

**APPENDIX A**  
**EXHIBITS**



Source: ESRI Street Maps North America 2008

Z:\ema\Region8\_EAs\EagleCounty\_Stone\_Creek\Exhibit1\_location.mxd



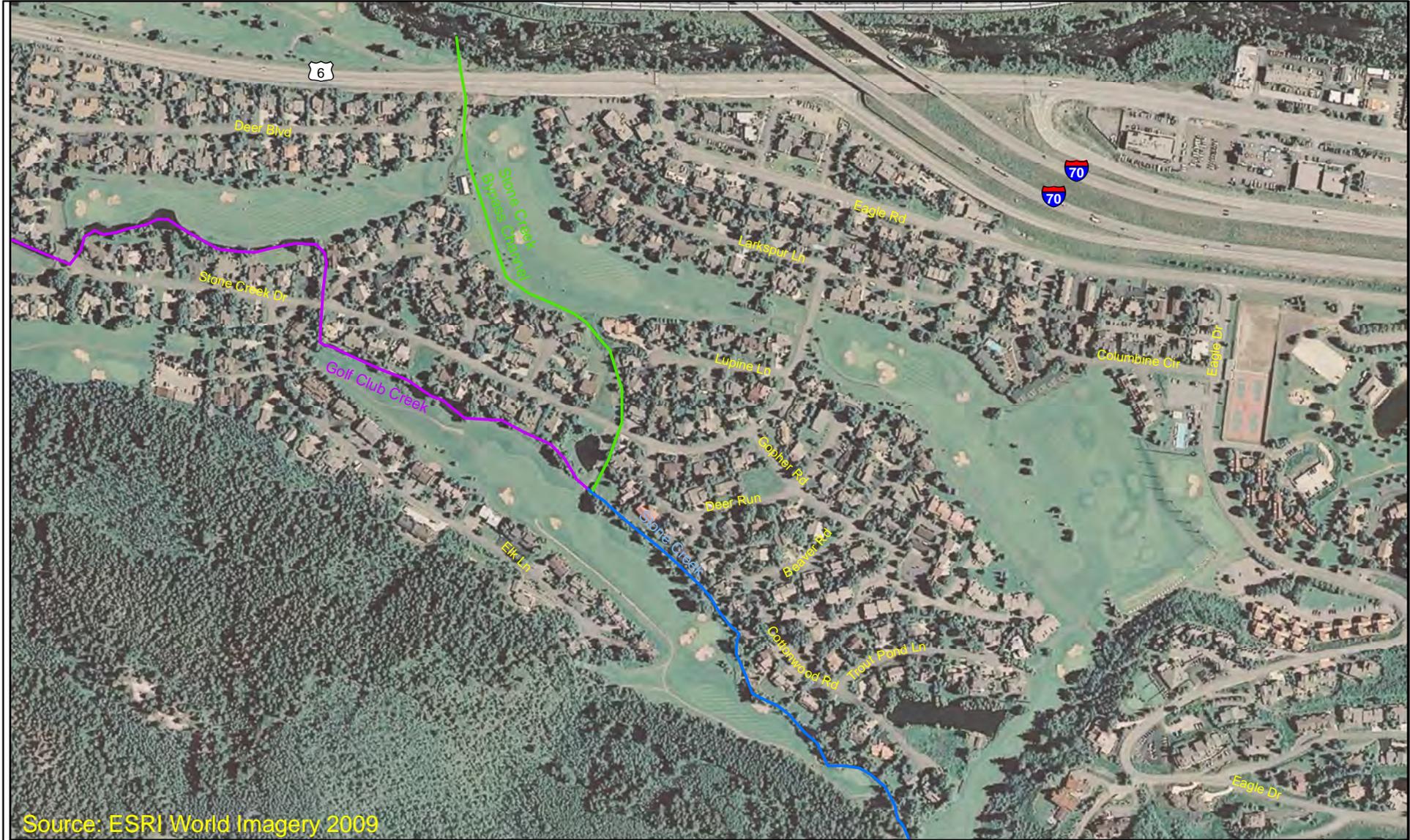
**Legend**

- Major Cities
- ▲ Project Location
- Interstate/Primary Highway
- Primary US or State Highway
- County Boundaries

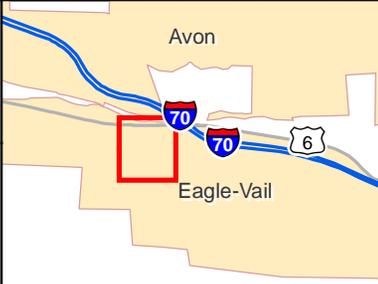


<p>Project Location Stone Creek Floodplain Mitigation Project Eagle County, Colorado</p>			
Drawn By: <b>JBW</b>	Date: 03/22/11	Project No. 15702511	<p>Exhibit 1</p>
Checked By: <b>SV</b>	Revision: 0		

