



**Larimer County Analysis –
Technical Memorandum No. 2
Larimer County 1041 Review Criteria**

Prepared for:
Larimer County

Prepared by:
**Northern Integrated Supply Project
Water Activity Enterprise**

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Technical Memo No. 2

NISP: Larimer County 1041 Review Criteria (LUC Section 14.10(D))

Summary

The purpose of this Technical Memo is twofold:

1. To direct Larimer County's Board of County Commissioners (BOCC) to the exchange of information between staff for the Northern Integrated Supply Project Water Activity Enterprise (NISP WAE) and Larimer County staff (County) over the course of many years pertaining to the Northern Integrated Supply Project (NISP or Project), and specifically, to the County's 1041 Permit and other land use criteria (Section I of this document); and

2. To reference those documents, and the information provided therein, to provide examples of how each of the BOCC's 1041 Permit review criteria are addressed for each activity associated with NISP regulated under 1041 (Section II of this document).

For purposes of the latter, the information within this document is by way of example and is not inclusive of all the information pertaining to NISP that has been documented, shared, reviewed, and commented on during the federal and state permitting efforts. As a cooperating agency, the County participated in the review and development of many of those documents.

Therefore, in addition to the information included by way of example herein, the Enterprise requests that the BOCC also consider relevant documentation associated with the environmental analysis led by the U.S. Army Corps of Engineers (Corps) during the NEPA and Clean Water Act section 404 permitting process for NISP; the Corps' consultation with the Colorado State Historic Preservation Officer (SHPO) and the Advisory Council on Historic Preservation pursuant to the National Historic Preservation Act (NHPA); and the Corps' consultation with the U.S. Fish and Wildlife Service pursuant to the Endangered Species Act. Review of those documents should include all relevant analysis, approvals, permit conditions, and the mitigation and enhancements offered by the NISP WAE in this federal permitting process.

Additionally, the NISP WAE requests that the Board of County Commissioners also refer to all relevant documentation associated with water quality analysis and the effects, including beneficial effects, to fish and wildlife resources analyzed through the separate state water quality and fish and wildlife approval processes for NISP. Those documents should include all analyses,

terms and conditions, implementation agreements, and mitigation and enhancement commitments under the 401 Water Quality Certification from the Colorado Department of Public Health and Environment, and the Fish and Wildlife Mitigation and Enhancement Plan entered into between the NISP WAE and the Colorado Department of Natural Resources (and approved by Colorado Parks and Wildlife Commission and the Colorado Water Conservation Board), pursuant to C.R.S. section 37-60-122.2.

Background

Larimer County Land Use Code, Section 14.10(D), sets forth 12 criteria ("12 Review Criteria") by which the BOCC will review a 1041 Permit application. It provides,

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 the applicable criteria set forth in 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.

This document is the NISP WAE's demonstration to the BOCC that the NISP WAE has worked cooperatively with the County over many years to provide information, consider County comments, and conduct additional outreach with the local community regarding NISP. It also demonstrates, through the exchange of information, how evaluations and considerations, specific to the County's Land Use Code and relevant to the 12 Review Criteria, have been made by both parties over the course of many years, leading up to this 1041 permit application.

Section I. Informational Documents Exchanged Between the NISP WAE and the County in Consideration of the County’s Land Use Code

Concurrent with the federal and state permitting processes for NISP, in which the County participated and coordinated directly with federal and state agencies, the NISP WAE coordinated with the County to satisfy information needs relative to the County’s Land Use Code, as applicable to NISP.

Beginning in 2017, the NISP WAE provided project information to the County to specifically address Land Use Code requirements. The NISP WAE provided the County technical memoranda and updates to those memoranda from 2017 through 2019, each followed by comments and responses from both entities’ staffs. The parties met numerous times and participated in public meetings, workshops, and open houses.

The following documents demonstrate the cooperative exchange of information between the NISP WAE and the County as the parties began contemplating the 1041 permit application submittal:

- **Technical Memorandum No. 1 – Project Summary (“Project Summary Memo”)**

May 2018
June 2019

- **Technical Memorandum No. 2 – Larimer County 1041 Evaluation Criteria (“1041 Evaluation Memo”)**

May 2018
June 2019

- **Technical Memorandum No. 3 – Conveyance Pipeline Route Study & Analysis (“Pipeline Memo”)**

May 2018
June 2019
July 2019

- **Technical Memorandum No. 4 – U.S. Highway 287 Relocation (“Hwy 287 Memo”)**

May 2018
June 2019

- **Technical Memorandum No 5 – Glade Reservoir Recreation (“Recreation Memo”)**

May 2018

June 2019

- **Larimer County comments to the NISP WAE**

January 23, 2018

June 29, 2018

August 26, 2019

November 12, 2019

- **Larimer County Engineering Department Comments on NISP IGA, File #19-ZONE2551 (“County Engineering Department Comments”)**

July 22, 2019 (This document includes comments from Larimer County Plans Examiner, the Town of Timnath, the Windsor Reservoir and Canal Company, Colorado Parks and Wildlife, City of Fort Collins, Poudre Fire Authority)

July 30, 2019

November 8, 2019

- **The NISP WAE’s Response to Larimer County and Referral Agency Comments**

March 20, 2018

October 7, 2019

These documents are referenced in Section II of this document to provide examples of how NISP satisfies each of the 12 Review Criteria.

