



**Community Development and  
Neighborhood Services**  
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March 04, 2021

Stephanie Cecil  
Northern Water  
Fort Collins, CO

**Re:** Northern Integrated Supply Project (NISP) Site Plan Advisory Review

**Description of project:** This is a request to install approximately 18,000 linear feet of buried water pipeline within the Fort Collins City Limits and Growth Management Area. The proposed pipeline will be approximately 32 inches in diameter and will be buried approximately 5 feet or more below grade.

The proposal includes a 100-foot-wide work area for construction of the pipeline with 60 feet of that to be utilized as a permanent access easement for future maintenance of the pipeline. Infrastructure that will be within the City Limits includes the Poudre Intake Diversion Structure, located northwest of the Mulberry and Lemay intersection and portions of the Poudre Intake Pipeline. The pipeline alignment travels generally east and south from the proposed Poudre River Intake Diversion Structure and the traversed land varies between unincorporated Larimer County and City of Fort Collins. This project is subject to a Site Plan Advisory Review (SPAR).

Please see the following summary of comments regarding Northern Integrated Supply Project (NISP) Site Plan Advisory Review. The comments offered informally by staff during the Conceptual Review will assist you in preparing the detailed components of the project application. Modifications and additions to these comments may be made at the time of formal review of this project. If you have any questions regarding these comments or the next steps in the review process, please contact your Development Review Coordinator, Brandy Bethurem Harras via phone at 970-416-2744 or via email at [bbethuremharras@fcgov.com](mailto:bbethuremharras@fcgov.com).

### **Comment Summary**

#### **Development Review Coordinator**

**Contact:** Brandy Bethurem Harras, 970-416-2744, [bbethuremharras@fcgov.com](mailto:bbethuremharras@fcgov.com)

1. I will be your primary point of contact throughout the development review and permitting process. If you have any questions, need additional meetings with the project reviewers, or need assistance throughout the process, please let me know and I can assist you and your team. Please include me in all email correspondence with other reviewers and keep me informed of any phone conversations. Thank you!

2. The proposed development project is subject to a Type 2 (Planning and Zoning Board) review and public hearing. The applicant for this development request is required to hold a neighborhood information meeting prior to formal submittal of the proposal. Neighborhood meetings offer an informal way to get feedback from your surrounding neighbors and discover any potential hiccups prior to the formal hearing. Please contact me, at 221-6750, to assist you in setting a date, time, and location. I and possibly other City staff, would be present to facilitate the meeting.
3. I will provide you a roadmap specific to your development review project, helping to identify each step of the process. For more detailed process information, see the Development Review Guide at [www.fcgov.com/drg](http://www.fcgov.com/drg) . This online guide features a color coded flowchart with comprehensive, easy to read information on each step in the process. This guide includes links to just about every resource you need during development review.
4. I will provide a Project Submittal Checklist to assist in your submittal preparation. Please use the checklist in conjunction with the Submittal Requirements located at: <http://www.fcgov.com/developmentreview/applications.php>. The checklist provided is specific to this Conceptual project; if there are any significant changes to this project, please let me know so we can adjust the checklist accordingly. I can send an updated copy of the Submittal Checklist to ensure you are submitting the correct materials.
5. As part of your submittal you will respond to the comments provided in this letter. This letter is provided to you in Microsoft Word format. Please use this document to insert responses to each comment for your submittal, using a different font color. When replying to the comment letter please be detailed in your responses, as all comments should be thoroughly addressed. Provide reference to specific project plans or explanations of why comments have not been addressed, when applicable.
7. Submittals are accepted any day of the week, with Wednesday at noon being the cut-off for routing the same week. Upon initial submittal, your project will be subject to a completeness review. Staff has until noon that Friday to determine if the project contains all required checklist items and is sufficient for a round of review. If complete, a formal Letter of Acceptance will be emailed to you and the project would be officially routed with a three-week round of review, followed by a formal meeting.
8. When you are ready to submit your formal plans, please make an appointment with me at least 24 hours in advance. Applications and plans are submitted electronically. Pre-submittal meetings can be beneficial to ensure you have everything for a complete submittal. Please reach out and I will assist in those arrangements.

1. REVIEW CRITERIA

The applicant must demonstrate that the location, character, and extent of the proposal is consistent with the City's Comprehensive Plan, known as City Plan, along with the East Mulberry Corridor Plan, which constitutes an element of City Plan. Submitted development plans must be accompanied by a written statement describing how the proposed project satisfies the review criteria.

2. LOCATION ANALYSIS

The approval criteria dictate that the location for the applicant's proposed improvements is consistent with the adopted land use designation. The portion of the proposed pipeline location, between Lemay Avenue and Timberline Road, is designated on the City Plan, Structure Plan map as "Parks; Natural/Protected Lands", and the East Mulberry Corridor Plan (EMCP) designates the area as "Natural Buffer." The EMCP cites the need for the "preservation, restoration and enhancement of these designated areas," in that "they provide a valuable wildlife habitat and contribute to the area's scenic quality." The following policy relates specifically to the preservation of this portion of the River corridor:

Policy EMC. ONL – 1.1 The interface between the Poudre River riparian habitat and development along East Mulberry Street, should be coordinated to retain environmental quality, encourage wildlife habitat and, where impacts can be appropriately buffered, provide recreational use.

In your submittal, please describe what alternative pipeline locations and alignments were considered in the process of developing the proposed pipeline configuration, and how the proposed location best protects the natural habitat and environmental quality relative to the other alternatives.

3. CHARACTER

Please provide an analysis of the proposed Poudre River Intake Diversion structure detailing how the design minimizes impacts to the naturalistic character, and how impacts to the channel and riparian zone abutting the River have been reduced or avoided through the proposed design.

Describe the resulting character of land disturbed by the 100-foot-wide intake pipeline construction corridor and provide landscape design plans describing the extent of construction, methods of reclamation and landscape plantings.