Z:\meta\Region8\_EAs\EagleCounty\_Stone\_Creek\Proposed\_Action\_areas.mxd

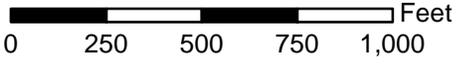


Source: ESRI World Imagery 2009



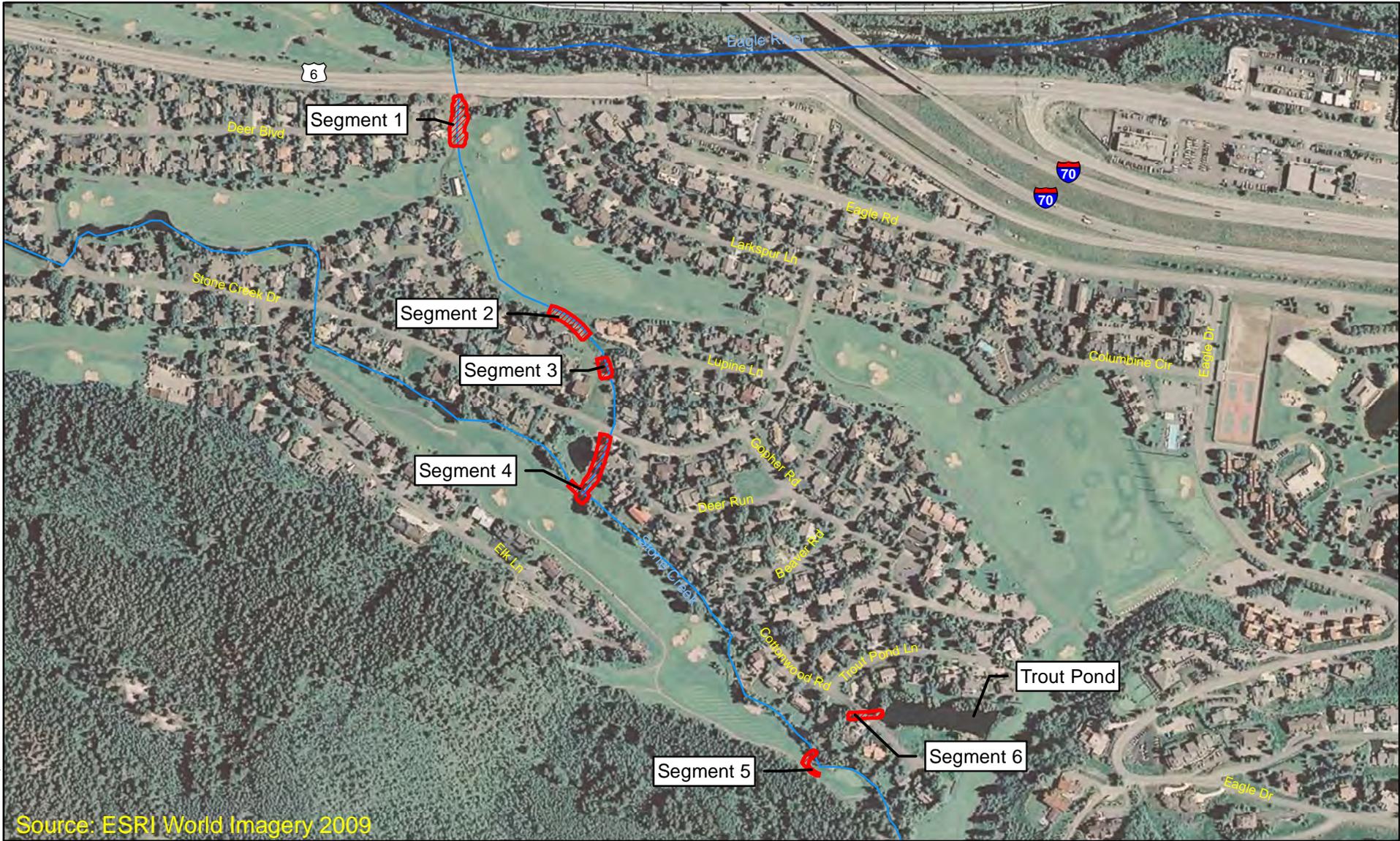
### Legend

- Golf Club Creek
- Stone Creek Bypass Channel
- Stone Creek

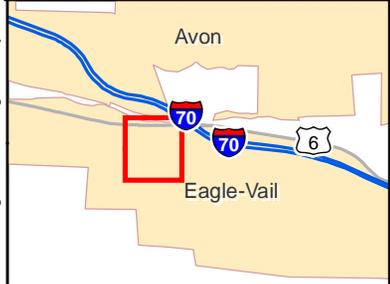


Stream Within Project Area  
 Stone Creek Floodplain  
 Mitigation Project  
 Eagle County, Colorado

Drawn By: <b>JBW</b>	Date: <b>06/15/11</b>	Project No. <b>15702511</b>	<b>Exhibit 2</b>
Checked By: <b>QB</b>	Revision: <b>0</b>		



Source: ESRI World Imagery 2009



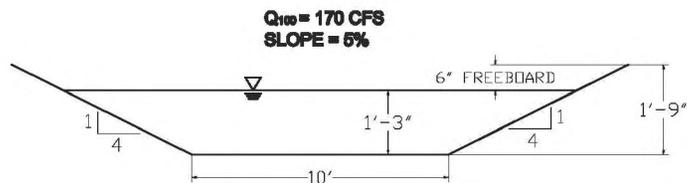
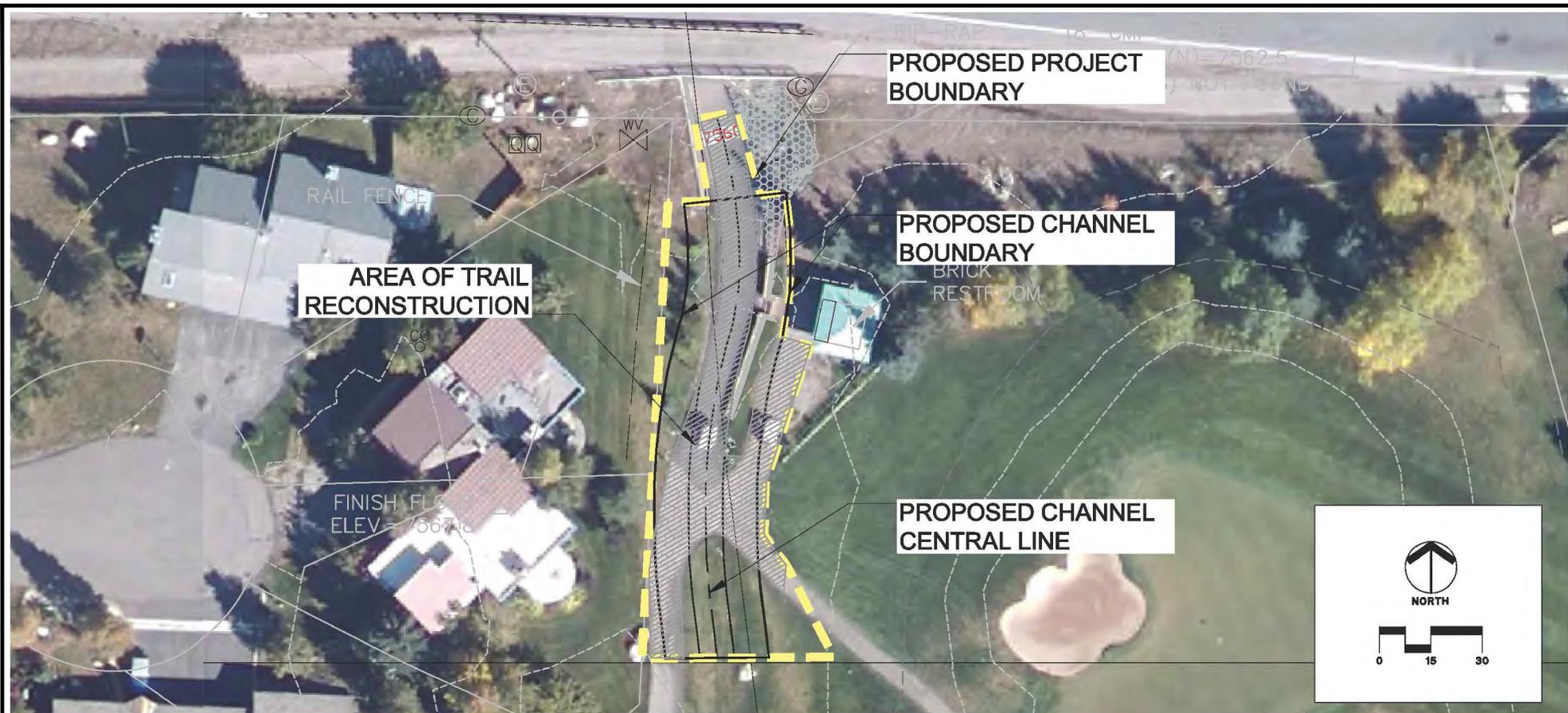
**Legend**

- Project Segments
- Streams



Alternative 2-Project Areas  
 Stone Creek Floodplain  
 Mitigation Project  
 Eagle County, Colorado

Drawn By: <b>JBW</b>	Date: <b>06/15/11</b>	Project No. <b>15702511</b>	<b>Exhibit 3</b>
Checked By: <b>QB</b>	Revision: <b>0</b>		



