

No Pipe Dream Corporation Save Rural NoCo Corporation Save the Poudre

June 9, 2020

By email

Larimer County Planning Commission (pcboard@larimer.org)
Rob Helmick (helmicrp@co.larimer.co.us)
Larimer County Planning Department
200 West Oak Street, Suite 3100
Fort Collins, Colorado 80521

Re: Planning Commission Hearing Comments to the Northern Integrated Supply Project (NISP) Pending 1041 Permit Application, Project No. 20-ZONE 2657

Dear Mr. Helmick:

On behalf of No Pipe Dream Corporation, Save Rural NoCo Corporation, and Save the Poudre (collectively “Larimer County NGOs”), we submit the following comments and concerns for the upcoming Planning Commission hearing regarding Northern Colorado Water Conservancy District’s (“Northern”) pending 1041 permit application (“1041 application”) for the Northern Integrated Supply Project (“NISP”).

By means of background, No Pipe Dream Corporation is a Colorado nonprofit corporation composed of Larimer County property owners and taxpayers established to protect citizens from the intense adverse impacts of multiple proposed pipeline and reservoir projects in Larimer County, including but not limited to NISP. Save Rural NoCo Corporation is a Colorado nonprofit corporation composed of property owners and taxpayers whose mission is to protect existing land, water, and communities in rural northern Colorado from harmful development through research and public education. Save the Poudre is a Colorado nonprofit membership organization primarily composed of residents of Larimer County, including outdoor recreationists, scientists, property owners, and taxpayers that would be adversely impacted by the construction and operation of NISP. Save the Poudre’s members live, work, and recreate on and around the Cache la Poudre River (“Poudre River” or “River”) in Larimer County. Some members own property or have residences near the Poudre River in the City of Fort Collins.

The membership of these three (3) nonprofit corporations would be uniquely and adversely impacted by construction and operation of NISP. More specifically, landowners and taxpayers may lose their homes and/or property either by forced easements or outright eminent domain. The affected citizens will also be adversely

impacted by the noise, air pollution, water pollution, and aesthetic injury associated with the multi-year construction of NISP. Save Rural NoCo members will be permanently impacted by the construction and operation of a new public recreation area at Glade Reservoir resulting in increased traffic, noise, litter, increased fire danger, trespass, and other impacts associated with opening an area to the general public. Further, No Pipe Dream and Save Rural NoCo members will be forced to live with a traffic nightmare for several years while the pipeline, dam, and reservoir construction results in road closures in their neighborhoods. Members of Save the Poudre will also be injured by NISP's adverse impacts to the Cache la Poudre River. More specifically, Save the Poudre members' interests in clean water and maintaining flows for swimming, fishing, kayaking, and aesthetic enjoyment would be detrimentally impacted by NISP. NISP would add to negative impacts to the ecological health and beauty of the Cache la Poudre River through Fort Collins and natural areas valued by Save the Poudre members. Further NISP will negatively impact the downstream riparian ecosystem, including fish populations, insects, birds, mammals and the wetland and riparian vegetation along the river.

To summarize some of our comments and concerns, the Larimer County NGOs believe that the Planning Commission should recommend denial of Northern's 1041 application because: 1) the proposal suffers from similar deficiencies as did the Thornton Water Project, which resulted in a precedent setting Board denial of a water pipeline 1041 application; 2) the proposal does not meet the Land Use Code criteria for approval of a 1041 application; 3) the application is incomplete, speculative, and fails to evaluate the cumulative impacts of the various pipeline and water projects proposed for Larimer County; and, 4) the proposal would result in numerous significant adverse impacts to Larimer County residents and the Cache la Poudre River that cannot be mitigated.

I. Request for Group Presentation by Larimer County NGOs.

The Planning Commission Bylaws specifically allow for "group presentations."¹ The Larimer County NGO's hereby collectively request 45 minutes at the July 8, 2020 Planning Commission hearing to make a joint group presentation. The presentation will be well organized allowing each group to present for approximately 15 minutes each. The group presentation will save time by minimizing repetition. Further, it is impossible to adequately comment on a 1041 permit application composed of thousands of pages within 2-minute individual comment time limit. Please confirm in writing no later than June 24, 2020 that the Larimer County NGO's have a 45-minute time slot for their group presentation on July 8, 2020. Because the groups will have their attorneys and technical experts present at the hearing, we request that our time slot be immediately after Northern's presentation or at the commencement of the hearing.

¹Exhibit 1 hereto (Planning Commission Bylaws, p. 3, Section V. A.4. "Procedure for Consideration of Agenda Items" dated 4/28/2020).

II. Recusal of Sean Dougherty and Jeff Jensen.

The Larimer County NGOs hereby request that Planning Commissioners Sean Dougherty and Jeff Jensen recuse themselves from participating in the adjudication of the NISP 1041 application.

Mr. Dougherty has publicly stated his support for NISP. More specifically, Mr. Dougherty has unequivocally stated, “I am in full support of the Northern Integrated Supply Project, known as NISP.”² Mr. Dougherty also publicly stated, “NISP and Windy Gap Firing Project need to be completed...”³

Mr. Jensen is running for Steve Johnson’s seat on the Board this November. Mr. Jensen has been publicly endorsed by Steve Johnson.⁴ Mr. Johnson has endorsed and supported NISP.⁵ Having requested and received the endorsement of the sitting Commissioner who himself has endorsed the project that is the subject of the 1041 application, Mr. Jensen’s independent and impartial participation in this quasi-judicial process has been tainted. These facts create the appearance of bias within the citizenry of Larimer County. Mr. Jensen must recuse himself.

Further, it is the practice of the Planning Commissioners to recuse themselves when they may be required to act on a pending land use application in a potential future role as a Larimer County Commissioner. For example, Sean Dougherty recused himself as a Planning Commissioner from participation in the Loveland Ready Mix Laporte gravel pit Special Review application based on the fact that he was a candidate for an open Board seat following the death of Lew Gaiter. Since Mr. Jensen is a candidate for Commissioner in November 2020, he too should recuse himself based on the practice of the Commission.

The constitutional floor of due process requires “a realistic appraisal of psychological tendencies and human weakness” to determine whether these undisputed facts pose “such a risk of actual bias or prejudgment that the practice must be forbidden if the guarantee of due process is to be adequately implemented.” *City of Manassa v. Ruff*, 235 P.3d 1051, 1057 (Colo. 2010)(quoting *Caperton v. A.T. Massey Coal Co.*, 556 U.S. 868, 883-84 (2009)).

Further, Article XXIX(1)(c) of the Colorado Constitution requires that local governments “avoid conduct that is in violation of their public trust or that creates a justifiable impression among members of the public that such trust is being violated.” The Larimer County Land Use Code requires that a quasi-judicial officer, recuse himself

² Exhibit 2 hereto (screen shot of <https://instabusters.net/hashtag-photos/SeanForLarimerCounty> taken 6/9/2020).

³ Exhibit 3, p. 6 hereto (Fort Collins Business Community Candidate Endorsement Questionnaire).

⁴ <https://www.jensen4lcc.com/endorsements/>

⁵ Exhibit 4 hereto (Northern’s NISP website, November 2019)

from any quasi-judicial decision if he “believe[s] they have a conflict of interest or for any other reason believes that they cannot make a fair and impartial decision.”⁶ The Code also states that quasi-judicial officers must avoid any conflict of interest and that all official actions “must represent unconflicted loyalty to the interest of the citizens of the entire county.”⁷

Under Colorado law a local government’s land use application determinations are quasi-judicial in nature. *Margolis*, 638 P.2d at 304-05. A quasi-judicial decision must provide for due process and adhere to fundamental principles of fairness. *Canyon Area Residents v. Bd. of Cnty Comm’rs*, 172 P.3d 905, 908 (Colo. App. 2006). A quasi-judicial hearing must be conducted in an atmosphere evidencing fairness in the adjudication. *Id.* Due process requires recusal of a quasi-judicial decision maker when such decision maker has a direct, personal, substantial, pecuniary interest in the pending matter; or when “extraordinary” facts create an impermissible probability of bias. *Tumey v. Ohio*, 273 U.S. 510, 523 (2000); *Caperton*, 556 U.S. at 887.

Mr. Dougherty and Mr. Jensen must recuse themselves from this quasi-adjudicative process. Their prior statements supporting NISP, or their association with others that support NISP, creates an atmosphere of bias in favor of the project within the Larimer County community.

We ask that Mr. Dougherty and Mr. Jensen each respond in writing to this request for recusal at least one (1) week prior to the first Planning Commission hearing on the NISP 1041 application.

III. Incorporation of DEIS and FEIS comments.

Northern’s 1041 application repeatedly refers to the pending National Environmental Policy Act Final Environmental Impact Statement (“EIS”). However, because the County’s 1041 process evaluates criteria that are separate and distinct from the federal EIS process, Northern’s 1041 application must stand on its own and be adjudicated independent of any EIS filings. Nevertheless, since Northern repeatedly refers to documents in the federal EIS proceeding, the Larimer County NGOs hereby incorporate herein by reference their comment letters submitted to the federal agencies in the EIS process.⁸ Four filings were made to the Army Corps in response to the DEIS (2008), SDEIS (2015), FEIS (2018), and a request for “Supplemental NEPA studies” (2019). Further, we also incorporate herein by reference the County’s own comments on

⁶ Larimer County Land Use Code (“LUC”) § 2-67(10).

⁷ LUC § 2-71.

⁸ Exhibit 5 (DEIS comment letter); Exhibit 6 (SDEIS comment letter); Exhibit 7 (FEIS comment letter); Exhibit 8 (SEIS comment letter).

the EIS.⁹ Finally, we incorporate the City of Fort Collins’ comments on the DEIS and SDEIS.¹⁰

IV. The Cache la Poudre River is ill and NISP will make it worse.

The Cache la Poudre River is in crisis. The River is already over-appropriated. *Three Bells Ranch Associated v. Cache La Poudre Water Users Ass’n*, 758 P.2d 164, 166 (en banc Colo. 1988). As shown below, segments of the river near Fort Collins are often dry.



Photo: Save The Poudre, October 2009, near Lions Park, Laporte, CO.

The River has been seriously altered by heavy agricultural and urban water use since early settlement in the 1870’s.¹¹ “The human footprint continues to expand, placing additional pressure (or stresses) on the river ecosystem and the natural processes that sustain it.”¹² Extensive existing dam and diversion infrastructure, as well as proposed additional water development, such as the proposed Northern Integrated Supply Project,

⁹ Exhibit 9 hereto (County’s comments on DEIS).

¹⁰ Exhibit 10 hereto (Ft. Collins comments on DEIS) and Exhibit 11 hereto (Ft. Collins comments on SDEIS).

¹¹ Exhibit 12 hereto, p. 2 (“Bestgen study”).

¹² Exhibit 13 hereto, p. 3 of pdf (“State of the Poudre River 2017” (SOPR)).

“have significantly altered the peak and base flows, the effects of which are exacerbated the further one travels downstream. Diversions also cause unnatural fluctuations in flow volume, which likely affects critical habitat and reproductive needs of fish and insects in the river.”¹³

The towns and cities in the thirsty Denver metro area, including Boulder County and Weld County, have exhausted the local water supplies in Clear Creek, Boulder Creek, the mighty St. Vrain River and other watersheds. Now they are moving north to grab water from the Cache la Poudre River. Currently proposed water diversion and/or storage projects in the upper Cache la Poudre River watershed include NISP, the Halligan Reservoir expansion, the Seaman Reservoir expansion, and the Thornton Water Project. These water grabs are often accomplished by implementing a “buy and dry” strategy whereby these irresponsible and rapidly growing municipalities buy irrigated farms in the Cache la Poudre River watershed, convert the water to municipal use, and attempt to pipe it south and east to towns and cities. Both NISP and the Thornton Water Project would take Cache la Poudre River water out of its natural watershed south to these metro communities. In some cases, as with NISP, the water developer has not even secured the water rights needed to fully supply the water project, but still moves forward in attempting to acquire necessary permits, such as this 1041 permit application, theoretically making it possible for construction to proceed and serving up all the impacts and none of the benefits.

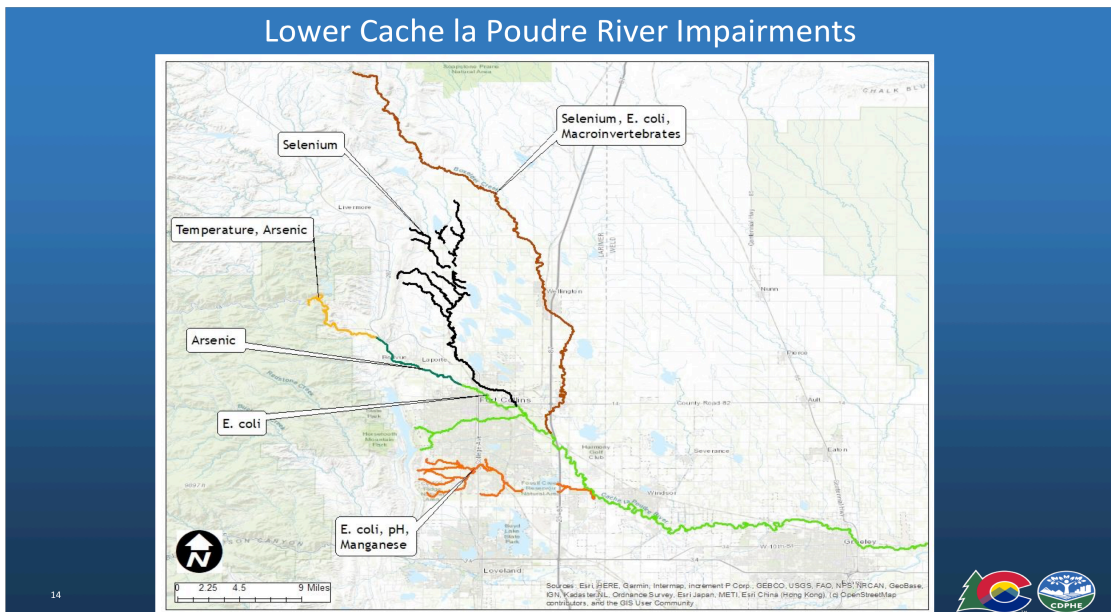
In the Cache la Poudre River, “populations of native fish are [also] in sharp decline. These declines are most likely due to fragmented habitat and extended periods of extremely low base flows. Other stresses likely influencing fishery health include rapid fluctuation of flows...and altered water temperatures.”¹⁴ The flow regime in the Cache la Poudre River score poorly in all segments of the river “suggesting substantially-impaired functionality...[i]mpairment mainly arises from the effects of water management.”¹⁵

As shown below, the River also suffers from numerous existing water quality impairments, including *Escherichia coli*.

¹³ *Id.*, p. 4 (SOPR).

¹⁴ Exhibit 12, p. ii (SOPR).

¹⁵ *Id.*, pp. 41, Table 4.1, and p. 42 (SOPR).



These water quality impairments will worsen if additional stream flow is removed from the River.

In 2019 Fort Collins Utilities (“FCU”) commissioned the Water Supply Vulnerability Study (“WSVS”) to evaluate the future risks associated with meeting the water needs of its service territory.¹⁶ The #1 risk was climate change. The WSVS Report states:

Climate change is the most important vulnerability faced by the FCU system. Future climate conditions may be more impactful to FCU’s ability to meet its water supply planning policy criteria than the occurrence of any particular infrastructure outage or environmental condition simulated by the WSVS risk scenarios.¹⁷

Based on a review of previous climate change studies for the Front Range region, the WSVS study evaluated a worst case climate change temperature range increase from 0 to 8 degrees F compared to average annual 1981 to 2010 observed temperature and precipitation risk ranges from -10% to +15% of average annual 1981 to 2010 observed

¹⁶ Exhibit 14 hereto (“WSVS study”).

¹⁷ *Id.* at p. ES-16 (“WSVS study”).

precipitation (“P”).¹⁸ The WSVS Study concludes:

Temperature and precipitation changes in the range adopted for the WSVS were found to have significant effects on streamflow contributing to the FCU water supply. The hottest/driest climate condition (T = +8 degrees F, P = -10%) reduced the Poudre River at the Canyon Mouth mean annual streamflow by an average of 30%...¹⁹

Even if precipitation does not change (delta P=0%), the WSVS Study shows that an increase in temperature (“T”) of +8 degrees F is predicted to reduce streamflow at the mouth of the Canyon by more than 10 percent.