4. EXTENT

The proposal documentation must identify the level of functional and visual impacts to public rights-of-way, facilities and abutting private land caused by the development, including, but not limited to, streets, sidewalks, trails, utilities, e.g. - stormwater, water and sanitary sewer, and designated Natural Areas. The submitted analysis and documentation must identify both the anticipated temporary and permanent impacts.

5. This development proposal will be subject to all applicable standards of the Fort Collins Land Use Code (LUC), including Article 3 General Development Standards. The entire LUC is available for your review on the web at <http://www.colocode.com/ftcollins/landuse/begin.htm>.

**Department: Engineering Development Review**

**Contact: Dave Betley, 970-221-6573, [dbetley@fcgov.com](mailto:dbetley@fcgov.com)**

1. The project will need coordination with multiple agencies both on the Local, County, State, a Federal level. The applicant will need to address and present approval for all of these agencies for the viability of the project.
2. The project will need Engineering permits in areas where it is crossing the right of way . The level of this permitting can be more accurately reflected when better design plans are available.
3. When designing the project, the applicant will need to consider the bridge footing impact when designing the facilities. Coordination will need to take place with the City Bridge Engineer to make sure the locations do not impact the bridge structures. The City Bridge Engineer is Jin Wang at 970-631-3473.
4. The project will need to coordinate with the Parks Department and the impact to the existing Multi-use path. There will need to be traffic control incorporated to advise users/commuters of the construction scheduling. Coordination with Engineering Inspection for more information on traffic control and permits for crossing City right of way. The Chief Inspector for the City can be contacted at 970-416-2779.
5. The applicant will need to address any groundwater issues that may be encountered and how the groundwater will be mitigated at crossings with the City right of way.
6. The applicant will need to include the details from the Larimer County Urban Area Street Standards for construction within the right of way. Trenching standards usually do not address the pavement section of the roadway.
7. All public sidewalk, driveways and ramps, existing or proposed, adjacent or within the site, need to meet ADA standards. If they currently do not, they will need to be reconstructed so that they do meet current ADA standards as a part of this project. Engineering staff conducted a site visit to determine the extent of pedestrian facilities that would need to be brought up to current ADA standards.
8. Any damaged curb, gutter and sidewalk existing prior to construction, as well as streets, sidewalks, curbs and gutters, destroyed, damaged or removed due to construction of this project, shall be replaced or restored to City of Fort Collins standards at the Developer's expense prior to the acceptance of completed improvements and/or prior to the issuance of the first Certificate of Occupancy.
9. Any public improvements must be designed and built in accordance with the Larimer County Urban Area Street Standards (LCUASS). They are available online at: <http://www.larimer.org/engineering/GMARdStds/UrbanSt.htm>
10. All fences, barriers, posts or other encroachments within the public right-of-way are only permitted upon approval of an encroachment permit. Applications for encroachment permits shall be made to the Engineering Department for review and approval prior to installation. Encroachment items shall not be shown on the site plan as they may not be approved, need to be modified or moved, or if the permit is revoked then the site/ landscape plan is in non-compliance.
11. The development/site cannot use the right-of-way for any Low Impact Development to treat the site's storm runoff. We can look at the use of some LID methods to treat street flows – the design standards for these are still in development.

12. With regards to construction of this site, the public right-of-way shall not be used for staging or storage of materials or equipment associated with the Development, nor shall it be used for parking by any contractors, subcontractors, or other personnel working for or hired by the Developer to construct the Development. The Developer will need to find a location(s) on private property to accommodate any necessary staging and/or parking needs associated with the completion of the Development. Information on the location(s) of these areas will be required to be provided to the City as a part of the Development Construction Permit application.
13. All necessary permitting will be required of any proposed work/improvements within the public right-of-way, prior to construction. Depending on the scope of public improvements, a Development Construction Permit (DCP) or an excavation permit will be required. This will be determined once the City has had a chance to review the proposed plans and site design.

**Department: Traffic Operations**

**Contact:** Steve Gilchrist, 970-224-6175, [sgilchrist@fcgov.com](mailto:sgilchrist@fcgov.com)

1. Traffic Impact Study: The result of the installation of a utility or pipeline in and of itself does not generate traffic, therefore a Traffic Impact Study is not required. However, the construction required to install a utility or pipeline will have impacts on traffic and the surrounding areas. Careful coordination will be needed to minimize the impacts of construction on all modes of travel, businesses, and adjacent residential areas. Any construction within the City right of way will also require a Work Area Traffic Control Plan and if any road closures are needed, advance notification will be required. Please contact the City of Fort Collins Traffic Operations to help coordinate this.

**Department: Stormwater Floodplain**

**Contact:** Claudia Quezada, (970)416-2494, [cquezada@fcgov.com](mailto:cquezada@fcgov.com)

1. Portions of this project are currently located in the FEMA-regulated, 100-year and 500-year Poudre River floodway and floodplain; the 100-year Dry Creek floodway and floodplain; the 100-year Cooper Slough floodway and floodplain, and the 100-year Boxelder floodway and floodplain and therefore must comply with the safety regulations of Chapter 10 of City Municipal Code.
2. Any construction activities in the floodplain must be preceded by an approved floodplain use permit, the appropriate permit application fees, and approved plans.
3. Any construction activities in the regulatory floodway must be preceded by a No-Rise Certification, which must be prepared by a professional engineer licensed in the State of Colorado.
4. Scour analysis should be performed for any channel crossings.
5. A stability analysis and possible mitigation is required for any proposed construction within an erosion buffer zone.
6. Development review checklists for floodplain requirements can be obtained at [https://www.fcgov.com/utilities/img/site\\_specific/uploads/fp-checklist100-2018-update.pdf?1522697905](https://www.fcgov.com/utilities/img/site_specific/uploads/fp-checklist100-2018-update.pdf?1522697905). Please utilize these documents when preparing your plans for submittal.
7. Please show the boundaries of all floodplains and floodways on drawings as applicable.