**CHANNEL CROSS SECTION (TYP.)**  
 SCALE HORIZONTAL = 1" : 5'  
 SCALE VERTICAL = 1" : 2.5'

**MITIGATION ACTIVITIES:**

REMOVE TRAIL ASPHALT	2,610	SF
REMOVE BRICK RETAINING WALL	50	LF
REMOVE 18" C.M.P.	83	LF
RECONSTRUCT TRAIL	2,610	SF
REGRADE NEW CHANNEL	135	LF
EXCAVATION	310	CY
REVEGETATION	2,990	SF

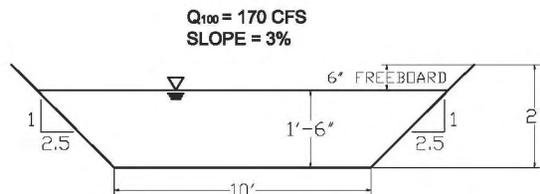
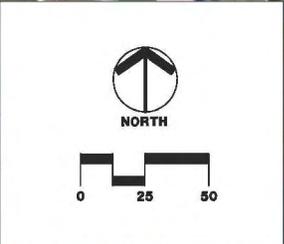
SOURCE: MATRIX DESIGN GROUP 2009

June 29, 2011 2:59:04 p.m.  
 Drawing: T:\15702511\22BUP\1.dwg



ALTERNATIVE 2 - SEGMENT 1-EXCAVATION WITHIN THE  
 BYPASS CHANNEL  
 STONE CREEK FLOODPLAN MITIGATION PROJECT  
 EAGLE-VAIL, COLORADO

DRN. BY: DPG	DATE: 06/07/11	PROJECT NO.	EXHIBIT:
CHK'D. BY: .	REVISION: 0	165702511	4



**CHANNEL CROSS SECTION (TYP.)**  
 SCALE HORIZONTAL 1"=5'  
 SCALE VERTICAL 1"=2.5'

Q<sub>100</sub> = 170 CFS  
 SLOPE = 3%

**MITIGATION ACTIVITIES:**

REGRAD NEW CHANNL	148	LF
REGRAD NEW CHANNL	55	LF
EXCAVATION	280	CY
REMOVE AND SALVAGE 3 - 35"X58" C.M.P.	160	LF
REVEGETATION	4,900	SF

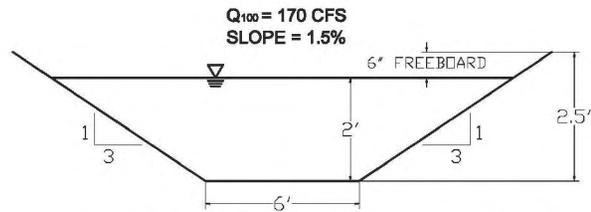
SOURCE: MATRIX DESIGN GROUP 2009

June 29, 2011 3:00:23 p.m.  
 Drawing: T:\15702511\22BUP\1.dwg

URS

ALTERNATIVE 2 – SEGMENTS 2&3–EXCAVATION,  
 RE–GRADING, AND CONVERSION OF PIPED SEGMENT TO  
 OPEN CHANNEL STONE CREEK FLOODPLAN MITIGATION  
 PROJECT  
 EAGLE–VAIL, COLORADO

DRN. BY: DPG	DATE: 06/07/11	PROJECT NO.	EXHIBIT:
CHK'D. BY: .	REVISION: 0	165702511	5



**CHANNEL CROSS SECTION (TYP.)**  
 SCALE HORIZONTAL 1"=5'  
 SCALE VERTICAL 1"=2.5'

SOURCE: MATRIX DESIGN GROUP 2009

June 29, 2011 3:00:53 p.m.  
 Drawing: T:\15702511\22BUP\1.dwg

<b>URS</b>			
ALTERNATIVE 2 – SEGMENT 4—REPLACEMENT OF DIVERSION STRUCTURE AND GRADING OF BYPASS CHANNEL STONE CREEK FLOODPLAN MITIGATION PROJECT EAGLE-VAIL, COLORADO			
DRN. BY: DPG	DATE: 06/07/11	PROJECT NO. 165702511	EXHIBIT: 6
CHK'D. BY: .	REVISION: 0		



**MITIGATION ACTIVITIES:**

REMOVE ASPHALT	585	SF
EXCAVATION	200	CY
INSTAL SALVAGED 35"X58" C.M.P.	108	LF
BACK FILL	155	CY
INLET STRUCTURE	1	LS
OUTLET STRUCTURE	1	LS
ASPHALT PAVEMENT	585	SF
ROCK DIVERSION STRUCTURE	26	TN
REVEGETATION	1,035	SF

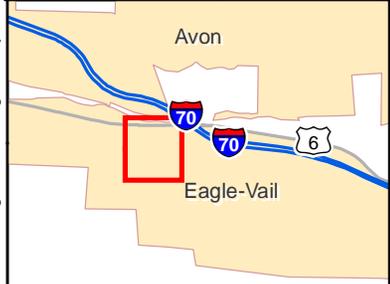
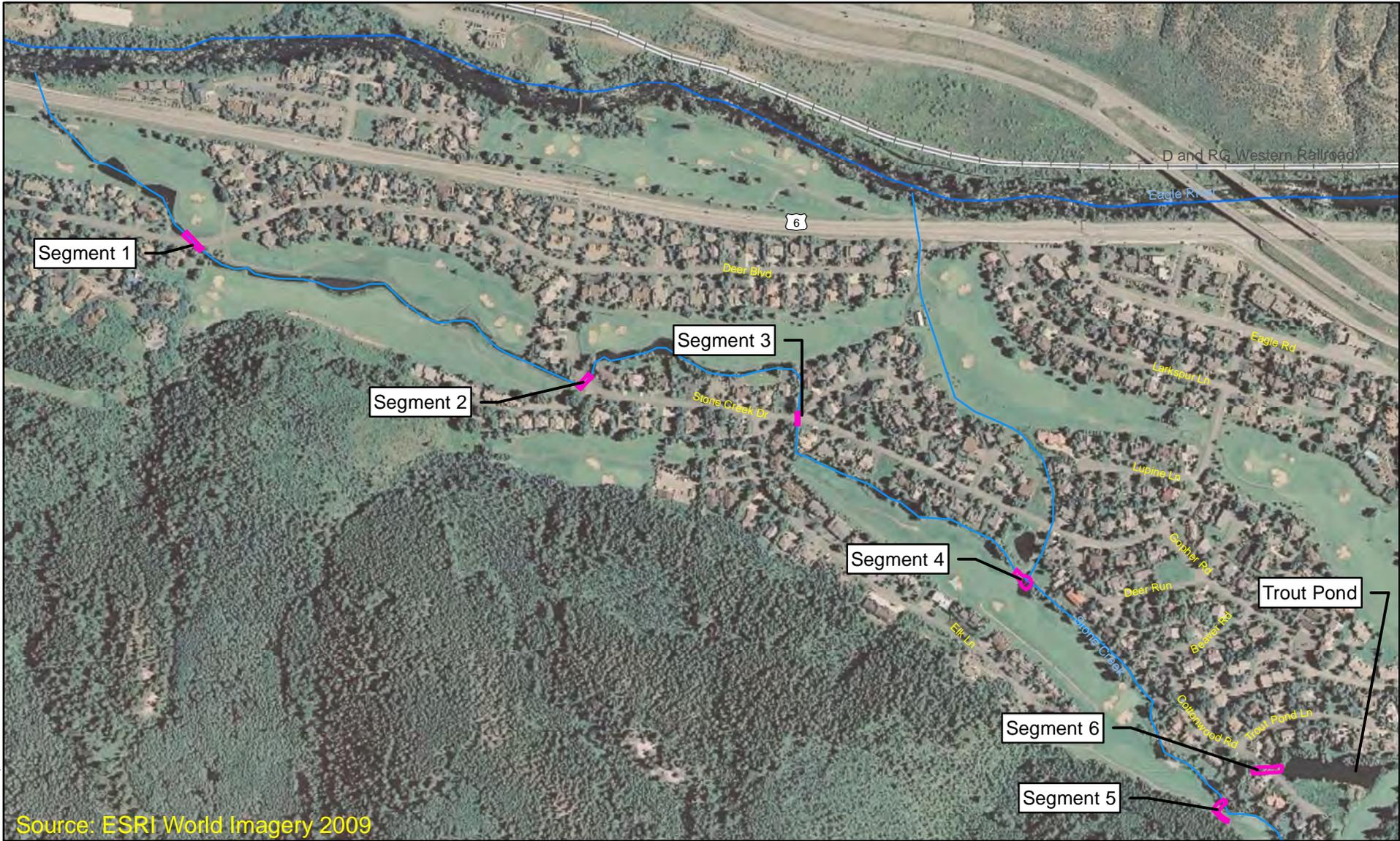