Section II. Application of Information to the BOCCs 12 Review Criteria

Under Section 14 of the Land Use Code (“Areas and Activities of State Interest”), i.e. 1041 regulations, NISP involves two activities separately regulated by the County as activities of State interest: siting and development of new or extended domestic water transmission lines, and site selection and construction of a new water storage reservoir. Therefore, this document applies each of the 12 Review Criteria to each activity in Sections II.A (“Pipeline Siting and Development”) and II.B (“Reservoir Siting and Construction”). Nevertheless, it is important to acknowledge that the federal and state reviews of the Project analyzed and evaluated the Project components as a whole. As suggested above, those documents should also be considered for purposes of demonstrating satisfaction of the 12 Review Criteria.

As technical memoranda were revised and/or updated by the NISP WAE after receiving comments and questions from the County, the revised technical memoranda supplanted earlier versions. Thus, referenced below is to the latest version of the technical memoranda listed in Section I, above.

A. Pipeline Siting and Development

Review Criteria 1: The proposal is consistent with the master plan and applicable Intergovernmental agreements affecting land use and developments

When developing the pipeline, the NISP WAE will implement applicable measures of good public stewardship described by the County in its Reservoir Parks Master Plan. For example, native vegetation will remain at the site, and landscaping will be replaced following construction. See Reservoir Parks Master Plan at 44. During development, if work is conducted after sundown, the NISP WAE will agree to use downcast lighting. See Reservoir Parks Master Plan at 45.

Relevant to the siting and development of the water pipeline component of the Project, the NISP WAE reviewed and considered the County's 1997 Master Plan, and the 2015 Open Lands Master Plan.

a. 1997 Larimer County Master Plan

"The Master Plan uses the term 'Growth Management Area'(GMA) to refer to what current IGAs with the cities of Fort Collins and Loveland refer to as Urban Growth Areas. In addition, the Master Plan calls for the establishment of two additional geographical boundaries that could be established beyond a municipality's growth management area: the 'Cooperative Planning Area' (CPA) and the 'Community Influence Area (CIA). See County Master Plan at 2-6. NISP pipeline routing information has been shared with and evaluated by the County, as reflected by the documents described in Section I, above. The pipeline crosses through multiple GMAs. Since the 1997 Master Plan, more towns have grown within Larimer County. The pipeline crosses through GMAs for Timnath, Windsor, Johnstown, and Fort Collins. The NISP WAE is actively coordinating with these entities.

Within the urban and agricultural area, the development of the pipeline will not change existing land uses and will continue to further the protection of agricultural land and water. For individual landowners affected by the construction, the NISP WAE will acquire easements for the pipeline. The easement agreement will provide that the NISP WAE will return the land to pre-construction condition and compensate for crop damages and/or losses incurred during construction or maintenance. Through its practice, the NISP WAE will follow goals and strategies under the Master Plan, such as GM-9 (Permanent and ongoing communication between agriculture and the County is essential); and GM-12 (Respect for private property is essential to the maintenance of agriculture). See Master Plan at 2-14. Similarly, as demonstrated in the following responses, the NISP WAE has adhered to Master Plan strategies that apply to all development activities, such as "all new development shall be located and designed for

compatibility with sensitive natural areas; compatibility with adjacent land use shall be considered in the design of all new development.” See Master Plan at 3-9.

b. 2015 Open Lands Master Plan

The pipeline will pass through the City of Fort Collins natural areas and may pass through Larimer County conservation easements. The NISP WAE is committed to restoring all lands to pre-existing condition following construction.

Pipeline Siting and Development

Review Criteria 2: The applicant has presented reasonable siting and design alternatives or explained why no reasonable alternatives are available

The Corps' EIS analyzed the impacts associated with pipeline development. The NISP WAE provided the County with numerous documents, described in Section I above, providing information about the selection of the pipeline route. Through dialogue between the NISP WAE and the County, the NISP WAE refined the information regarding the corridor location and construction. Site selection will avoid sensitive resources and will be compatible with existing land uses. The NISP WAE provided the County with its site analysis process and specific review criteria. After further discussion with the County, the pipeline routing identified in the latest Technical Memorandum No. 3 is the final alignment, recognizing that minor adjustments may be necessary in specific locations.

Discussions related to alternatives considered and evaluated by the NISP WAE for pipeline routing and the criteria used to determine the most reasonable siting and design can be found in the Project Summary Memo, the 1041 Evaluation Memo, and the Conveyance Pipeline Memo. In sum, constraints and criteria were determined in conjunction with the County. A two-phase approach was used to develop and evaluate alternative alignments. The first phase is an initial screen to determine and map alternatives. The second phase analyzes the routes developed by the first phase using the detailed conveyance routing evaluation criteria. Screen criteria include major corridors, land use and residential impacts, environmental impacts and county facilities. Detailed screen criteria included overall impact, land use and residential impacts, environmental and historic impacts, and county facilities.

Pipeline Siting and Development

Review Criteria 3: The proposal conforms with adopted county standards, review criteria and mitigation requirements concerning environmental impacts, including but not limited to those contained in this Code

As described above in Review Criteria 2, the County reviewed and provided comments on pipeline routing alternatives to help conform the proposal to county standards and evaluate impact avoidance and minimization. Additionally, the NISP WAE will follow applicable Land Use Code requirements and standards during construction. Information can be found in the 1041 Evaluation Memo.