8. FEMA is remapping the Poudre River, the project is called RiskMAP, and we are expecting new regulatory mapping in the next 1-2 years. Any future development will be subject to the floodplain map and regulations effective at that time. Property owners near the river need to be aware that the floodplain may be remapped and may change on their property.

Department: Stormwater Engineering

Contact: Matt Simpson, (970)416-2754, [masimpson@fcgov.com](mailto:masimpson@fcgov.com)

1. MASTER PLAN AND CRITERIA COMPLIANCE (site specific comment): - not sure I need to mention this?  
The design of this site must conform to the City's Master Drainage Plans as well the Fort Collins Stormwater Criteria Manual (FCSCM). The stormwater criteria manual is available on our website here: <https://www.fcgov.com/utilities/business/builders-and-developers/development-forms-guidelines-regulations/stormwater-criteria>
2. DOCUMENTATION REQUIREMENTS (site specific comment):  
If there are individual locations where the project will create an increase in imperviousness greater than 1,000 square feet a drainage report, erosion control report and construction plans are required and must be prepared by a Professional Engineer registered in the State of Colorado. The drainage report must address the four-step process for selecting structural BMPs.
3. DETENTION AND WATER QUALITY REQUIREMENTS (standard comment):  
If there is an increase in impervious area greater than 1000 square feet at any individual location, onsite detention and water quality/ LID are required for runoff from new impervious surfaces. These new flows will need to be detained to the 2-year historic discharge rate. If this is anticipated, please contact Water Utilities Engineering at [WaterUtilitiesEng@FCgov.com](mailto:WaterUtilitiesEng@FCgov.com) to discuss the project specific stormwater requirements.
4. EROSION CONTROL REQUIREMENTS (standard comment):  
The erosion control report requirements are in Chapter 2, Section 6 of the Fort Collins Stormwater Criteria Manual (December 2018, [www.fcgov.com/erosion](http://www.fcgov.com/erosion)). If you need clarification concerning this section, please contact the Erosion Control Inspector, Jesse Schlam at 224-6015 or [jschlam@fcgov.com](mailto:jschlam@fcgov.com).
5. CONFLICTS WITH STORMWATER MASTER PLANNED IMPROVEMENTS (site specific comment):  
There are multiple locations where the proposed pipe alignment may conflict with City master planned storm drainage improvements. Specifically, the location of the pipeline is in direct conflict with the location of the master-planned outfall channel for the Upper Cooper Slough Basin (see attached map from the 2021 Selected Plan). A more appropriate location for the pipeline would be to the south of the Cache Inlet Ditch or co-locate with the Cache Inlet Ditch through this area. We will need you to coordinate your pipeline project with the City's current and future drainage projects. Please contact Dan Evans in Stormwater Master Planning to discuss further ([daevans@fcgov.com](mailto:daevans@fcgov.com)).
6. EXISTING STORMWATER INFRASTRUCTURE (site specific comment):  
All crossings and alignments will need to meet the City's minimum separation requirements for all City owned drainage infrastructure. This can be found on our website here: <https://www.fcgov.com/utilities/business/builders-and-developers/development-forms-guidelines-regulations/>  
Please contact us at [WaterUtilitiesEng@fcgov.com](mailto:WaterUtilitiesEng@fcgov.com) to start the process for a data sharing agreement to obtain our water utilities data in the area of your project.

**Department: Erosion Control**

**Contact: Chandler Arellano, (970) 420-6963, [carellano@fcgov.com](mailto:carellano@fcgov.com)**

1. The site disturbs more than 10,000 sq. ft. and/or meets the criteria for a need for Erosion and Sediment Control Materials to be submitted. The erosion control requirements are located in the Stormwater Design Criteria in Chapter 2 Section 6.0 a copy of the requirements can be found at [www.fcgov.com/erosion](http://www.fcgov.com/erosion) These Erosion Control Materials should be submitted at about 80% final construction plans and should allow about a month lead time to submit the materials get an adequate review of the materials, of note these reviews can take one or two iterations to ensure that the Erosion Control Materials on this project meet the City Criteria. To prevent delays please plan accordingly as projects are not allowed to go to construction until erosion control materials meet the City Criteria.
2. Please submit an Erosion Control Plans to meet City Criteria.
3. Please submit an Erosion Control Report to meet City Criteria.
4. Based upon the area of disturbance, State permits for stormwater will be required since the site is over an acre and should be pulled before Construction Activities begin.
5. City Manager's development review fee schedule under City Code 7.5-2 was updated to include fees for Erosion Control and Stormwater Inspections. As of January 1st, 2021, fees will be collected on projects for these inspections.  
The Erosion Control fees are based off; the number of lots, the total site disturbance, the estimated number of years the project will be active and the Stormwater Inspection Fees are based off the number of LID/WQ Features that are designed for on this project. Based upon the materials submitted we are assuming 0 lots, 6.2 acres of disturbance within city limits, 1 year from demo through build out of construction and an additional 3 years till full vegetative stabilization due to seeding. Which roughly estimates an Erosion Control Fee of \$1,274.71. Please respond to this comment with any changes to these assumed estimates and why, so that we may have a final fee estimate ready for this project. The fee will need to be provided at the time of erosion control escrow. We could not make any assumptions at this time for the number of LID and WQ features, each porous pavers will be \$365.00, each bioretention \$315.00, each extended detention basins \$250.00, and each underground treatment will be \$415.00. Stormwater LID/WQ Inspections to be \$TBD.
6. Portions of this project are outside of the City's MS4 boundaries. Please ensure that Larimer County, Timnath, and CDPHE's erosion control requirements are being followed so that the appropriate permits for stormwater will be pulled before Construction Activities begin.