ALTERNATIVE 2 – SEGMENTS 5&6–UPGRADE OF  
 SPILLWAY AND TROUT POND DISCHARGE CULVERT  
 STONE CREEK FLOODPLAN MITIGATION PROJECT  
 EAGLE–VAIL, COLORADO

SOURCE: MATRIX DESIGN GROUP 2009

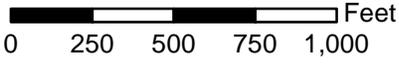
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 Drawing: T:\15702511\22BUP\1.dwg

DRN. BY: DPG	DATE: 06/07/11	PROJECT NO. 165702511	EXHIBIT: 7
CHK'D. BY: .	REVISION: 0		



**Legend**

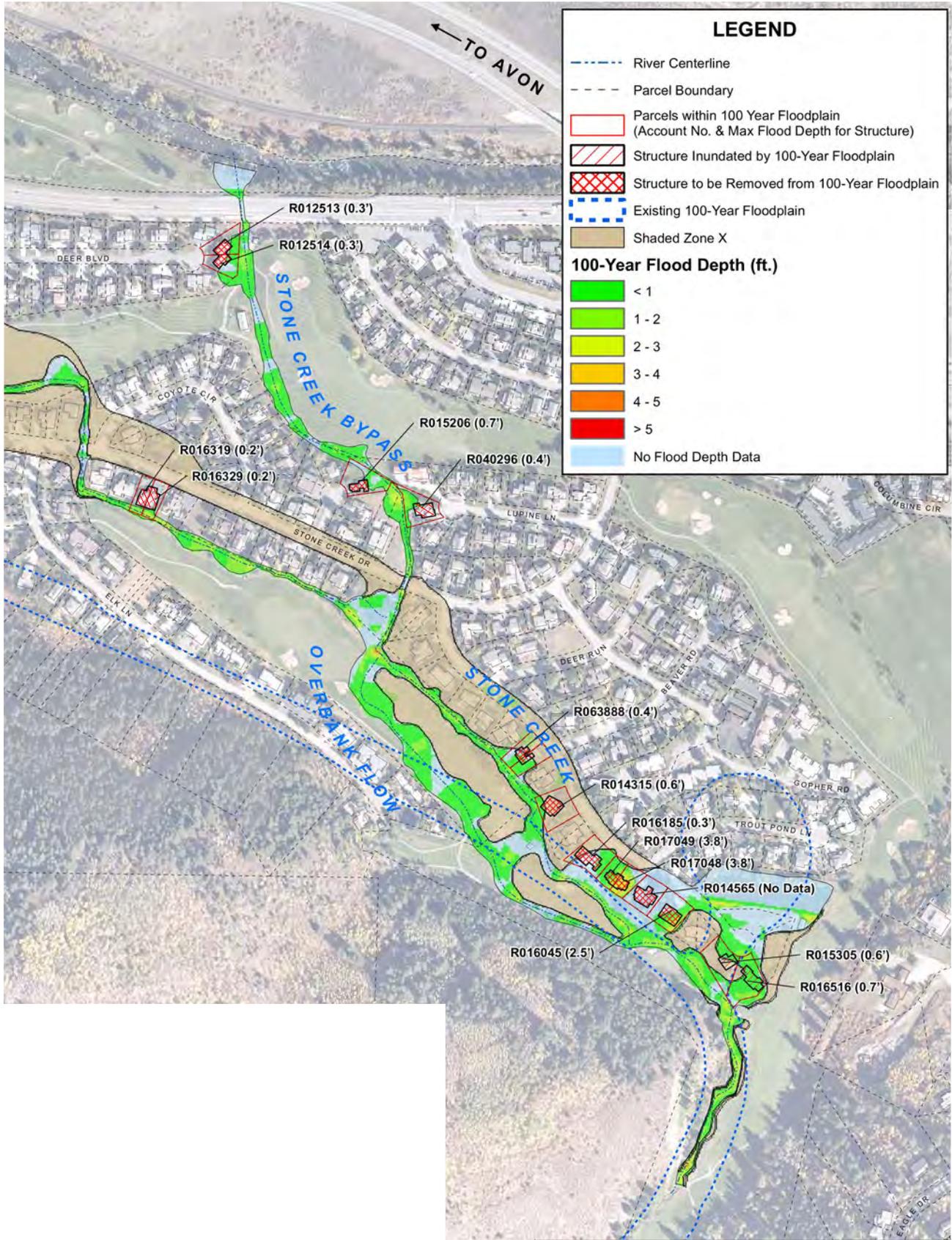
-  Alternative 3 Segments
-  Streams



Alternative 3- Project Areas  
 Stone Creek Floodplain  
 Mitigation Project  
 Eagle County, Colorado

Drawn By: <b>JBW</b>	Date: <b>06/15/11</b>	Project No. <b>15702511</b>	<b>Exhibit 8</b>
Checked By: <b>QB</b>	Revision: <b>0</b>		

