October 21, 2025

AGENDA ITEM SUMMARY
City Council

STAFF

Katie Donahue, Natural Areas Director
Tawnya Ernst, Natural Areas Land Conservation Lead Specialist
Jin Wang, Capital Projects Civil Engineer
Jonathan Piefer, Senior Real Estate Specialist

SUBJECT

First Reading of Ordinance No. 165, 2025, Declaring Certain City-Owned Property at Fossil Creek Wetlands Natural Area as Right-of-Way.

EXECUTIVE SUMMARY

The purpose of this item is to declare approximately 0.2 acres of Fossil Creek Wetlands Natural Area as Right-of-Way for the Trilby Road Bridge Replacement project.

The Trilby Road Bridge Replacement project is one element of Utilities' comprehensive stream rehabilitation along Fossil and Stanton Creeks. This portion of the project will facilitate the installation of a replacement bridge and culvert and permit future bicycle and pedestrian infrastructure. The existing culvert is structurally deficient and blocks fish passage and stream habitat connectivity. The bridge replacement will restore passage for native fish and macroinvertebrates and connect a soon-to-be restored reach of Fossil Creek (slated for Fall 2025/early-2026) to an upstream reach slated for restoration in the next few years. This portion of the project will also support future bicycle and pedestrian infrastructure. The additional right-of-way proposed for the bridge replacement encompasses 8,890.61 square feet or 0.2 acres.

STAFF RECOMMENDATION

Staff recommends adoption of the Ordinance on First Reading.

BACKGROUND / DISCUSSION

The 229-acre Fossil Creek Wetlands Natural Area is located immediately south of Trilby Road and west of Timberline Road. Fossil and Stanton Creeks run through the property. The natural area provides quality habitat for wildlife including numerous species of birds. A 0.5-mile section of Fossil Creek Trail runs through the natural area's west side. The natural area is also bisected by the Union Pacific Railroad. The proposed ROW declaration would cross the northern boundary of the natural area adjacent to Trilby Road and west of the railroad.

More than a decade ago, Stormwater identified areas along creeks in Fort Collins where rehabilitation projects are needed. Out of this recognition, the Stream Rehabilitation and Enhancement Program (SREP) was established. The program's goals are to:

- Stabilize eroding banks and channels
- Create sustainable native fish and wildlife habitat
- Improve water quality in the stream
- Preserve natural and beneficial functions of floodplains
- Increase emphasis on stormwater quality and protection of the City's urban watersheds
- Incorporate the triple bottom line environmental, social and economic benefits to the project and overall drainage basin

In the intervening years, more than 1.5 stream miles have been restored including stretches of Mail Creek (through Two Creeks Natural Area).

As this segment of stream rose to the top as a restoration priority, Utilities staff engaged the Natural Areas team to assess feasibility and conditions of the project. While plans developed, it became apparent that the current culvert would limit goals for a full restoration of the creek segments on the natural area. Subsequently, in February 2024, Engineering staff approached Natural Areas staff with a need to expand existing right-of-way to construct the bridge replacements and to accommodate the relocation of an existing Fort Collins-Loveland Water District waterline. The stream and bridge project exemplifies the City's new One Water approach by bringing together four departments (Utilities, Natural Areas, Engineering, and Park Planning & Development) to solve complex stormwater, water quality, and stream health challenges in the Fossil Creek Drainage Basin while providing a safe crossing over Fossil Creek and improving safety for the trail users downstream. The scope of this project aligns with the Natural Areas values of Ecological Function, Connectivity, Partnership, and Safety and Wellbeing.

Existing Conditions

The Fossil Creek and Stanton Creek segments flowing through Fossil Creek Wetlands are heavily incised with vertical banks throughout most of the reach. The aquatic habitat in Fossil Creek is interrupted by a significant fish and aquatic life barrier at the Trilby Road culvert (Photo 1). The creek flows through an existing 60-inch corrugated metal pipe culvert then drops 2.3 feet into a four-foot-deep scour pool (Photo 1). It is not possible for fish that enter the pool to travel back upstream.

The Fossil Creek underpass, bridge, and trail infrastructure currently cross the western side of the natural area. In addition, there are two easements, a South Fort Collins Sanitary District easement and a Platte River Power Authority easement.

The Trilby Road bridge (just east of the trail and underpass) over Fossil Creek is failing and in need of replacement. This structurally deficient bridge has a sufficiency rating of 7 out of possible 100. The bottom of the culvert is corroded and susceptible to failing. There are gaps as wide as 2.5 inches with a void as deep as 14 inches along the culvert. This bridge is only 27' wide between the guardrails. The narrow width results in the guardrails being hit frequently, especially during icy winter conditions.

