

Sardine Meadow Restoration

Pre-Bid Meeting

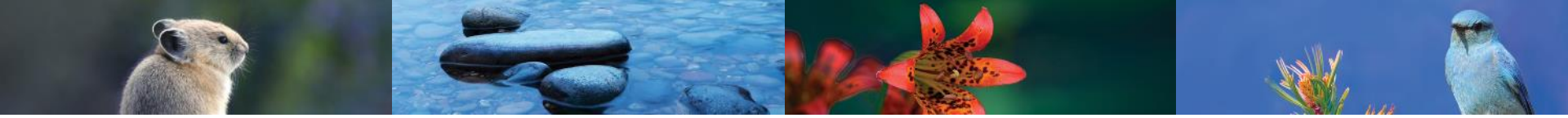
May 6, 2020

Edited to post on website

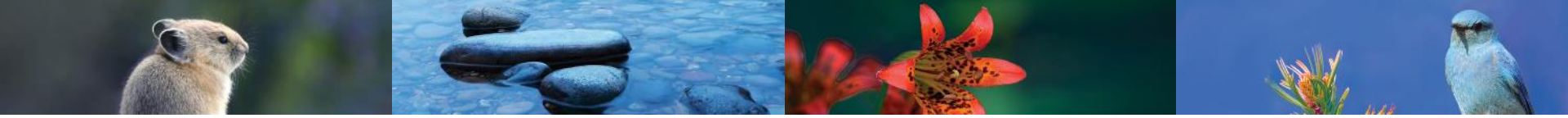
Beth Christman,

TRWC Director of Restoration





- **NOTE: Where contradictory, information released in Addenda to the bid package supersedes information included in this slide show.**

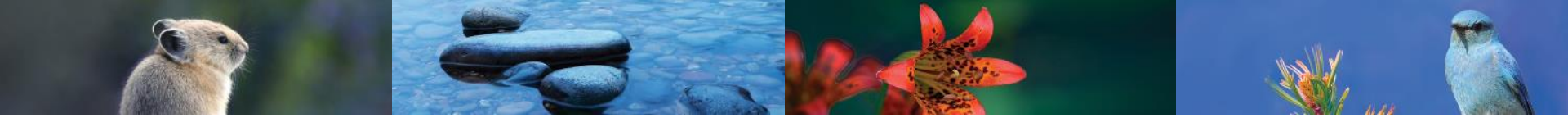


Today's Agenda

- Welcome & roll-call
- TRWC Overview – slides removed
- Project Background
- Site Overview and Current Conditions
- Project Design
 - Dewatering
 - Fill/Earthwork
 - Revegetation and Erosion Control
 - Project requirements to note
- Bidding
- Timeline
- Q&A – Please hold your questions to the end
- Roll-call & Thank you



Sardine Meadow Restoration



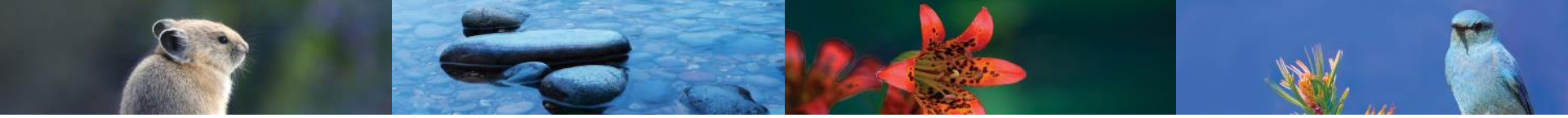
Thank You to Our Partners

★ Trust for Public Land



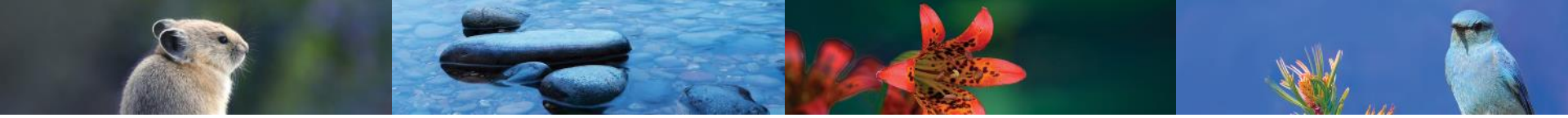
- U.S. Forest Service





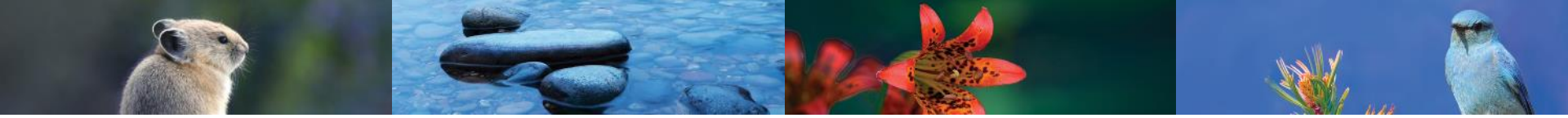
Project Implementation Team

- TRWC
 - Beth Christman
- Engineer = Balance Hydrologics
 - Dave Shaw
 - Peter Kulchawik
- Revegetation specialist = CS Ecological Surveys and Assessments
 - Catherine Schnurrenberger



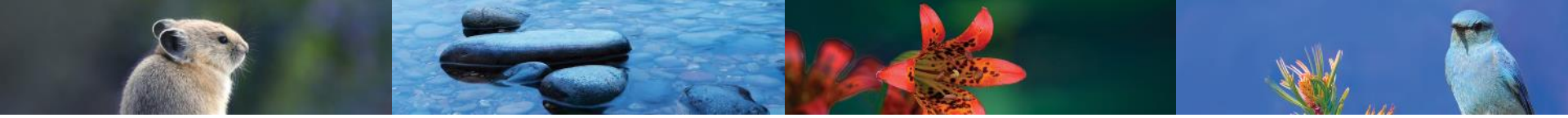
Project Goals

1. Restore meadow hydrologic function
2. Restore natural stream channels
3. Reduce sources of instream sediment
4. Improve habitat for native species and forage for livestock