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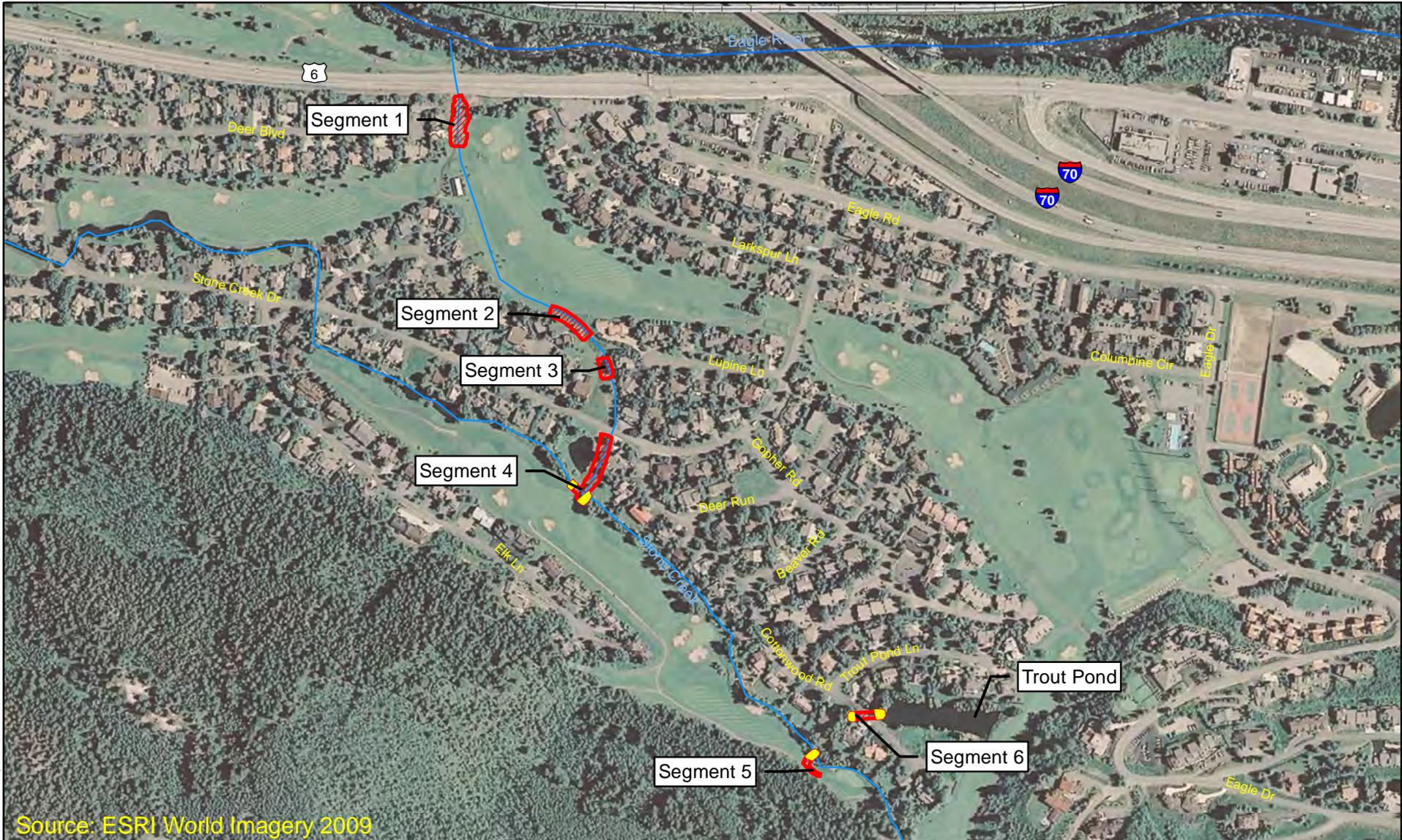
SOURCE: MATRIX DESIGN GROUP 2009



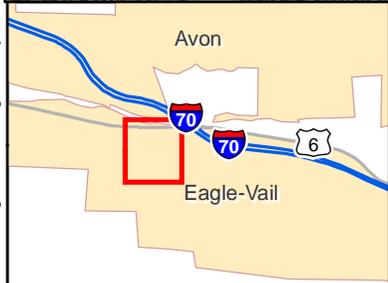
STRUCTURES TO BE REMOVED FROM 100-YEAR FLOODPLAN  
 STONE CREEK FLOODPLAN MITIGATION PROJECT  
 EAGLE-VAIL, COLORADO

June 29, 2011 3:01:39 p.m.  
 Drawing: T:\15702511\22BUP\1.dwg

DRN. BY: DPG	DATE: 06/17/11	PROJECT NO.	EXHIBIT:
CHK'D. BY: .	REVISION: 0	165702511	9

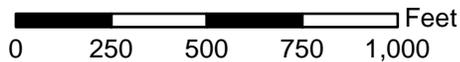


Source: ESRI World Imagery 2009



**Legend**

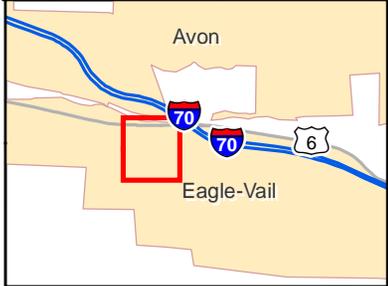
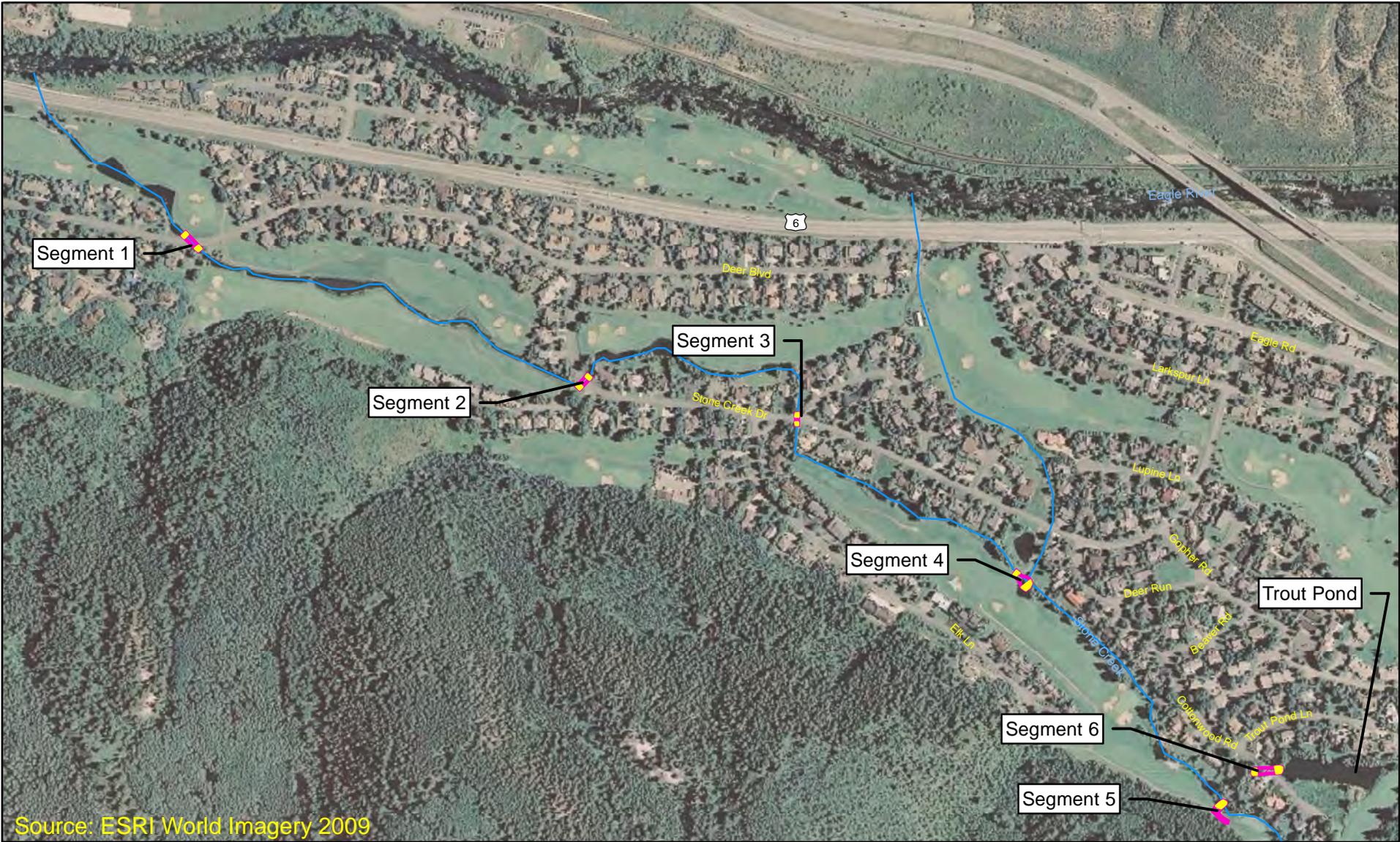
-  Project Segments
-  Streams
-  Potential Wetlands Impact Areas