Pipeline Siting and Development

Review Criteria 4: The proposal will not have a significant adverse effect on or will adequately mitigate significant adverse effects on the land or its natural resources, on which the proposal is situated and on lands adjacent to the proposal

Please refer to the federal and state permits and the NISP WAE's mitigation and enhancement measures under each. Specific to the delivery of water to Glade Reservoir, the NISP WAE revised the Project design prior to the Final EIS to avoid, minimize and mitigate impacts by proposing to deliver water within the Poudre River. This will keep flows in the Poudre River year-round. In sum, the pipeline impacts on land and natural resources are generally temporary in nature. All lands will be restored to original condition to be used in its original capacity or other capacities as dictated by easement language. Moreover, the NISP WAE will work with each landowner to develop a property-specific restoration and reclamation plan for each parcel.

Pipeline Siting and Development

Review Criteria 5: The proposal will not adversely affect any sites and structures listed on the State or National Registers of Historic Places

The Corps' analysis evaluated impacts of NISP to cultural resources. Compliance with the NHPA requires that steps be taken by the NISP WAE in the event of future discoveries on Project lands through a Programmatic Agreement.

Pipeline Siting and Development

Review Criteria 6: The proposal will not negatively impact public health and safety

Impacts associated with construction of the pipeline are primarily temporary and will not result in public health effects. Construction areas will not be open to or accessible by the public, and the NISP WAE, its employees, agents and contractors will follow applicable federal, state and local health and safety standards.

Pipeline Siting and Development

Review Criteria 7: The proposal will not be subject to significant risk from natural hazards including floods, wildfire or geologic hazards

Upon review of County maps, there are no geologic hazard areas within the pipeline route. The pipelines will cross the Poudre, Big Thompson, and Little Thompson rivers and associated floodplains. Consultants (Dewberry/HDR) have prepared a floodplain report, included in the 1041 application materials, to demonstrate compliance with floodplain regulations. Glade Reservoir release pipeline and the western edge of the Northern Tier pipeline are in a designated wildfire area. However, buried pipelines will not contribute to or be impacted by wildfire risks. Pipelines will be constructed to meet applicable local, state and federal floodplain regulations, fire and wildfire standards.

Pipeline Siting and Development

Review Criteria 8: Adequate public facilities and services are 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 governmental to provide services or exceed the capacity of service delivery systems

The pipeline design and construction will include both temporary and permanent storm water facilities as required. There will be no significant adverse effects to the capability of local governments to provide services. Northern Water and its enterprises have operated pipeline, pump station and dam facilities in Colorado for decades. Carter Lake and Horsetooth Reservoir are operated and maintained jointly by Northern Water and the U.S. Bureau of Reclamation while partnering with Larimer County for recreation and security requirements. Through this long partnership the knowledge, history, and skills to successfully construct and operate NISP have been developed.

Pipeline Siting and Development

Review Criteria 9: The applicant will mitigate any construction impacts to county roads, bridges and related facilities. Construction access will be re-graded and re-vegetated to minimize environmental impacts

As set forth in the 1041 Evaluation Memo, NISP construction will temporarily impact county roadways and rights of way. Impact to public rights of way is one of the evaluation criteria in the pipeline routing analysis. Also see Pipeline Memo. As part of the final design process, the NISP WAE will complete a pre-construction inventory to identify those county roads that may be used for construction traffic. During construction, the NISP WAE will conduct periodic inspections, and post-construction replacement will be completed to return any damaged roads to pre-construction conditions. Construction and access areas will be re-graded and re-vegetated to minimize environmental impacts.

Pipeline Siting and Development

Review Criteria 10: The benefits of the proposed development outweigh the losses of any natural resources or reduction of productivity of agricultural land as a result of the proposed development

NISP represents a shift away from the “buy-and-dry” approach of water development that has stressed agricultural communities. As part of a long-term strategy that is consistent with the goals and principles established in the Colorado Water Plan, NISP will eventually provide additional water to approximately 500,000 residents in Northern Colorado while also preserving thousands of acres of irrigated farmland.

The 1041 Evaluation Memo explains that the pipeline construction may involve temporary agricultural losses during construction. However, the NISP WAE will pay crop loss damages to easement holders for these temporary impacts and restore the agricultural lands to productivity after construction.

NISP preserves agriculture in Northern Colorado as it is likely that the Participants would rely primarily on the conversion of agricultural water rights to municipal and industrial use to provide the firm yield needed. It is estimated that the No Action alternative would result in the removal of irrigation from up to 64,200 acres of agricultural lands and the conversion of the irrigated agricultural lands to dry land uses. The reduction of productivity of agricultural land for the proposed Project is minimal compared to what would happen if NISP is not constructed.

Pipeline Siting and Development

Review Criteria 11: The proposal demonstrates a reasonable balance between the costs to the applicant to mitigate significant adverse effects and the benefits achieved by such mitigation

The pipeline will have only temporary impacts. Please refer to the mitigation proposed by the NISP WAE in the federal and state permitting efforts. Additionally, easement agreements between the NISP WAE and landowners commit the NISP WAE to return the land to pre-construction condition and compensate affected landowners for any damages resulting to crops during construction and future maintenance activities.