Meteorological data provides ample evidence that air temperature along the Front Range has increased over time. Data collected at the Joe Wright Reservoir SNOTEL site, located just east of the continental divide at 10,120 feet and within the Poudre River watershed, is critically important for assessing how climate change has impacted temperature and precipitation within the watershed. Average winter, spring, summer, and September daily temperatures at this site have increased by between 3 and 4 degrees F since 1990 – particularly after year 2004. The effect of post 2005 drought conditions on reservoir storage in the proposed Glade Reservoir is evaluated by Save Rural NOCO below in this document.

Winter temperatures determine if precipitation occurs as snow or rain, spring temperatures control the timing of runoff, and summer and fall temperatures affect the soil moisture deficit that impact streamflow volumes in the next snowmelt season. Additional studies reveal that climate change will significantly reduce flows in Western watersheds.²⁰

The Cache la Poudre River is in dire need of restoration, not further flow depletion. “River restoration requires understanding linkages between specific flow conditions and ecosystem attributes to provide *clear, quantified management targets.*”²¹ Recently a group of researchers developed an Ecological Response Model (“ERM”) for the Cache la Poudre River to design a river management system to improve the health of the river in light of current and future water extraction and storage. *Id.* The purpose of the study “was to produce a scientifically credible and comprehensive analysis to inform the public and assist water managers interested in sustainable management of the Poudre River ecosystem.” *Id.* at p. 2.

The Bestgen Study incorporated climate change data and information. “To

¹⁸ *Id.* at ES-3.

¹⁹ *Id.* at ES-4.

²⁰ Exhibit 15 hereto, p. 2404 hereto (“The twenty-first century Colorado River hot drought and implications for the future.” Water Resources Research 2017 (“Udall and Overpeck Report”).

²¹ Exhibit 12, p. 2 (Bestgen Study).

incorporate climate change impacts, the present operations scenario was modified using predictions from global climate circulation models...that describes climate-changed hydrologic scenarios for the western United States.”²² The Bestgen Study concluded that “additional flow regime modification [such as from NISP] would further alter the structure and function of the Poudre River aquatic and riparian ecosystems due to multiple and interacting stressors.” *Id.* at p. 1. The ERM found that the river would benefit from “higher and more stable base flows and high peak flows.” *Id.*

V. Objection to the narrow scope of Northern’s 1041 application

Northern incorrectly states that “the scope of the 1041 Permit evaluation is the siting and development of proposed conveyance pipelines and the site selection and construction of Glade Reservoir and its appurtenant facilities...” According to Northern, an analysis of the Highway 287 relocation and alternatives to the siting and development of Glade Reservoir are beyond the scope of its 1041 application.

The Larimer County NGO’s object to Northern’s limitation of the scope of the 1041 application. Northern has the burden to comply with all review criteria for the “site selection and construction of a new water storage reservoir.”²³ This includes a presentation of alternatives to constructing the Glade Reservoir—including all environmental impacts associated with those alternatives-- as well as reservoir siting alternatives.²⁴ Because Northern attempts to illegally limit the scope of the 1041 analysis, its 1041 application completely fails to undertake an alternatives analysis for Glade Reservoir.

Northern’s 1041 application is also required to analyze impacts and alternatives to the Highway 287 relocation. More specifically, Northern has the burden of complying with 1041 review criteria for “all appurtenant uses” of its proposed “new water storage reservoir” which include “all...roads.”²⁵ This includes a presentation of alternatives to the relocation of Highway 287 as well as siting alternatives.²⁶ This also includes alternatives to constructing the access road to Glade Reservoir as well as road siting alternatives.

In summary, Northern’s application is fatally defective due to its illegal attempt to limit its scope in violation of the plain language of the LUC. For this reason alone, the Planning Commission must summarily recommend denial of Northern’s 1041 application.

VI. There is precedent for denying Northern’s application.

In 2018 the Planning Commission recommended denial of a similar water

²² Exhibit 12 at pp. 9-10.

²³ LUC §14.4.K.

²⁴ LUC §14.10.D.2.

²⁵ LUC §14.4.K.

²⁶ LUC §14.10.D.2.

pipeline project, namely the Thornton Northern Project (“TNP”, aka “Thornton Water Project”). Thornton proposed construction of a pumping plant and raw water conveyance pipeline from Water Supply and Storage Company (“WSSC”) Reservoir #4 in a corridor east along either Douglas Road or County Road 56 to I-25. In a hearing on May 16, 2018, the Planning Commission voted to recommend denial of the pumping plant and pipeline.²⁷ The reasons for the Commissions recommendation of denial were: 1) the application was incomplete; 2) there was an inadequate presentation of alternatives; 3) there was inadequate mitigation of harm; and, 4) the application did not balance the benefits to the County.²⁸

Ultimately, the Board of County Commissioners (“Board”) agreed with the Planning Commission and denied Thornton’s 1041 application.²⁹ Among the reasons for the Board’s denial of the Thornton 1041 application were: 1) the Board’s inability to assess the impacts on private property because Thornton proposed a ¼ mile wide pipeline “corridor” instead of identifying with specificity the alignment of the pipeline;³⁰ 2) the application did not contain adequate “information about and consider the cumulative impacts of irrigated farmland turning to dryland”;³¹ 3) “the siting alternatives proposed by Thornton are not reasonable and cannot be sufficiently evaluated by the Board” and “Thornton failed to present reasonable siting alternatives”;³² 4) “noise and visual impacts from the pumphouse are of concern”;³³ 5) “impacts will significantly impair residents’ quality of life and use of their properties”;³⁴ 6) the proposal “would require an unreasonable lengthy construction cycle, up to four years, which neighbors of the route testified would cause significant disruption to their homes and daily lives”;³⁵ 7) “The sheer size and uncertainty of the proposed 500’ to ¼ mile wide corridor prevents the Board and private property owners from reasonably considering all impacts. This uncertainty is, in itself, a significant impact of this project”;³⁶ 8) the application “does not account for the cumulative impacts of the project as a whole”;³⁷ 9) “a balancing of those impacts with the benefits must be performed”;³⁸ and, 10) “The Board is not yet convinced, however, that the two proposed routes for the pipelines and the location for the pump house are the only and/or best and least impactful and that other routes are not

²⁷ Exhibit 16 hereto (Transcript of May 16, 2018 Planning Commission hearing, pp. 199-200).

²⁸ *Id.* at pp. 170-200.

²⁹ Exhibit 17 hereto (Findings and Resolution Thornton Northern Project, March 19, 2019).

³⁰ *Id.* at p. 7.

³¹ *Id.*

³² *Id.* at p. 8.

³³ *Id.* at p. 9.

³⁴ *Id.*

³⁵ *Id.*

³⁶ *Id.* at p. 10.

³⁷ *Id.*

³⁸ *Id.*

viable.”³⁹

Ultimately, the Board found that Thornton’s 1041 application failed to meet the following review criteria of the LUC: Section 14.10.D.1. (“consistent with the master plan”); Section 14.10.D.2. (“reasonable siting and design alternatives”); Section 14.10.D.3 (“conforms with adopted county standards”); Section 14.10.D.4. (“proposal will not have a significant adverse affect”); Section 14.10.D.6. (“proposal will not negatively impact public health and safety”); Section 14.10.D.10 (“the benefits of the proposed development outweigh the losses of any natural resources or reduction of productivity of agricultural lands”); and, Section 14.10.D.11 (“a reasonable balance between the costs to the applicant to mitigate significant adverse affects and the benefits achieved”). The Board recently defended its position in Court by opposing Thornton’s efforts to overturn the decision.⁴⁰

Other important reasons for the rejection of the TWP that are applicable and parallel to the NISP Northern Tier pipeline proposal are: 1) the likely use of disfavored eminent domain processes in order to put the pipeline in place, as no private landowner agreements along the proposed route have been found through a public records search or Colorado Open Records Act (“CORA”) request to Northern; 2) the significant impact upon lands, especially between WSSC Reservoirs 3 and 4; and 3) a CORA request showing there still has been no meaningful discussion or consultation between Northern Water and Thornton about the possibility of co-locating multiple pipelines, despite the BOCC specifically mentioning the difficulty of planning for the possibility of multiple pipelines in its Thornton 1041 denial.

It is undisputed that Northern’s proposal will cause exponentially greater adverse impacts than would the Thornton pipeline, which was rejected both by this Commission and the Board. For example, Northern’s 1041 application involves similar pipeline design and siting and pump station impacts, but also involves relocating a federal highway and construction of a new dam, reservoir, a new diversion structure on the Poudre River upstream of the Mulberry Treatment Plants for the Poudre River Intake, and recreation area. In summary, Northern’s 1041 application suffers from the same deficiencies as did Thornton’s application, but is also compounded by numerous, even more significant adverse impacts. This Commission must apply the same analysis to Northern’s application that it used to recommend denial of Thornton’s application. For the reasons stated herein, the Planning Commission must recommend denial of Northern’s 1041 application.

³⁹ *Id.*

⁴⁰ Exhibit 18 hereto (County’s legal brief opposing Thornton’s challenge to the decision).

VII. The NISP 1041 application does not comply with review criteria.

A. Applicable law.

The Larimer County Land Use Code (“LUC”) establishes a standard of approval of a 1041 application. Review of 1041 applications is governed by Section 14 of the Larimer County Land Use Code (“LUC”).⁴¹ Section 14.10.B of the LUC states:

A 1041 permit application may be approved **only when the applicant has satisfactorily demonstrated** that the proposal, including all mitigation measures proposed by the applicant, **complies with all of the applicable criteria** set forth in this section 14. **If the proposal does not comply with all the applicable criteria, the permit shall be denied**, unless the county commissioners determine that reasonable conditions can be imposed on the permit which will enable the permit to comply with the criteria (emphasis added).

This standard is consistent with the State 1041 law which states, “[i]f the proposed activity does not comply with the guidelines and regulations, the permit shall be denied.” C.R.S. § 24-65.1-501(4). If a proposed project fails to satisfy even one criterion, the Planning Commission must recommend denial of the requested permit. *Colo. Springs v. Eagle County*, 895 P.2d 1105, 1110 (Colo. Ct. App. 1994).

This standard requires the Planning Commission to recommend denial of the 1041 application unless the applicant demonstrates compliance with all criteria (“the permit **shall** be denied”). Use of the word “shall” in the above standard of review is mandatory, meaning that the Planning Commission does *not* have discretion to recommend approval of a 1041 permit application that fails to comply with all applicable criteria.⁴² The Planning Commission may not presume all criteria have been met. Instead, the applicant bears the burden of proof that each 1041 criterion has been “satisfactorily demonstrated.”⁴³

The County’s 1041 regulations contain a list of criteria that must be satisfied by the applicant before a 1041 permit may be issued.⁴⁴ These criteria include requirements that: the proposal be consistent with the Master Plan; that the applicant present reasonable siting and design alternatives or explain why no reasonable alternatives are available; the proposal conforms with adopted county standards and review criteria contained in the Code; the proposal will not have a significant adverse impact on lands

⁴¹ This comment letter incorporates herein by reference the entire Larimer County Land Use Code found at: https://library.municode.com/co/larimer_county/codes/code_of_ordinances?nodeId=PTII_LAUSCO. The Larimer County NGOs request that the County include the entire current land use code in the administrative record for this 1041 permit application proceeding.

⁴² LUC § 3.3.C.

⁴³ LUC § 14.10.B.

⁴⁴ LUC § 14.10.D.

and natural resources; and the benefits of the project will outweigh, or be reasonably balanced against, the adverse affects. Section 14.10.A. of the LUC also states that a 1041 permit “applicant must submit a complete and sufficient application...”

For the reasons stated herein, the Planning Commission must recommend denial of the NISP 1041 application.

B. The NISP 1041 application is incomplete.

As noted above, Section 14.10.A. of the LUC also states that a 1041 permit “applicant must submit a complete and sufficient application...” In adopting the State legislation for the 1041 law, the legislature recognized that, “[a]dequate information on land use and systematic methods of definition, classification, and utilization thereof are either lacking or not readily available to land use decision makers.” C.R.S. §24-65.1-101(1)(b). The purpose of Colorado’s 1041 statute is to remedy this lack of information to land use decision makers by requiring developers to provide information on the full scope of development “which may have an impact on the people of the state beyond the immediate scope of the project.” *City County of Denver v. Bergland*, 517 F. Supp. 155 (D.Colo. 1981); *City County of Denver v. Bd. of County Comm’rs*, 760 P.2d 656 (Colo. App. 1988), *aff’d*, 782 P.2d 753 (Colo. 1989). Northern’s 1041 application violates the letter and spirit of Colorado’s 1041 statute by denying Larimer County and its residents the opportunity to evaluate the direct and indirect impacts of NISP.

Northern’s 1041 application provides only fragments of the whole picture and actually states “*Plans and designs presented in this 1041 Permit application have been developed at a conceptual level.*”⁴⁵ This is the opposite of the level of detail that should be undertaken on a project such large impacts on land, water, and communities and that has previously been required by this Commission and the Board. Further, the project has had two major changes since the FEIS was published in 2018. The application does not, therefore, provide a complete project description.

On April 17, 2020 the Larimer County NGOs submitted a letter to Leslie Ellis, Director of the County Community Development Department identifying significant deficiencies with the NISP 1041 application as posted to the County’s webpage at: <https://www.larimer.org/planning/NISP-1041>.⁴⁶ These 1041 permit application deficiencies include, but are not limited to:

- The application is incomplete as to the relocation of Highway 287. The relocation of 7 miles of a major federal highway would not occur “but for” the NISP project, so attempting to bifurcate major components of NISP and treat the highway relocation as a separate “CDOT” project would unacceptably leave out major impacts to Larimer County resources and

⁴⁵ Technical Memo #1, p. 31.

⁴⁶ Exhibit 19 hereto (Larimer County NGOs’ April 17, 2020 letter to Ellis, which is incorporated in its entirety by reference).

residents. The relocation of U.S. Highway 287 is part and parcel of NISP, it must be included in the 1041 application.

- The application is incomplete because it doesn't provide sufficient and necessary information on the feasibility of the project, specifically with regards to water rights. The project is relying on a farm-buying scheme that 1) the Corps of Engineers has deemed doesn't meet the purpose and need for the project and 2) will have significant environmental and socio-economic impacts which aren't analyzed in any environmental document.
- The application states, "Plans and designs presented in this 1041 Permit application have been developed at a conceptual level." The project has had 2 major changes in the past year, since the final EIS was published. The application does not, therefore, provide a complete project description. Because significant impacts from the project as currently proposed to the County have not been fully disclosed and mitigation has not been appropriately developed, determinations regarding evaluation criteria cannot be made.
- The application is incomplete because it relies on an outdated County Master Plan. The application refers to the 1997 Master Plan and provides rationale for project compliance with that plan. However, the County adopted The Larimer County Comprehensive Plan in 2019. Based on our correspondence with the County, this is the appropriate governing document for this 1041 permit application (and the existing land use code is still in effect, although it is being revised).
- The application does not address the questions posed by The Larimer County Comprehensive Plan for the Mountains and Foothills and Natural Resource Areas that Glade Reservoir would occupy.
- The application is incomplete because it presents no alternatives. The application refers to the alternatives analysis conducted for the federal EIS process, which is unnecessarily limited to a water storage project and is out of date. There are many less costly and less environmentally destructive alternatives for water development now available.
- The application is for an alternative that involves both the Glade Reservoir and a farm-buying scheme that has not been evaluated in any of the federal EIS or Clean Water Act Section 404 documents. Failing to present alternatives is a "my way or the highway" approach that would preclude informed decision-making contrary to the letter and spirit of the LUC.
- The application is incomplete because it does not adequately identify environmental impacts, analysis of key impacts to the land and natural resources is incorrect or inadequate, is not specific enough for local land use decision-making, or is deferred to some later permitting/approval process. For example: the noise analysis did not identify sensitive receptors in the residential areas around the proposed dam or reservoir and did not monitor or model expected noise increases due to construction or

recreation at these sensitive receptors; the air quality impact analysis is incorrect because it is based on a faulty calculation that it would take an 80-mph wind to raise any dust off the lakeshore; the visual/aesthetic impacts would be significant; the visual impacts from the relocation of Highway 287 would also be significant. The elevated highway would be visible for miles, and the light pollution from nighttime headlights, also elevated to be seen for miles, would also severely impact visual resources in and around the reservoir; noise associated with the elevation of highway 287 is not addressed. Once the highway rises above the topographic screens, the noise from over 6,000 vehicle trips per day, much of it large trucks, would have a unobstructed path into the surrounding hills; the effects on property values of dam and a partially full reservoir with exposed, un-vegetated lakeshores have not been disclosed; most of the mitigation planning is deferred to a later date, to another agency, to another process, etc.