**Department: Water-Wastewater Engineering**

**Contact: Matt Simpson, (970)416-2754, [masimpson@fcgov.com](mailto:masimpson@fcgov.com)**

1. EXISTING WATER AND SEWER INFRASTRUCTURE (site specific comment):  
There will be multiple locations where the proposed pipeline will cross existing City water and sewer utilities. These will need to be located and shown on your design plans. All crossings and alignments will need to meet the City's minimum separation requirements in our Water and Wastewater Criteria Manual.  
This can be found on our website here:  
<https://www.fcgov.com/utilities/business/builders-and-developers/development-forms-guidelines-regulations/>  
If there will be overlapping of utility and pipeline easements, please contact us to discuss further.



Please contact us at [WaterUtilitiesEng@fcgov.com](mailto:WaterUtilitiesEng@fcgov.com) to start the process for a data sharing agreement to obtain our water utilities data in the area of your project.

2. OTHER SERVICE DISTRICT (site specific comment):

This project will also intersect the East Larimer County (ELCO) Water District and the Boxelder Sanitation District service areas. Your project will be crossing their facilities also. Please contact them at (970) 493-2044 (ELCO) and (970) 498-0604 (Boxelder) for requirements.

Department: Electric Engineering

Contact: Luke Unruh, 9704162724, [lunruh@fcgov.com](mailto:lunruh@fcgov.com)

1. Please ensure separation requirements are properly maintained from L&P facilities during the installation of the new pipeline.

Department: Fire Authority

Contact: Marcus Glasgow, 970-416-2338, [mglasgow@fcgov.com](mailto:mglasgow@fcgov.com)

1. FIRE ACCESS

Fire access is required to within 150 feet of all exterior portions of any building, or facility ground floor as measured by an approved route around the perimeter. For the purposes of this section, fire access cannot be measured from an arterial road. Any private alley, private road, or private drive serving as a fire lane shall be dedicated as an Emergency Access Easement (EAE) and be designed to standard fire lane specifications. In addition, aerial apparatus access requirements are triggered for buildings in excess of 30' in height. Code language and fire lane specifications provided below. Fire and emergency access will also be required and maintained throughout the construction site of the pipeline.

2. FIRE LANE SPECIFICATIONS

A fire lane plan shall be submitted for approval prior to installation. In addition to the design criteria already contained in relevant standards and policies, any new fire lane must meet the following general requirements:

- Fire lanes established on private property shall be dedicated by plat or separate document as an Emergency Access Easement.

- Maintain the required 20 foot minimum unobstructed width & 14 foot minimum overhead clearance. Where road widths exceed 20 feet in width, the full width shall be dedicated unless otherwise approved by the AHJ.

- Additional fire lane requirements are triggered for buildings greater than 30' in height. Refer to Appendix D105 of the International Fire Code.

- Be designed as a flat, hard, all-weather driving surface capable of supporting 40 tons.

- Dead-end fire access roads in excess of 150 feet in length shall be provided with an approved turnaround area for fire apparatus.

- Dead-end roads shall not exceed 660 feet in length without providing for a second point of access. Dead-end access roads in excess of 1320 feet in length require a third point of access. Dead-end access roads in excess of 2640 feet in length require a fourth point of access.

- The required turning radii of a fire apparatus access road shall be a minimum of 25 feet inside and 50 feet outside. Turning radii shall be detailed on submitted plans.

- Dedicated fire lanes are required to connect to the Public Way unless otherwise approved by the AHJ.



- Fire lane to be identified by red curb and/or signage, and maintained unobstructed at all times.
  - Fire lane sign locations or red curbing should be labeled and detailed on final plans.
- Refer to LCUASS detail #1418 & #1419 for sign type, placement, and spacing.
- Appropriate directional arrows required on all signs.
- In remote rural applications, fire lane standards may be modified with the approval of the fire marshal; examples might include reduction in road width or road surface.
- International Fire Code 503.2.3, 503.2.4, 503.2.5, 503.3, 503.4 and Appendix D

### 3. WATER SUPPLY

Hydrant spacing and flow must meet minimum requirements based on type of occupancy. A fire hydrant capable of providing 1500 (1000) gpm at 20 psi residual pressure is required within 300 feet of any commercial building as measured along an approved path of vehicle travel. For the purposes of this code, hydrants on the opposite side of arterial roadways are not considered accessible to the site.

### 4. PREMISE IDENTIFICATION: ADDRESS POSTING & WAYFINDING

Where possible, the naming of private drives is usually recommended to aid in wayfinding. Addresses shall be posted on each structure and where otherwise needed to aid in wayfinding. Code language provided below.

- IFC 505.1: New and existing buildings shall have approved address numbers, building numbers or approved building identification placed in a position that is plainly legible, visible from the street or road fronting the property, and posted with a minimum of eight-inch numerals on a contrasting background. Where access is by means of a private road and the building cannot be viewed from the public way, a monument, pole or other sign or means shall be used to identify the structure and best route.

**Department: Environmental Planning**

**Contact: Kelly Smith, , [ksmith@fcgov.com](mailto:ksmith@fcgov.com)**

1. The following comments are standard comments for development projects in City limits:  
An ECOLOGICAL CHARACTERIZATION STUDY (ECS) is required by Section 3.4.1 (D)(1) as the site is within 500 feet of known natural habitats and features (Wetlands, Wet Meadow, Dry Creek, Poudre River, Larimer County Canal, Boxelder Creek). Please note that the project will need to be designed and developed in a way that is sensitive to these natural features as defined by City Land Use Code (LUC).  
The ECS is the guiding document in staff's decision-making process related to mitigation and protection requirements. Because the information provided through this application is conceptual in scope the value of resources has not been evaluated to allow City staff to determine adequate mitigation measures, City staff recommends completing an ECS for areas within the GMA as well, using the criteria outlined in Section 3.4.1 (D)(1) of the Land Use Code.  
The ECS should include a delineation of all wetlands and detailed recommendations for protecting and enhancing the features that are on or adjacent to the site. It should also address the need for jurisdictional determination letters and/or permits from the Army Corps of Engineers (ACOE). In addition, include information on presence or absence of prairie dog colonies or burrows on or near the site, including estimated size of acreage covered by the prairie dogs.  
Please contact me if you would like to discuss the scope and requirements of the ECS further. The ECS informs the design of the Natural Habitat Buffer Zone (NHBZ) and natural resource protection and mitigation plans.