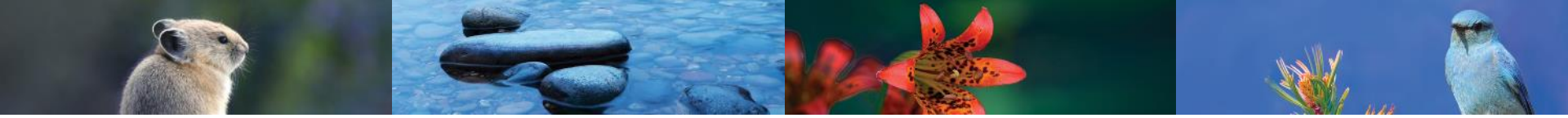
Expected benefits

- Restore 350 acres of montane meadow
- Reduce erosion from 2 miles of incised channel
- Restore flow to 5 miles of historic channel
- Elevate water table and reverse conversion to upland habitat
- Create/restore habitat for willow flycatcher and other native species

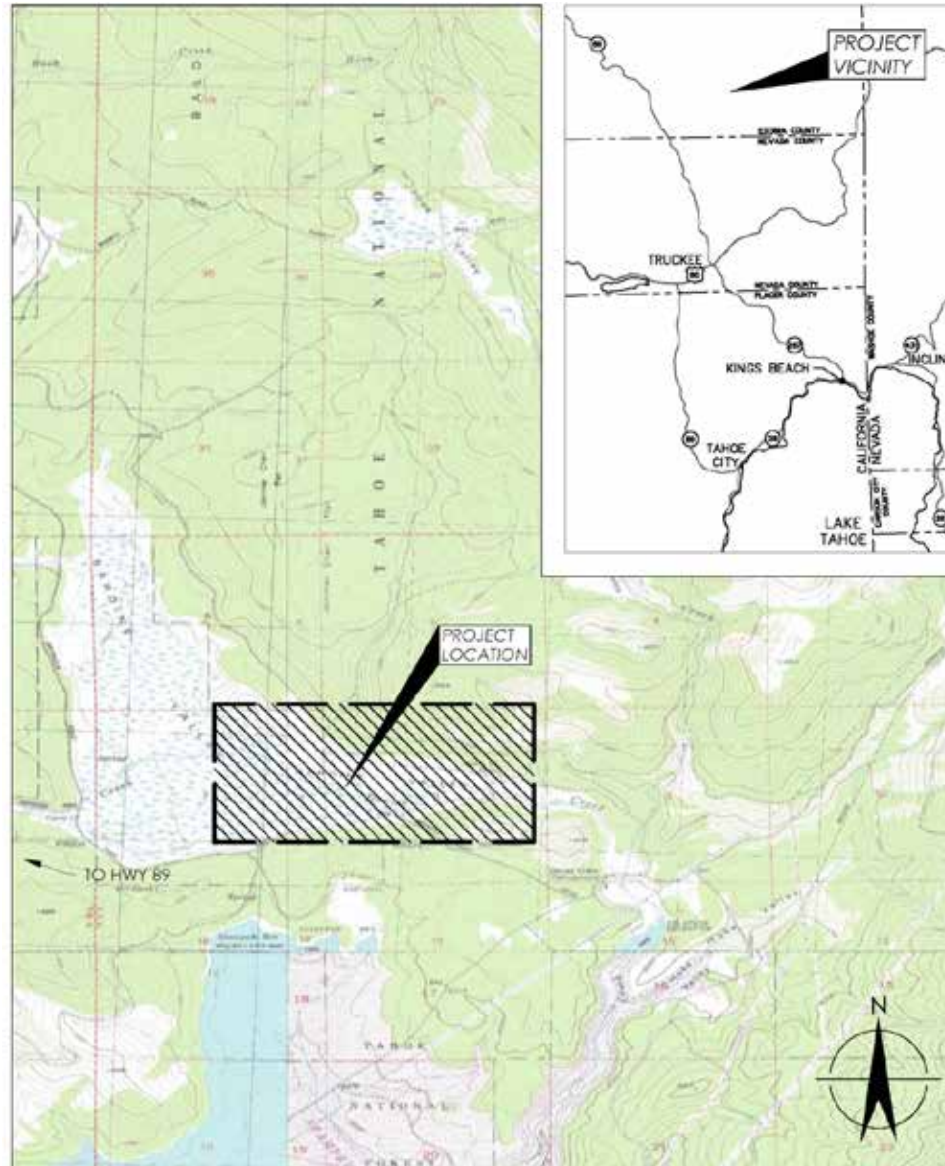


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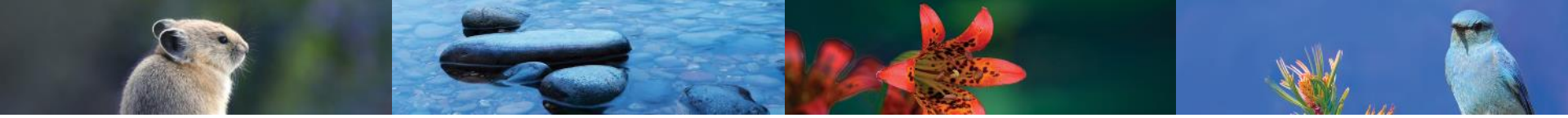


