



## MEMORANDUM

DATE: March 7, 2023  
TO: Jeff Townsend, Resort Concepts  
FROM: Heather Houston, Birch Ecology  
RE: Game Creek Culvert Maintenance Project

Birch Ecology completed a Wetland Delineation of the Minturn North project area in July 2020. We prepared a Wetland Delineation Report dated September 2020, however before it was submitted, the development team elected to convert the report to a combined Delineation Report and Pre-Construction Notification (Wetland Permit Application). Due to multiple design changes, this report was never finalized and submitted to the Corps, therefore the boundary has not been verified or officially approved. However, the mapping is still valid, and we can assist you in completing this process.



It is our understanding that you have a new development plan for the Minturn North project site. The project minimizes impacts to the Game Creek Wetland, with only a small area of permanent impact at the Minturn Road culvert crossing, as shown by the attached Figure 1. In this area, the existing 80-inch arch culvert is filled with about 3.5 feet of sediment which would be removed in order to restore proper drainage. To stabilize the culvert crossing and protect against future erosion damage, a pad of grouted, 18-inch angular riprap would be installed at the culvert inlet and outfall. The two areas of riprap would result in a permanent impact to 303 square feet of the Game Creek Wetland.

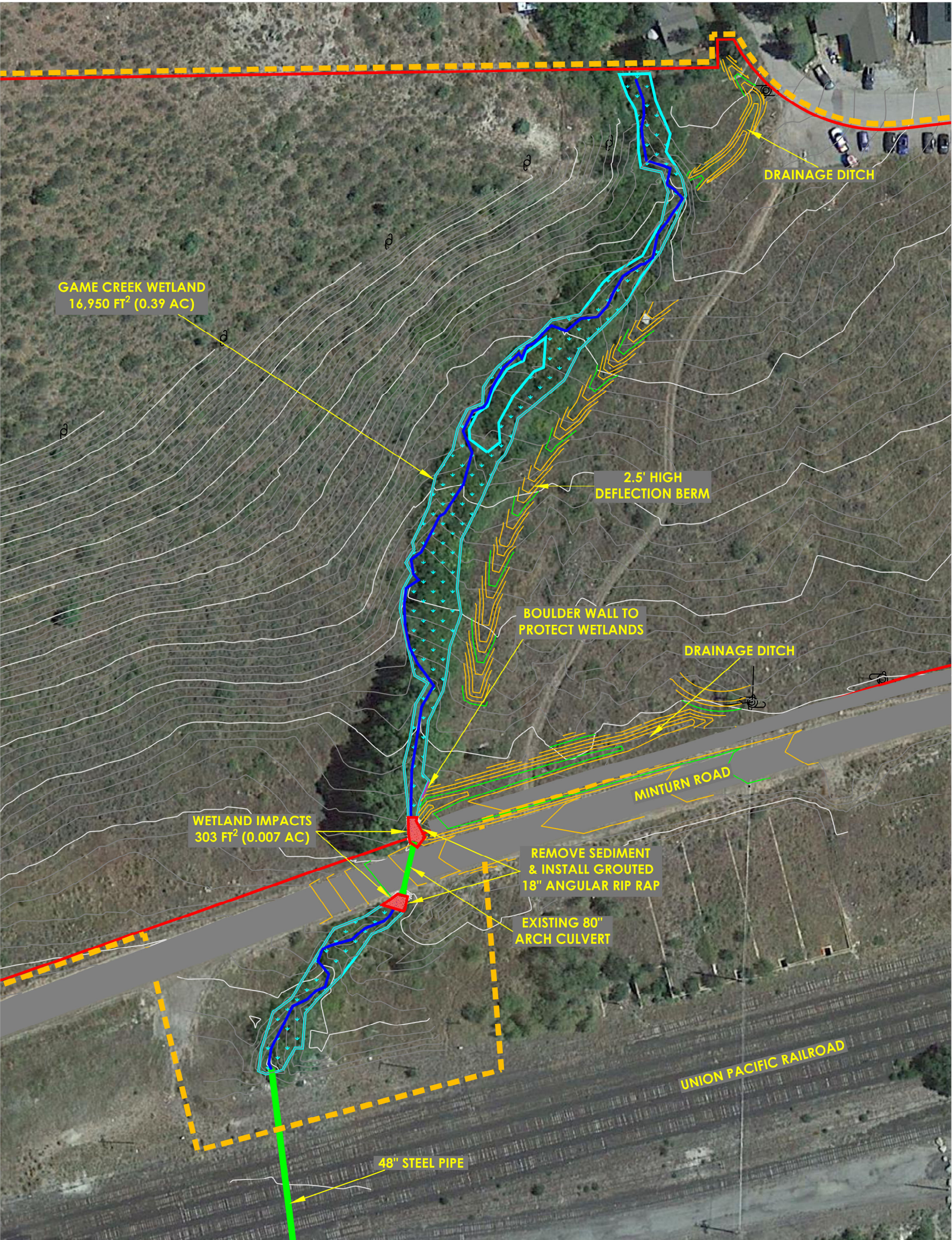


The proposed grading plan has only minimal impacts to Game Creek at the culvert crossing and no other wetland impacts are planned. Where a stormwater drainage swale would discharge into Game Creek, a boulder retaining wall would be used to limit the extent of grading, avoiding any additional wetland impacts.

The proposed maintenance and culvert stabilization project would qualify for a Nationwide Wetland Permit. Since the impacts are below 1/10 acre, the U.S. Army Corps of Engineers would not require wetland mitigation.

When you are ready to proceed, Birch Ecology can prepare a final Wetland Delineation Report and Pre-Construction Notification (PCN) for Corps approval. This is typically a simple process that takes about 6-8 weeks.





**LEGEND:**

- Wetlands
- Wetland Impacts
- Riprap
- Game Creek and Ditch Flow Lines
- Culverts
- Property Boundary
- Boundary of Wetland Delineation
- Existing Contours
- Proposed Contours

Date: March 2023  
Contour Interval = 2 ft  
Scale: 1 in = 70 ft

**Figure 1. Wetland Impact Map  
Game Creek Culvert Maintenance Project  
Minturn North**