- The application is incomplete because it does not adequately analyze wildfire impacts. Public safety may be adversely affected by wildfire.
- The application is incomplete because it fails to evaluate the possible public health issues the project's many air emissions may exacerbate.
- Larimer County would pay 25% of the \$21.8 million cost to develop the recreational facilities, or \$5.5 million. The application predicts that total economic benefits would be between \$13 and \$30 million, but these estimates are incorrect because they are based on the 1) a full compliment of water rights, which Northern Water does not possess, 2) the proponent's modeling (which does not account for future hydrologic conditions and therefore likely overstates reservoir fill levels, and 3) the proponents faulty calculations regarding revenue. The application, therefore, lacks a realistic forecast of recreational income. Operation of Horsetooth Reservoir costs over \$2 million per year, and most of the costs are paid for by entrance fees. If Glade would rarely be "full enough" to provide recreational (especially in the form of motorized watercraft with its high entrance fees), then who will pay the operational fees? The risks and costs to taxpayers must be thoroughly explained in the application.
- The FEIS does not assess potential impacts from the range of risks to water supplies to Glade. Climate change, including rising temperatures and the very real threat of increasing frequency of prolonged droughts, and uncertainties in future water policy and water rights acquisitions, represent plausible risks to water supplies to Glade. A robust water supply vulnerability study that considers the range of plausible risks to water supplies at Glade should be part of the County's review process. As it stands, the FEIS does not provide decision-makers and the public the information necessary to evaluate the feasibility, levels of service, and potential value of proposed recreation at Glade.

- The application is incomplete because it does not identify the farms that will be purchased to acquire the water needed to implement the project. Without information on the location of the farms and water rights to be purchased in Larimer County, it is impossible to determine whether the benefits of the proposed development outweigh the losses of any natural resources or reduction of productivity of agricultural lands as a result of the proposed development.
- The application is incomplete because it fails to analyze the negative impact to the Cache la Poudre River from removing vast quantities of water from the watershed. There is no analysis of the “benefit” of draining the River and storing water in Glade Reservoir versus keeping the water in the River.
- The application is incomplete because there is no discussion of costs and adverse impacts to the River versus the benefit of such mitigation.

Despite these numerous and significant deficiencies with the NISP 1041 permit application, we never received a response from Ms. Ellis.

The following comments provide a more detailed examination of several incomplete aspects of the 1041 application.

Northern’s indefinite, incomplete, and speculative pipeline corridor.

Like Thornton, Northern also proposes a 100’ wide pipeline “corridor” rather than a detailed identification of the location of the pipeline and properties it will impact.⁴⁷ Northern’s application also states, “the final route designed and constructed may deviate from the presented route as more information is gathered and final design is completed.”

As noted above, both the Planning Commission and Board previously denied a 1041 permit application for the vague and speculative Thornton pipeline corridor. The Board found that the lack of specificity of a pipeline corridor prevented the Board from assessing actual impacts, resulting in denial of Thornton’s 1041 permit application.

Having set this precedent, the Planning Commission must apply the same analysis and conclusion to Northern’s 1041 application. The Planning Commission must remain consistent and find that Northern’s 1041 application is incomplete and recommend denial.

Relocation of U.S. Highway 287.

The proposed relocation of Highway 287 has been handled inconsistently throughout this 1041 process. The relocation of the highway is included in several of the alternatives analyzed in the FEIS, was included on the NISP website as an anticipated

⁴⁷ Technical Memorandum #3, p. 4.

part of the county permitting process until late in 2019, but was excluded from the 1041 permit application, submitted February 2020. For a period of 16 years, the highway relocation has been presented to the public as part of the project, yet, at the last minute, this major construction project was unaccountably dropped from the county process.

The relocation of 7 miles of a major federal highway would not occur “but for” the NISP project, so attempting to isolate this major component of NISP and treat the highway relocation as a separate “CDOT” project unacceptably leaves out major impacts to Larimer County resources and residents. The relocation of U.S. Highway 287 is part and parcel of NISP, it must be included in the 1041 application, and everything to date lead the public to believe it would be.

Information on the farms and water supply is incomplete

The project is, in fact, not feasible and highly speculative specifically with regards to water rights. The project is relying on a farm-buying scheme, announced by Northern Water in early 2019, that the FEIS (p. 2.5.8) states: *“Implementation of the No Action Alternative would take about 10 to 12 years and would differ from the Applicant’s Preferred Alternative due to the additional time required to procure a change in agricultural water rights, and it is unknown whether the Participants could acquire sufficient agricultural water rights to meet their future firm yield.”* In other words, the path that Northern Water is currently taking is documented, in the FEIS, as speculative and does not meet the purpose and need for the project. In addition, the program would have significant environmental and socio-economic impacts that aren’t analyzed in any environmental document.

Northern Water is conducting a farm-buying program in Weld County to obtain 22,000 acre-feet of water for the NISP project (Loveland Herald Reporter 2/28/19). At approximately \$11,000/acre-foot, the purchase of 22,000 acre-feet will cost over \$242,000,000. The FEIS states that water rights costs will be zero, and that no farms would be bought in order to fill Glade. The figure below is a screen shot from the Weld County assessors’ website and shows that Northern Integrated Supply Project in 2019 purchased three parcels. The very real fact that the NISP project lacks over half its water rights wasn’t revealed until about 12 months after the FEIS was finalized. In spite of over 15 years of development and environmental analysis, the project lacks over half of its key ingredient, water.

northern integrated supp

Name Search: 3 record(s)

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Account	Parcel	Owner	Location	Subdivision
R8955327	080103300007	NORTHERN INTEGRATED SUPPLY PROJECT WATER ACTIVITY ENTERPRISE		
R3796705	080129100063	NORTHERN INTEGRATED SUPPLY PROJECT WATER ACTIVITY ENTERPRISE		
R8940420	080129100066	NORTHERN INTEGRATED SUPPLY PROJECT WATER ACTIVITY ENTERPRISE	25556 CR 66, WELD	

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About half of the water rights required for Glade were purported to come from an exchange with ditch users in Weld County. The plan was to exchange clean Poudre River water for less clean South Platte River water, and the clean Poudre water would be taken out of the Poudre and pumped into Glade. The users in Weld County rejected the proposal and opted to retain the clean Poudre water, leaving the project with its current, severe, shortfall.

Throughout the permit application, the project relies on the FEIS as a crucial part of the 1041 permit decision. The application even encourages and “directs” the Larimer County Board of Commissioners to rely on the EIS. However, the 2019 after-the-fact change to a buy Weld County farms instead of exchanging the water with farmers means the EIS is no longer a reliable source – not for land use issues, not for comparing costs of the alternatives, not for water modeling (and thus for fish and wildlife), not for recreation. For example:

- the FEIS says that no farms will be bought, yet now at least 20,000 acres of farms must be bought
- the FEIS says there will be no costs associated with water rights acquisition, but the costs will actually be at least \$242,000,000
- whereas it’s stated that water deliveries would occur in 2030, there would, in reality, be an unknown but very long amount of time to acquire the water rights
- the FEIS says that the No Action Alternative (which was a farm-buying approach) was not feasible technologically and it was too expensive. The NISP project is

currently more expensive than some of the previously dismissed alternatives, and it is relying on the farm-buying approach the FEIS claims doesn't meet the project needs

- what if the Weld County farmers won't sell? How would the very purpose of this project be met?

The federal government should have recognized that the 2019 change to the proposed action would warrant a supplemental EIS, but so far has failed to act even though a comprehensive legal document was given to the Army Corps requiring a supplemental EIS. Even so, the 1041 application continually urges Larimer County to rely on the FEIS and to remember its participation as a cooperating agency, i.e., it is being asked to rely on a document that is fundamentally flawed. Furthermore, the FEIS states that the farm-buying approach, presented as part of the No Action Alternative in the FEIS, has been deemed 'not feasible' in the FEIS, and the County has no choice but to not approve the project. A robust evaluation of risks facing water supplies to Glade should be part of Larimer County's decision-making process when considering Northern's 1041 permit application. The FEIS fails to provide such an assessment.

Further, Save The Poudre sent a request to the U.S. Army Corps of Engineers for "Supplemental NEPA analysis" in response to this failure of the FEIS. That request has been inserted into this record.

Lack of water means lack of recreation

Northern Water claims the proposed Glade Reservoir would provide a "high-quality" recreation experience with economic benefits to Larimer County, ranging from \$13 to \$30 million per year (there is no documentation for these very high projections, and we show below that the project would result in a financial burden for the County). What Northern doesn't mention is the many years when water levels at Glade would be too low to attract boaters and other recreationalists.

As noted above, Northern Water does not have the water rights to fill Glade during low water years. NISP's obligations to deliver water to municipalities outside Larimer County would severely deplete water levels at Glade when water supplies are stressed.

Further, droughts are predicted to increase in frequency and duration in response to climate warming. Extended droughts would turn Glade into a vast mud pit that provides little or no recreation value to the County. A once pristine natural glade (the Hook and Moore Glade) would be rendered an eyesore for local residents and visitors alike.

The FEIS claims overall economic benefits from recreation at Glade would range from \$13 to \$30 million per year. For comparison, recreation at Horsetooth generated \$2.5 million in 2019. Even by generous estimates, visitation at Glade would be roughly

half of that at Horsetooth. The FEIS provides no evidence to support Northern's overinflated recreation value at Glade.

In fact, during dry years, visitation to Glade could be much less than predicted in the FEIS. Neighboring Horsetooth Reservoir is often used as a yardstick to estimate recreation value at Glade. Historical data from Horsetooth show that recreation opportunities, such as boat access, are provided during more than 90% of the peak (May-August) recreation season, even during drought years. However, during low water years, recreation at Glade would be compromised due to Northern's junior water rights on the Poudre. Northern's own hydrological modeling predicts that recreation opportunities, such as motorized boat access, would be severely restricted, if not curtailed altogether, during dry years. This situation would become worse in the future.

The effects of climate change, including a widely accepted increasing frequency of prolonged droughts, could severely undermine recreation value at Glade. The City of Fort Collins recently commissioned a water supply vulnerability study that considered a range of risks that could plausibly impact the City's future water supplies. The study concluded that "climate change is the most important vulnerability" facing Fort Collins' water supplies. A robust water supply vulnerability study that assesses risks facing water supplies to Glade was not conducted for the NISP FEIS.

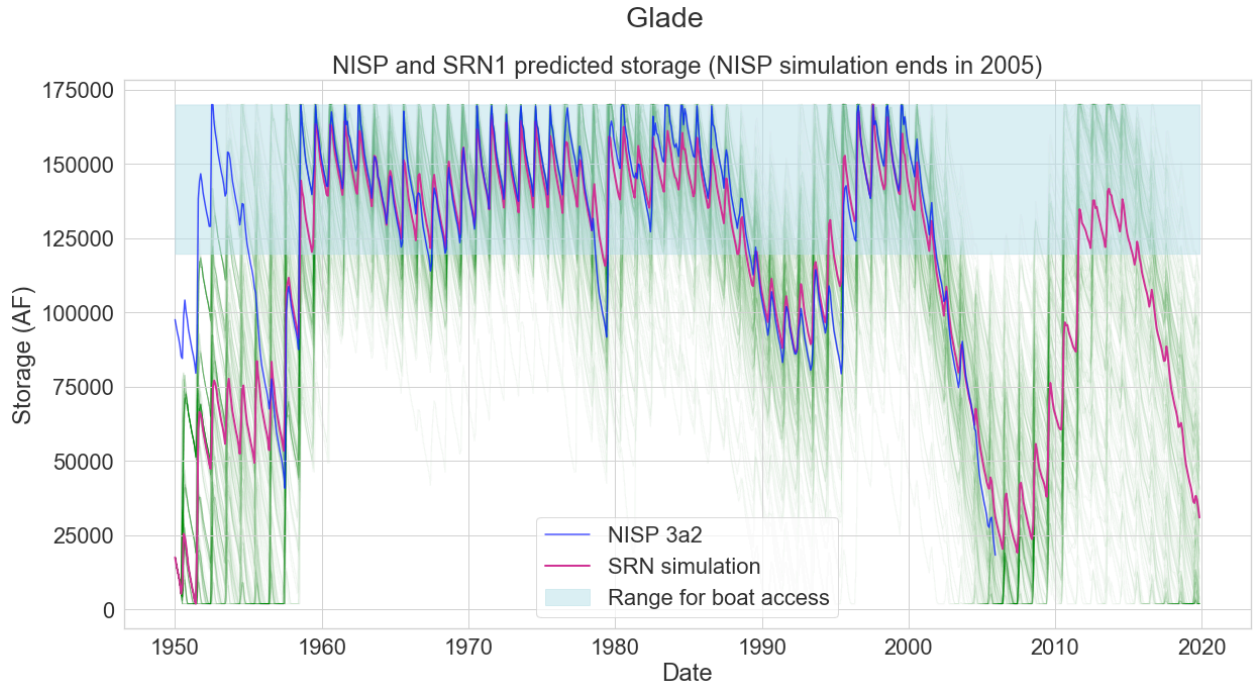
Neither Northern's Recreation Plan for Glade nor their 1041 permit application, address *levels of service* for recreation at Glade. For example, *how often* would water levels be high enough to provide access for motorized boating, *how long* would low water levels last, and *how severe* would water drawdowns be during droughts? Save Rural NoCo conducted its own analysis of storage volumes at Glade to answer these questions.

Save Rural NoCo developed a statistical model to evaluate a range of plausible operational scenarios at Glade, including: realistic estimates of the time required for the initial fill; refill characteristics following the severe water drawdowns resulting from cyclical drought conditions that are common to this region; and impacts of more frequent and prolonged droughts (which are widely anticipated in response to regional climate warming). The model was used to predict how each of these scenarios would affect water levels, and ultimately recreation services, at Glade. The results show that recreation services, such as recreational boat access via the proposed boat ramp, would be considerably reduced under any of these scenarios. The resulting decline in recreation use will undermine recreation value at Glade and result in lost revenue to the county. A technical report with details of SaveRuralNoCo's analysis is available on the organization's website.

The lack of a robust vulnerability study, akin to the 2019 Fort Collins Water Supply Vulnerability Study, is an unacceptable omission from the NISP EIS and Northern's 1041 application. Since streamflow data are readily available it is particularly concerning that hydrological modeling for the NISP does not include 2006-2019 Poudre River streamflow data. The importance of recent streamflow observations cannot be

understated because they follow a severe water drawdown at Glade predicted by Northern’s own hydrological modeling at the end of 2005. The omission of recent streamflow data denies the public and the county valuable information on refill characteristics at Glade following severe water drawdowns.