Project Location



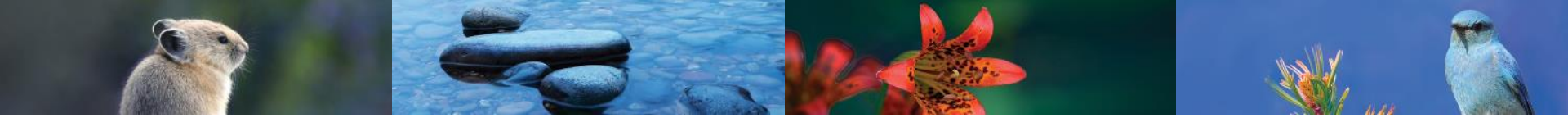
Site Overview

Refer to Sheet 3.0 of 100% Design Plans



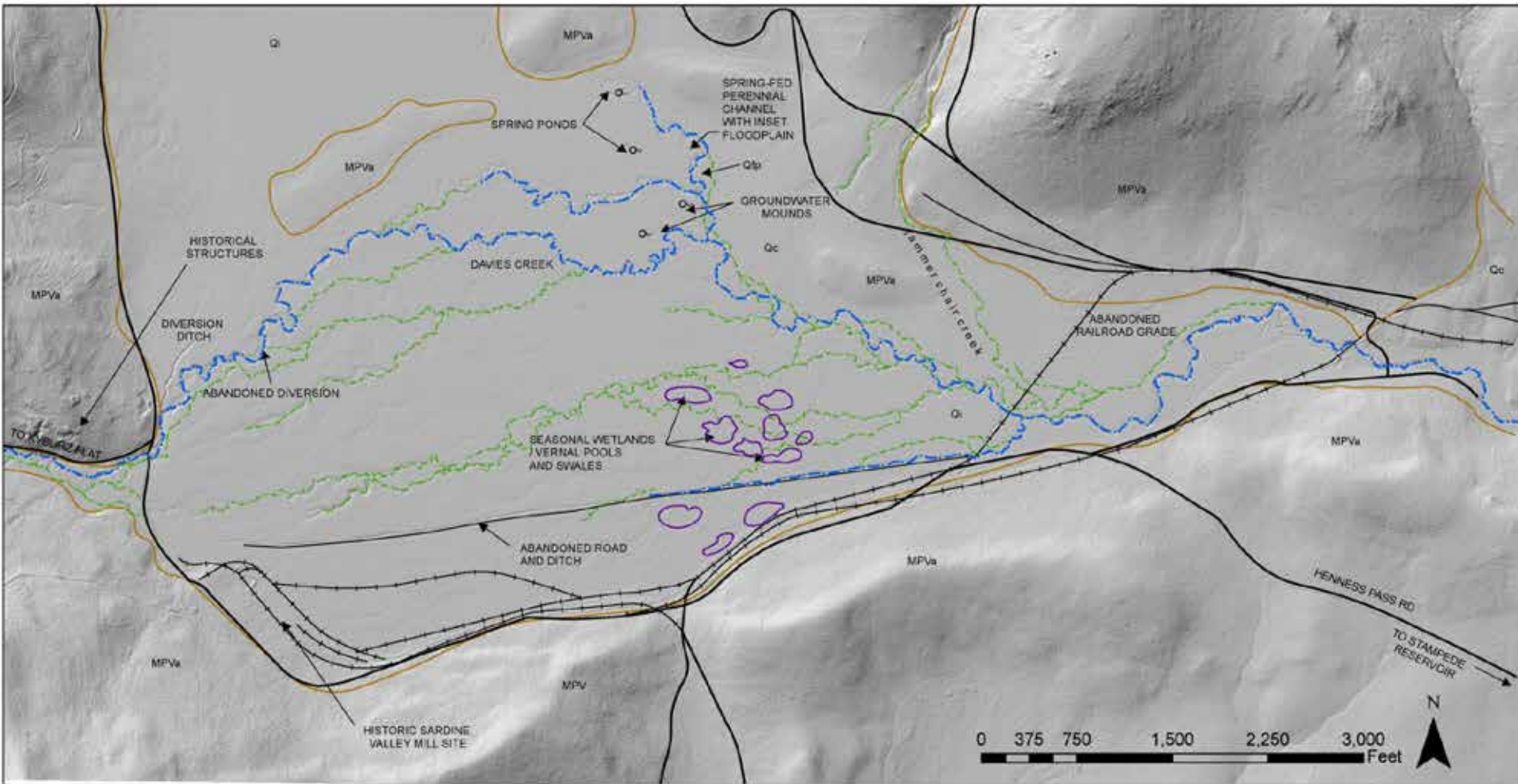
Site Overview

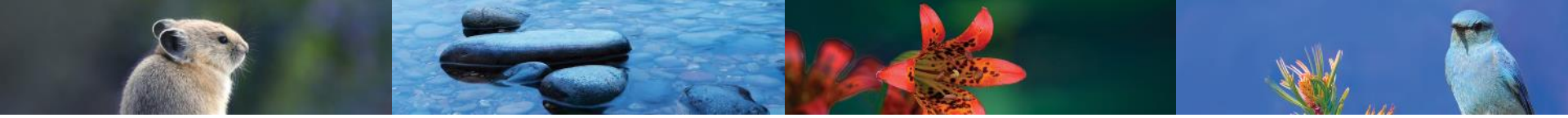
- Sardine Meadow is an extension of the Davies-Merrill watershed restoration project (TRWC & USFS – 2005 – 2013)
- Two branches of Davies Creek flow through Sardine Meadow
- Most of Davies Creek is highly incised
 - Some areas have developed inset floodplain
 - Others very degraded
- Entirely on private land



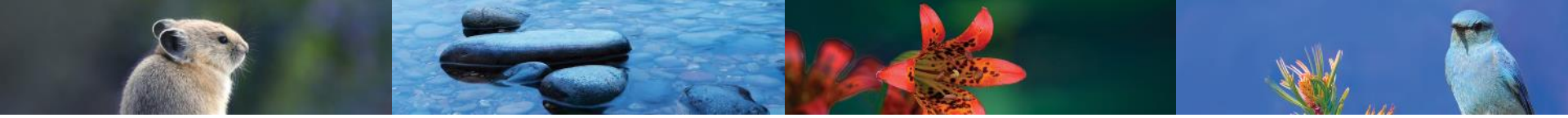
Site Overview, continued

- Past and current land uses caused degradation
 - Road and railroad grade construction
 - Logging
 - Ranching
- Significant risk of reed canary grass infestation
 - Revegetation plan designed to reduce risk