Pipeline Siting and Development

Review Criteria 12: The recommendations of staff and referral agencies have been addressed to the satisfaction of the county commissioners

As demonstrated by the exchange of informational documents listed in Section I, above, the NISP WAE conducted a series of reviews of its Pipeline Memo with the County. Each time, the County provided comments back after its review of the memorandum, and it also acquired comments from referral agencies, which were sent to the NISP WAE. From the first version of the Pipeline Memo, for example, the County sought more information for county rights of way crossings, how the alignment would avoid significant impacts on land and resources, and descriptions of the criteria used to evaluate the alignment options, among others. After receiving County comments, each time the NISP WAE would provide responses back to the County to provide further description or answers to the information sought by the County, and it would also revise or refine its Pipeline Memo. Prior to submitting this 1041 application, the NISP WAE submitted the latest version of the Pipeline Memo, which responded to the most-recent informational items requested by the County.

B. Water Storage Reservoir Siting and Construction

Review Criteria 1: The proposal is consistent with the master plan and applicable Intergovernmental agreements affecting land use and developments

As a cooperating agency during the Corps' NEPA process, the following statements reflect that the County considered the consistency of NISP with the County's land use directives and Master Plan during its review of Project information. In the agreement to participate as a Cooperating Agency between the County and the Corps, the County committed to:

- "provide timely reviews and comments on preliminary documents, reports, analyses and sections of the Draft and Final EISs that address information needs and requirements associated with the Location and Extent Review to be conducted by the County Planning Commission;" and
- "The County will provide information on possible conflicts between the alternatives in the draft EIS and the objectives of the Larimer County Master Plan and other applicable County policy or regulation."

[Northern Integrated Supply Project Environmental Impact Statement Cooperating Agency Agreement Between the U.S. Army Corps of Engineers, the lead federal agency, and Larimer County Board of County Commissioners, a cooperating agency, July 2005]

Throughout its exchange of information with the County, as described in Section I above, the NISP WAE shared its conclusions regarding the Project's consistency with the 1997 Master Plan, the 2015 Open Lands Master Plan, and the Larimer County Reservoir Parks Master Plan. Its conclusions with regard to the Project's consistency with each master plan follows.

a. 1997 Larimer County Master Plan

The County's role as a cooperating agency in the NEPA process and the recent discussions between the County and the NISP WAE to offer public recreation at Glade Reservoir are both illustrative of one of the County's goals under the Master Plan - to engage in "cooperative planning." Moreover, NISP will meet demands of a growing population, preserve agriculture in Northern Colorado, protect and preserve the natural environment, promote economic development within Larimer County through recreation at Glade Reservoir, and enhance the community's access to and use of new public recreation areas and opportunities. All of these are goals under the Master Plan. In particular, NISP is consistent with the following Master Plan goals and strategies:

- GM-10 The protection of agricultural land and water in Larimer County shall be based on a combination of incentives, voluntary participation and measures to strengthen the viability of agriculture;
- GM-13 Larimer County supports the development of a local economy which is increasingly self-reliant and that meets the needs of the present without compromising the needs of future generations;
- LU-10 All new development shall be located and designed for compatibility with sensitive natural areas;
- LU-11 Compatibility with adjacent land use shall be considered in the design of all new development;
- ER-1 Resources and environmental conditions potentially impacted by proposed development shall be identified in the initial stages of the project, to best design a development that protects the environment;
- ER-16 Larimer County will explore options to protect and provide adequate water resources for present and future uses in the County, in partnership with other affected interests.

In the 1041 Evaluation Memo, the NISP WAE identified that Glade Reservoir is in open zoning and included maps of the Project's components. This memorandum also explains that the Project will provide protection to environmental resources, including protection of fish and wildlife, and calls the County's attention to the Fish and Wildlife Mitigation and Enhancement Plan (FWMEP). This plan commits over \$53 million to mitigation and enhancement projects. The plan was adopted by the State of Colorado and represents the state's official position on the mitigation actions required for the project. Additionally, wetlands impacts are addressed through the development of a U.S. Army Corps of Engineers-approved wetland mitigation plan, and cultural resources will be protected through a Programmatic Agreement, which will spell out the project's Historic Preservation Act compliance measures and process. The Project's FWMEP is included in Appendix A to the 1041 Evaluation Memo.

The NISP WAE shares the County's desire to maintain irrigated agricultural lands and promote agriculture. NISP uses Cache la Poudre River water rights that do not require dry-up of agricultural land. The NISP WAE is also engaging with willing shareholders in the New Cache La

Poudre Irrigating Company and the Larimer & Weld Irrigation Company to preserve approximately 20,000 acres of irrigated agriculture by perpetually supplying water to those farms. This program, known as “Water Secure,” is being put into place in order to protect the exchanges associated with the Galeton Reservoir portion of NISP.

The Recreation Memo also describes how the Project is consistent with goals of the Master Plan. Of the 32 activities listed in the Master Plan as “desired activities at the reservoirs,” Glade Reservoir could provide 26, or 81%. These recreational activities could include: mountain biking, hiking, educational programming, kayaking and canoeing, rock climbing, road biking, stand up paddle boarding, wildlife viewing, fishing, jogging/running, sailing, large group picnicking, power boating, snowshoeing and cross-county skiing, youth programs, horseback riding, backcountry and boat-in camping, tent camping, picnicking, guided tours, boat ramps, festivals or events, developed/RV camping, scuba diving, water skiing, and jet skiing.

b. 2015 Open Lands Master Plan

The County’s Open Lands Master Plan provides that “a growing population will also increase the demand for land and water. New development requires additional sources of water and energy,” and “the Colorado Water Conservation Board estimates that Colorado will need between 600,000 and 1 million acre-feet/year of additional water for municipal and industrial uses to serve the state’s population by 2050, adjusted to reflect modest amounts of conservation.” [Open Lands Master Plan at 18.]