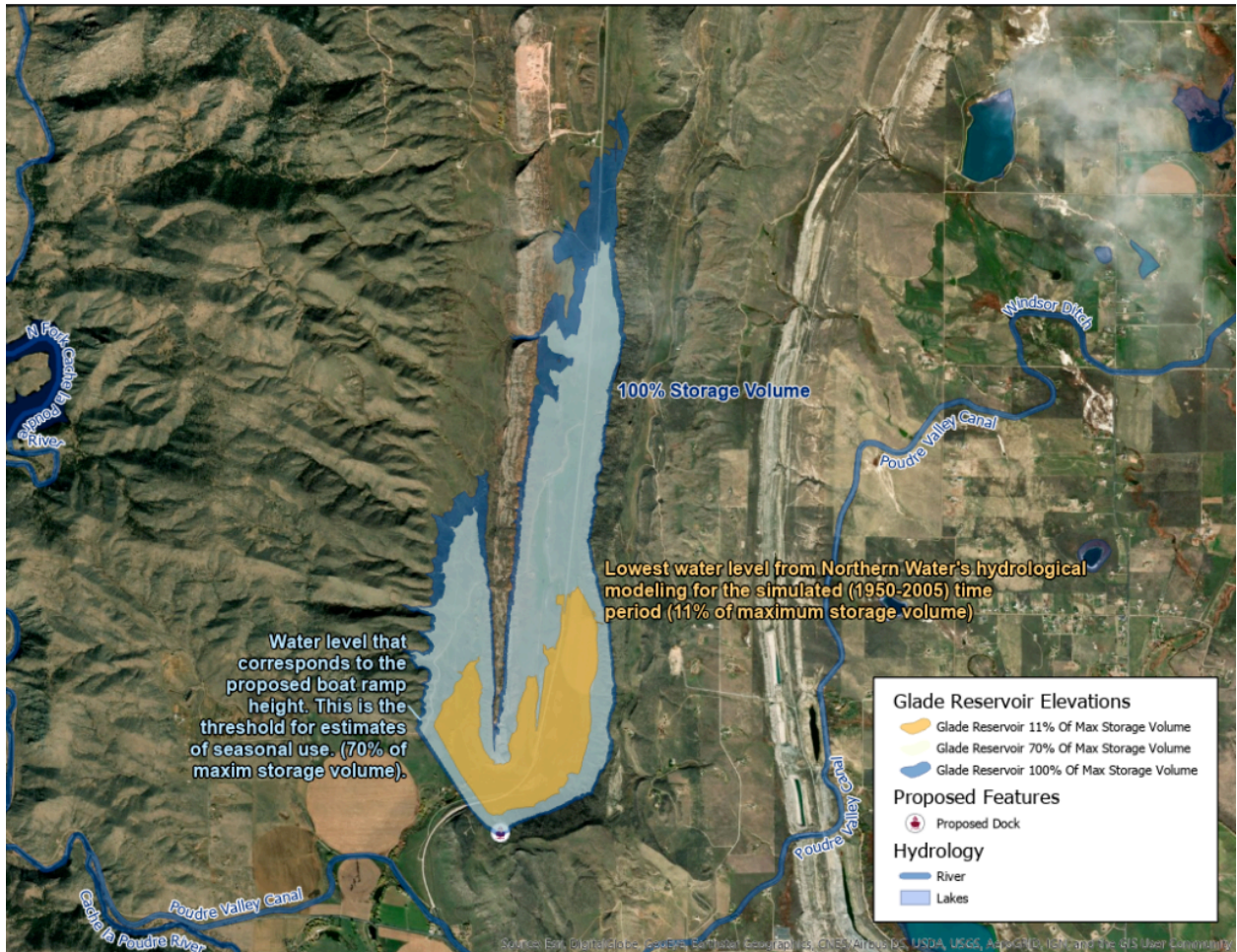
The figure below shows how such severe water drawdowns would affect the water surface area at Glade. In the last year of Northern’s simulation (2005), storage volumes dropped precipitously, resulting in water storage at 11% of full capacity and water levels more than 160 feet below the high-water line.



The potential adverse impacts of extreme low water levels at Glade are enormous. However, such conditions are not acknowledged in the application or the FEIS, despite being predicted by Northern’s own hydrological modeling.

Northern Water’s “if you build it, they will come” approach would be costly. The County would have to pay 25% of the price tag (Larimer County’s portion is currently estimated to be almost \$6 million) to develop recreation facilities at Glade. In the many years when the boat ramp won’t reach the water, the County will be faced with on-going annual losses. Not only will motorized boating be precluded, but the non-motorized experience will be poor due to miles of exposed, barren, aesthetically unappealing shoreline. If the County cannot recover upfront costs and future operating expenses, the burden will be on the taxpayer. Northern Water has not demonstrated that revenue from recreation would cover costs, particularly during droughts that are increasingly common to the region.

The economic value of recreation at Glade should be informed by a robust study that considers the current realities (the project lacks 22,000 acre-feet of water rights, drought, climate change) and the range of plausible future risks to water supplies at Glade. Neither the FEIS nor the 1041 permit application provides decision-makers and the public the information necessary to evaluate the feasibility and potential value of proposed recreation at Glade. In fact, the information presented to date demonstrates that recreation would be limited for years on end. When Glade is nearly empty, Larimer County’s citizens will get nothing but the bill.



Northern’s simulated water levels at Glade. The high-water line (dark blue), the minimum water level for the proposed boat ramp (35 feet below the high-water line), and the severe low water level from Northern Water’s hydrological modeling (orange) 165 feet below the high-water line. Save Rural NoCo’s modeling shows more frequent low water conditions when the water wouldn’t reach the boat ramp and recreational opportunities would be negligible.

In conclusion, the county cannot approve a permit authorizing almost a decade of construction impacts for a project that has grossly insufficient water rights to meet any of its objectives. The erection of a huge industrial and commercial complex in rural northern Colorado, one that simply sits and waits for some, as yet unknown (and likely

never available, due to trend towards drier conditions), future water supply, does not even begin to comply with Larimer County’s Comprehensive Plan or Land Use Code (“LUC”).

For the reasons stated above and otherwise in this letter, the NISP 1041 application fails to comply with Section 14.10.A. of the Larimer County LUC requiring that a 1041 permit “applicant must submit a complete and sufficient application...” For this reason, we request that the Planning Commission recommend denial of the application.

There is recent precedent for such a recommendation. In the Planning Commission’s review of the Thornton water pipeline 1041 application, the Planning Commission recommended denial of the application based in part on the fact that the application was incomplete with regard to the scope of the application, lack of alternatives analyzed, lack of mitigation, and inadequate balancing of the benefits to Larimer County.⁴⁸ Citing these inadequacies with the Thornton 1041 application, Commissioners Jensen, Dougherty, Cox and Carraway voted to recommend denial. Because the NISP application suffers from these same deficiencies, we ask that the Planning Commission vote to recommend denial of the NISP 1041 application. Consistency in the application of the LUC is the hallmark of good government. Having established a standard and precedent for completeness of a 1041 application, the Planning Commission is bound to apply this same standard to the NISP application.

C. The NISP 1041 application does not comply with review criterion D.1.

Section 14.10.D.1. of the LUC review criteria imposes a burden on the applicant to prove that the “proposal is *consistent with the master plan* and applicable intergovernmental agreements affecting land use development.” For the reasons stated below, Northern has failed to prove that its NISP proposal is consistent with the master plan.

First, when county land use codes include a master plan compliance requirement, the master plan requirements become mandatory and not merely advisory. *See also, Beaver Meadows v. Bd. County Com’rs*, 709 P.2d 928, 936 ftn 6 (Colo. 1985 *en banc*) and *Board of County Commissioners of Larimer County v. Conder*, 927 P.2d 1339, 1345-46 (Colo. 1996 *en banc*)(both cases interpreting provisions of the Larimer County Code and Master Plan).

Second, the Larimer County NGOs request that the Planning Commission issue a ruling regarding which version of the Master Plan is applicable to Northern’s 1041 application. We believe the current Master Plan is applicable. The County adopted its new Comprehensive Plan on July 17, 2019.⁴⁹ Northern’s 1041 application was not

⁴⁸ Exhibit 16 hereto, pp. 184-200 (Thornton Planning Commission hearing transcript).

⁴⁹ The current Comprehensive Plan can be found at: <https://www.larimer.org/planning/documents> and is incorporated herein by reference.

submitted until February 14, 2020.⁵⁰ The purpose of the LUC is to “implement the Larimer County Master Plan adopted Nov. 19, 1997 *and any future amendments.*” (emphasis added). Further, projects “will be reviewed under regulations in effect on the date of the application.”⁵¹ Despite this clear language of the LUC, Northern’s 1041 application fails to evaluate consistency with the effective July 2019 Comprehensive Plan and instead provides a very cursory discussion of consistency with the 1997 Master Plan.⁵²

The Planning Commission must recommend denial of Northern’s 1041 application because it fails to evaluate compliance with the Comprehensive Plan in effect at the time of the submission of its 1041 permit application.

Moreover, NISP does not comply with the 2019 Comprehensive Plan. The project is not in alignment with the Larimer County Comprehensive Plan for the Mountains and Foothills and Natural Resource Areas that Glade Reservoir would occupy. The Plan indicates that projects proposed for these areas should adequately address the following resource issues:

- *How does the project adequately protect air and water quality, cultural and natural resources, and minimize fragmentation of the landscape?* The application defers air quality and cultural resources protection to some later permitting/planning effort. The project would not adequately protect natural resources, as described in Section F below. The landscape would be severely fragmented by the project’s huge and sprawling infrastructure (plus the relocation of a major federal highway).
- *How does the project avoid impacts to the open character of rural areas, unique or highly visible viewsheds, landforms and ridgelines?* The project would not avoid such impacts.
- *How does the project consider the natural terrain in its design and siting to minimize environmental impacts and avoid or reduce hazard risk to an acceptable level?* The project would severely alter the natural terrain and exacerbate hazard risks.
- *How does the project mitigate risks and reduce economic costs of natural hazard events to increase resiliency?* The projected influx of up to 500 people per day during construction and almost 400,000 people per year during operations to this high fire risk area would only increase the potential for fires. More human activity would increase the likelihood and frequency of human-caused fires, putting local homeowner’s lives and property at risk.
- *How does the project comply with County policy, Code, Master Plans, and initiatives in relation to hazard risk reduction?* It doesn’t. The application presents only conceptual plans (see section 12.0 in the application); a massive

⁵⁰ Northern’s NISP 1041 application, p. 1.

⁵¹ LUC § 3.6.D.

⁵² Northern’s 1041 application, Technical Memo #2, pp. 7-8.

construction project, with huge infrastructure and the potential for hordes of visitors only increases hazard risk, especially fires and medical emergencies.

Further, even if the 1997 Master Plan was effective, Northern's cursory evaluation is woefully incomplete. By means of example, the 1997 Master Plan states:

“ES-16-s1: Larimer County will not support future transfers of existing water resources out of the County without consideration of the impacts on present and future land uses including agriculture.”⁵³

Thus, the Master Plan contains a strong statement disfavoring Thornton's proposal to transfer water out of the County that has historically irrigated agricultural lands. This requirement of the Master Plan also imposes a duty on Northern to satisfactorily demonstrate “the impacts on present *and future* land uses” from NISP. As such, the Planning Commission may “*not support*” (recommend approval of) Northern's 1041 application without full and complete consideration of all impacts on present and future land uses resulting from Northern's diversion of water from the County. Because Northern has yet to acquire the farms and associated water rights needed to implement NISP, it is completely unable to prove consistency with the requirements of ES-16-s1 and the 2019 Comprehensive Plan containing similar requirements.⁵⁴

The failure to fully evaluate the affects of drying irrigated agriculture was one of the Board's reasons for denying the Thornton 1041 application. Having set this precedent, the same analysis and conclusion must be reached here.

Because Northern's 1041 application fails to evaluate consistency with the currently effective Comprehensive Plan, or even adequately evaluate consistency with the 1997 Master Plan, it has failed to meet its burden of proof on all applicable criteria in the LUC and thus the Planning Commission must recommend denial of the permit application.⁵⁵

D. The NISP 1041 application does not comply with review criterion D.2.

Section 14.10.D.2. of the LUC review criteria imposes a burden on the applicant to prove that the “applicant has *presented reasonable siting and design alternatives* or explained why no reasonable alternatives are available.” For the reasons stated below, Northern has failed to prove that it has presented reasonable siting and design alternatives or explained why no reasonable alternatives are available.

Northern's 1041 application does not present any alternatives or adequately explain why no reasonable alternatives are available.⁵⁶ Instead, Northern only presents

⁵³ Plan at p. 6-15.

⁵⁴ See, 2019 Comprehensive Plan, Vol. 1, pp. 44-47 and Vol. 2, pp. 122-123.

⁵⁵ LUC Section 14.10.B.

⁵⁶ Northern 1041 application, Technical Memorandum No. 1 (Project Description) p. 18.

“the final alignment” of its self-selected alternative.⁵⁷ Northern refers to its self-selected sole alternative as the “Northern Tier Delivery Pipeline.”⁵⁸

Northern’s 1041 application claims that “[d]iscussions related to alternatives considered and evaluated” by Northern can be found in the “Project Summary Memo, the 1041 Evaluation Memo, and the Conveyance Pipeline Memo.”⁵⁹ However, a narrative of “discussions related to alternatives considered and evaluated” by Northern is not the same as a presentation of alternatives from which the citizens of Larimer County and the Board may choose. Northern’s presentation of a single “final alignment” does not satisfy the requirements of LUC § 14.10.D.2. Further, Northern’s application fails to meet its burden of proving why no reasonable alternatives are available.

Importantly, Northern’s 1041 application did not consider any alternatives to the Glade Reservoir. The 1041 application also did not present alternatives to relocating Highway 287 or siting alternatives for any such relocation. Northern also fails to present any alternatives to its “refined-conveyance concept.” Northern’s so-called alternatives analysis for its self-selected Northern Tier did not analyze any pipeline routing alternatives to the Glade Release/Poudre Release Pipeline in Project Area 0.⁶⁰

Alternatives to NISP have been forwarded by multiple groups including Save The Poudre and Western Resource Advocates. The “Healthy Rivers Alternative” promoted by Save The Poudre includes enhanced water conservation and efficiency, better growth management, using ‘growth displaced water’, and pursuing water transfer mechanisms with farmers.⁶¹

The “Better Future for the Poudre River” alternative promoted by Western Resource Advocates also advocates for enhanced water conservation, better growth management, and using “growth displaced water.”⁶²

Save The Poudre also supports the approach of “**Cleaning the River through Fort Collins and using the river as a conveyance, instead of the pipeline.**” This alternative approach is described in Save The Poudre’s comment letter to the Colorado Water Quality Control Division in Dec. 2019, wherein it notes that this approach also applies to the Larimer County 1041 permit process.⁶³ Northern Water claims that they could only run 1/3rd of their water down the Poudre River, again due to the pollution

⁵⁷ Technical Memorandum No. 2 (Larimer County 1041 Review Criteria), p. 9.

⁵⁸ NISP 1041 application, “Northern Tier Delivery Pipeline Alternatives Analysis” Feb. 2020.

⁵⁹ *Id.*

⁶⁰ *Id.* at pp. 1-2.

⁶¹ Exhibit 22 hereto. See also:

http://savethepoudre.org/docs/stp_healthy_rivers_alternative.pdf

⁶² Exhibit 23 hereto. See also: <https://westernresourceadvocates.org/publications/a-better-future-for-the-poudre-river/>

⁶³ Exhibit 20 hereto (STP Dec. 2019 comment letter to WQCD).

level in the river. The “Clean The River” alternative describes how stormwater technology can allow all of the NISP water to flow through Fort Collins at a significantly cheaper cost than building the Northern Tier Pipeline.⁶⁴

Again, the Board and this Commission found that Thornton had failed to present adequate alternatives when it only offered the County the choice between two pipeline routes (Douglas Road and CR 56). Northern’s 1041 application is even more defective because *it fails to offer any presentation of alternatives for any aspect of the project*. Having set a precedent in the Thornton pipeline case, the Planning Commission must apply the same analysis and reach the same conclusion that Northern has failed to comply with LUC § 14.10.D.2.

E. The NISP 1041 application does not comply with review criterion D.3.

Section 14.10.D.3. of the LUC review criteria imposes a burden on the applicant to prove that the 1041 application “conforms with adopted county standards, review criteria and mitigation requirements concerning environmental impacts, including but not limited to those contained in this Code.” For the reasons stated below, Northern has failed to prove that its 1041 application conforms to adopted county standards, review criteria and mitigation requirements concerning environmental impacts.

Northern’s pump station at Glade Reservoir would be “approximately 40,000 horsepower with a capacity of approximately 1,200 cfs.”⁶⁵ The Glade pump station would require a 40 mega-volt ampere power supply need to be served by Xcel Energy, which would run a new transmission line to the station from a Tri-State 115 kV transmission line.⁶⁶ The Glade pump station would also require a new electrical substation.⁶⁷

The new pump station upstream of the Mulberry plant would be “1,000 to 1,300 horsepower” with a capacity of “18 to 25 cfs.”⁶⁸

Very little information is presented in Northern’s 1041 application related to the new Larimer County pump stations. However, pump stations are industrial uses of land. Pump stations generate significant noise, ground vibration, glare, aesthetic, and other impacts.

The requirement to “conform with adopted county standards” includes compliance with zoning requirements. More specifically, Section 14.10.D.3 of the LUC requires that “[t]he [1041] proposal conform[] with adopted county standards, review criteria and mitigation requirements concerning environmental impacts, including but not

⁶⁴ *Id.*

⁶⁵ Technical Memorandum No. 1, p. 4.

⁶⁶ Northern’s 1041 application, Memorandum, Glade Reservoir Preliminary and Detailed Design, February 14, 2020, p. 5.