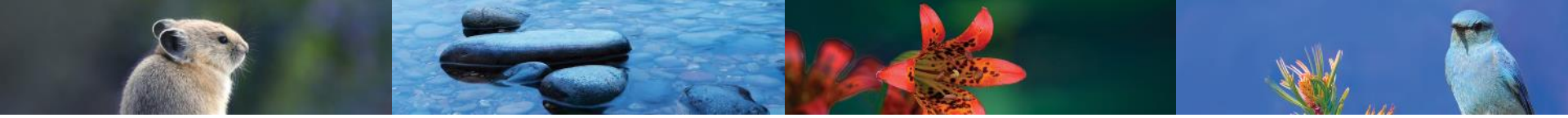




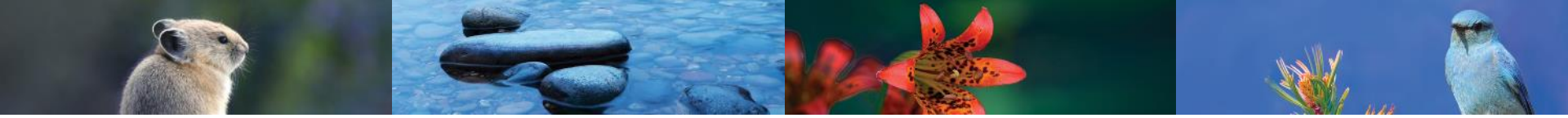
Lower Grade Control – bottom end of project site



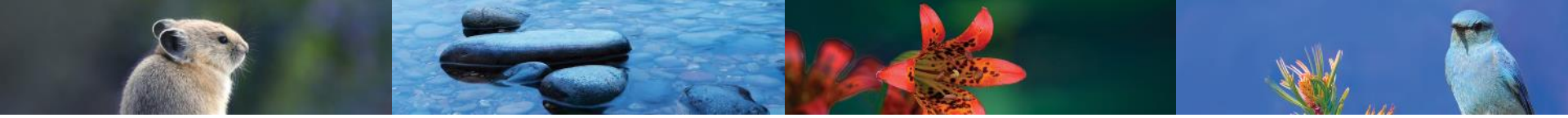
Upper Grade Control at historic RR crossing



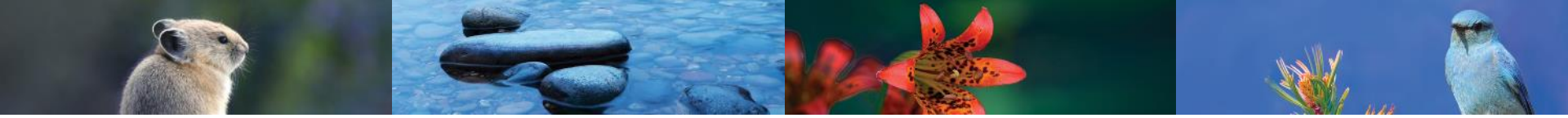
Below railroad grade, looking west



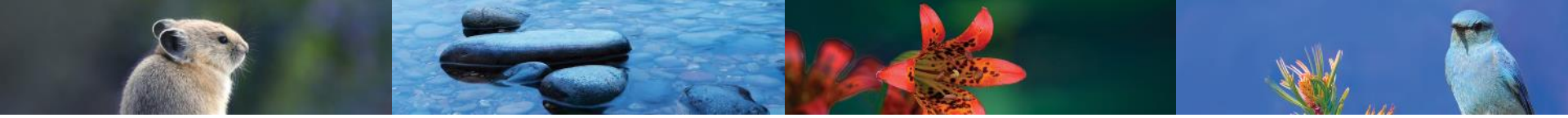
Railroad grade and downstream



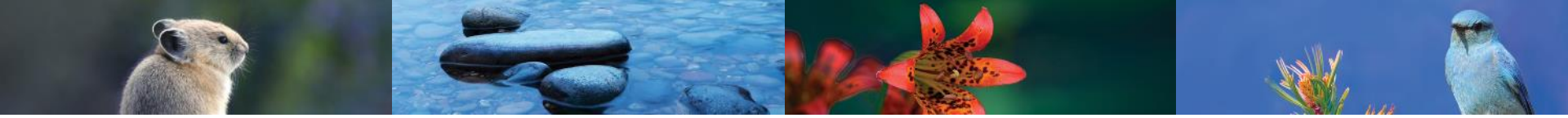
North end of project area, view looking upstream