Wetlands Potentially Impacted by Alternative 2  
 Stone Creek Floodplain  
 Mitigation Project  
 Eagle County, Colorado

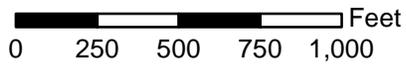
Drawn By: JBW	Date: 06/15/11	Project No. 15702511	Exhibit 10
Checked By: QB	Revision: 0		

Z:\fema\Region8\_EAs\EagleCounty\_Stone\_Creek\Proposed\_Action\_areas.mxd



**Legend**

-  Alternative 3 Segments
-  Streams
-  Potential Wetlands Impact Areas



Wetlands Potentially Impacted by Alternative 3  
Stone Creek Floodplain  
Mitigation Project  
Eagle County, Colorado

Drawn By: <b>JBW</b>	Date: <b>06/15/11</b>	Project No. <b>15702511</b>	Exhibit <b>11</b>
Checked By: <b>QB</b>	Revision: <b>0</b>		

**APPENDIX B**  
**SIGHT PHOTOGRAPHS**

## APPENDIX B- SITE VISIT PHOTOGRAPHS

<b>Client Name:</b> Eagle County, Colorado		<b>Project:</b> Stone Creek Floodplain Mitigation Project	<b>Project No.</b> 15702511
<b>Photo No.</b> 1	<b>Date:</b> 05-17-11		
<b>Description:</b>  Area within Segment I of Alternative 2 where new alignment of Stone Creek Bypass would be created.			

<b>Photo No.</b> 2	<b>Date:</b> 05-17-11	
<b>Description:</b>  Upgradient portion of Segment 1 of Alternative 2.		

## APPENDIX B- SITE VISIT PHOTOGRAPHS

<b>Client Name:</b> Eagle County, Colorado		<b>Project:</b> Stone Creek Floodplain Mitigation Project	<b>Project No.</b> 15702511
<b>Photo No.</b> 3	<b>Date:</b> 05-17-11		
<b>Description:</b> Area within Segment 2 of Alternative 2 that would be excavated.			

<b>Photo No.</b> 4	<b>Date:</b> 05-17-11	
<b>Description:</b> Culverts within Segment 3 of Alternative 2 that would be removed.		

## APPENDIX B- SITE VISIT PHOTOGRAPHS

<b>Client Name:</b> Eagle County, Colorado		<b>Project:</b> Stone Creek Floodplain Mitigation Project	<b>Project No.</b> 15702511
<b>Photo No.</b> 5	<b>Date:</b> 05-17-11		
<b>Description:</b> Stone Creek and Stone Creek Bypass immediately upstream of diversion structure within Segment 4 of Alternative 2.			

<b>Photo No.</b> 6	<b>Date:</b> 05-17-11	
<b>Description:</b> Stone Creek Bypass downgradient from diversion structure within Segment 4 of Alternative 2.		

## APPENDIX B- SITE VISIT PHOTOGRAPHS

<b>Client Name:</b> Eagle County, Colorado		<b>Project:</b> Stone Creek Floodplain Mitigation Project	<b>Project No.</b> 15702511
<b>Photo No.</b> 7	<b>Date:</b> 05-17-11		
<b>Description:</b>  Stone Creek upstream from diversion structure within Segment 4 of Alternative 2.			

<b>Photo No.</b> 8	<b>Date:</b> 05-17-11	
<b>Description:</b>  Golf Club Creek channel downstream from the diversion structure within Segment 4 of Alternative 2.		

## APPENDIX B- SITE VISIT PHOTOGRAPHS

**Client Name:**

City of Woodland Park, Colorado

**Project:**

Stone Creek Floodplain Mitigation Project

**Project No.**

15702511

**Photo No.**  
9**Date:**  
05-17-11**Description:**

Spillway area within Segment 5 of both Alternative 2 and Alternative 3.

**Photo No.**  
10**Date:**  
05-17-11**Description:**

Trout Pond, which is upper end of Segment 6 of both Alternative 2 and Alternative 3.



## APPENDIX B- SITE VISIT PHOTOGRAPHS

<b>Client Name:</b> Eagle County, Colorado		<b>Project:</b> Stone Creek Floodplain Mitigation Project	<b>Project No.</b> 15702511
<b>Photo No.</b> 11	<b>Date:</b> 05-17-11		
<b>Description:</b>  Discharge from Trout Pond within Segment 6 of both Alternative 2 and Alternative 3.			

<b>Photo No.</b> 12	<b>Date:</b> 05-17-11	
<b>Description:</b>  Location of water from Trout Pond entering Stone Creek within Segment 6 of both Alternative 2 and Alternative 3.		

## APPENDIX B- SITE VISIT PHOTOGRAPHS

**Client Name:**

Eagle County, Colorado

**Project:**

Stone Creek Floodplain Mitigation Project

**Project No.**

15702511

**Photo No.**

13

**Date:**

05-17-11

**Description:**

Culverts within Deer Boulevard road crossing within Segment 1 of Alternative 3.

**Photo No.**

14

**Date:**

05-17-11

**Description:**

Culverts within lower Stone Creek Drive road crossing within Segment 2 of Alternative 3.



## APPENDIX B- SITE VISIT PHOTOGRAPHS

**Client Name:**  
Eagle County, Colorado

**Project:**  
Stone Creek Floodplain Mitigation Project

**Project No.**  
15702511

**Photo No.**  
15

**Date:**  
05-17-11

**Description:**

Culverts within upper Stone Creek Drive road crossing within Segment 3 of Alternative 3.



**Photo No.**  
16

**Date:**  
05-17-11

**Description:**

Diversion structure within Segment 4 of Alternative 3 and Alternative 2.