The development of Glade Reservoir within Larimer County serves to accomplish goals and strategies identified in the Open Lands Master Plan at a fraction of the cost that the County might otherwise incur if it purchased lands open to public and preservation. In this cooperative and collaborative way to bring to fruition a need for public lands and recreation within the County by partnering with the NISP WAE, the following guiding principles of the Open Lands Master Plan are met: “working with willing landowners to develop land-use alternatives and conservation strategies that meet the landowner’s financial needs and the County’s goal to preserve significant open lands;” and “collaboration with partners is important to leverage available resources.” [Open Lands Master Plan at 6.]

Similar to existing land uses within the County, NISP falls in the category of the following statement under the Open Lands Master Plan: “In addition to the resources the Open Lands Program provides, Larimer County is fortunate to have large amounts of land conserved or protected by other governmental agencies and non-governmental organizations.” [Id. at 15.] Similarly, through the robust mitigation and enhancement commitments of the NISP WAE, the

County's Open Lands Master Plan philosophies of conservation of natural resources and wildlife habitat are met.

In its Recreation Memo, the NISP WAE states that Glade Reservoir aligns with the objectives of the County's 2015 Open Lands Master Plan in the following ways:

- increases amount of open space to meet projected population demands;
- protects lakes, rivers, streams and preserves water quality;
- protects natural resources, wildlife habitat and rare species;
- provides more outdoor recreation opportunities;
- creates greenways or trail corridors that connect communities and parks;
- conserves regional lands;
- invests in management and maintenance of current natural surface trails, trailheads, parking, shelters and facilities;
- restores and rehabilitates rivers and open lands; and
- acquires water rights for in-stream flows and wildlife habitat; secures water rights for agricultural lands; and conserves land with proximity to open space.

c. Larimer County Reservoir Parks Master Plan

Glade Reservoir will be constructed in an environmentally and economically sound manner, meeting the key objectives identified in the County's Reservoir Parks Master Plan. These key objectives include:

- protecting wildlife and biodiversity;
- preserving environmental resources and the cultural values of historical places;
- providing for outdoor recreation; and
- protecting the health and safety of visitors.

[Larimer County Reservoir Parks Master Plan, December 2017, at 1.] NISP's protection of wildlife and biodiversity, and the preservation of environmental and cultural resources are addressed in the EIS, the Biological Opinion, NHPA consultation between the Corps and SHPO, and in the FWMEP. Under the FWMEP, in particular, the NISP WAE has committed to both the protection and enhancement of fish and wildlife resources, as well as the concept of allowing public use for recreation at Glade Reservoir.

The recreation components included in the Project, per the requirements of the FWMEP, will retain the basic level of recreation, which, according to the Reservoir Parks Master Plan, is consistent with "the trend toward fewer services" that many residents desire. [Reservoir Parks

Master Plan at 21.] The NISP WAE will be working with Colorado Parks and Wildlife to cooperatively manage reservoir lands for fish and wildlife services. [Id at 45.]

Consistent with the Reservoir Parks Master Plan, native vegetation will remain at the site, and management of the lands will include eradication of invasive species, as much as practicable. Per requirements from state and federal agencies under the various permits for NISP, preservation of cultural, geological and paleontological resources will occur. [See Reservoir Parks Master Plan at 43.] The NISP WAE will manage shoreline erosion and will have a water quality program, pursuant to its 401 certification. Per the FWMEP, NISP will improve and avoid fragmentation of key wildlife habitat and will protect important resources, as well as create trails. [See Reservoir Parks Master Plan at 47.]

The NISP WAE describes in the Recreation Memo the numerous benefits and ways in which the Project aligns with the Reservoir Parks Master Plan:

- provides outdoor recreational opportunities;
- promotes visitor health and safety;
- supports the County's vision;
- anticipates the future;
- provides a diversity of recreational experiences;
- celebrates the natural environment;
- integrates with a larger recreational network;
- manages resources in an economically and environmentally sustainable manner; and
- reduces pressure on existing recreation areas.

In fact, the Reservoir Park Master Plan recognizes Glade Reservoir as a "future park strategy."

Water Storage Reservoir Siting and Construction

Review Criteria 2: The applicant has presented reasonable siting and design alternatives or explained why no reasonable alternatives are available

As discussed in the 1041 Evaluation Memo, overall Project alternatives, including a No Action alternative, are evaluated as part of the Corps' NEPA and Section 404 permitting processes. A summary of the proposed Project alternative is included in Technical Memo No. 1 – Project Description, with much more detailed evaluation of Project alternatives presented in the EIS.

Water Storage Reservoir Siting and Construction

Review Criteria 3: The proposal conforms with adopted county standards, review criteria and mitigation requirements concerning environmental impacts, including but not limited to those contained in this Code

The County's role as a cooperating agency with the Corps during the NEPA process included a review by the County of the Project information alongside County plans, policies and regulations (See information above under Review Criteria 1) to help identify any inconsistencies.