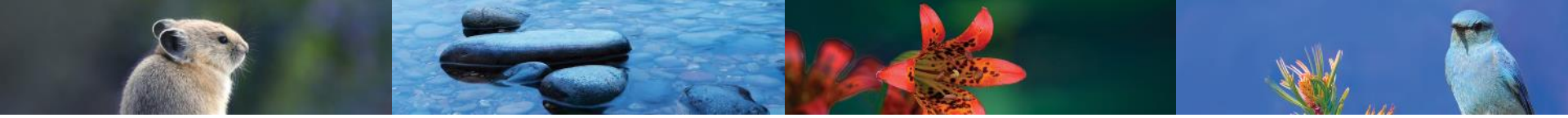
Middle of road fill treatment area



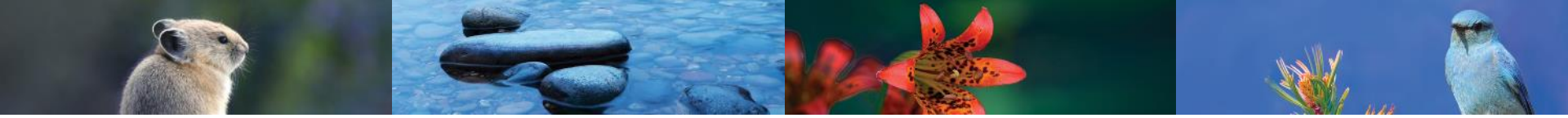
Upper end of road fill treatment



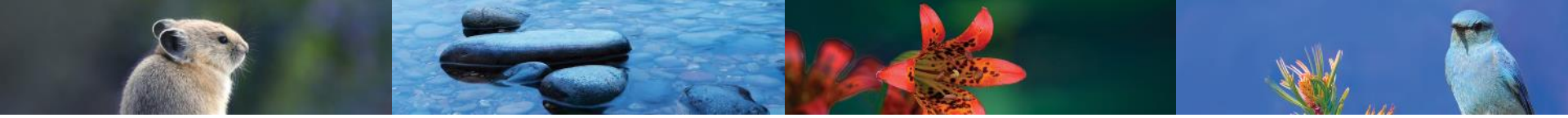
Railroad grade across channel



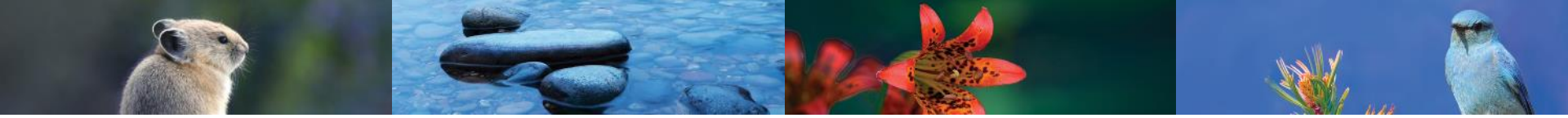
Sagebrush conversion



Stream channel incision

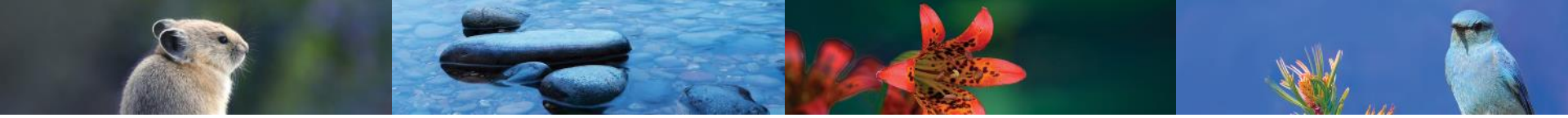


Some functional habitat remains



Today's Agenda

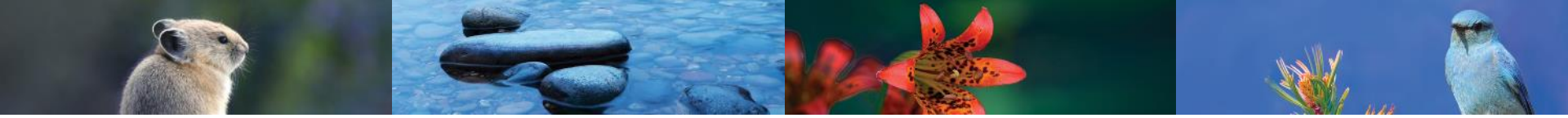
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Design overview – Option B

100% Design will not be substantially different from 65%
100% available next week

- Return flow to historic channels with floodplain connectivity
- Selectively fill sections of existing channel
 - Two types of channel fill
- Preserve existing vegetation
- Salvage high quality vegetation
- Construct riffle grade controls
- Debris jams in side channels
- Revegetation/weed treatment

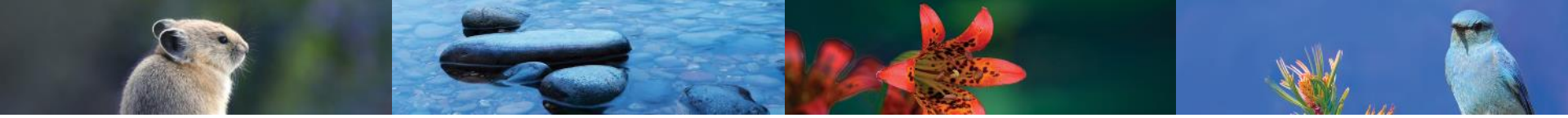


Work – BMPs and mobilization

- Mobilize equipment to site
- Establish staging and stockpile areas
- Establish access routes
 - Meadow haul routes will require meadow mats
 - Temporary stream crossings may be required to access northern portion of site
 - Use filled channel as much as possible for access
- Install BMPs as described in SWPPP
 - SWPPP will be available next week

Staging and access

- Refer to Sheet 3.0 of 100% design plans

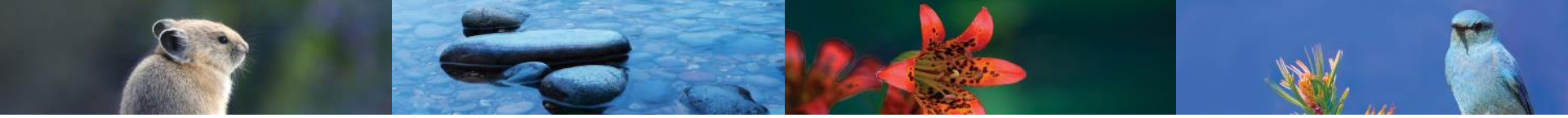


Work - dewatering

- Localized groundwater will be encountered
- Upper Meadow Channels and Upper Davies Creek are spring-fed, anticipated to have flow rates of 2 cfs or less, diminishing during the construction period.
- Relict Channel is anticipated to be dry during construction, pools up to 2 feet deep
- Historical Ditch – anticipated to be dry
- Lower Davies Creek anticipated to have very low flow during the construction period, but water is likely to be ponded in intermittent pools at depths up to 5 feet.

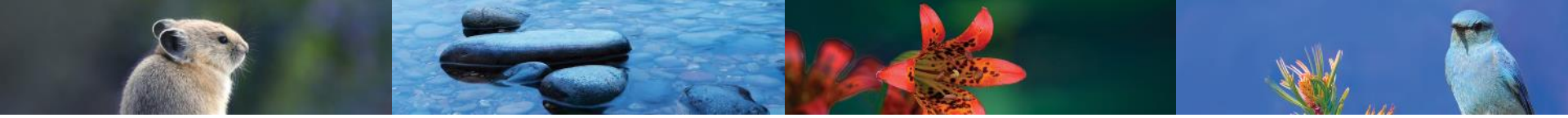
Dewatering

- Refer to sheet 2.1 of 100% Design plan



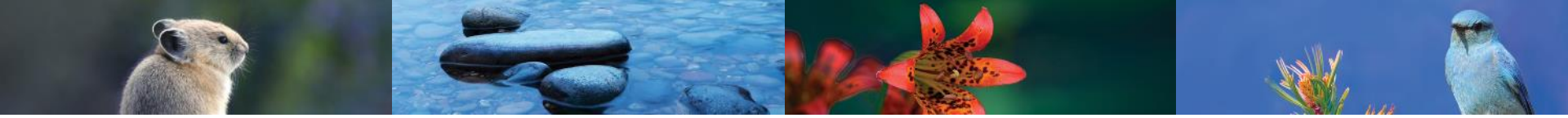
Work - dewatering

- Dewatering plan required
 - Submitted 30 days prior to construction
 - Approved by Engineer
 - Must not cause downstream water quality impacts
 - Pump and discharge to stable area
 - Pump and use for compaction/dust control
- Localized fish relocation, screen intakes



