



8/28/15
Sarah,
Pls distribute to
Council + staff.
Thx.
Wade.

August 26, 2015

Mayor Wade Troxell
City of Fort Collins
P.O. Box 580
Fort Collins, CO 80522

Re: Northern Integrated Supply Project - Northern Water Response to City of Fort Collins Staff Comments

Dear Mayor Troxell,

Northern Water would like to thank you, the City Council and City of Fort Collins staff for continued dialog on the Northern Integrated Supply Project (NISP or "project") and the recent Supplement Draft Environmental Impact Statement (SDEIS) released by the Corps of Engineers in June. We understand that City Council will be considering approval of a comment letter to the Corps as well as a resolution outlining Fort Collins' comments on the SDEIS and the project in general at its September 1, 2015 Council meeting.

Northern Water, on behalf of the 15 NISP Participants, is developing this project to add reliable water yield for the Northern Colorado region in an environmentally responsible way. NISP, much like the existing Windy Gap Project and the Colorado-Big Thompson Project which provide a substantial amount of Fort Collins' water supplies, look to assist in meeting regional water needs. Northern Water manages NISP through the Northern Integrated Supply Project Water Activity Enterprise, and any reference in this letter to Northern Water implementation of NISP implies Northern Water acting through this Enterprise.

In an effort to understand Fort Collins' concerns regarding the project, Northern Water staff attended the July 28, 2015 City Council Work Session regarding the project, and has subsequently met with city staff to have further discussions about those comments. Northern Water would like to provide you with the following responses to key city staff comments for consideration by City Council during its deliberations on NISP.

Environmental Effects and Mitigation

City staff have identified several potential effects on the Poudre River that they feel are inadequately or improperly addressed in the SDEIS, including: water quality; stream morphology (primarily flushing flows); aquatic resources; and, riparian vegetation resources. NISP Participants have spent \$15 million on the environmental study process

to date, nearly \$10 million of which has been spent on the SDEIS in a concerted effort by the Army Corps of Engineers (Corps) and the third party consultant to address comments made by the City of Fort Collins and others in regard to the Draft Environmental Impact Statement (DEIS) released in 2008.

In particular, the Common Technical Platform (CTP) process undertaken by the Corps in conjunction with the cities of Fort Collins and Greeley took nearly four years and constituted roughly half of the SDEIS cost to the NISP Participants. The CTP provides the baseline data for the detailed analyses concerning hydrology, river morphology and sediment transport, aquatic biological resources, surface water quality, and riparian and wetland resources. The Corps' scientists and engineers performing these studies are considered at the absolute forefront of their respective fields, and the scopes-of-work performed by this team for the SDEIS were based specifically on comments received from Fort Collins and others on the DEIS.

The SDEIS has identified how environmental resources will be affected by the project. Based on the SDEIS findings, the NISP Participants have developed a Conceptual Mitigation Plan to mitigate those effects¹. Key components of the Conceptual Mitigation Plan pertaining specifically to the City include the following individual commitments by the NISP Participants:

- Provide \$1 million for a channel and habitat improvement plan for the Poudre River from the canyon mouth to its confluence with the South Platte River.
- Provide a \$5 million lump sum plus \$50,000 per year for Poudre River channel improvements (\$1 million of which has been earmarked to the projects described in the Poudre River Downtown Master Plan). Implementation of the channel improvements will be guided through an adaptive management program, which would include a representative from the City of Fort Collins. The \$6 million in funding provided in these first two bullets is independent of funding required to implement the remaining portions of the mitigation plan.
- Implement 2.4 miles of channel and aquatic habitat improvements.
- Reconstruct the Poudre Valley Canal diversion and retrofit four additional existing diversion structures as multi-objective diversion structures. The modifications to these diversion structures will provide for fish passage and the capability to by-pass identified flows around the diversion structures.
- Implement riparian vegetation improvements at five sites (including one site located in the City of Fort Collins), including cottonwood regeneration areas and reconnection of the river to the floodplain.
- Release up to 10 cfs from Glade Reservoir in the winter and during September to augment low flow conditions in the Poudre between Glade Reservoir and the Timnath Reservoir inlet (approximately Mulberry Street).
- Curtail diversions into Glade Reservoir under the Grey Mountain water right to maintain 50 cfs from April 16 to October 31, and 25 cfs from November 1 to April 15, at any gaging station on the Poudre below the Poudre Valley Canal.