See LUC 3.4.1(D)(1)(a-l) for detailed list of information required for the Ecological Characterization Study (ECS).

2. The City's adopted Natural Habitat and Features standards in Land Use Code Section 3.4.1 (D)(2) protect wetlands irrespective of their jurisdictional determination. Therefore, any non-jurisdictional wetlands that are impacted and unaccounted for require mapping and mitigation. Detailed recommendations for protecting, mitigating and enhancing all wetlands are required within the ECS. Based on impacts, City staff may require a Wetland Restoration Plan, Weed Management Plan and Monitoring Plan (3+ years) to ensure mitigation success.
3. The LUC clearly states the desired approach toward protecting natural resources in the following order: 1. Directing development away from sensitive resources; 2. Minimizing impacts and disturbance through the use of buffer zones; 3. Enhancing existing conditions; and 4. Restoring or replacing the resource value lost to the community. To minimize impacts, even those that are deemed temporary, staff applies buffer standards to all resources. Buffer zone standards range from 50 to 300 ft for these features, as identified in Section 3.4.1(E) of the LUC. The ECS is due minimum 10 days prior to the SPAR submittal. Development is limited within buffer zones to minimize disturbance in sensitive areas to protect the ecological character and function of the resource
4. Given the noise and impacts from construction activities and the continual access needs for ongoing operations and maintenance along the pipeline corridor, City staff recommends adhering to the following requirements.

#### **BUFFERS**

**POUDRE RIVER CORRIDOR:** 300' Buffer (measured from top of bank or edge of riparian forest/vegetation whatever is more stringent). The Poudre River is designated as a National Heritage Area and is considered the City's highest valued regional and urban wildlife corridor. The value of riparian forest and bird habitat impacted along the river would take decades to re-establish and may result in nest failure, as stated in the Wildlife Conservation Plan. City staff is concerned about the close proximity of the pipeline to the river from north of Kingfisher Point Natural Area to the crossing of Timberline Road. The proximity results in impacts to soils, native vegetation, wetlands, and restoration projects previously performed by the City's Natural Areas Department. The grasslands at the Kingfisher Point Natural Area is particularly hard to restore given the beet lime waste material underneath. Therefore, restoration progress is slower than usual. Starting restoration all over again for a strip in the middle of a field is not preferred. Additionally, nearby cliffs have long supported various cliff nesting birds such as bank swallows and (today) a nesting kingfisher. City staff recommends the pipeline be moved further from the Poudre River to reduce impacts.

**BOXELDER CREEK:** 100' Buffer (measured from top of bank or edge of wetlands, whichever greater). Boxelder Creek is considered a regional wildlife corridor and the crossing of Boxelder Creek immediately west of I-25 is concerning. Staff recommends boring the pipe under the creek and digging bore pits 100' from top of bank or edge of wetlands (whichever is greater) to minimize impacts to the creek, habitat and associated wetlands.

**IRRIGATION CANALS:** 50' Buffer (from top of bank or edge of wetlands, whichever greater). The City of Fort Collins views irrigation canals as wildlife movement corridors. The City recommends the value of ditches be evaluated in the ECS from a wildlife corridor, vegetative quality and habitat perspective and provide mitigation for impacts. The City also recommends bore pits occur 50' from the ditch's top of bank or edge of wetlands at ditch crossings, whichever is greater, to minimize impacts.

LAKES: 100' Buffer. The City is concerned about the close proximity of the pipeline to the ponds at the Riverbend Ponds Natural Area. The City recommends the width of temporary construction easement be reduced in this area to minimize impacts to the pond embankments, wetlands and wildlife using the ponds.

DRY CREEK: 100' Buffer. The City views Dry Creek as a wildlife movement corridor. The City recommends bore pits to occur 100' from the Creek's top of bank or edge of wetlands, whichever is greater, to minimize impacts.

RIPARIAN FOREST: 50' Buffer. Riparian forest along the Poudre River and Boxelder Creek will be impacted by the proposed project. The City recommends avoiding these sensitive areas by providing a 50' buffer from the edge of forest canopy.

WETLANDS BUFFER: As noted above the City protects all wetlands irrespective of jurisdictional status. For all wetlands, the City requires the following buffers for wetlands and recommends Northern Water to adhere to these standards.:

Wetlands >1/3 acre in size: 100'

Wetlands <1/3 acre in size: 50'

5. The City requires that construction activity be organized and timed to minimize the disturbance of Sensitive or Specially Valued Species occupying or using on-site and adjacent natural habitats or features. City staff is concerned about construction noise near wetlands at Riverbend Ponds, along the Poudre River and irrigation ditch corridors. The activity could have negative impacts on wildlife such as nest failure for breeding birds, or the inability of prey to detect predators.

RAPTORS AND SONG BIRDS: The City requires that trees that are known to have served as raptor nest sites not be removed within five (5) years of the last known nesting period. If the tree is removed, it shall be mitigated in accordance with Section 3.2.1, Landscaping and Tree Protection Standards. The City requires raptor nests be inventoried within a 500' buffer on either side the Right of Way and indicated by species (when possible).

FOX, COYOTE AND BADGER DENS: 50' Buffer. The City requires surveys be performed to determine the location of fox, coyote, and badger dens throughout the limits of development and adhere to the 50' buffer requirement.