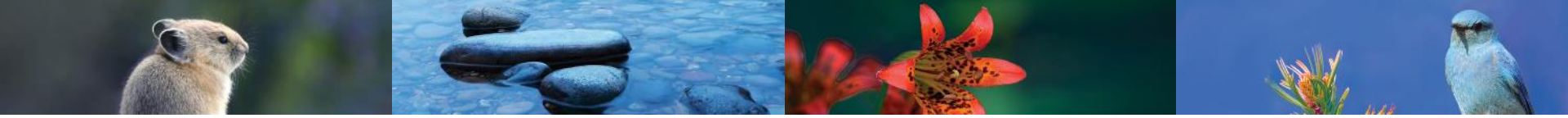
Work – Fill quantities

- Estimated total placed fill: 35,000 – 40,000 cy
- Approximately 10,000 cy available on site
 - Railroad grade removal
 - Road bed removal
 - Floodplain creation (sheets 3.05B, 3.13B, 3.14B)
- Contractor responsible for remainder
 - Must meet specifications
- The Boca stockpile identified in 65% plans is not available



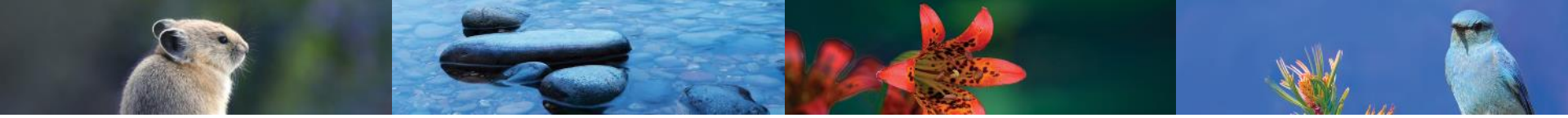
Work - earthwork

- Salvage existing vegetation
- Stockpile and water existing/salvaged vegetation
- Excavation and transport material to fill areas
- Complete rough grading and fine grading
- Achieve proper compaction and moisture conditioning



Work – channel fill types

- Treatment Type A – preserve functional habitat
- Treatment Type B – place fill 0.5 – 1 foot above meadow surface
- Treatment Type C – at swale/channel crossings, place fill to match grade of swale/channel



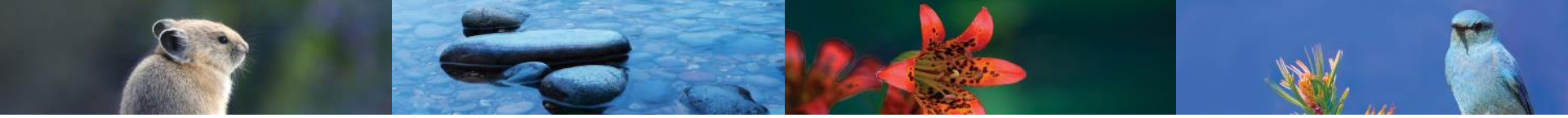
Work – grade control riffles

- Two specified locations
- Material mix as specified in plan set
- Estimated 750 cy total
- Some large material may be available from Stampede – approximately 50% of total volume
- Smaller material (cobble/gravel) will need to be imported

Potential Boulder Source

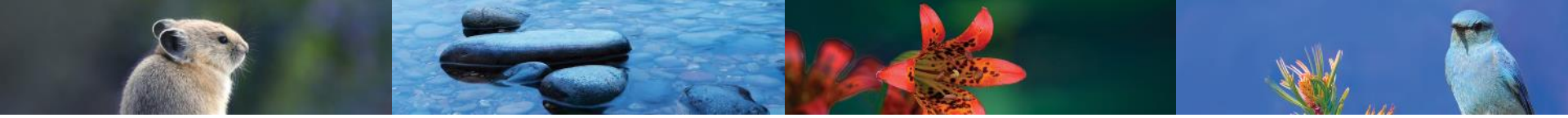


BORROW AREA HAUL ROUTE
PLAN VIEW
1" = 2,000'

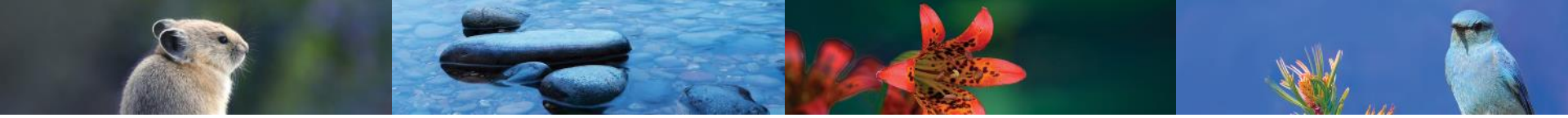


Upstream Grade Control

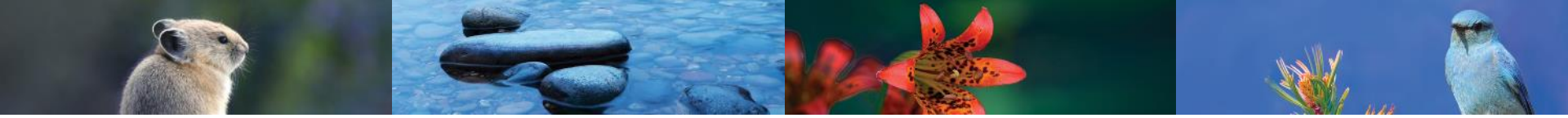
- Refer to sheets 3.14 and 4.2 of 100% design plans



