Northern Integrated Supply Project
Information briefing document for River District Board packet

The Northern Integrated Supply Project (NISP) is being proposed and coordinated by Northern Water on behalf of 15 Northern Front Range water providers, including 11 cities and towns and 4 domestic water districts. NISP will utilize unappropriated in-basin water that is currently leaving the state in years of abundance and, through storage as well as exchanges with two local ditch companies, will annually provide 40,000 acre-feet of new, reliable water supply for the fastest growing region in Colorado.

Between 2009 and 2017 more than 5.5 million acre-feet of water in excess of Colorado’s South Platte River compact obligations have flowed out of Colorado into Nebraska. Some of these flows, however, would be extremely difficult to capture because of the high variability in the South Platte flows. Additional infrastructure, such as NISP, would allow a greater portion of Colorado’s South Platte River Compact entitlement to be captured, controlled and placed to beneficial use.

NISP has received endorsements from the following West Slope entities:

- Club 20
- Southwestern Water Conservation District
- Ute Water Conservancy District

During its presentation, Northern Water will request the River District Board consider the following points:

1. NISP will capture, possess, store, distribute, and the project participants will beneficially use unappropriated waters from the South Platte River and the Cache la Poudre River.

2. NISP will not utilize water allocated by the Municipal Subdistrict from the Windy Gap Project.

3. A new dam must be properly and adequately monitored. To facilitate required monitoring, Colorado dam safety criteria for the first filling of a reservoir limits the fill rate to one vertical foot per day. If native water supplies are physically and legally limited at
the time of first fill of Glade Reservoir (170,000 acre-feet capacity, 300 ft. dam), it is proposed that a combination of the water yielded from the NISP native water rights and up to 20,000 acre-feet of NISP Project Participants’ allocated C-BT Project quota water could be used.

If utilized to facilitate first filling in Glade Reservoir, any stored C-BT Project water would likely remain in the reservoir until the first fill of the reservoir is accomplished, and then would be placed to beneficial use by the Project Participants.

If stored during first fill of Glade Reservoir, C-BT Project water placed into storage would be limited to a total of 20,000 acre-feet. Other than to facilitate first filling of Glade Reservoir, C-BT Project water would not be stored in NISP.

4. NISP will provide 40,000 acre-feet annually of firm yield to the 15 project participants. The “no action alternative” (NEPA’s studies’ “no action alternative” is the alternative most likely to be pursued by the project participants if NISP is not constructed), would result in approximately 60,000 acres of irrigated farmland being “dried up” to provide the equivalent water supply that will be provided by NISP.

5. Fish and Wildlife Mitigation and Enhancement Plans are required under Colorado Revised Statutes section 37-60-122.2 for water projects requiring a federal permit. Northern Water and the NISP Participants have developed a robust Fish and Wildlife Mitigation Plan which addresses the direct project impacts on the State’s fish and wildlife resources. The Enhancement Plan contains fish and wildlife related environmental commitments that extend beyond required mitigation to provide enhancements that improve existing environmental conditions. The NISP Fish and Wildlife Mitigation and Enhancement Plan has been approved by Colorado Parks and Wildlife and the Colorado Water Conservation Board and has been endorsed by the Governor as the official State position.
Project status

The U.S. Army Corps of Engineers began the National Environmental Policy Act compliance process in August 2004. The Draft Environmental Impact Statement was issued for public comment in April 2008. In February 2009, the Corps announced they would move forward with a Supplemental Draft EIS which was released for public comment in June 2015. The Corps has announced that the Final EIS will be complete and released to the public in late May or June of this year.

NISP has begun the process of securing a 401 Water Quality Certification from the Colorado Department of Public Health and Environment, with the goal of obtaining that certification in mid-2019. The NISP Record of Decision is scheduled to be issued some time in 2019, following the issuance of the 401 Water Quality Certification.