¹ Appendix F, Volume II, Northern Integrated Supply Project Supplemental Draft EIS

- Curtail South Platte Water Conservation Project exchanges to maintain 50 cfs from April 16 to October 31, and 25 cfs from November 1 to April 15, at any gaging station on the Poudre between the Poudre Valley Canal and the New Cache diversion.
- Enhance the Northern Water streamflow and water quality monitoring program in the Poudre River to ensure commitments are being met.
- Provide funding for the Coalition for the Poudre River Watershed.

Water and Wastewater Treatment

The NISP Participants are committed to operating NISP in a manner that does not affect the City of Fort Collins water and wastewater treatment operations. Similar to the 2008 comment letter on the DEIS, city staff remains concerned about the impact of NISP operations on the Fort Collins Water Treatment Plant and the Mulberry and Drake Wastewater Treatment Plants. Following Fort Collins' comments on the Draft EIS, the NISP Participants commissioned Black & Veatch, an internationally renowned water and wastewater treatment engineering firm, to study the effects of NISP on these facilities. Black & Veatch concluded that NISP would have negligible impacts to Fort Collins' facilities. The reports resulting from the Black & Veatch studies are contained on Northern Water's NISP website².

Independently, the Corps and its third party contractor concluded in the SDEIS that NISP operations would not affect total organic carbon (TOC) concentrations "to a level that would require increasing the level of treatment at the Fort Collins or Tri-District's WTP." Similarly, it was concluded that NISP "would provide a net benefit to the low flow conditions in the Poudre River just upstream of the Fort Collins Mulberry WWTP" and "would not affect the regulatory low flows for the Fort Collins Drake WWTP."³ The SDEIS concluded that there would be no economic effect on water or wastewater treatment costs to the City of Fort Collins or any other plant operator.⁴

The Conceptual Mitigation Plan does not include mitigation for effects at the Fort Collins Water Treatment Plant because no effects were identified in the SDEIS. The mitigation plan contains the previously mentioned flow commitments to avoid potential effects at the wastewater treatment plants. The NISP Participants are willing to work with city staff to identify operational protocols and mitigation that address the City's concerns at the water and wastewater treatment plants.

Water Quality Analysis

The SDEIS reflects Phase I of a two-phase water quality analysis. Phase I includes a qualitative assessment of likely changes in various water quality parameters for multiple locations within the affected environment for each of the alternatives. Results of this first phase of the analysis will then be used to determine which parameters will be quantitatively modeled for those locations most likely to be sensitive to hydrologic changes. Phase II of the water quality analysis will include detailed modeling of

² <http://www.northernwater.org/WaterProjects/NISPMaps.aspx>

³ Page 4-150, Volume I, Northern Integrated Supply Project Supplemental Draft EIS

⁴ Page 4-390, Volume I, Northern Integrated Supply Project Supplemental Draft EIS

sensitive parameters including, but not limited to, water temperature. The results of these analyses will be presented in the FEIS.⁵

Northern Water supports city staff perspectives that detailed water quality modeling is needed to fine tune certain analyses and components of the Conceptual Mitigation Plan. However, Northern Water is confident that the Phase I analysis presented in the SDEIS represents the general direction and magnitude of water quality effects, and provides a reasonable comparison of water quality effects between the studied alternatives. The NISP Participants remain committed to identifying and mitigating water quality effects identified in the Phase II analysis, as described in the Conceptual Mitigation Plan.

Flushing Flows

City staff has reiterated its concerns about the historical reduction in flushing flows from natural conditions due to long standing diversions, and additional reductions caused by NISP diversions. Northern Water is willing to continue discussions with city staff regarding flushing flows and investigate opportunities to operate in manner that the geomorphic and biological functions of these flows are maintained and/or improved. However, NISP cannot improve these flows alone. This effort will require the cooperative effort of all water users on the Poudre River, including the City of Fort Collins.