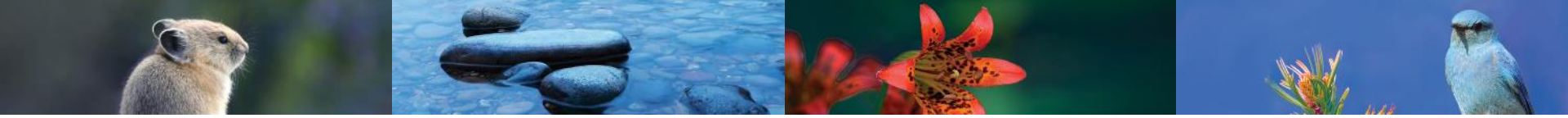
Upper Grade Control at historic RR crossing



Upper Grade control, left bank

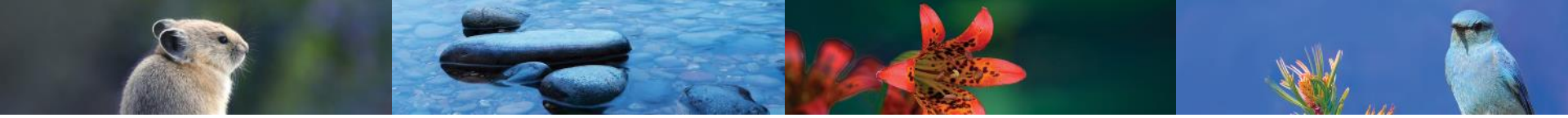


Upper grade control, right bank

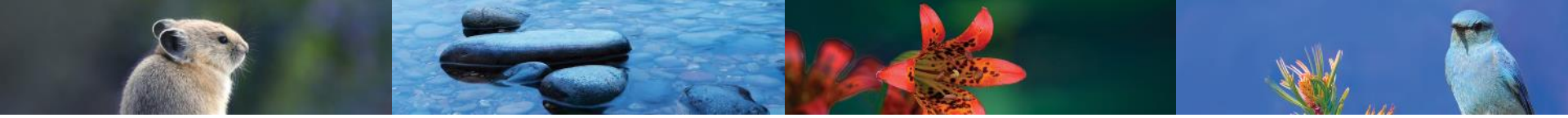


Downstream Grade Control

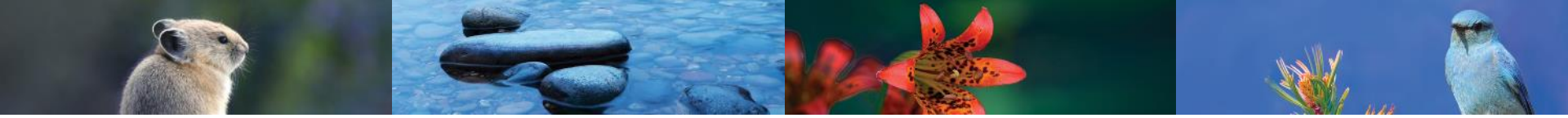
- Refer to sheets 3.15 and 4.3 of 100% design plan



Lower Grade Control, aerial view

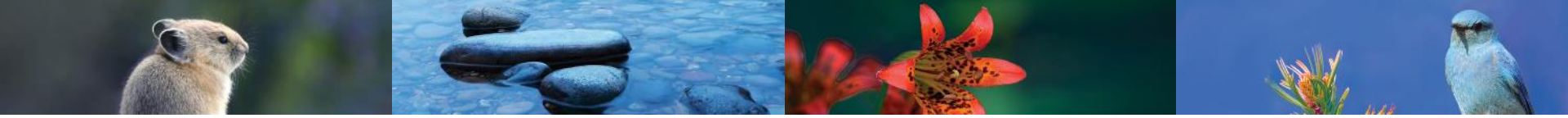


Lower grade control



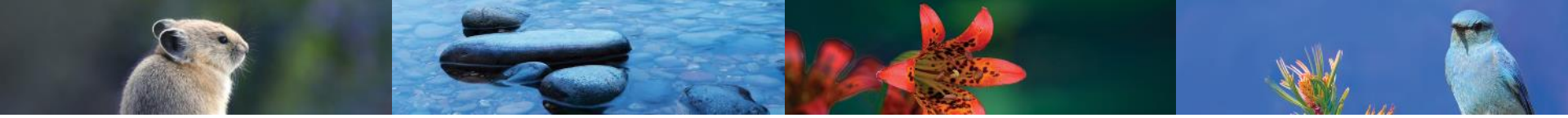
Work - Debris jams

- Refer to sheet 4.1 of 100% design plan



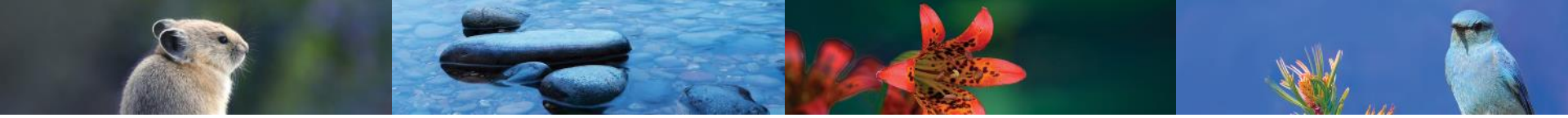
Work – Reed Canary Grass Control

- Physical pre-treatment
 - Mowing before going to seed (June)
 - Covering small patches with plastic within construction area (est. ~1/4 acre)
- Chemical pre-treatment
 - Treatment plan prepared by licensed Pest Control Advisor
 - Contractor identifies PCA