⁶⁷ *Id.*

⁶⁸ Technical Memorandum No. 1, p. 6.

limited to those contained in this Code.” The zoning requirements are county land use standards contained in the Code.⁶⁹

Northern’s 1041 application is incomplete because it fails to demonstrate that the pump stations conform with zoning restrictions. Northern is a water “utility.” Section 4 of the Larimer County LUC identifies which “utility” uses are allowed in each zoning district. For example, in “Open” zoning district the only uses allowed for “utilities” are “commercial radio service” and “radio and television transmitters.”⁷⁰ The LUC recognizes “pumping stations for water” as an industrial type use by utilities and thus any argument that such industrial uses are allowed in all zoning districts must be rejected.⁷¹

Yet again, the Board rejected the Thornton 1041 application because it failed to prove that the pump station would comply with county standards. The same is true with regard to Northern’s deficient 1041 application which contains even less information about the zoning and standards applicable to the pump station and whether the facility is in compliance with those requirements. Northern’s application fails to meet its burden of compliance with review criteria Section 14.10.D.3 because it fails to identify the zoning for each parcel upon which it plans to located each pump station and it fails to prove that each parcel is zoned to allow such a utility use. As such, the Planning Commission must recommend denial of Northern’s 1041 application for failure to conform with zoning standards.

In light of climate change, we must also consider the carbon footprint of creating a pump station and its subsequent power lines and transmission towers. To get the Poudre River water into Glade reservoir, it will take 80MW of power supplied by huge transmission towers similar to those used at Glen Canyon Dam (see below image). The forebay is the holding reservoir for water from the Poudre River, and from where the Poudre water will be pumped 400 feet up into the Glade Reservoir. The proposed peak pumping rate in Northern’s application to Larimer County, from the forebay, is 1,200 cubic feet per second and will require 81 MW (megawatt) of power. To put 81 MW in context, it is equivalent to the power required by Fort Collins’ approximately 62,000 residences and 90% of the reported generation capacity of Glen Canyon Dam. This begs the questions – How will NISP get the required electrical power to the pumps? If the power comes from coal or gas fired-power plants, operation of the pumps will generate significant greenhouse gas emissions. Additionally, what is the visual impact of these enormous power lines?

⁶⁹LUC § 2.4(C)(“[t]his code and the official zoning map govern the application of the zoning districts and related standards.”); and, LUC § 3.4(A)(“[t]he location and boundaries of the zoning districts established by this code are shown on the official zoning maps of Larimer County. These maps have been adopted by the county commissioners and are incorporated as part of this code”).

⁷⁰ LUC § 4.1.5.

⁷¹ LUC § 2.2.E.5.e.

F. The NISP 1041 application does not comply with review criterion D.4.

Section 14.10.D.4. of the LUC review criteria imposes a burden on the applicant to prove that the proposal “will not have a significant adverse affect on or will adequately mitigate significant adverse affects on the land or its natural resources, on which the proposal is situated and on lands adjacent to the proposal.” For the reasons stated below, Northern has failed to prove that its proposal will not have a significant adverse affect on or will adequately mitigate significant adverse affects on the land or its natural resources.

NISP would involve seven years of heavy construction. According to the application, there would be five years of construction in and around the dam site impacting our communities, and an additional two years in the South Platte portion of the project, impacting other rural communities. For a project of this magnitude and complexity, delays are inevitable. The rural public would be subjected to 6-days-a-week heavy traffic and heavy machinery operations, and the unwelcome, intrusive, and obnoxious presence of a massive construction project, with all of its activity, congestion, noise, dust, and danger, over a long period of time. Helicopter noise would spoil the skies. Construction would turn the hundreds of acres of the landscape into a heavy industrial zone, and take away the attractiveness, the clean air, the quiet – the things we depend on for health and happiness. The average life expectancy of Colorado residents is 80.5 years – the approval of this project would force us to endure a huge construction project for over 10% of our adult lives. Project construction, therefore, would have a significant adverse affect on the land and its natural resources, both on project area land and on lands adjacent to the proposal. Furthermore, project construction contravenes Larimer County’s goals for Rural Heritage or Environmental Stewardship (Larimer County Comprehensive Plan, pp. 18-19).

The Board denied the Thornton 1041 application because it would result in 4 years of adverse impacts to county residents. Again, Northern’s application would result in longer and more severe adverse impacts. The Planning Commission and Board must remain consistent and deny Northern’s 1041 application.

Further, the following significant adverse impacts have not been analyzed or mitigated.

Noise

The noise analysis did not identify sensitive receptors in the residential areas around the proposed dam or reservoir and did not monitor or model expected noise increases due to construction or recreation at these sensitive receptors.

As an example, Bonner Peak Ranch (Bonner Peak) is a community occupying 3,200 acres between Ted’s Place and Livermore. Other small communities occur both south and north of Bonner Peak, west of Highway 287, and a larger community occurs near the dam site, along county road 29C (see figure below for the location of rural communities near proposed Glade). Bonner Peak’s 75 homes are either due west or

northwest of the northern part of the proposed reservoir. Without Glade, the principle noise impacting Bonner Peak homeowners and neighboring communities is from traffic on 287. According to the FEIS, Highway 287 has an annual average daily traffic of 6,100 vehicles. Larger trucks (3 or more axles and single or multiple trailers) account for 830 of the 6,100 daily vehicles according to 2018 CDOT traffic counts available online. Homeowners can hear this traffic, always or sometimes; it depends on atmospheric absorption, wind/temperature gradients, and the location of the home. Trucks account for most of the audible traffic, with large trucks creating sound levels of 90-100 decibels (dBA) at a fifty-foot distance.⁷² Sound levels decrease with the distance from the source to the receiver. Homes on Bonner Peak are anywhere from about 4,000 to over 14,000 feet from 287. Using the inverse square law between sound levels and distance⁷³, we determined that most homes on Bonner Peak are exposed to maximum truck noise between 51 and 74 dBA depending on geographic features, atmospheric absorption and wind/temperature gradients. To place in perspective, Larimer County standards consider 55 dBA for residential areas “excessive and unusually loud and is unlawful.” (Noise Level Policy, Ordinance No. 97-03, <https://www.larimer.org/policies/noise>), and the Colorado Department of Transportation (CDOT) sets 66 dBA as the noise level at which noise abatement is recommended.

The proposed Glade reservoir operations would increase noise on Bonner Peak and the neighboring communities for two main reasons: a) the 287 realignment, and b) planned recreation on and near the reservoir. The current 287 passes directly by the Bonner Peak and other entrances. A rerouted 287 would continue to do so, but about a mile south of the entrance it would diverge from the existing highway and head roughly due east and cut through the easternmost hogback before turning south toward Fort Collins. Traffic that is now running north-south would be replaced by traffic running east-west. The realigned route would be elevated above the existing route, so the noise would likely exceed the noise from the existing route, because the proposed route will be in a direct line of sight to some homes (the existing topographic barrier would no longer block noise). In spite of the fact that traffic noise from the existing 287 can always or sometimes be heard by residents, the FEIS makes no mention of this situation. Information on noise in Section 4.15 of the FEIS is derived from the Hankford Noise Impact Analysis (2014) in which forty-one noise receptors were placed along the existing and rerouted 287 within 500 feet of the highway. However, no receptors were placed on Bonner Peak or any other communities.

The FEIS estimates that 379,000 visitors per year would recreate on or near the proposed reservoir, with substantially higher visitation levels in the warmer months (Headwaters 2017). Motor boating and jet skis would be among the recreation uses and would be new sources of noise to these communities. Similar to or exceeding large truck noise, an individual motorboat or jet ski creates sound levels of 90-100 or higher decibels (dBA) at a fifty-foot distance. However, there is no analysis of these new noise sources in

⁷² Bureau of Reclamation. 2008. Resource Management Plan Navajo Reservoir area, Colorado and New Mexico, Final Environmental Assessment, Appendix E.

⁷³ https://www.engineeringtoolbox.com/inverse-square-law-d_890.html

any of the project documentation. The table below shows two estimates for the number of motorboats per day on Glade: the first is proportional to water surface areas, and the second is proportional to annual visitation. The range for the number of motorboats reflects low to high water levels predicted in the FEIS (which now are speculative, see “Information on farms and water supplies are incomplete” and “Lack of water means lack of recreation” above).

Estimated number of daily motorboats on the proposed Glade Reservoir.

Avg. Surface Area	Motorboats/day	Visitors/year	Motorboats/day
1240	59-248	379,000	52-218

How 52 to 248 motorboats impact noise levels on the neighboring communities will depend on where they recreate on the proposed reservoir. The further north they cruise, the more the impact on Ingleside and Bonner Peak; further south, the residents along 29C would be impacted. Moreover, unlike large trucks that drive by, motorboats can cruise up and down a reservoir as they set out for fishing spots or engage in sightseeing, water skiing, etc. In other words, while the noise from one large truck traveling on 287 may be heard for minutes, the noise from one motorboat may be heard for much more extended time periods. Because no noise analysis was conducted in the FEIS regarding motorboats, we will appeal to the table below to approximate the noise levels at points within Bonner Peak, as an example. The residences on Bonner Peak vary in distance from the proposed reservoir with the closest residences about 4,000 feet and more distant residences exceeding 14,000 feet. Noise levels from one motorboat at 4,000 feet distance would be 62 dBA while at 14,000 feet noise levels would be 51 dBA. These levels are for one motorboat: more boats will create more noise. If four boats are plying the waters of the proposed reservoir, then their cumulative dBA are 68 dBA for the closest residence and 57 dBA for the furthest.⁷⁴

Decibel levels measured at residences located from 50 ft to 14,000 ft from motorboats.

No. Boats	Feet from Motorboat									
	50	100	1,000	4,000	5,000	6,000	8,000	10,000	12,000	14,000
1	100	94	74	62	60	58	56	54	52	51
4	106	102	80	68	66	64	62	60	58	57
10	110	104	84	72	70	68	66	64	62	61

These dBA levels would be a significant new source of noise to Bonner Peak, and for some residences they would exceed the 55 dBA which in Larimer County is considered “excessive and unusually loud and is unlawful” as pointed out above.

⁷⁴ Cumulative noise levels can be determined using the website: <http://www.sengpielaudio.com/calculator-spl.htm>.

Again, the FEIS does not investigate recreation as a new source of noise to residences, although it does investigate vehicle traffic noise along the proposed rerouted Highway 287. As mentioned above, according to the CDOT's Noise Abatement Criteria, residential locations are considered impacted by new traffic noise when: noise levels are predicted to approach or exceed CDOT's Noise Abatement Criteria (66 dBA), or where design-year noise levels are predicted to be a substantial increase (10 dB or more) over existing noise levels.

According to the FEIS (see Hankford 2014 for detail), estimated future traffic noise levels from a rerouted highway 287 require no noise mitigation for this Glade project. Some predicted traffic noise levels are very close to the 66 dBA criterion at which noise abatement is recommended, but the residences impacted in this way are along the rerouted 287 and its intersection with the current 287. Bonner Peak was not considered in these traffic noise studies, in addition to not being considered with respect to the motorboat noise.

Property values would be affected by the additional noise. For many residents, who desire a quiet, rural way of life, motorboat noise would diminish the quality of life. The FEIS states that the vehicle traffic noise impacts from the proposed Glade Reservoir will be minor, where minor is defined as noise "from new noise sources above existing levels but below existing noise standards." (FEIS, vol. 4, Table 4-111, p. 4-472 & p. 4-469) However, for some residents, motorboat noise would exceed these standard (see table below). In addition, if we consider the value of the lost quality of life for residents, the point is not whether the new noise is below noise standards, but rather is the new noise above existing noise levels.

Although placing a value on resident losses from motorboat noise is challenging, it is not novel. There are numerous economic studies that estimate losses that people experience from diminished environmental quality, where the sources of loss may be air, water or light pollution, or in the present case, noise pollution. Basically, these studies estimate how much people would be willing to pay not to be subjected to more noise. Economists do study housing property values, because house prices reflect what people are willing to pay for the bundle of characteristics that houses represent.⁷⁵ These studies are sometimes referred to as hedonic property value studies. (See Freeman (1995) for a survey of hedonic pricing.) One house characteristic is the noise level the house is exposed to; people have a choice of their residential location, so they have a choice between houses in noisy or peaceful locations. Because noise is undesirable, we would expect that if two houses are identical except for their exposure to noise, the house with the lower exposure will sell for a higher price. Examples of the use of property value studies applied to noise include Delucchi and Hsu (1998), Nelson (1982) and Wilhelmsson (2000). Using results from Nelson, we can estimate the loss in property

⁷⁵ Housing attributes may include, besides noise exposure, square footage, number of bathrooms, property size, presence of a pool or fireplace, neighborhood school quality, distance to work, and many others.

values on Bonner Peak associated with motorboat noise on the proposed Glade Reservoir. Nelson finds that for houses exposed to noise, there will be a mean reduction in the value of the house of 0.4% per each dBA of exposure. The range around the 0.4% is [0.16% - 0.63%] with a standard deviation of 0.23%. For example, take two \$100,000 houses that are identical and are both exposed to 55 dBA. If one house experiences an increased exposure to 65 dBA, the increase in exposure is 10 dBA. Using the 0.4% for each dBA, the value of the higher exposed house will decrease by $(10)(0.4\%) = 4\%$. In dollars this is $(4\%)(\$100,000)$ or a \$4,000 loss in value.

The total loss in Bonner Peak property values for houses within 14,000 ft of the proposed reservoir is \$1,456,000. This averages almost \$30,000 per household which would be a significant burden to many property owners. These losses are completely ignored in the FEIS and the 1041 application.

Estimated Property Values Losses Due to Noise for Residences 4,000 to 14,000 feet from the Proposed Glade.

Distance from Reservoir (ft)	(A) Number of houses	(B) 10-boat dBA	(C) (B) – 50 dBA	(D) (C) x (0.4%)	(E) (A) x (D) x (\$500,000)
4,000	3	72	22	8.8%	132,000
5,000	4	70	20	8.0%	160,000
6,000	3	68	18	7.2%	108,000
8,000	13	66	16	6.4%	416,000
10,000	8	64	14	5.6%	224,000
12,000	10	62	12	4.8%	240,000
14,000	8	61	11	4.4%	176,000
Total	49	--	--	--	1,456,000

We can point to several assumptions that if relaxed might increase or decrease the total loss.

- The number of motorboats used was ten, but this may be very low considering that 52 to 248 motorboats per day may be using the proposed reservoir based on visitation levels at Horsetooth. Obviously, increasing the number of boats would increase the noise levels and the total loss would be greater.
- The motorboats would ply the reservoir waters in the warm months only. Because the noise is not year-round, it may lower the total loss. However, there are insufficient data to establish this.
- Motorboat muffling technology may make some boats less noisy, but it is likely that many boats would be unmuffled.
- Jet skis were not included in the analysis for lack of data. Adding them at any level would increase the noise and the total loss.

- No traffic noise from a rerouted highway 287 was considered. Adding truck traffic could increase the dBA exposure and increase total loss.

People choose where they live based on a variety of reasons. Some people choose suburban or urban areas owing to the availability of cultural activities, or the convenience of being near schools and workplaces. These amenities are not as easily available to the affected rural northern Colorado residents; instead, residents are willing to tradeoff these amenities for a rural lifestyle and for peace and quiet. The proposed Glade Reservoir would be a major disruption to this peace and quiet, and it would irreversibly spoil rural ways of life.

Furthermore, the county must consider the fact that this type of analysis was completely overlooked in all of the environmental documentation for this project. So, while the application encourages and reminds the county of its long involvement in the development of the FEIS, the FEIS clearly did not adequately address these potential impacts and loss of property values.

Impacts to Visual/Aesthetic Quality of the Natural Landscape

The existing scenic quality of Hook and Moore Glade and surrounds is very high, with its gently sweeping natural valley of grasslands bordered by striking, tall, red, layered hogbacks. If you are traveling downslope, this view gradually opens onto the mouth of Poudre Canyon and the agricultural valley with its floodplains, cottonwoods, pivot irrigation, and dairy. If you are traveling upslope, you move into stunning rangeland and the sculpted hoodoos of Sherman Granite. It's spectacular, it's rare, and residents cherish it. The construction of Glade Reservoir would irreparably damage this unique scenery. The FEIS states that the scenic quality of residential areas near the reservoir would increase because the water would provide "texture". This smacks of jargon to put a shine on unmitigated folly. This landscape is beautifully, naturally textured, and the reservoir, with its bathtub ring, would be an industrial scar. The application, and the FEIS, fail to consider the extreme negative visual impacts of a partially filled reservoir and a barren shoreline. The avoidance and mitigation measures (re-vegetation and planting) don't even begin to address this issue – once it's gone, it's gone.