PRAIRIE DOGS: If more than 1 acre of prairie dog colonies are eradicated, Northern Water would be required to mitigate for the resource value lost either through a payment-in-lieu or trap and donate. Methods for removing prairie dogs must be reviewed and approved by the Colorado Parks and Wildlife. Following relocation or eradication activities for prairie dogs, the City requires that a report be provided that documents when prairie dog removal occurred, the method(s) that were used to remove prairie dogs, measures taken to ensure that prairie dogs will not re-inhabit the site, and confirmation that no threatened or endangered species were harmed by removal activities.

6. Within a designated Natural Habitat Buffer Zone, the City has the ability to determine if existing landscaping within the zone is incompatible with the purposes and intent of the buffer zone [Section 3.4.1(E)(1)(g)]. Ensure the ECS discusses existing vegetation onsite and identifies potential restoration options. If existing vegetation is determined to be insufficient, then restoration and mitigation measures will be required. Native plants and wildlife-friendly (ex: pollinators, butterflies, songbirds) landscaping and maintenance are needed in NHBZ areas.

Please refer to the Fort Collins Native Plants document available online and published by the City of Fort Collins Natural Areas Department for guidance on native plants is:

<http://www.fcgov.com/naturalareas/pdf/nativeplants2013.pdf>.

7. Projects in the vicinity of large natural habitats and/or natural habitat corridors such as the Poudre River Corridor shall be designed to complement the visual context of the natural habitat. Techniques such as native landscaping, site design and choice of colors shall be utilized in such manner that scenic views across or through the site are protected, and manmade facilities are screened from off-site observers and blend with the natural visual character of the area. These requirements shall apply to all elements of a project, including any aboveground utility installations.
8. This project most likely impacts jurisdictional wetlands as determined by the United States Army Corps of Engineers (ACOE). Several permits will be needed including possibly Nationwide Permit 43, 14 and 404. Note that if this project moves forward in the City development review process then documentation (copies) of ACOE jurisdictional determination letters and appropriate permits need to be submitted prior to issuance of Development Construction Permit (DCP).
9. With respect to lighting, the City of Fort Collins Land Use Code, Section 3.2.4(D)(6), requires that "natural areas and natural features shall be protected from light spillage from off site sources." Thus night lighting during and after construction (if any) from the project shall not spill over to natural habitats and features or established natural habitat buffer zones.
10. With respect to noise, the City of Fort Collins Land Use Code, Section 3.4.1(E)(1)(a), requires that "the project shall be designed to preserve or enhance the ecological character or function and wildlife use of the natural habitat or feature and to minimize or adequately mitigate the foreseeable impacts of development" and this includes impacts from noise during and after construction.
11. The City of Fort Collins Land Use Code, Section 3.4.4 requires that "proposed land uses and activities shall be conducted so that any noise generated on the property will not violate the noise regulations contained in the City's Noise Control Ordinance (Chapter 20, Article II of the City Code), and so that any vibration caused by the use of the property will be imperceptible without instruments at any point along the property line."
12. Please provide a detailed plant list for restoration efforts post construction.
13. City staff would like the width for temporary construction Right of Way be minimized, particularly around sensitive natural and recreational resources (wetlands, mature trees, trails, etc.), and to bore under any aquatic resource, including irrigation canals.

#### 14. NATURAL AREAS DEPARTMENT COMMENTS

City of Fort Collins Natural Areas are conserved due to citizen ballot measures that specify these lands are to be protected and enhanced for native plant and wildlife communities. Therefore, siting of facilities needs to consider how these resources will be protected and enhanced within City Natural Areas.

#### 15. HOMESTEAD NATURAL AREA:

1. The diversion point and pipeline installation is located within a recently restored and highly active riparian wetlands. Significant efforts went into ensuring the success of this restoration which has now been establishing for the past seven years. The location is also flooded at relatively low flows so the immediate success of future restoration is uncertain due to annual scouring flows. The proposed mitigation for these temporary impacts is to return the habitat to its current condition, but this does not offset the temporal loss. For this reason, the City recommends Northern Water collaborate with the City's Natural Areas Department to determine the best location for the diversion.
2. The City understands that Northern Water has identified a preferred diversion point, but that there may be some flexibility in the precise location. There may be pros and cons to subtle adjustments of the take-off point. Moving the location of the new diversion somewhat upstream may result in multiple benefits including; avoiding damage to the recently restored active riparian zone, minimizing construction footprint in sensitive areas, taking advantage of existing slower backwater conditions upstream, and minimizing erosion from spring flows on vulnerable post-construction that occurs frequently in low lying zone.
3. The City owns the land (in-channel and in the riparian zone) at the location of the proposed diversion structure near Mulberry Avenue. To avoid further fragmentation of aquatic habitat and sediment and to ensure fish passage, the City recommends using a low-profile design approach such as a riffle-crest structure. The tie in to either bank must be resilient to scouring flows but as natural functioning and looking as possible to avoid disconnecting the channel from the riparian zone.
4. According to the Colorado Mitigation Procedures (USACE, 2019) the impacts of a new diversion to stream functions must be fully mitigated. Without baseline hydrogeomorphic and biological data analyses of this complex river reach it is impossible to ensure mitigation of impacts to stream functions. It also impossible to ensure the longevity of the new diversion structure or that it will results in a resilient reach of river. The City recommends spatial footprint for the design process and hydrogeomorphic analysis is larger than just the immediate footprint of the structure (i.e. it extends further upstream and downstream). Also, because the river is a split channel at this location, proper evaluation of river dynamics at the reach scale will be essential for guaranteeing the protecting of local infrastructure during large flood events (the Mulberry Treatment plant and the Mulberry Avenue Bridge).
5. Because this area sees frequent visitor use, City staff recommends the design elements strongly consider public safety and potential vandalism.