**APPENDIX C**  
**FEMA EIGHT-STEP DECISION-MAKING PROCESS**



## Eight Step Planning Process for Floodplain/Wetland Management

- STEP #1 Project Location in Floodplain/Wetland
- STEP #2 Encourage Public Involvement
- STEP #3 Evaluate Alternatives
- STEP #4 Assess Impacts
- STEP #5 Minimize Impacts
- STEP #6 Determine Practicability
- STEP #7 Provide Public Explanation
- STEP #8 Comply with Executive Orders



### EO 11988: Floodplain Management

### EO 11990: Wetland Protection

(Note: See 44 CFR 9.6 for more detailed information.)

### STEP #1 Project Location in Floodplain/Wetland

Will the action be located in a wetland and/or the 100-year floodplain or will it have the potential to affect a wetland or floodplain?

- If no, you are finished
- If yes, continue to step #2

### STEP #2 Encourage Public Involvement

A public notice must be published at the earliest possible time to provide information about the proposed project (1st Notice). The notice must be disaster-wide & project specific

- Not applicable, you are done
- Applicable, move on to step #3

### STEP #3 Evaluate Alternatives

Is there any reasonable alternative to locating the project in a floodplain or wetland?

- If yes, FEMA must locate the action at the alternative site
- If no, continue to step #4

## **STEP #4 Assess Impacts**

If the action must go in the wetlands or floodplain then the full range of impacts associated with the action must be identified.

- Not applicable, you are done
- Applicable, move on to step #5

## **STEP #5 Minimize Impacts**

All potential adverse impacts must be avoided, minimized, or compensated for.

- Not applicable, you are done
- Applicable, move on to step #6

## **STEP #6 Determine Practicability**

Reevaluate the proposed action to determine if it is still practicable in light of its exposure to flood hazards, the extent to which it will aggravate the hazards of others, and its potential to disrupt floodplain and wetland values.

- Not applicable, you are done
- Applicable, move on to step #7

## **STEP #7 Provide Public Explanation**

If FEMA decides to take/fund an action that affects a floodplain or wetland, a 2nd public notice must be published (for a minimum of 15 days) to explain why affecting a floodplain or wetland is the only practicable alternative.

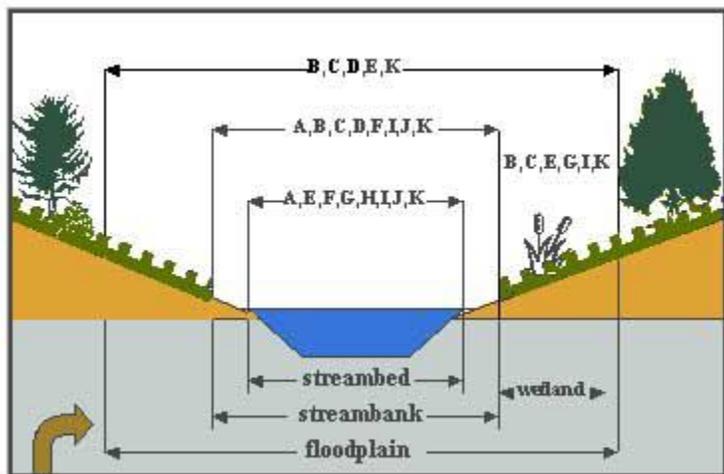
- Not applicable, you are done
- Applicable, move on to step #8

## **STEP #8 Comply with Executive Orders**

Review the implementation and post-implementation phases of the proposed action to ensure that the requirements of the order are fully implemented. Oversight responsibility shall be integrated into existing processes.

- Not applicable, you are done
- Applicable, approval conditioned on review of implementation and post-implementation phases to insure compliance of the Executive Orders

Sample Requirements for Work in State Wetlands, Waterways and Floodplains



Permit	Agency		
A	State Stream Protection Act	A	State Fish, Wildlife & Parks
B	Storm Water Discharge General Permits	B	Dept. of Environmental Quality
C	Streamside Management Zone	C	Dept. of Natural Resources & Conservation
D	State Floodplain and Floodway Management Act	D	Dept. of Natural Resources & Conservation
E	Short-term Exemption from State's Surface Water Quality Standards	E	Dept. of Environmental Quality
F	State Natural Streambed and Land Preservation Act	F, G	State Association of Conservation Districts and Department of Natural Resources & Conservation
G	State Land-Use License or Easement on Navigable Waters		
H	State Water Use Act	H	Dept. of Natural Resources & Conservation
I	Federal Clean Water Act (Section 404)	I	US Army Corps of Engineers
J	Federal Rivers and Harbors Act	J	US Army Corps of Engineers
K	Other laws that may apply depending upon your location and activity	K	Other agencies

**APPENDIX D - (PART 1)**  
**AGENCY CORRESPONDENCE**

RECORD OF CONVERSATION

page 1 of 2

DATE: 3/3/11 TIME: 10:30am JOB NO.: 15702516.22BUP

RECORDED BY: OWNER/CLIENT: FEMA

TALKED WITH: Ms. Gina Glenne OF USFWS - Grand Junction

NATURE OF CALL: INCOMING  OUTGOING  VISIT  MEETING  PHONE: # 970.243.2778

ROUTE TO: INFORMATION ACTION EXT. 20

MAIN SUBJECT: Stone Creek Project & the Ute ladies tresses

ITEMS DISCUSSED: I called Gina at the USFWS Grand Junction, CO ecological office to discuss the Stone Creek project in Eagle-Vail and the potential for the Ute ladies tresses to occur within the project area. Gina stated that the closest known populations of the plant are found near Carbonade and Glenwood Springs. She was indicated that they have a top elevation limit of 7,800 ft above msl. I told Gina that the project area was below 7,800 ft and included areas along Stone Creek that have had previous disturbance during construction of the subdivision and the golf course. Gina stated that based on the description of the project area, she could not make a statement that the plant wasn't there. I asked if the community would need to do a survey to move forward with the project. Gina indicate that a survey would be the easiest way to go because if you don't find them you can just proceed with the project. Gina

RECORD OF CONVERSATION

Page 2 of 2

DATE: 3/3/11 TIME: 10:30am JOB NO.: 15702511.22BUP

RECORDED BY: OWNER/CLIENT: FEMA

TALKED WITH: Ms. Gina Celestine OF UFAWS - Grand Junction

NATURE OF CALL: INCOMING  OUTGOING  VISIT  MEETING  PHONE: # 970.243.2778

ROUTE TO:	INFORMATION	ACTION
_____	_____	_____
_____	_____	_____
_____	_____	_____

MAIN SUBJECT: \_\_\_\_\_

ITEMS DISCUSSED: indicated the surveys would need to be completed in August when the plant would be flowering. Gina did indicate that there was a second option - that would be a determination that the project would adversely affect the plant. As part of that determination, Eagle Vail would need to minimize potential impacts by keeping the construction zone as narrow as possible. She also indicated that other mitigation could also apply.

Gina stated that I should send any determination letters to Mr. Allan Pfeiffer, the office supervisor.