Visual and noise impacts from the relocation of Highway 287 would also be significant. The elevated highway would be visible for miles, and the light pollution from nighttime headlights, also elevated to be seen for miles, would also severely impact visual resources in and around the reservoir. Noise associated with the elevation of highway 287 is also not addressed. Once the highway rises above the topographic screens, the noise from over 6,000 vehicle trips per day, much of it large trucks, would have a unobstructed path into the surrounding hills.

The FEIS provides estimates of the number of acres that would be impacted due to road relocation. While much of the realigned highway would cross the Holcim Mine, which is currently being reclaimed, the FEIS does not address land use issues associated

with the elevation of the highway across the eastern hogback, and how that would affect land and communities in the Hook and Moore Glade and foothills to the west. The FEIS provides a cursory evaluation of how the realignment might affect future land uses, but egregiously overlooks one very important current land use: rural communities.

With regards to the aesthetic effects of the realignment, the FEIS also notes that “vehicles traveling on the realignment would be noticeable from all visibility areas in northern, eastern and south portions of the study areas. Vehicles traveling on the realignment would also introduce visible light (from headlights at nighttime....the presence of vehicles on the realignment would reduce the scenic quality of portions of the study areas.... Additionally, the realignment would have relatively small cuts and or fills due to the nearly flat topography of the prairie [north of the Holcim Mine and east of the hogback]. Scenic quality would be reduced by the realignment due to the visible contrasting changes in landform, rock form, color, and texture. Visibility of the contracts would extend beyond the study area a predominately to the west and **would affect travelers on the highway**.....The realignment of U.S. 287 would unavoidably alter scenic quality in the realigned areas north of Holcim Mine.” (emphasis added).

The glaring omission from this is that there is no mention of impacts to residents in the many small communities in the vicinity.

With regards to noise, the FEIS states that “Because predicted Leq (hourly) is below 66 dBA at all residential and campground receptors....minor permanent noise impacts are predicted....” However, the analysis did not consider sensitive receptors in the communities in and adjacent to Hook and Moore Glade. The analysis used 41 receptor locations within 500 feet of the centerline of the westernmost alignment and modeled noise levels for distances between 500 and 1000 ft of the alignment and construction areas. impacts based on those. Again, noise wasn’t measured or explicitly modeled in our rural communities. The FEIS repeatedly ensures us that noise levels would be below standards, which a) isn’t documented for the affected rural communities and b) doesn’t consider the fact that we would be subjected to increased noise, within standards or not, that impact our quality of life.

By removing dramatic amounts of water from the Poudre River, NISP would cause unmitigatable and dramatic negative impacts to the River, including to fish and aquatic species, wildlife habitat, riparian forest, wetlands, and to the recreational opportunities at the new Whitewater Park. These impacts have been described at length in Save The Poudre comments to the U.S. Army Corps of Engineers in the DEIS, SDEIS, FEIS, and Supplement NEPA process. Through previous comments in this letter, those comments to the Corps have already been incorporated by reference into this letter for the Larimer County 1041 permit process.

G. The NISP 1041 application does not comply with review criterion D.5.

Section 14.10.D.5. of the LUC review criteria imposes a burden on the applicant to prove that the proposal will not adversely affect any sites and structures listed on the

State or National Register of Historic Places. For the reasons stated below, Northern has failed to prove that its proposal will not adversely affect any sites and structures listed on the State or National Register of Historic Places.

The FEIS states that there are 82 eligible or potentially eligible cultural sites present in the Glade Reservoir Area of Potential Effect (APE). Eight of the sites are officially eligible and 74 require additional data and formal evaluation. There are numerous additional sites in the APEs of the 287 reroute and other proposed project facilities. The FEIS then states that all unavoidable adverse effects on historical properties would be mitigated following the process described in an as yet to be developed Final Programmatic Agreement. The Corps anticipates the Final Programmatic Agreement will contain a number of provisions for cultural resources mitigation. The Corps then anticipates that Northern Water would implement all feasible and prudent measures to avoid and minimize effects on historic properties and to mitigate all adverse effects. With all these yet to be conducted evaluations, agreements, and anticipations, the Corps (FEIS p.4-527: Section 4.19.14 Effect Determination) reaches the conclusion: “*Consequently, effects on directly affected historic properties would be either minor or moderate. Effects on indirectly affected historic properties would be either minor or moderate.*”

According to the definition of moderate provided by the Corps in that same section: “*In accordance with criteria in 33CFR325, Appendix C, the following terms are used to describe potential effects on cultural resources: Moderate: The effect on a designated historic property would diminish the integrity of the property’s location, design, setting, materials, workmanship, feeling, or association. Measures identified in the Programmatic Agreement to minimize or mitigate adverse effects reduce the intensity of impacts under NEPA from major to moderate. The determination of effect for Section 106 would be an adverse effect.*” Thus, the determination of effect for Section 106 of Northern’s proposed action on those affected historic properties that consequently end up post-mitigation as moderate as concluded by the Corps will by definition be adverse effects.

In summary, there are more than 82 cultural sites that are eligible for listing on the state or national Register of Historic Places, and some will be adversely affected. While none of the sites are currently “listed”, they might indeed be important enough to our cultural heritage to warrant such listing. The listing determinations should be made, and if any site is listed, the project cannot be authorized. But doing it the other way around – i.e., granting the permit and then dealing with eligible sites, does not meet the letter or the spirit of this criterion.

H. The NISP 1041 application does not comply with review criterion D.6.

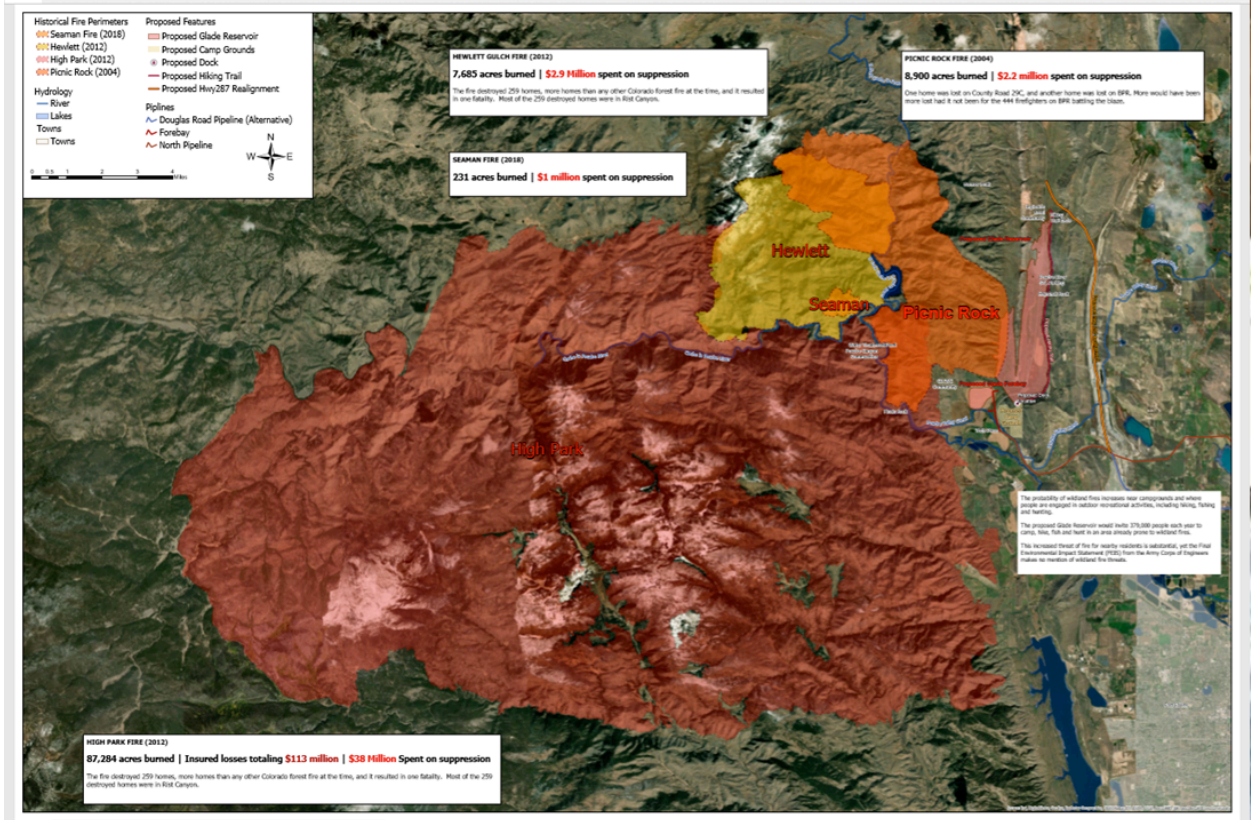
Section 14.10.D.6. of the LUC review criteria imposes a burden on the applicant to prove that the proposal “will not negatively impact public health and safety.” For the reasons stated below, Northern has failed to prove that its proposal will not negatively impact public health and safety.”

Impacts to Public Health from Wildfire.

An un-ignorable hazard in the hundreds of square miles west of the proposed reservoir is wildfire. The 87,284-acre High Park fire of 2012, the 7,685-acre Hewlett Gulch fire of 2012, the 8,900-acre Picnic Rock Fire of 2004, 231-acre Seamen Fire of 2018, burned over 100,000 acres (see figure below). Collectively, suppression costs were over \$40,000,000 (in taxpayer dollars) and the High Park fire resulted in over \$100,000,000 in insurance claims from rural residents, like us, whose property was destroyed.

Communities on these lands (see figure below) encompass hundreds of homes that have been threatened, and in many cases, destroyed by the fires. For examples, there are 26 homes along County Road 29C which lie directly west of the proposed campgrounds, with some homes less than a mile away. Residences on Ingleside Road and Bonner Peak sit adjacent to the proposed Glade Reservoir. North of Bonner Peak are another 30 or so homes (west of 287 and south of Livermore). More distant but still within reach of wildland fires that may ignite around the reservoir is Rist and Poudre Canyons which are a few miles from the campgrounds planned near the dam. There are hundreds of homes in Rist and Poudre Canyons.

The fires caused evacuations on County Road 29C, Bonner Peak and Rist Canyon. In the Picnic Rock Fire one home was lost on County Road 29C, and another home was lost on Bonner Peak. More would have been more lost had it not been for the 444 firefighters on Bonner Peak battling the blaze. The forest that remains on Bonner Peak is now in isolated patches instead of being on the eastern edge of a vast forestland. The High Park Fire destroyed 259 homes, more homes than any other Colorado forest fire at the time, and it resulted in one fatality. Most of the 259 destroyed homes were in Rist Canyon. Two fires were human caused, the third was caused by lightning. In addition to forest fires, there have been a significant number of grassland wildfires over the years adjacent to the proposed reservoir.



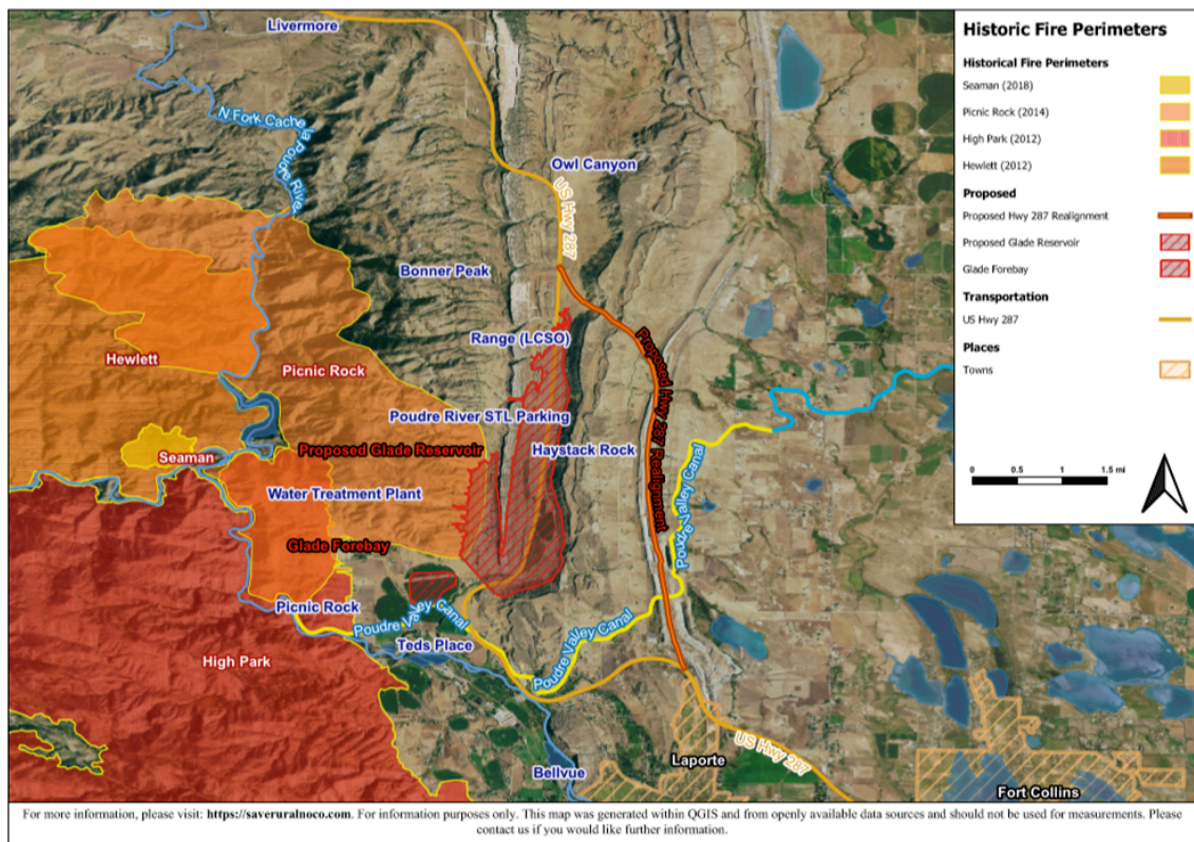
Past wildfire footprints relative to Glade Reservoir and facilities, estimated suppression and property damage costs.

Wild land fire frequency, intensity and duration have increased in the West in recent years, and according to the 2016 *Larimer County Multi-Jurisdictional Hazard Mitigation Plan*, Colorado is expected to experience greater fire risk in the future as the State becomes hotter and drier owing to climate change.⁷⁶ Larimer County has been ranked 2nd highest in Colorado for its level of wild land fire risk, and in the U.S. it is ranked 19th highest (Gude *et al.* 2008; Headwaters 2010; Radeloff *et al.* 2005; Brenkert-Smith *et al.* 2013). The Bonner Peak subdivision near proposed Glade is listed as being “high risk” according to the County’s *Subdivision Wildfire Hazard Review*.⁷⁷ Presumably the adjacent communities, while not “subdivisions” per se, have similar risk.

Many factors contribute to the risk of wild land fires including topography, meteorological conditions, fuel type, and human activity. These factors are often categorized into natural caused fires and human caused fires. Worldwide, most fires are caused by people (Martinez *et al.* 2009). For instance, in California humans are currently responsible for approximately 95% of wild land fires (Mann *et al.* 2016).

⁷⁶ See <https://www.larimer.org/sites/default/files/larimer-hmp.pdf>.

⁷⁷ See <https://www.larimer.org/emergency/fires/wildfire-review#/list/>.



Past wildfire footprints the many affected rural communities.

The probability of wild land fires increases where people engage in outdoor recreational activities (Romero-Calcerrada *et al.* 2010; Vilar del Hoyo *et al.* 2011), and in locations close to campgrounds (Pew and Larsen 2001; Gonzalez-Olabarria *et al.* 2011; Mann *et al.* 2016) or fishing and hunting areas (Chang *et al.* 2013; Sitanggang *et al.* 2013). In Larimer County, lightning is a common natural cause of wild land fires.

The proposed Glade Reservoir would invite 379,000 people each year to camp, hike, fish and hunt in an area already prone to wild land fires. This increased threat of fire for nearby residents is substantial, yet the FEIS makes *no mention* of wild land fire threats and the 1041 permit application states that that “*After construction is complete, wildfire mitigation will follow Larimer County’s Recreation Regulations.*” (Wildfire Hazard Mitigation Plan, 2020, p. 3) To state the obvious, it’s not the people who follow the regulations that cause the problems. This is passively “hoping for the best,” ignoring the unacceptable risk to rural properties and lives and livestock, and is not a credible mitigation strategy.