**16. KINGFISHER POINT NATURAL AREA:**

1. The City recommends the footprint of the infrastructure on the Kingfisher Point Natural Area (pumphouse and settling pond) be minimized to the greatest degree possible.
2. Through the Kingfisher Point Natural Area, the pipeline is proposed to run near to the river and justification for this is not provided. By laying pipeline in the middle of the natural area/floodplain and close to the river, it will limit future opportunities for excavating floodplain material to increase the conveyance capacity (for example with the creation of overflow side channels). Also, at this location the riverbank forms a cliff and hosts several cavity nesting birds, including Northern rough-winged swallow, bank swallows, and kingfishers. Nesting success is uncertain with this work nearby. The City recommends the pipeline be routed as far north as possible (away from the river) from the pumphouse to the Fort Collins Nursery.
3. The City will not consider the sale or conveyance of any real property rights on any City property for the NISP project until Northern Water has a final and non-appealable Clean Water Act Section 404 permit.
4. The City may wish to have input on specific aspects of aesthetics and screening of the proposed infrastructure to best fit the landscape and character of the Kingfisher Point Natural Area.
5. As previously noted, the City's Natural Areas Department easement policy does not consider cost as a factor in the analysis of proposed routes.

**17. RIVERBEND PONDS NATURAL AREA:**

1. Along the eastern end of the pipeline route through Riverbends ponds the pipeline is located along a narrow zone available immediately adjacent to a high value wetlands complex. In addition to hosting higher diversity of birds, this area is also home to three rare plants: *Carex lasiocarpa*, *Glaux maritima*, *Eustoma grandiflora*. The City recommends the temporary construction easement for this section of pipeline use as narrow a width as possible to completely avoid impacting the adjacent wetlands.

**18. EASEMENTS FROM NATURAL AREAS**

1. In addition to the City comments presented in this 1041 review, the Natural Areas and Conserved Lands Easement Policy (adopted 2012, updated 2018) requirements will apply during the easement application process and can be found in the Easement Request Packet at <https://www.fcgov.com/naturalareas/easement.php>
2. Please identify the permanent easement width, as well as the frequency and type of operations and maintenance activities along the permanent easement.
3. Permanent and temporary easement width justification will be required by the Natural Areas Department easement policy.

## 19. VISITOR USE IMPACTS:

Consistent with the Natural Areas Easement Policy, the City will require a minimization/mitigation plan for the visitor use impacts anticipated during construction.

The four areas of particular concern are:

1. Homestead Natural Area, Williams Natural Area, and the Poudre Trail in the vicinity of Mulberry Bridge.
2. The Timberline parking lot at Riverbend Ponds Natural Area.
3. Trail closures and detours on Riverbend Ponds Natural Area.

Based on the City's Natural Areas Easement Policy, the following will be required:

- Trail and public access closure plan.
- Parking alternative plan for Riverbend Ponds Natural Area parking lot. The plan should include only partial lot closures and offsite parking.
- Trail closure plan for Riverbend Ponds Natural Area and advanced public notice for closures will be required by the Natural Areas easement policy

Department: Parks

Contact: Aaron Wagner, , [aawagner@fcgov.com](mailto:aawagner@fcgov.com)

1. Thank you for the opportunity to review these plans and provide input. Parks Department Planning staff can help with any questions you may have regarding these comments. Please contact Jill Wuertz ([jwuertz@fcgov.com](mailto:jwuertz@fcgov.com)), 970-416-2062, or Parks Planning Technician, Aaron Wagner ([aawagner@fcgov.com](mailto:aawagner@fcgov.com)) 970-682-0344, 413 S. Bryan Ave, Fort Collins, CO 80521 regarding the Parks' Department's interest.
2. It appears that the project will require impacting or boring under a very busy section of the Poudre Trail. The Parks Dept. is not going to allow encroachment into our trail easement for construction activity and/or staging or storage of materials. Please show and label the trail easement(s) on all plans and add the following note to plan notes: "There shall be no encroachment of the Poudre Trail easement or trail itself. This includes any related construction activity, staging equipment, or storage of materials."
3. Parks strongly recommends against closing this section of trail for any reason due to the amount of commuter traffic this section of trail serves. There are no favorable detour routes and detouring the amount of traffic up along Mulberry Road would be extremely hazardous. If there is a need to close a section of the Poudre Trail though, a traffic control plan is required to be submitted and approved through Traffic Control. Parks maintains this section of the trail will sign off on it once submitted. Please keep the closures to the shortest amount of time possible and schedule closures around 'rush hours' depending on work scheduling and flow.
4. Please show and label the impact areas at all areas where the NISP route will conflict with the Poudre Trail:
  - a. Poudre Trail access and crossing at Mulberry Bridge
  - b. Poudre Trail access at Timberline Rd.
  - c. Future Regional Trail Connections in the vicinity of I-25, as contained in the 2013 Paved Multi-Use Recreational Trail Master Plan, are planned east and west of I-25 between Prospect Road and Mulberry Road. Multiple trail crossings of the proposed pipeline alignment could be required, and will be requested based on the trail final designs.
  - i. Timing of the NISP construction may or may not affect this trail or the potential future development at Prospect Gateway.



Further coordination may be required. The City of Fort Collins 2013 Paved Recreational Trail Master Plan, including any future updates to this Plan, indicates the general location of future paved trails. Trail crossings of the pipeline may be required to construct the buildout of the trail system. Paved trails will be allowed to cross the pipeline easement as long as construction or maintenance of the trail does not impact the operation or construction of the pipeline.