The NISP WAE's review of the County's Land Use Code concluded that most of the development standards pertain to private developments. Nevertheless, the NISP WAE will follow County standards where applicable.

Technical Memo No. 1 – Project Description provides information on environmental permitting and mitigation associated with the Project. Additionally, the NISP WAE addresses how sections of the Land Use Code would be satisfied during Project construction within the 1041 Evaluation Memo.

Additionally, within the Recreation Concept Master Plan, the NISP WAE identifies potential design and management measures that it could implement to reduce visual, light and noise impacts. These include:

- addition of native vegetative buffers and/or stands of native trees along beneficial edges and/or within camping areas
- restricting recreational vehicles to less visible campground areas located in lower areas of the Recreation Area, and/or behind vegetative buffers
- use of downcast, full cutoff light fixtures meeting Dark Sky criteria

Water Storage Reservoir Siting and Construction

Review Criteria 4: The proposal will not have a significant adverse effect on or will adequately mitigate significant adverse effects on the land or its natural resources, on which the proposal is situated and on lands adjacent to the proposal

Please refer to the federal and state permits and the NISP WAE's mitigation and enhancement measures for NISP. As the NISP WAE describes in its 1041 Evaluation Memo, NISP includes a variety of avoidance and minimization measures, compensatory mitigation, and enhancements to the environment. The mitigation plans include a variety of improvements including, but not limited to:

- Best management practices, such as using straw bales to minimize erosion and using vehicle tracking control pads to keep roads clean during construction
- Commitments to send additional water down the Cache la Poudre River
- Peak flow operations programs to maintain critical spring flushing flows
- Wetland construction projects
- Over 80 acres of Prebles Meadow Jumping Mouse habitat construction to protect this endangered species
- Fish habitat improvements in approximately 2.4 miles of stream
- Big game habitat conservation on 1,080 acres
- Recreation features as outlined in the Recreation Memo

Additional detail on these and many other commitments are included in Appendix A to the Project Summary Memo and Appendix B of the Final EIS. Through these plans, any significant adverse effects from the Project on natural resources will be mitigated.

Water Storage Reservoir Siting and Construction

Review Criteria 5: The proposal will not adversely affect any sites and structures listed on the State or National Registers of Historic Places

The Corps' analysis evaluated potential impacts of NISP to cultural resources, and a Programmatic Agreement for continuing National Historic Preservation Act compliance requires steps to be taken by the NISP WAE in the event of future discoveries on Project lands. Historic Larimer County is a signatory to the Programmatic Agreement. With this Programmatic Agreement, no adverse effect will occur to any sites and structures listed on the State or National Registers of Historic Places.

Water Storage Reservoir Siting and Construction

Review Criteria 6: The proposal will not negatively impact public health and safety

Once the Project is operational, it will have an overall net benefit to public health as a result of its addition to needed water supply. The addition of public recreation at Glade Reservoir will alleviate recreation pressure at existing reservoirs including Carter Lake and Horsetooth Reservoir.

Any effects to water quality have been addressed and mitigated through the Corps' 404 permit and the NISP WAE mitigation, as well as the 401 Water Quality Certification. BMPs to protect safety and health will be implemented during Project construction. Following development of recreation facilities at Glade Reservoir, public health and safety will be enforced through a designated recreation manager and patrolled by enforcement officers.

During its participation as a cooperating agency in the Corps' NEPA process, Larimer County identified a concern regarding health and safety associated with the Atlas Missile Silo area. Following review by the Corps, the County, through its Environmental and Science Advisory Board, stated, "We appreciate the Corps taking another look at hazardous materials contamination at the Atlas Missile Site. We believe that the impact assessment is sound and the proposed project changes are appropriate to address potential impacts." [August 18, 2015 Larimer County "Environmental and Science Advisory Board" comments on the Supplemental Draft EIS].

The NISP WAE describes in its 1041 Evaluation Memo how public safety during construction is of the utmost importance to the NISP WAE. During any work in or near a roadway, emergency services access will be maintained. Construction managers and inspectors will be present onsite during construction activities to monitor construction safety and ensure contractors stay within the work areas.

And, specific to Glade Reservoir, the Recreation Concept Master Plan explains how public health was considered when areas were evaluated for conceptual recreation facilities by considering minimization of visual light and noise impacts to neighbors throughout the day and evening. The construction of Glade Reservoir recreation facilities, including camping, trails, boating, fishing, and other recreation options, will provide opportunities for the public to exercise, recreate, and maintain healthy lifestyles.

Water Storage Reservoir Siting and Construction

Review Criteria 7: The proposal will not be subject to significant risk from natural hazards including floods, wildfire or geologic hazards

The 1041 Evaluation Memo describes that the Project will conform with County standards for hazard areas such as floodplains and geologic hazards, and recreation infrastructure will be restricted to areas outside geologic hazard areas and designated floodplains.

The design of the dam, spillway, and associated infrastructure will be done in accordance with applicable Colorado dam safety criteria, including current seismic stability standards. A Dam Safety Permit from the Dam Safety Branch of the Colorado Division of Water Resources will be required prior to construction and operation of the dam. The dam will be regularly inspected by the Dam Safety Branch as well as maintained and operated by the NISP WAE.