The proposed Glade Reservoir would substantially increase access for people to recreate on lands that border our communities. Five new campgrounds would be developed near the proposed dam and less than a mile from homes on County Road 29C. The campgrounds would have at least 70 campsites to accommodate tent, car or RV

camping. Because campgrounds have been shown to be significant sources of wildland fires, and that “*Across all landscapes the number of fires increases with proximity to public and private campsites.*” (Mann *et al.* 2016, p. 11). The location of these campgrounds would significantly increase the wildfire threat in the region.

Whether the number of hunters would increase or decrease as a result of a reservoir is not known, but a reservoir that generally brings more attention to the area may be expected to increase hunting usage, and with it, the potential for fires. The public is being told that fishing and hiking would also be available. While most visitors may obey trail rules, some would not and would trespass in our communities, innocently or otherwise. Most people would come in summer, when the land is hottest and driest, so this adds to the risk. Many visitors would not be aware of how easy it is to cause a wildfire in this landscape and may not take precautionary steps to prevent fires. Others would be careless, with campfires, with cigarettes, with illegal fireworks, or with firearms, and wildfires would be inadvertently ignited. Vehicles can start fires. The area is windy. Our climate is getting drier. One wrong fire in the right conditions could be very destructive.

Unfortunately, arson is possible. Data suggest that arson is not necessarily rare. For example, in the Daniel Boone National Forest in Kentucky more than 75% of forest fires are caused by arsonists (Maingi *et al.*, 2007).

Construction of the project would bring 500 people and lots of heavy equipment, which can start fires, to the construction sites during summer, when fire hazard is highest. The Wildfire Mitigation Plan states that “*During construction of the Glade Unit, it is anticipated that the Contractor will employ fire mitigation strategies that include water trucks, coordination with the local fire department (Poudre Fire Authority), and other standard safety practices.*” The fact that the proponent “anticipates” some future fire mitigation strategy is not an acceptable mitigation strategy, and is yet another example of how the application, and indeed the project, is full of empty promises, while the impacts will be real and could be devastating. The influx of heavy equipment and operators for the long-term construction period would increase the risk of fires.

The fire mitigation plan is grossly inadequate⁷⁸ and unaccountably fails to recognize the seriousness of this issue. Our homes, our property, our animals would all be put at risk of wildfire due to construction and high visitation. Both construction and operation would cause an unacceptable public safety risk.

Public Health Impacts on Air Quality

⁷⁸ The fire mitigation plan fails to acknowledge the serious fire danger in Larimer County and leaves dealing with fire to Poudre Fire Authority. The thousands of acres that have burned have required huge mutual aid efforts involving local and federal fire-fighting agencies, including out-of-state agencies. The plan falls far short, lacking any commitments to address a very real and potent risk of loss of life and property or the costs to taxpayers.

Lakeshore Dust. The FEIS, on which the 1041 application bases its environmental analysis, states that fugitive dust emissions during operation of Glade Reservoir would be negligible (FEIS Section 4.14.3.2, page 4-461). The “analysis” says that wind speeds would have to be over 80 mph before any dust would be raised from the lakeshore (see the Technical Memorandum attached to the FEIS). For those who live in rural northern Colorado, this doesn’t pass. There is usually dust in the air, even with the slightest wind: we watch it lifted from the native prairie and foothills’ surfaces, where, because of the area’s dryness, vegetation doesn’t completely cover the ground, and little rills, rivulets, and wind blown pockets expose soils to wind erosion. Residents watch it lifted from semi-vegetated slopes and from stream banks. They sweep it in clouds from our front steps and porches, and they wipe it off their furniture. Dust is part of everyday life, so the claim in the FEIS that the threshold wind velocity for fugitive dust emission is 79.7 mph, cannot be accurate. The every-day winds make this a very dusty environment.

The technical analysis for fugitive dust emissions was flawed because it relied on an Environmental Protection Agency guidance document AP-42, Chapter 13.2.5, as its starting point. It assumed that “Industrial Wind Erosion” is a good fit for the barren shorelines of a reservoir in northern Colorado. Industrial Wind Erosion is defined as follows:

Dust emissions may be generated by wind erosion of open aggregate storage piles and exposed areas within an industrial facility. These sources typically are characterized by nonhomogeneous surfaces impregnated with nonerodible elements (particles larger than approximately 1 centimeter [cm] in diameter). Field testing of coal piles and other exposed materials using a portable wind tunnel has shown that (a) threshold wind speeds exceed 5 meters per second (m/s) (11 miles per hour [mph]) at 15 cm above the surface or 10 m/s (22 mph) at 7 m above the surface, and (b) particulate emission rates tend to decay rapidly (half-life of a few minutes) during an erosion event. In other words, these aggregate material surfaces are characterized by finite availability of erodible material (mass/area) referred to as the erosion potential. Any natural crusting of the surface binds the erodible material, thereby reducing the erosion potential.

The FEIS uses an Area Source Methodology used to estimate emissions of fine particulate matter less than 10 microns (PM10) from exposed lake beds in the San Joaquin Valley Air Basin to estimate fugitive dust from the shoreline of Glade. Erosion potentials are calculated using wind velocity data acquired by the National Climatic Data Center and then used to calculate PM10 emissions from wind events that may occur throughout the year.

The flaws with the fugitive dust emissions estimates in the FEIS are numerous and substantive:

- Open aggregate storage piles are not an appropriate surrogate for the shores of the proposed reservoir—a lakebed

- Non-homogeneous surfaces impregnated with non-erodible elements (particles larger than approximately 1 cm in diameter) are not remotely comparable to the shores of a reservoir where the source materials are silty-clay-loam soils that are continually pounded by water into finer and finer particle sizes
- Because of the repeated and continued cycles of seasons (ice in the winter, wave action on the shores the rest of the year, and the repeated raising and lowering of the water level, there is an infinite—not finite—availability of erodible material
- The potential for “natural crusting” is remote since waves and ice will keep breaking up the soils on the shoreline

Many of the native soils in and adjacent to the Glade footprint are fine sandy loams, clay loams, and silty clay loams, and fall into wind erodibility groups 3 and 4 (are moderately erodible), but the characteristics of native soils is only part of the dust problem.

Reservoir processes that affect shoreline erosion include reservoir operation (water levels), waves, reservoir currents, freeze-thaw cycles, slope, groundwater, and overland flow. Overall erosion potential depends on the frequency and magnitude of these processes, and how they interact on the specific landscape. In Hook and Moore Glade, the natural cycles of freezing and thawing, and strong winds, suggest that these forces would be major players in fugitive dust from the shores of a huge reservoir, yet they are not even mentioned.

Each winter, soils will freeze, then thaw in the spring, a process that will reduce particle size, destroy soil structural elements that hold soils in place, and increase erodibility. Each winter, the water would freeze and ice would scour the shoreline, pulverizing soil particles into smaller, looser particles.

Waves are the predominant erosional force on shorelines. This part of Larimer County is very windy (potential for gusts of over 150 mph⁷⁹ such that structures must be designed to withstand strong winds)(Larimer County Structural Design Information 1609 Wind Loads)), so strong and constant wave action caused by wind would occur on the shores of Glade Reservoir. Boats would also cause waves. Wave forces would reduce particle size. The effect of waves on shorelines is also influenced by water levels which control where and how waves hit the shore. Glade Reservoir would cycle up and down,

⁷⁹ According to the Colorado Front Range Gust Map (Cermak, Peterka, Petersen 2013), “high wind speeds in the Front Range area on the plains adjacent to the Rocky Mountains and in the mountains east of the Continental Divide are well known to residents as winter and spring events that are sometimes damaging. The winds are known to occur from roughly the Continental Divide/Larimer County Line (the line of highest terrain running approximately north to south that marks the high terrain western edge of the Front Range area) to approximately I-25 (that runs north-south about 8-15 miles east of the intersection of the mountains with the plains). The Continental Divide is very close to the plains in the Front Range area, resulting in high downslope wind speeds where the mountains and plains intersect.”

and its shoreline (a bathtub ring) would be repeatedly exposed to these erosive forces, and without vegetation to help hold it in place, the small particles would easily become airborne.

Therefore, the shorelines of Glade Reservoir would not be “nonerodable particles” and a “finite source”, as was incorrectly assumed in the FEIS: there would be an unlimited source of fine and highly erodible particles. The constant strong winds in the area will blow this dust all over the surrounding landscape, degrading the quality of life, impacting aesthetics (e.g., the clarity of the air) and threatening public health because air quality will be degraded.

As with the noise analysis, the FEIS upon which the 1041 application relies, fails to provide a realistic analysis of the effects on rural northern Colorado lands and its communities. We again urge the county to treat the FEIS with a large degree of skepticism, because it was not developed for the purposes of local-scale land use decision-making and Larimer County’s public would be adversely affected in ways that are not disclosed in any environmental document for the project.

Construction and Operation Air Pollution. Furthermore, the project would contribute to air pollution both during construction, due to 6-days-per week operation of heavy equipment and vehicles traveling to and from the site, and during operations, should almost 400,000 visitors per year travel to and from the reservoir. Emissions from vehicles includes particulates and gases, including gases that form ozone. Most of the visitation would occur on hot summer days when ozone readily forms from nitrogen oxides (NOx) and volatile organic compounds (VOC), and northern Colorado is already in an area rated as severe non-attainment for ozone. The environmental documents do not disclose how much ozone would be formed, whether it would travel up the valleys into the rural communities or down the valleys towards Bellevue, Laporte, and Fort Collins, and how it would impact Larimer County’s residents.

Air Quality Mitigation Plan. The air quality mitigation plan punts any mitigation commitments to the future.

- In the first section (8.11.2) of the air quality mitigation plan, it states that “*the full state and federal applicability analysis will be completed as the dates of construction becomes closer and the Full Project parameters are known.*”
- Section 8.11.3 states “*Some of the engines in the construction fleet would be expected to meet Environmental Protection Agency (EPA) nonroad Tier 4 standards. As stated in the FEIS, Nitrogen Oxides (NOx) emissions can be reduced significantly if even a portion of the construction vehicles meet Tier 4 standards. The FEIS emission calculations make the assumption that there will be a 75% NOx reduction from vehicle exhaust emissions.*”
- Section 8.11.3 states “*this submittal does not include the development of a separate air quality mitigation plan.*” After identifying air pollution and emissions sources, this section goes on to say, “*The main strategy [for minimizing*

emissions] *is to develop air management plans that will be followed where appropriate.*”

- In section 8.11.5, the “plan” unbelievably declares that *“It is also expected the Project will exceed CDPHE thresholds of 25 acres and the six-month duration requiring the development of a fugitive dust control plan. The fugitive dust control plan will be developed.....”*

The mitigation plan also notes that spraying water may be used for dust control: “Watering or treating with chemical dust suppressant roadways, storage piles, and loaded trucks.” Further, it notes that it may undertake “washing...the exterior of haul trucks.” In an era when water conservation is critical, it defies logic to spend almost a decade dumping water on a huge construction site and washing construction vehicles to minimize fugitive dust pollution. And if the dust suppression water is taken from municipal sources, is it not possible to trace those sources back to the Poudre River, or our other already over-taxed water supplies? Myopically treating one environmental issue (air quality) with water only compounds the much larger social and environmental issues associated with water supply.

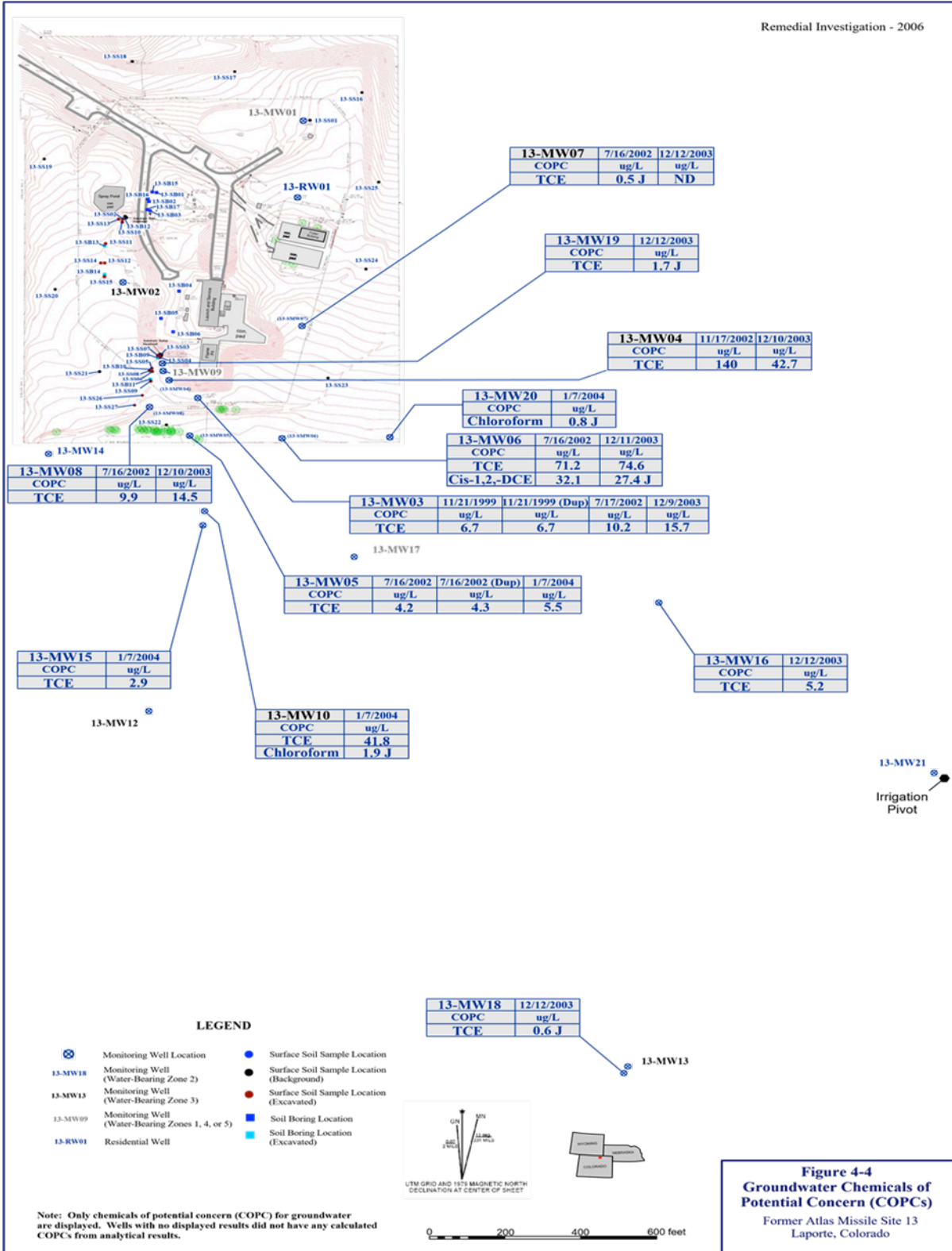
In summary, the air quality mitigation plan provided with the 1041 permit application is nothing but promises and examples. Any and all commitments for protecting air quality and reducing emissions are deferred to the permitting process of the Air Pollution Control Division of the Colorado Department of Public Health and Environment (CDPHE): all of the emissions and control plans for almost a decade of construction, and all of the emissions and control plans for the dust from operations, including the pump stations, barren shoreline, jet skis, motorboats, 78,200 vehicles during summer, are not disclosed to the county or the public in time for this important permitting process. The magnitude of this project ensures that the numerous and substantive sources of air pollutants and greenhouse gases (GHG) will be emitted, some in large quantities, and will degrade the quality of our air and exacerbate factors contributing to climate change.

Public Health Impacts from the Trichloroethylene (TCE) Plume at the from the Former Atlas Missile Silo Site

There is no satisfactory determination that the TCE plume is “gone” and will not spread into residential wells. Vias correspondence with the Army Corps of Engineers and CDPHE regarding the site, it appears that the plume is below a 5 ppm “acceptable” drinking water threshold, yet it should be noted that at least one monitoring well continued to show higher levels of TCE. According to the Colorado Division of Natural Resources permit records, Northern Water has recently drilled over a 20 monitoring wells in the vicinity. Residents have reached out to federal and state agencies, and to Northern Water, but are unable to understand how residential water wells and the Poudre River would be affected, or why the additional monitoring wells were installed. This needs to be fully disclosed by the county and to the public prior to taking action on this permit application.