Additionally, Northern Water would like to point out that the level of flows proposed by city staff to meet flushing flow requirements (the City's River Health Assessment Framework proposed 3,300 cfs below the Larimer and Weld diversion near Shields Street for a "B" grade⁶) can cause flooding downstream in the Windsor and Greeley areas, as was experienced earlier this year. Northern Water will not agree to operate NISP in manner that does not assist in alleviating flooding that endangers life or property as may be requested by responding agencies when it has a reasonable ability to do so.

Cactus Hill Alternative

Northern Water understands that city staff is proposing modifications to Alternative 4 that would include additional pumping from the New Cache headgate (east of I-25) to the Cactus Hill Reservoir site (which is north of Highway 14, halfway between I-25 and Ault), with the goal of providing more water in the Poudre River through the City of Fort Collins. While Cactus Hill was proposed as an alternative, additional studies through the EIS process have lead Northern Water to have serious concerns about the practicability of a Cactus Hill alternative due to the following reasons:

- The Cactus Hill Reservoir site is a less efficient reservoir site for municipal water supply purposes, as the amount of evaporation is more than twice that at Glade Reservoir.
- There are serious concerns regarding the reservoir's water quality suitability for a municipal supply due to: 1) diversion of lesser quality water from the New Cache ditch; 2) the uptake of salinity from the shales underlying the reservoir site; and 3)

⁵ Page 4-85, Volume I, Northern Integrated Supply Project Supplemental Draft EIS

⁶ Page 21, Draft City of Fort Collins River Health Assessment Framework, July 21, 2015

the reservoir site overlying a portion of the Anheuser Busch brewery effluent disposal area.

- A substantial portion of the Anheuser Busch brewery effluent disposal area would have to be relocated with uncertain regulatory and land use impacts.
- The Cactus Hill Reservoir site would not allow the 10 cfs flow augmentation release to the Poudre River upstream of the City of Fort Collins due to its distance from the river (the site is approximately 24 miles from the 10 cfs release point to the Poudre River), nor would it allow flexibility for implementing any other type of program to benefit flows in the Poudre River, either by diversion or release.
- The amount of additional pumping and infrastructure required would be substantial.
- The amount of wetlands disturbed by the Cactus Hill Reservoir site and associated Poudre Valley Canal enlargement and lining (89.7 acres⁷) is greater than the wetlands disturbed by the Glade Reservoir site (53.4 acres⁸); Northern Water would likely not consent to building a major municipal water supply system without substantial improvements to the existing Poudre Valley Canal that would, in turn, affect wetlands.
- There would be no recreational benefit of this reservoir to the City of Fort Collins or the region, as the reservoir is not suitable for recreation (see below).

River Based Recreation

The SDEIS states that the number of river-based recreational boating days within the Fort Collins reach of the Poudre River would decrease by an average of 19 days over the May through August period, utilizing the criteria that 150 cfs is the flow necessary for boating. City staff notes that its consultant acknowledged “Front Range kayaking facilities regularly experience seasonal highs and lows and the boating community is accustomed to these fluctuations” and “the designers would take into account these lower flows and build facilities to maximize their benefit.”⁹ Northern Water agrees with this assessment. Whitewater play parks in Golden and Lyons (before it was washed out in the 2013 flood) are runnable down to 60 cfs, and the Boulder play park is runnable down to 75 cfs¹⁰.

Northern Water has made commitments to minimize NISP effects on future implementation of the proposed whitewater play park and other recreational boating in the City of Fort Collins. Northern Water is committed to not operating NISP diversions to cause flows to decrease below 50 cfs during the summer in the area of the proposed play park, which is generally in the range of minimum flows at other successful whitewater play parks on the Front Range. Additionally, Northern Water has committed at least \$1 million for river and habitat improvement in Fort Collins reaches of the Poudre River, which at the direction of the City, could be used to support certain aspects of the whitewater play park implementation.