And, as explained in the Recreation Memo, slopes were evaluated for purposes of evaluating conceptual recreation facilities. Rockfall hazard areas were also evaluated and avoided for purposes of evaluating conceptual recreation facilities.

Water Storage Reservoir Siting and Construction

Review Criteria 8: Adequate public facilities and services are 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 governmental to provide services or exceed the capacity of service delivery systems

NISP will comply with Section 8.1 (Adequate Public Facilities) of the County's Land Use Code, which provides:

- "The purpose of this section is to ensure all development is served by utilities and other facilities needed for a development are in place or will be installed by the applicant before they are needed."
- "Adequate public facilities requirements apply to all applications for conservation development, planned land division, subdivision, minor special review, special review, site plan review, public site plan review, special exception and minor land division submitted under this code. APF requirements also apply to rural land plans as specified in section 8.1."

To the extent this section of the LUC is applicable to the construction of the water supply reservoir, the NISP WAE provided the following information with regard to public facilities in its 1041 Evaluation Memo:

- Sewage Disposal – on site sewage treatment systems will be utilized for restrooms associated with the Project. Facilities may include a private restroom at the Glade pump station and sewer collection and treatment associated with the recreation plan.
- Domestic water – the Glade pump station will likely utilize nonpotable raw water for pump cooling water. Potable water will be used for the pump station restroom facilities and drinking water. Potable water may be considered for the recreation facilities and would be from a public community water system.
- Drainage – A drainage design will be completed as part of the final design of recreation facilities and will include the sizing and design of drainage features including swales, culverts, and stormwater detention ponds if needed. Dedicated stormwater design and facilities will be included as part of the Project.
- Fire Protection – Fire protection services will be determined as part of the recreation.
- Road Capacity – the roads that will be constructed at Glade Reservoir will be appropriately sized and constructed for necessary and anticipated capacities.

Public facilities and services will not be utilized for the Project, other than as discussed in Criteria 9, below. As described in the Recreation Concept Master Plan, it is anticipated that Larimer County will manage recreation facilities and activities at and surrounding Glade Reservoir for

public access. The Recreation Memo expresses how the NISP WAE committed to multiple recreation and public access mitigation and enhancement items as part of the FWMEP, including a visitor center, left abutment paved road and guardrail, foothills recreation area, boat ramp, rough grading of campgrounds, an upper parking lot, north trailhead parking lot, and a lower parking lot. Additionally, a cool water fishery will be established and managed in Glade Reservoir.

As to the future development of recreation at Glade Reservoir, a consultant hired by the NISP WAE developed a recreation plan for recreation at Glade Reservoir, and the County will continue to be involved in these studies and discussions. Site visits, additional studies and future public input processes will be utilized to inform the final planning and design of the recreational areas. Glade Reservoir provides an opportunity to develop water-based recreation on up to 1,600 surface acres of reservoir and additional land-based recreation on an adjacent 170-acre recreation area.

To the extent NISP will have public facilities associated with recreation at Glade Reservoir, per a voluntary condition offered by the NISP WAE in this 1041 Permit application, those facilities will be added at a later date upon the joint development of a recreation management plan between the NISP WAE and the County. Services associated with recreation development at Glade Reservoir may include sewage, drinking water, drainage, and fire protection.

Water Storage Reservoir Siting and Construction

Review Criteria 9: The applicant will mitigate any construction impacts to county roads, bridges and related facilities. Construction access will be re-graded and re-vegetated to minimize environmental impacts

The NISP WAE is offering a voluntary enhancement commitment under the 1041 Permit to create an access road for properties adjacent to the new U.S. Highway 287 location during the highway relocation project. Additionally, the NISP WAE will also coordinate with the Colorado Department of Transportation (CDOT), the Colorado Division of Water Resources and Larimer County to maintain certain benefits of 35-acre parcels, which are exempt from subdivision regulations and can typically receive less restrictive permitting for a well.

As described in the U.S. Highway 287 Memo, the route and alternatives were reviewed as part of the Project's EIS, which incorporated an open house, three rounds of public review, and two sets of public hearings. Construction by CDOT must be completed prior to the construction of Glade Reservoir.

The NISP WAE has consistently expressed an interest in addressing landowner impacts associated with this relocation. As described in the U.S. Highway 287 Memo, a portion of the parcels crossed for highway realignment are subdivided into 35-acre parcels. A 35-acre plot is exempt from subdivision regulations and can typically receive less restrictive permitting for a well. To maintain the full 35-acres, the NISP WAE discussed the potential of utilizing easements instead of a full land purchase for the 35-acre parcels. Additionally, the 35-acre parcels are all primarily undeveloped with limited access from an old haul road. Access along the new highway for all parcels will be coordinated with the property landowners, CDOT and the designers. The preliminary approach for the access road will be a frontage road that would provide a single point of access to the highway for multiple landowners.

Water Storage Reservoir Siting and Construction

Review Criteria 10: The benefits of the proposed development outweigh the losses of any natural resources or reduction of productivity of agricultural land as a result of the proposed development

For further discussion on the loss of natural resource, please refer to Criteria 4, above.