Plumes of this nature last many lifetimes and it is implausible that site specific efforts to clean up the plume have been effective. Northern installed more than 20 monitoring wells in 2019 located through the plume, but no public records are available regarding data from the Northern 2019 monitoring well network.” The forebay is a below dam small reservoir of the Poudre water which will be pumping water 375 feet up into Glade Reservoir. This groundwater carcinogenic contamination must be addressed thoroughly before the 1041 application is deemed complete.

The figure below shows the 2006 situation, in which several wells contained TCE levels in excess of standards. Monitoring by Northern Water and disclosed in the FEIS show that TCE levels were below standards in all but one well.



Ground water chemicals of potential concern at the former Atlas Missile Silo site, located near the proposed dam and forebay.

If portions of the plume continue to contain high TCE levels, and the weight of the dam, or the water in the forebay and/or behind the dam cause the plume to move in ways it has not previously moved, it may contaminate wells at the homes along county road 29C or the Poudre River.

Public Health Impacts from Greenhouse Gas Emissions.

In 2019, Governor Polis signed House Bill 19-1261, the Climate Action Plan, into law. The legislation amends Colorado’s Air Pollution Prevention and Control Act and commits the state to economy-wide greenhouse gas emissions reductions goals of 26% below 2005 levels by 2025, 50 percent by 2030, and 90 percent by 2050 (M.J. Bradley and Associates 2020). Meeting the goals will require significant emission reduction across Colorado’s economy. Repeat, across Colorado’s economy.

Project sources of GHG emissions include:

- Biogenic sources
- Recreational vehicles traveling to and on Glade Reservoir
- Electrical pumping

With regards to GHG from biogenic sources, the FEIS states “*Given the lack of available data and accepted methodology for quantifying these emission, GHG emission have not been quantified for the NISP Alternatives.*” Unfortunately, it is well known that lakes and reservoirs are significant emitters of harmful GHGs, and Glade would be a source. The FEIS goes on to state that “*Due to the relatively low temperature, low terrestrial net primary productivity, and non-tropical latitude of the NISP reservoirs, it is likely that the NISP Alternatives would produce far fewer GHG emissions from biogenic sources than similar projects in warmer regions at tropical latitudes.*” First, this is the wrong approach, the analysis should disclose conditions with the project compared to current conditions without the project. Second, contrary to what this statement implies, reservoirs in temperate regions are known to emit large amounts of GHGs from biogenic sources. Biogenic methane (a significant GHG) emissions may be especially high. Although none of these emissions are quantified, its fair to say that if the state is looking to reduce emissions across all sectors, then emissions from a new, large reservoir and its pump stations and vehicles, the project is not in alignment with the new legislation.

The project will require pumps to move water from the forebay into Glade Reservoir, as well as for moving water at other segments of the project. According to the FEIS, the project would emit about 35,000 tons per year of CO₂ and about 4 tons per year of methane (FEIS Technical Memorandum, Maul, Foster, and Alongi 2018). The GHG emissions are equivalent to emissions from about 7,000 cars.

Save The Poudre did an independent analysis of the GHG emissions of the project and determined that it would create yearly emissions to the emissions from almost 13,500

automobiles on the road every year. Our analysis includes emissions from construction, pumping, and the destruction of carbon-sequestering wetlands⁸⁰.

Furthermore, since the project does not have sufficient water rights and is implementing a farm-buying program, emissions might be closer to those described for the No Action Alternative in the FEIS, which predicts 47,000 tons per year of CO₂ and 5 tons per year of methane. So, again, another problem with the post-FEIS plan to buy farms is that these emissions are not adequately and transparently disclosed.

Regardless, the project would emit significant GHG and thus would impede the state reaching its GHG emissions reduction goals.

I. The NISP 1041 application does not comply with review criterion D.7.

Section 14.10.D.7. of the LUC review criteria imposes a burden on the applicant to prove that the proposal “will not be subject to significant risk from natural hazards including floods, wildfire or geologic hazards.” For the reasons stated below, Northern has failed to prove that its proposal will not be subject to significant risk from natural hazards especially related to wildfire as discussed in section VII.H.

Two large faults, the North Fork Fault and the Bellvue Fault, pass under the proposed Glade Dam site. Tom Sale, geological expert, and CSU Engineering professor stated in a recent letter to the County Commissioners, “ 1) the faults represent vertical intervals of broken rock and 2) that they pass directly under the proposed dam site (that will have up to 400 feet of differential water level) it seems highly likely that leakage under the dam along the faults will be severe. NISP admits in their application that “there are two earthquake faults mapped within the Glade unit. The Bellvue Fault and North Fork Fault have been intercepted at depth by test holes advanced during the project’s geotechnical investigations.”... “Both faults are inactive and do not present a seismic risk to the project.” Yet, as any geologist will tell you, all faults are inactive until they are not. NISP’s remark that these faults “do not present a seismic risk to the project” is just that. Northern gives no reference to a government agency verifying there is no seismic risk. Any seismic risk, no matter how small, is unacceptable when it involves a dam holding back 170,000 acre feet of water. A more thorough analysis is needed from a governing authority. At the very least, a certification stating that the two faults do not present a seismic risk to the project is needed.

NISP would increase flooding downstream of the diversion point, including through Fort Collins and Greeley. These comments were presented in the City of Fort Collins comments on the DEIS, previously incorporated in this letter.

J. The NISP 1041 application does not comply with review criterion D.8.

⁸⁰ See Exhibit 21 hereto. See also, <http://savethepoudre.org/stp-correspondence/2014-05-16-stp-letter2-corps-ghg-emissions-nisp.pdf>

Section 14.10.D.8. of the LUC review criteria imposes a burden on the applicant to prove that there are “adequate public facilities and services available for the proposal or will be provided by the applicant, and the proposal will not have a significant adverse effect on the capability of local government to provide services or exceed the capacity of the service delivery system.” For the reasons stated below, Northern has failed to prove that its proposal ensure adequate public facilities.

The application fails to disclose how the siting, construction, and operation of an industrial facility in a rural setting will impact sheriff, fire, and other emergency services. For example, the fire mitigation plan states that fires won’t be an issue because the campgrounds will be operated in accordance with Larimer County regulations. But this ignores the fact that wildfires are often started by accident, or even by arson, and in this area, one wrong fire in the right conditions could be devastating. In addition, how will the LCSO deal with the additional traffic (~78,000 vehicles during the recreation season, FEIS Technical Memorandum, Maul, Foster, and Alongi 2018). How will the emergency services teams (some of which are all volunteers) that protect these rural areas compensate for or be compensated for the increased number of calls? What is the expected increase in number of calls? How will service to existing communities be impacted by the need to serve visitors? We have not been provided with sufficient information to evaluate these questions, and unless the county has been provided information that has not been made public, it too lacks sufficient information. However, we do know that county resources are limited, and can surmise that additional demands on law enforcement, fire suppression, and EMS would strain existing providers. Would the taxpayer have to pick up the bill to expand these services?

K. The NISP 1041 application does not comply with review criterion D.9.

Section 14.10.D.9. of the LUC review criteria imposes a burden on the applicant to prove that the “applicant ***will mitigate any construction impacts to county roads, bridges, and related facilities.***” Northern has failed to prove that its proposal will adequately mitigate any construction impacts to roads, bridges and related facilities.

As noted herein, Northern has failed to present any alternative to relocating Highway 287 or any siting alternatives for any Highway 287 realignment. As such, Northern has completely failed to undertake its mitigation obligations with regard to Highway 287. Further, Northern’s 1041 application is incomplete with regard to construction impacts associated with the proposed access road to the proposed Glade Reservoir. As such, Northern has failed to meet its burden of complying with LUC Section 14.10.D.9. and its application must be denied.

L. The NISP 1041 application does not comply with review criterion D.10.

Section 14.10.D.10. of the LUC review criteria imposes a burden on the applicant to prove that the “***benefits of the proposed development outweigh the losses of any natural resources or reduction of productivity of agricultural lands*** as a result of the proposed development.” For the reasons stated below, Northern has failed to prove that

the proposed benefits of the proposed development outweigh the losses of any natural resources or reduction of productivity of agricultural lands.

One significant impact of NISP to natural resources is the interference with long term peak flows in the Cache la Poudre River needed to maintain a health river. NISP will substantially reduce peak flows of the river and then manage releases from Glade Reservoir. However, Northern's proposed flow program does not restore the volume or time period of peak flows necessary to protect and restore the health of the river.

The Refined Conveyance system was conceptually designed to maintain low flows in the Poudre River between the proposed reservoir and the Poudre River Intake (PRI) yet these flows would be variable in time and are inflated in the FEIS and the Mitigation Plan. Water would only be released to the Poudre when Northern is delivering water to NISP participants; thus, when demand is too low, releases would be curtailed. In addition, only one-third of the deliveries will be routed through the Poudre to the PRI. Per the FEIS, the projected full benefit of the Refined Conveyance mitigation would not be achieved until 2050 yet Northern claims the full benefit in the FEIS and the 1041 permit application inflating the long term benefit of the Refined Conveyance system. In fact, the Refined Conveyance system does little to mitigate low flows and by extension the health of the stream for an extended period of time.

Northern's 1041 application does not quantify the losses to these natural resources versus the benefits of NISP (if any) to the Cache la Poudre River. As such, Northern has not proven compliance with Section 14.10.D.10. of the LUC.

Northern has not provided the county with information on the number and location of farms they will buy and dry to obtain one-half of the water needed to fill Glade Reservoir. To obtain 22,000 AF likely will require purchase of 20,000 acres of farms or more (Section VII B in this document). Northern has not explained how the recreational benefit of Glade Reservoir outweighs the vast reduction of productivity of agricultural lands when water rights are severed from the land.

The recreational benefit of Glade Reservoir depends entirely on reservoir storage being at 70 percent of maximum storage. Modeling of storage levels in the proposed Glade Reservoir (Save Rural NOCO in Section VII B of this document) from 2005 to 2019 shows that, in dry years, Northern will not be able to maintain the reservoir at sufficient levels for power boating. Climate change impacts on streamflow will exacerbate this situation – further reducing the number of years where recreation at Glade Reservoir will be possible and the benefit of the project.

Northern's 1041 application does not quantify the loss of agricultural productivity versus the recreational benefits of NISP (if any). As such, Northern has not proven compliance with Section 14.10.D.10. of the LUC.

In 2017, Colorado Parks and Wildlife (CPW) entertained a draft "Fish and Wildlife Mitigation and Enhancement Plan". Save The Poudre provided comments to

describing the enormous lack of mitigation in the draft plan, most of which carries over into the final plan. Those comments are incorporated here as Exhibit 22.⁸¹

M. The NISP 1041 application does not comply with review criterion D.11.

Section 14.10.D.11. of the LUC review criteria imposes a burden on the applicant to prove that the proposal “demonstrates a reasonable balance between the costs to the applicant to mitigate significant adverse affects and the benefits achieved by such mitigation.” Northern has failed to prove that its proposal demonstrates a reasonable balance between the costs to the applicant to mitigate significant adverse affects and the benefits achieved by such mitigation.

As noted herein, the costs of mitigation have not been fully evaluated because the impacts of the project have not been adequately disclosed. For example, impacts to agriculture from Northern’s purchase of farms and water rights in Larimer County remain speculative and have not been quantified. Further, Northern’s ability to mitigate adverse impacts to the Cache la Poudre River are flawed and speculative because Northern does not own the water rights to implement river mitigation measures and its ability to release water from Glade Reservoir is dubious. These flaws equally affect Northern’s ability to accurately assess the benefits to be achieved by the speculative mitigation.

For the reasons stated in this comment letter, Northern has failed to meet its burden of complying with Section 14.10.D.11. of the LUC and its 1041 application must be denied.

N. The NISP 1041 application does not comply with review criterion D.12.

Section 14.10.D.12. of the LUC review criteria imposes a burden on the applicant to prove that the “recommendations of staff and referral agencies have been addressed to the satisfaction of the county commissioners.” For the reason stated below, Northern has failed to prove that the recommendations of staff and referral agencies have been addressed to the satisfaction of the county commissioners.

The County previously submitted a comment letter identifying deficiencies with the NISP EIS.⁸² Northern’s 1041 application does not discuss whether the County’s comments have been addressed, and if so, how. As such, Northern has not met its burden of proving compliance with Section 14.10.D.12. of the LUC. Further, the Larimer County NGO’s do not have the benefit of the written staff recommendations and referral agencies at the time of submission of this comment letter because such comments have yet to be completed and/or posted to the public website. The Larimer County NGO’s incorporated herein by reference all comments and recommendations of staff and referral agencies.

⁸¹ Exhibit 21 hereto (STP comments on FWMEP).

⁸² Exhibit 9 hereto (County’s DEIS comments).

VIII. Reasonable Alternatives to NISP

Alternatives to NISP have been forwarded by multiple groups including Save The Poudre and Western Resource Advocates. The “Healthy Rivers Alternative” promoted by Save The Poudre includes enhanced water conservation and efficiency, better growth management, using ‘growth displaced water’, and pursuing water transfer mechanisms with farmers⁸³. The “Healthy Rivers Alternative” would allow NISP communities to meet their water needs while protecting the Poudre River.

The “Better Future for the Poudre River” alternative promoted by Western Resource Advocates also advocates for enhanced water conservation, better growth management, and using ‘growth displaced water’⁸⁴.

Save The Poudre also supports the approach of “**Cleaning the River through Fort Collins and using the river as a conveyance, instead of the pipeline**”. This alternative approach is described in Save The Poudre’s comment letter to the Colorado Water Quality Control Commission in Dec. 2019, wherein it notes that this approach also applies to the Larimer County 1041 permit process. Northern Water claims that they could only run 1/3rd of their water down the Poudre River, again due to the pollution level in the river. The “Clean The River” alternative describes how stormwater technology can allow all of the NISP water to flow through Fort Collins at a significantly cheaper cost than building the Northern Tier Pipeline⁸⁵.

IX. Financial Issues

In light of the extensive adverse economic impacts and budget shortfalls resulting from the Coronavirus pandemic, which were unforeseen and unaccounted for during project planning, the permit review process must include a careful and detailed independent analysis of the financial feasibility of this project. No permit should be approved unless a review by Larimer County conclusively demonstrates that highway relocation (which as been punted to another review process), reservoir completion (construction details not yet disclosed), water rights acquisition (currently speculative), and implementation of all necessary mitigation measures (critically not yet developed or disclosed) is fully assured in light of the current budget and economic climate. Failure to perform such a thorough and careful analysis would create an unacceptable risk that the many well documented adverse impacts would begin to accrue upon project initiation, only for the so-called benefits of the project to never materialize, and for the county and it's citizens to be left holding the financial and environmental bag.

⁸³ Exhibit 22 hereto. See also:

http://savethepoudre.org/docs/stp_healthy_rivers_alternative.pdf

⁸⁴ Exhibit 23 hereto. See also: <https://westernresourceadvocates.org/publications/a-better-future-for-the-poudre-river/>

⁸⁵ Exhibit 20 hereto.

X. Conclusion

For the reasons stated herein, No Pipe Dream Corporation, Save Rural NoCo Corporation and Save the Poudre and their collective Larimer County membership request that the Planning Commission recommend denial of Northern's 1041 application.

Sincerely,

s/ Robert Kitchell, President

No Pipe Dream Corporation

s/ John Dettenwanger, Chairman

Save Rural NoCo

s/ Gary Wockner

Save the Poudre

Exhibit List to June 9, 2020 Planning Commission Comment Letter

Exhibit

- 1. Bylaws**
- 2. Dougherty screen shot**
- 3. Dougherty questionnaire**
- 4. Northern's Nov. 2019 List of NISP Endorsers/Supporters**
- 5. STP DEIS comment letter**
- 6. STP SDEIS comment letter**
- 7. STP FEIS comment letter**
- 8. STP SEIS comment letter**
- 9. Larimer County comment letter on DEIS**
- 10. Ft. Collins comment letter DEIS**
- 11. Ft. Collins comment letter SDEIS**
- 12. Bestgen study**
- 13. State of the Poudre report**
- 14. WSVS Study**
- 15. Udall report**
- 16. Thornton Planning Commission hearing transcript.**
- 17. Thornton Findings and Resolution**
- 18. County response brief in Thornton 1041 litigation.**
- 19. Larimer County NGO's letter to Leslie Ellis**
- 20. STP letter to WQCD on 401 certification.**
- 21. STP Greenhouse Gas letter**
- 22. Healthy Rivers report**
- 23. WRA's "A better future report."**