5. For these sections of trails, the city recommends the following:
  - a. Contractor shall coordinate with the Parks and Natural Areas Departments (NAD) to provide detour routes. This includes securing temporary easements and temporary paving materials. Restoration plans for areas disturbed by construction may also be required.
  - b. Contractor shall provide active signage for detours and trail closures. Signage shall include dates of closure and maps indicating detour route.
  - c. Contractor will coordinate with the Parks and NAD Departments for trail detour routes, trail access, and signage to direct trail users.
  - d. The city may require a temporary paved trail if trail(s) are closed longer than 2 weeks. Contractor shall coordinate with the Parks Department and other necessary departments for temporary trail specifications and routes.
  - e. Contractor shall secure all necessary construction easements, temporary crossings, or other temporary construction access easements prior to any work beginning on city owned land.
6. Any impacts to trails shall be repaired immediately upon completion of the section of pipe through the trail area. Please coordinate with the Parks Dept. and Natural Areas regarding trail closures and mitigation.

**Department: Forestry**

**Contact: Molly Roche, 224-616-1992, [mroche@fcgov.com](mailto:mroche@fcgov.com)**

1. Since there are existing trees within the limits of development, City Forestry strongly recommends preserving and protecting all existing trees on-site. Please consider applying the standards listed in the City of Fort Collins Tree Protection Notes as guidelines for tree preservation and protection before, during, and after development activities. City Forestry is willing to join the applicant on a site walk and assist in determining mitigation values if interested. City staff is particularly interested in reviewing locations of impacted City owned trees on Parks and Natural Areas property.

If tree removal occurs, City Forestry recommends mitigating the loss of tree canopy by planting new trees on-site at the following calipers:

- Canopy Shade Trees: 2.0" caliper balled and burlap
  - Ornamental Trees: 2.0" caliper balled and burlap
  - Evergreen Trees: 8' height balled and burlap
2. Trees provide many environmental and socioeconomic benefits including reduced cooling expenses, providing natural wind breaks, improving air quality, and increasing property values. It is strongly recommended that existing significant trees be preserved to the extent reasonably feasible. Will there be construction within the critical root zone of any of the existing trees on your property? The critical root zone is defined as 12 inches in radius per one inch in diameter at 4.5 ft above the ground. If so, please consider how the construction will impact the health of the nearby trees and consider alternate scenarios to preserve them.
  3. If applicable, please provide a landscape plan that meets the Land Use Code 3.2.1 requirements. This should include the existing tree inventory, any proposed tree removals with their locations clearly noted and any proposed tree plantings (including species, size, quantity, and method of transplant).

The plans should also include the following City of Fort Collins notes:

- General Landscape Notes
- Tree Protection Notes
- Street Tree Permit Note, when applicable.

These notes are available from the City Planner or by following the link below and clicking on Standard Plan Set Notes: <https://www.fcgov.com/developmentreview/applications.php>

Required tree sizes and method of transplant:

- Canopy Shade Tree: 2.0" caliper balled and burlapped
- Evergreen tree: 6.0' height balled and burlapped
- Ornamental tree: 1.5" caliper balled and burlapped
- Required mitigation tree sizes:
  - Canopy Shade Tree: 2.0" caliper balled and burlapped
  - Evergreen tree: 8.0' height balled and burlapped
  - Ornamental tree: 2.0" caliper balled and burlapped

4. If applicable, please include locations of utilities on the landscape plan including but not limited to water service/mains, sewer service/mains, gas, electric, streetlights, and stop signs.

Please adjust tree locations to provide for proper tree/utility separation.

- 10' between trees and public water, sanitary, and storm sewer main lines
- 6' between trees and water or sewer service lines
- 4' between trees and gas lines
- 10' between trees and electric vaults
- 40' between canopy shade trees and streetlights
- 15' between ornamental trees and streetlights

5. If applicable, please provide an "Existing Tree Removal Feasibility Letter" for City Forestry staff to review. Proposals to remove significant existing trees must provide a justification letter with specific details of the reasons for removal. For example, tree X removed due to grading; grading proposed to enhance storm water flow in this section of the development. This is required for all development projects proposing significant tree removal regardless of the scale of the project.

The purpose of this letter is to provide a document of record with the project's approval and for the City to maintain a record of all proposed significant tree removals and justifications. Existing significant trees within the project's Limits of Disturbance (LOD) and within natural area buffer zones shall be preserved to the extent reasonably feasible. Streets, buildings, and lot layouts shall be designed to minimize the disturbance to significant existing trees.

(Extent reasonably feasible shall mean that, under the circumstances, reasonable efforts have been undertaken to comply with the regulation, that the costs of compliance clearly outweigh the potential benefits to the public or would unreasonably burden the proposed project, and reasonable steps have been undertaken to minimize any potential harm or adverse impacts resulting from noncompliance with the regulation.) Where it is not feasible to protect and retain significant existing tree(s) or to transplant them to another on-site location, the applicant shall replace such tree(s) according to City mitigation requirements.

Department: Historic Preservation

Contact: Maren Bzdek, 970-221-6206, [mbzdek@fcgov.com](mailto:mbzdek@fcgov.com)

1. Any development that will include federal involvement through permitting or funding triggers compliance with Section 106 of the National Historic Preservation Act, through a review coordinated by the State Historic Preservation Office (History Colorado). An area of potential effect (APE) would define the geographic area or areas within which an undertaking may create adverse effects on archeological and historic resources and require documentation forms and potential mitigation of any determined adverse effects. While that requirement is separate from local historic review and compliance, the City of Fort Collins would be a consulting party for that review process. Please provide more information (correspondence with History Colorado, the APE map, and copies of forms) to Jim Bertolini, Historic Preservation Planner, [jbortolini@fcgov.com](mailto:jbortolini@fcgov.com), regarding compliance with this federal legislation to date.

Department: Technical Services

Contact: Jeff County, 970-221-6588, [jcounty@fcgov.com](mailto:jcounty@fcgov.com)

1. As of January 1, 2015, all development plans are required to be on the NAVD88 vertical datum. Please make your consultants aware of this, prior to any surveying and/or design work. Please contact our office for up to date Benchmark Statement format and City Vertical Control Network information.