Alternatives Analysis

Several structure types and alternatives were analyzed. Bridge opening size, fish passage, structural bottom, flood event, stream alignment and elevation, as well as impact to existing infrastructure and property were all considered in selection of the structure type. The selected design concept attempts to replace the bridge with minimal impact to the natural area.

The alignment and placement of the ROW expansion was also considered.

ROW Alternative A

This alternative would involve shifting the existing East Trilby Road alignment and culvert 35 feet north of the existing right-of-way. Photo 1 shows the impact of this shift. The main flaw of this alignment is that the road curve only meets the requirement of 20 miles per hour (mph) which does not meet Larimer County Urban Area Street Standard (LCUASS) requirements for 4-lane arterial street classification (design speed of 50 mph). This alignment also impacts Fossil Creek Trail, the trail bridge over Fossil Creek, several utilities, and two residential houses in the Paragon Point subdivision. The toe-of-slope is not shown in this figure, which will increase the impact of this alignment. Another challenge for this option is the Southridge Greens intersection, which is too close to the Union Pacific Railroad bridge, to shift the alignment back within the design requirement and to fit under the railroad bridge. With all these constraints it is not possible to utilize this alternative and meet 4-lane arterial roadway design criteria.

ROW Alternative B – Preferred

This alternative, which expands ROW south, attempts to replace the bridge with minimal impact to the Natural Area property. The current LCUASS call for a 115' right-of-way. The roadway cross section at the bridge structure as designed has a cross section of 78', a reduction of 37' (32%) from the LCUASS requirement. This reduced cross section aligns with the existing Fossil Creek Trail underpass just west of the Project. The roadway pavement at this location will remain at the same width (2-lanes) as existing until it is widened in the future to 4-lanes arterial as shown in the Master Street Plan.

Working together with Utilities, Natural Area, and Parks Planning and Development, the replacement bridge incorporates an increased opening for flood events, improved stream flow, and current best practices for fish passage with a natural creek bottom. The proposed new culvert design will improve aquatic habitat connectivity and fish passage by raising the creek channel and tying into the proposed culvert elevation to eliminate the drop height and lower the velocities. This will restore connectivity for fish. Additionally, the bottom of the culvert will contain sand and cobble material (Figure 3) instead of concrete or steel. The culvert design and sizing, material, invert elevation, and stream alignment are all designed in conjunction with Utilities and Natural Areas.

The roadway by the bridge will be supported by the wingwalls of the bridge, with the rest of the grading tied back to the existing ground outside the wingwall. This will allow the existing guardrail on the north edge of the natural area to be removed, improving both safety and aesthetic of the Natural Area.

The expanded ROW incorporates room for a future bike lane and sidewalk along Trilby Road. For the interim condition, the space between the edge of asphalt/road and the bridge railing will be landscaped with an approved seed mix in conformance with the Natural Areas policy. This condition will remain until Trilby Road is improved in the future.

Engineering and Utilities submitted a joint application for a Section 404 Individual Permit from the Army Corps of Engineers. As part of the permit requirement, an Ecological Characterization Study (ECS) was performed. The design of the Project has been routed for Field Inspection Review (FIR) and Final Office Review (FOR) which includes coordination and compliance with City Departments, utility providers internal, and partners external to the city.

The Project is anticipated to take five months to construct with completion in Q2 2026. The Utilities stream rehabilitation project is expected to start construction in November 2025 and with anticipated completion also in Q2 2026.

CITY FINANCIAL IMPACTS

All costs associated with the ROW and Stream restoration project will be incurred by Engineering and Utilities respectively. The ROW project, fully funded by the City Bridge Program, is estimated to cost approximately $2.976 million and Utilities stream rehabilitation project is projected to cost $1.775 million. Real Estate Services staff completed a Comparative Market Analysis to derive the value of the ROW declaration - $8,891. With the ecological benefits of the overall umbrella project far exceeding the monetary value of the ROW, the typical fees for ROW declaration will be waived for this project.

BOARD / COMMISSION / COMMITTEE RECOMMENDATION

At its September 10, 2025, meeting, the Land Conservation and Stewardship Board voted unanimously (6-0) in support of Council adoption of the declaration of right-of-way on Fossil Creek Wetlands Natural Area for the Project.

PUBLIC OUTREACH

None.

ATTACHMENTS

1. Photo of Scour Pool
2. Alternatives A and B
3. Vicinity Map
4. Land Conservation and Stewardship Board Minutes excerpt, September 10, 2025
5. Ordinance No. 165, 2025