In its comment letter to the Corps on the Supplementary Draft EIS, the County provided the following comments acknowledging the benefits of the Project:

- “[NISP] touches on many values of key importance to our region, including the critical riparian habitat of the Poudre River, the preservation of irrigated farmland in Northern Colorado, and the availability of adequate water supply for the future growth we know will occur in our area.”
- “Irrigated agriculture is also of great importance to our region, as some of the nation’s richest and most productive farmland is located here. Without additional water supplies, more and more of this irrigated farmland will certainly be dried up as municipal demands increase as our population grows.”
- “Those of us who have lived in our region for many years realize the wisdom and foresight of our forefathers who planned ahead for the future we enjoy by ensuring adequate water supply for agricultural, municipal, and industrial uses by constructing the Colorado Big Thompson Project. It’s impossible to imagine a healthy and prosperous Northern Colorado without it.”
- “[W]e believe NISP to be very important to the future of Northern Colorado....”

[Larimer County letter, dated September 1, 2015, to the Corps of Engineers re comments on SDEIS]

A comment from the County’s Environmental and Science Advisory Board also acknowledges the benefit of the Project when it provided, “While conservation measures have helped to manage existing developed water supplies, the Participants have demonstrated that they have a need for additional water in the future.” [August 18, 2015 Larimer County “Environmental and Science Advisory Board” comments on the SDEIS].

In the 1041 Evaluation Memo, the NISP WAE explains that construction of Glade Reservoir and the Glade Forebay Reservoir would result in the permanent loss of approximately 150 acres of farmland. However, this loss is outweighed by the potential loss of 64,200 acres of farmland if

NISP were not constructed. As part of the NEPA and Section 404 processes, a No Action alternative was evaluated. This alternative considers what the Project participants would do to meet their water supply without NISP. In the absence of NISP, obtaining new water supplies in the region likely would become more challenging because the demand for a finite supply of water sources would increase. It is not possible to determine the specific mix of future water development approaches that would be pursued by the individual participants because the process of acquiring water supplies would be driven by complex social, economic, environmental, and political factors. Therefore, the No Action alternative is conceptual, and is intended to represent the possible water supplies that each participant could obtain. In this case, it is likely that participants would rely primarily on the conversion of agricultural water rights to municipal and industrial (M&I) use to provide the firm yield needed. It is estimated that the No Action alternative would result in the removal of irrigation from up to 64,200 acres of agricultural lands and the conversion of the irrigated agricultural lands to dry land uses. The reduction of productivity of agricultural land for the proposed NISP Project is minimal compared to what would happen if the Project is not constructed.

Water conservation is an important consideration and has been raised as a solution to the Participants' critical water shortages. All of the NISP WAE participants have ongoing water conservation programs to educate users about water supply and discourage unnecessary use of water on a long-term basis. All participants have conservation plans, which include the following:

- Profile of existing water supply system
- Profile of water demands and historical demand management
- Integrated planning and water efficiency activities
- Implementation and monitoring plans

Water efficiency measures have been factored into the amount of water that NISP needs by reducing the participants' demands to reflect their conservation programs. Water conservation is an important part of each participant's water management system. However, it is not enough, and the new water, as supplied by NISP, is needed to meet future water needs.

As described in its Recreation Memo, Glade Reservoir provides an opportunity to develop a brand new, outdoor, water-based recreation facility in Larimer County. The recreation commitments included in the FWMEP provide millions of dollars to develop recreation infrastructure and an associated cool-water fishery. Reservoir recreation will bring tourism and economic opportunities to businesses in Larimer County along with additional sales tax revenues. Development of Glade Reservoir recreation is estimated to provide \$13 million to \$30 million per year in total economic effects as described in the Project's Final EIS.

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Review Criteria 11: The proposal demonstrates a reasonable balance between the costs to the applicant to mitigate significant adverse effects and the benefits achieved by such mitigation

In its 1041 Evaluation Memo, the NISP WAE explains that the FWMEP commits more than \$53 million to the 54 mitigation and enhancement commitments identified in the plan. Forty-three of those commitments, 80% of the identified improvements, will occur totally or partially in Larimer County. Those commitments are expected to cost more than \$49 million, indicating that approximately 90% of the plan's funding will provide benefit to Larimer County.

Additionally, the NISP WAE prepared a Conceptual Mitigation Plan as part of the Clean Water Act Section 404 Permit and associated NEPA regulations, and water quality mitigation will be addressed through the Colorado Department of Public Health and Environment's 401 Water Quality Certification.

Water Storage Reservoir Siting and Construction

Review Criteria 12: The recommendations of staff and referral agencies have been addressed to the satisfaction of the county commissioners

From its participation as a cooperating agency, and through the exchange of information between the NISP WAE and the County described in Section I, there was thorough and frequent coordination with the County and its referral agencies to review materials and provide comments on Project information documents during the many years leading up to this 1041 Permit application submittal.

In addition, and as described in its 1041 Evaluation Memo, the NISP WAE has and will continue to utilize an online public engagement tool to gather input and address concerns from the public.

Conclusion

Throughout the federal, state, and this local permitting effort, the NISP WAE engaged the public in many open-house meetings, workshops, tours, and one-on-one meetings, as well as through social media, NISPTalk.com and other outreach efforts. The NISP WAE listened to and considered public concerns, ideas, and comments, and continues to minimize project impacts, propose applicable best management practices, and refine project designs and construction concepts. The NISP WAE committed to voluntary project enhancements above and beyond mitigation of Project impacts to result in a critical water supply project that offers a net benefit to NISP Participants, the State, Larimer County, the public and affected landowners.