ALTERNATIVE 1 - Restore Creek Channel and Ford Crossing to **Pre-Violation Conditions**

Remove (E) ford crossing and established riparian vegetation Fill (E) stream channel

Restore channel and ford crossing to near pre-violation conditions

Remove (E) road/ fill prism Steep roadway section

PROS

Restores channel to near previolation conditions

CONS

200

100

0

- Disturbance of existing riparian vegetation / channel bed
- Roadway re-grading required / large grading volume
- Steep roadway section may be erosive
- New ford crossing must still be constructed

200

Feet

ALTERNATIVE 2 - Construct Bridge at Existing Ford Crossing





LEGEND

(N) Thalweg

(E) Top of Bank (2020)

(E) Thalweg (2020)

Top of Bank (2006)

Thalweg (2006)

Construct (N) roadway approach to bridge (alignment conceptual)

Remove (E) ford crossing and construct (N) bridge

PROS



 Minimize post-construction disturbance to creek

CONS

- Cost prohibitive
- Emergency Vehicle Access no longer needed due to removal of cabin at reservoir
- Fill required to elevate crossing to meet freeboard requirements



8/23/22



ALTERNATIVE 4 - Restore and Enhance In-Place Existing Ford Crossing (PREFERRED)

LEGEND





Remove (E) ford crossing and construct (N) enhanced at-grade ford grossing in-place

PROS

- Removes all concrete from creek
- Engineered streambed material crossing
- Does not disturb existing established riparian vegetation
- Minimizes grading and disturbance
- At-grade crossing allows for hydraulic and sediment continuity

CONS

Requires occasional crossing of streambed by light vehicles and equestrian



8/23/22

ALTERNATIVE 1 - Return Spillway Channel to Pre-Violation Location

PROS

 Pre-violation conditions restored

CONS

- Pre-violation spillway channel does not have bedrock for channel stability (required repeat maintenance)
- Requires grading of (N) spillway channel and fill of (E) spillway channel
- Introducing spillway flow increases erosion potential in riparian corridor

Fill and armor (E) spillway channel

Construct (N) spillway channel at pre-violation location

Tributary

LEGEND





200

ALTERNATIVE 2 - Stabilize and Enhance Existing Spillway Channel In-Place (PREFERRED)





PROS

- Preferred location for spillway channel to minimize maintenance
- Utilizes bedrock for channel stability
- Does not disturb riparian habitat

CONS

200

100

0

 Minimal additional erosion may occur in short term

> Remove Concrete Blocks and Stabilize and Enhance (E) Spillway Channel

Tributar.

200

Feet