⁷ Page 4-232, Volume I, Northern Integrated Supply Project Supplemental Draft EIS

⁸ Page 4-223, Volume I, Northern Integrated Supply Project Supplemental Draft EIS

⁹ Pages 5-6, July 28, 2015 City Council Work Session Item

¹⁰ Boulder Outdoor Center website: <http://boc123.com/Kayak/ParkandPlay.cfm>

NISP Benefits to the City of Fort Collins

Northern Water understands that staff comments have primarily focused on identifying adverse impacts to the City of Fort Collins. However, Fort Collins will benefit from NISP in several ways, including (as described in the SDEIS):

- NISP will supply water to the Fort Collins-Loveland Water District which, based on city staff comments, supplies water to 25% of the City of Fort Collins Growth Management Area.
- The 10 cfs flow augmentation program during low flow periods (winter and September) would eliminate streamflow dry-up points often experienced upstream of Mulberry Street and, furthermore, have a beneficial effect on aquatic species including Brown Trout (noting again that this release is not feasible from the Cactus Hill alternatives).
- Recreational opportunities at Glade Reservoir, which will be managed in a manner similar to Horsetooth Reservoir, would bring \$13 million in revenue to the area¹¹.
- NISP avoids the dry-up of nearly 64,200 acres of irrigated land in Larimer and Weld counties, which would have an \$87 million impact on economic output primarily in Larimer and Weld counties, with a projected loss of 738 agriculture-related jobs¹², all of which would affect Fort Collins and the surrounding region.

Halligan Reservoir

Northern Water understands staff and City Council are concerned about the ability to permit and build the proposed Halligan Reservoir expansion if NISP were permitted and built. Northern Water is supportive of all water storage projects that are planned and developed in a sustainable and environmentally responsible manner, including Halligan Reservoir expansion. Northern Water supported the Halligan project in the formulation of the Colorado Water Plan that is ongoing. Northern Water is certainly aware that the City is progressing through its own NEPA process for the Halligan Reservoir expansion project, and that enlargement of Glade Reservoir is an alternative being evaluated in the NEPA process. Northern Water does not and will not oppose this alternative or any other alternative as long as operations and environmental commitments of the alternatives are consistent with the function, operations and environmental commitments of NISP.

Northern Water agrees with and supports the city staff comment objecting to the SDEIS characterization of the Poudre River as being on a “declining trajectory” that may not be reversible. Northern Water and the NISP Participants are committed to developing a firm water supply through the Northern Integrated Supply Project while mitigating and enhancing environmental and biological functions of the Poudre River. Northern Water has developed a Conceptual Mitigation Plan that mitigates the effects of NISP, and will continue to refine and improve its Conceptual Mitigation Plan through the State Fish and Wildlife Mitigation process (§37-60-122.2, CRS), which will begin this fall.

¹¹ Page 4-391, Volume I, Northern Integrated Supply Project Supplemental Draft EIS

¹² Page 4-386, Volume I, Northern Integrated Supply Project Supplemental Draft EIS

As you, City Council and city staff discuss and deliberate the merits of NISP, we would ask that you take these responses into consideration. Northern Water feels the science shows NISP and the Poudre River can co-exist, and in the long-run, the NISP Participants working cooperatively and collaboratively with the City of Fort Collins and other Poudre River water users and stakeholders can make the Poudre a more healthy and sustainable ecosystem. This will take continued dialog and a concerted effort by all Poudre River water users and communities. We hope that your comments and resolution will reflect a desire to continue this productive working relationship.

Like the Colorado-Big Thompson and Windy Gap Projects, which were developed to serve the water supply needs of the region, the Northern Integrated Supply Project will provide water supplies needed to serve the future generations of Fort Collins, Windsor, Severance, Eaton, Evans, and several other neighboring communities. As the Corps moves towards a Final EIS, Record-of-Decision and issuance of a 404 permit for NISP, we would ask that the City work collaboratively with Northern Water to further develop mitigation options for identified NISP-related impacts and to identify potential enhancements beneficial to the Poudre River, assuring that NISP is developed in an environmentally responsible manner while meeting our joint goals of a healthy and sustainable Poudre River.

If you have any questions related to NISP and the many benefits it brings, please do not hesitate to contact me or Northern Water staff, including Carl Brouwer, Jerry Gibbens, Don Carlson, or Eric Wilkinson. We look forward to continuing our dialog and work with you, city staff and other Poudre River communities on protecting and enhancing the Poudre River corridor.

Sincerely,

A handwritten signature in blue ink, reading "Mike Applegate". The signature is fluid and cursive, with the first name "Mike" and last name "Applegate" clearly distinguishable.

Mike Applegate
President, Northern Water Board of Directors

cc: Darin Atteberry, City Manager, City of Fort Collins
Eric Wilkinson, General Manager, Northern Water