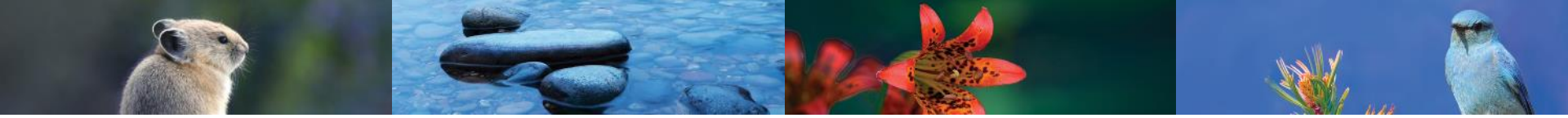
Work - Revegetation and Erosion Control

- Additional details available next week
- Preserve existing vegetation as much as possible
- Willow salvage and replant at downstream grade control
- Re-plant salvaged sod on fill material as directed by Engineer's representative
- Harvest additional sod strips from identified areas
- Install erosion control fabric
 - Approximately 50% of Fill Type C
- Native seed mixes TRWC to provide and deliver
 - Areas not revegetated with sod, access routes
- Warranty – erosion
 - 2 years
 - Warranty against rilling, gullying, headcutting



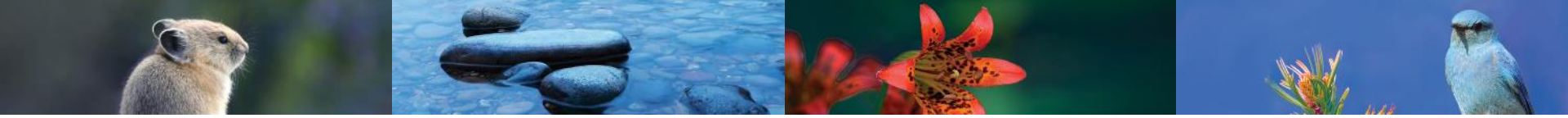
Additional requirements to note

- Permits, CEQA
 - Resource Protection Measures
- Ivesia protection
- Engineering, archeological, and biological oversight
- Staging
- Materials



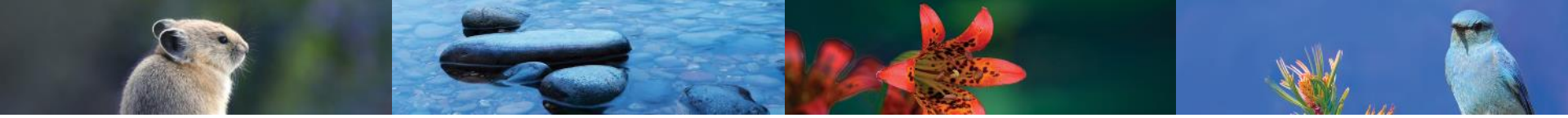
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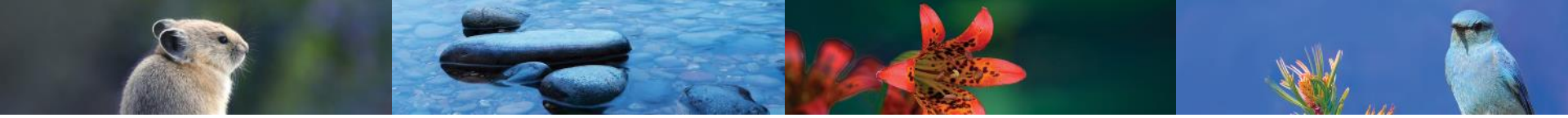
Bid Package and Evaluation

- Demonstrate qualifying experience
 - Meadow and stream restoration
 - Large amounts of fill placement
 - Supervisor/foreman has at least 3 yrs experience supervising wetland and stream restoration with significant earthwork, site stabilization, and stream dewatering
 - Class A and C-27 Contractor's licenses
 - CDPR Qualified applicator and pest control licenses, Sierra County registered pest control business license
 - 3 examples of montane meadow, floodplain or riparian restoration in past 10 years with 5 photos each
- Evaluated on cost, project experience, past performance, qualifications of operators, integrity and capability, and probable level of service and convenience to TRWC



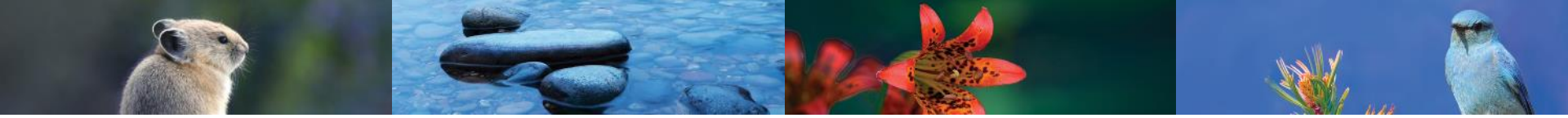
Bid format – 40 pages max

- Scope of work and *approach*
- Cost estimate using attached Bid Sheet
- Rate sheet
- Proposed project schedule
- Relevant experience with photos and references
- List of staff certifications/licenses
- Staff experience
- Specification of equipment



Payment Terms

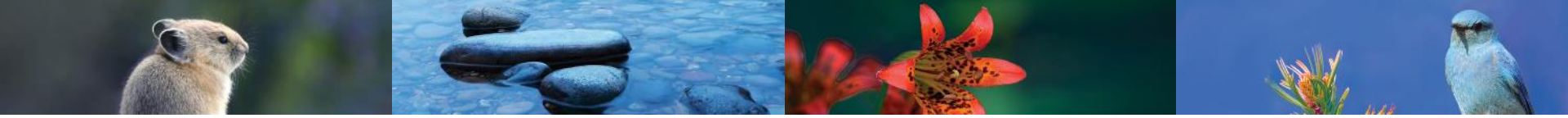
- Quarterly invoicing
- Expected payment within 120 days
- Pay when paid
- No interest
- RFB and Bid Sheet prevail over any discrepancies in project plans



Timeline

Task	Date
Pre-bid meeting (mandatory)	May 6, 2020
Deadline to request additional information	May 15 – changed from May 13
Bids due	May 27
Interviews	Week of June 1
Contract award (expected)	June 5
Pre-Construction Meeting	Week of June 15
Construction start*	July 1
Construction completion – instream work	October 1
Construction completion – site closure	October 15
Post-construction erosion warranty	2021-2022

*Dependent on site conditions



Questions?





Thank you!

For more information, contact
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TRWC Program Manager
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(530) 414-5251