project

**Project description:** Mountain Home Air Force Base (MHAFB) currently relies on groundwater wells to meet its municipal water demand for military and residential needs. Water is currently pumped from the Mountain Home Plateau Aquifer, which has been declining at an unsustainable rate. Furthermore, some MHAFB wells have been closed due to concerns about nitrate contamination.

Given the importance of MHAFB to national security and its estimated \$1 billion annual contribution to the Idaho economy, the Idaho Water Resource Board (IWRB) has been working for more than 10 years to develop a long-term, sustainable water supply to the base.

In 2014, with support from former Gov. Butch Otter and the Idaho Legislature, the IWRB purchased senior Snake River water rights from the J.R. Simplot Corporation to provide an alternate water supply to MHAFB. Water will be pumped from the Snake River at C.J. Strike Reservoir, located directly south of the base. Through the IWRB, the state has agreed to construct the water transmission system from the Snake River to the base. The Air Force has agreed to construct the water treatment plant at the base. The pipeline and delivery system will ultimately be gifted to the Air Force to maintain and operate.

The MHAFB Water Resilience Project was one of the first projects to be added to the IWRB's Regional Water



*IMCO welds sections of HDPE pipe together along Idaho State Highway 167. The new pipeline will convey water to Mountain Home AFB. (photo by Steve Stuebner/IWRB)*

- **Type of project:** New water supply for Mountain Home AFB - 14.4-mile water pipeline, intake structure, and pump station.
- **Location:** C.J. Strike Reservoir to Mountain Home AFB
- **Total project cost:** \$40 million - ARPA and Idaho State surplus funds
- **Start date:** May 2024
- **End date:** July 2025

Sustainability Projects Priority List.

**A new water supply for the base:** The Mountain Home Air force Base Water Resilience Project will deliver up to 3.64 million gallons of water per day to the base, providing a more resilient water supply while reducing groundwater pumped from the aquifer.

**Design, engineering and permitting:** The firm of Brown and Caldwell is serving as the IWRB's Owner's Advisor and has assisted the IWRB with overall project management, obtaining necessary environmental and land-use permits, and in the selection of a team to Design and Build the project. In November 2023 the IWRB selected the Design-Build team of IMCO/Stantec to design and



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## MHAFB Water Resilience Project (cont.)

build the transmission system.

Environmental and land-use permits have been obtained from Elmore County, the Mountain Home Highway District, Idaho Transportation Department, Idaho Department of Lands, Bureau of Land Management, the Federal Energy Regulatory Commission, and private entities. The IWRB also worked with the Environmental Protection Agency and the Idaho Department of Environmental Quality on a safe drinking water and water quality improvement plan.

**Construction work began in May 2024.** The water transmission system includes building an intake structure at C.J. Strike Reservoir, a raw water pump station, and installation of approximately 14.4 miles of buried pipeline to convey water to a new water treatment plant at MHAFB. Construction of the water transmission system is expected to be completed in July 2025.

**Project budget:** The project cost is estimated to be about \$40 million and will be covered by ARPA and Idaho state surplus funds.

**Inlet and Pump Station details:** Two inlet structures in C.J. Strike Reservoir will provide water for the project. A pump station on the bank of the reservoir will pump water from the inlet structures, up C.J. Strike Reservoir's 300 foot cliffs and then through a 14.4 mile pipeline that will deliver water to the water treatment plant being constructed by the Air Force at MHAFB. All normal pump station operations will be controlled remotely from a control room at MHAFB.

The inlet stations are equipped with self-cleaning screens to remove vegetation, detritus and other objects from incoming water. In normal operation, the pump station will use one or two 350 HP pumps depending on the quantity of water required by the base.

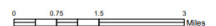
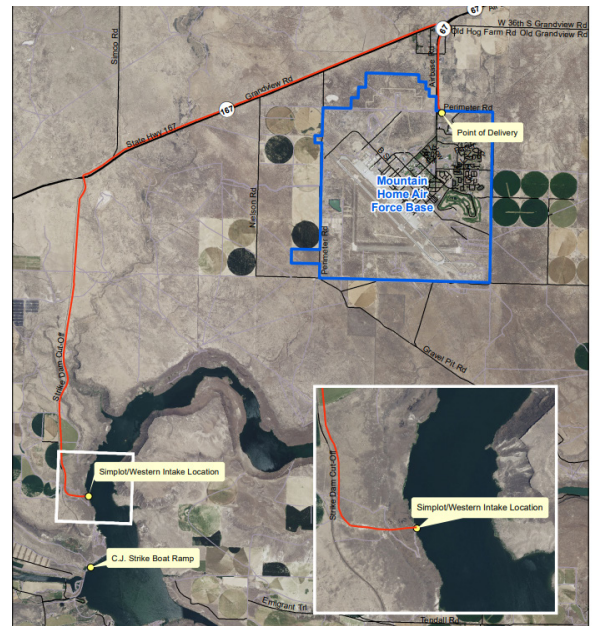


**Water pipeline features:** Above, HDPE pipe is heat-welded together. Below, red line shows pipeline route from the reservoir to the base.

The highest pressure portions of the pipeline, including the 300 foot run from the pump station to the top of C.J. Strike's 300 foot cliffs, will be constructed from welded steel pipe lined with polyurethane and cement mortar. The 14.4 mile run from the top of the cliffs to MHAFB will be constructed, primarily, from High Density Polyethylene pipe. Pipe dimensions vary somewhat, but are generally from 18" to 22" along the pipe's length.

**The Water Treatment Plant:** The U.S. Air Force and the U.S. Army Corps of Engineers will be constructing a water-treatment plant on base. The IWRB's water pipeline will connect to two, 3-million-gallon water storage tanks in the treatment plant. The treatment plant is expected to be completed in summer 2026 and fully commissioned by summer 2027.

IWRB officials are grateful for the support from former Gov. Butch



Otter, Gov. Brad Little, the Idaho Legislature, the U.S. Air Force, and project partners to make the MHAFB Water Resilience Project possible and create a long-term water supply for the base.

For more information, go to [idwr.idaho.gov](http://idwr.idaho.gov).