Request

Following Northern Water’s update to the River District Board on April 18, 2018, concerning the status of NISP, Northern Water will answer any questions the Board may have, and will request that the River District Board consider endorsing NISP.
The Northern Integrated Supply Project will supply 15 Northern Front Range water providers with 40,000 acre-feet of new, reliable water supplies. Northern Water is pursuing permitting, design and construction of this estimated $1 billion project on behalf of the participants, who will be providing water to nearly half a million residents by 2050. The project components include:

- Two reservoirs (Glade Reservoir northwest of Fort Collins, and Galeton Reservoir northeast of Greeley)
- A forebay reservoir below Glade Reservoir
- Five pump plants
- Pipelines to deliver water for exchange with two irrigation companies and for delivery to participants
- Improvements to an existing canal to divert water off the Poudre River near the canyon mouth

Since 2009, more than 5 million acre-feet of water has flowed into Nebraska over and above legal requirements. NISP will help put some of that water to beneficial use here in Colorado, through a 1980 storage right on the Poudre River, a 1992 water right on the South Platte River, and exchanges with two local ditch companies.

The NISP Fish and Wildlife Mitigation and Enhancement Plan – approved by the Colorado Parks and Wildlife Commission, Colorado Water Conservation Board and Gov. John Hickenlooper in 2017 – includes an array of components that address issues raised during the permitting and public comment processes, such as:

- An operational configuration that releases 18 cubic feet per second to 25 cfs year-round from Glade Reservoir to the Poudre River, eliminating existing dry-up points in the river and improving streamflows
- A Poudre River peak-flow operations program that results in little to no diversions during peak flow conditions during 90 percent of years
- Wildlife habitat conservation
- Water quality improvements
- Retrofitting four existing diversion structures to allow fish to migrate freely up and down river – and for flows to continue downstream
- Stream channel and habitat improvements
- Fishery and recreation benefits at Glade Reservoir

Two new reservoirs that will help Northern Colorado communities meet their future water needs

A project that will improve river flows and protect wildlife and our environment

Current Status & Upcoming Timeline

2017 – Approval of Fish and Wildlife Mitigation and Enhancement Plan
2018 - Release of a Final Environmental Impact Statement from the U.S. Army Corps of Engineers, and continued work on water quality certification
2019 – Anticipated Record of Decision, which is the Corps’ final determination on whether NISP can proceed
2019-2021 – Project design to be finalized
2021-2025 – Anticipated construction dates
2025 – First water stored in Glade Reservoir

The future site of Glade Reservoir northwest of Fort Collins.
Glade Reservoir will be located northwest of Fort Collins near the intersection of U.S. Highway 287 and State Highway 14. It will be 5 miles long, 280 feet deep at its deepest, and have the capacity to store 170,000 acre-feet of water, slightly larger than Horsetooth Reservoir. Glade Reservoir will divert water from the Poudre River during mostly high flow times, using the already existing Poudre Valley Canal near the canyon mouth. As part of NISP, the PVC’s diversion structure will be upgraded. The reservoir site is divided by U.S. Highway 287, and therefore, about seven miles of the highway will be relocated to the east.

The Colorado Water Plan reinforced the necessity of additional water storage to help meet the state’s future water gap. The gap is the difference between the estimated future water demands and existing supplies by the year 2060. The plan identifies the need for 400,000 acre-feet of additional storage statewide. NISP can play a role in meeting a portion of the impending water gap in Colorado. The plan also identifies water conservation and increased water transfers between the agricultural and municipal sectors as additional solutions to help meet the impending gap.

Galeton Reservoir will be located east of Ault and northeast of Greeley, and store about 45,600 acre-feet at full capacity. To fill Galeton Reservoir, water will be diverted from the South Platte River downstream from Greeley at high flow times. Galeton Reservoir water will be delivered to two ditch companies in exchange for a portion of the Poudre River water they currently use – an effort called the South Platte Water Conservation Project. More than half of NISP’s planned diversion from the Poudre River includes water that’s already been diverted for decades by these two ditch companies.

The 15 NISP participants include 11 fast-growing communities and four water districts within the Northern Front Range. They currently serve water to about 250,000 residents, with that number expected to double by 2050. The NISP participants are pursuing an all-of-the-above strategy to meet their future water needs. In addition to NISP, they are embracing conservation efforts, alternative transfer methods with ag-water suppliers and reuse opportunities. The participants have already collectively reduced their water consumption by more than 20 percent in recent years through these efforts.

Learn more at www.gladereservoir.org.