# RECORD OF CONVERSATION

DATE: 3/3/11 TIME: 11:00 am JOB NO.: 15702516.22 BUP

RECORDED BY: \_\_\_\_\_ OWNER/CLIENT: FEMA

TALKED WITH: Mr. Kent Brobenorp OF USFWS - Grand Junction

NATURE OF CALL: INCOMING  OUTGOING  VISIT  MEETING  PHONE: # (970) 243-2778

ROUTE TO: \_\_\_\_\_ INFORMATION \_\_\_\_\_ ACTION Ext. 24

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

MAIN SUBJECT: Stone Creek & the Canada Lynx

ITEMS DISCUSSED: I called Kent to discuss the Stone Creek project in Eagle-Vail and the potential to impact the Canada Lynx. I explained the location of the project area relative to the U.S. Forest Service land/National Forest. Kent indicated that based on the project description and location he would not expect the project to impact the lynx directly or indirectly.

SMJ

# RECORD OF CONVERSATION

page 1 of 2

DATE: March 8, 2011 TIME: 2:30pm JOB NO.: 15702511.22BUP

RECORDED BY: \_\_\_\_\_ OWNER/CLIENT: FEMA

TALKED WITH: Bill Andree OF Colorado Div. of Wildlife

NATURE OF CALL: INCOMING  OUTGOING  VISIT  MEETING  PHONE: # (970) 255-6100

ROUTE TO: INFORMATION ACTION

MAIN SUBJECT: Stone Creek Project and Colorado species of Concern

ITEMS DISCUSSED: Bill returned my call from Friday, March 4<sup>th</sup>. I briefly explained the proposed project to Bill. We then discussed the list of species that could occur in the County and those that could occur in project area. I explained that I had narrowed the state list down to 6 potential species - Plains sharp-tailed grouse, burrowing owl, Boreal toad, Wolverine, river otter, and Canada lynx. Of these species, Bill indicated that the Boreal toad, the river otter, and the Canada lynx have the potential to be in the vicinity of the project. There ~~is~~ is Boreal toad habitat in the vicinity, the river otter is in the Eagle River; and the lynx has been document on decks in the subdivision. Bill also ~~asked~~ asked that we double check the Colorado cutthroat to make sure that it wouldn't occur in the area. Bill did go on to state that even with the potential presence of some species of concern in the vicinity of

# RECORD OF CONVERSATION

DATE: March 8, 2011 TIME: 2:30pm JOB NO.: 15702511.72BWP

RECORDED BY: \_\_\_\_\_ OWNER/CLIENT: FEMA

TALKED WITH: Bill Andree OF CDOW

NATURE OF CALL: INCOMING  OUTGOING  VISIT  MEETING  PHONE: # (970) 255-6100

ROUTE TO:	INFORMATION	ACTION
_____	_____	_____
_____	_____	_____
_____	_____	_____

MAIN SUBJECT: \_\_\_\_\_

ITEMS DISCUSSED: The project. The Colorado Division of Wildlife would have no concerns or requirements for the project.

Andree

Bill Andree is the District Wildlife Manager



**FEMA**

R8-EHP

June 10, 2011

Mr. Edward Nichols  
State Historic Preservation Officer  
History Colorado  
Civic Center Plaza  
1560 Broadway, Suite 400  
Denver, CO 80202

**RE: Section 106 Consultation – Channel Stabilization Project – FMA Stone Creek Floodplain, Eagle-Vail, Eagle County, Colorado (Latitude 39.6222; Longitude -106.4896)**

Dear Mr. Nichols,

Eagle County (County) has applied for funding under the Federal Emergency Management Agency (FEMA) Flood Mitigation Assistance (FMA) grant program. Funding will be used to implement channel stabilization of the Stone Creek/Golf Club Creek in Eagle-Vail, Eagle County (Attachment No. 1). The project is located in the mountains of Colorado, approximately 100 miles west of Denver (latitude 39.6222, longitude -106.4896). Eagle-Vail is an unincorporated mountain community near the ski towns of Avon and Vail in Eagle County.

The project area is bounded to the north by U.S. Highway 6, to the south by steep foothills, to the west by Deer Boulevard and southwest by Elk Lane, and to the east by Gopher Road and Larkspur Lane. The APE crosses two fairways and Stone Creek Drive.

FEMA has determined that this action qualifies as an undertaking under Section 106 of the National Historic Preservation Act (NHPA), and as such, submits its findings and determinations as presented below for your consideration. Concurrent with the Section 106 process, FEMA is preparing an Environmental Assessment (EA) for the action in compliance with the National Environmental Policy Act (NEPA). FEMA has retained URS Group, Inc. (URS) to provide technical support in carrying out their responsibilities under the NHPA and NEPA.

#### Undertaking

Five areas of improvements are proposed along Stone Creek and the Stone Creek Bypass. These improvements include:

- removal of a cinder block retaining wall and approximately 120 feet of golf cart path, excavating the channel of the bypass channel, and reconstructing the cart path in the bottom of the channel (Attachment No. 3, Exhibit 1);

- removal of obsolete corrugated metal pipes within the Bypass Channel and converting it to an open channel (approximately 150 feet) (Attachment No. 3, Exhibit 2);
- removal of collapsed low flow culverts at the diversion point, construction of a concrete junction box to direct flows to a 30-inch pipe that discharges to Golf Club Creek and a 60-inch pipe that discharges flood flows to the Stone Creek Bypass, and excavation of the Bypass Channel downstream of the diversion (approximately 200 feet) (Attachment No. 3, Exhibit 3);
- construction of a spillway to replace an existing make-shift spillway (the new spillway will be constructed such that it directs overbank flows onto the golf course and away from residential buildings) (Attachment No. 3, Exhibit 4); and
- installation of a 35-inch by 58-inch arch pipe parallel to the existing 42-inch pipe outlet at an existing pond (Trout Pond) to provide adequate capacity to pass flows associated with the 100-year flood event (Attachment No. 3, Exhibit 4).

Post-project, the modified channel areas would be 1 foot to 2 feet deep and 6 feet to 10 feet wide at the bottom. Approximately 2,600 cubic yards of excavation and channel reshaping would occur with this project. Additionally, the project would require approximately 16,000 (0.4 acres) square feet of re-vegetation.

The original engineering plans for the subdivision reserved a drainage easement that would allow flows associated with the 100-year flood event to be conveyed past the majority of the developed community. The Bypass Channel was intended to have a capacity of at least 300 cubic feet per second, which is more than the accepted 100-year flood. However, since the construction of the subdivision in 1972, the condition of this Bypass Channel has deteriorated. Post-project, the capacity of the Stone Creek Bypass would be at its design capacity and all side slopes would be 3 to 1.

#### Area of Potential Effects (APE)

For above-ground resources, FEMA has determined the APE to consist of the footprint of the proposed project and the residential parcels immediately adjacent to the proposed project to account for indirect effects (Attachment No. 2). For archaeological resources, FEMA has determined the APE to consist of the areas where ground disturbance associated with the undertaking could potentially occur (Attachment No. 2). The size of the APE is based on the residential parcel size, the limited nature of the undertaking, and the fact that the disturbance will take place on and near ground level

#### Identification of Historic Properties

Elizabeth Roberts, a URS archaeologist, and Brian Shaw, a URS architectural historian, qualified under the *Secretary of the Interior's Professional Qualification Standards* (36 CFR Part 61) for archaeology and architectural history, respectively, conducted an assessment of the project's potential to affect historic properties within the APE. A historic property is defined at 36 CFR 800.16 as one that is eligible for listing in, or listed in the National Register of Historic Places (NRHP).

A records search of COMPASS, Colorado's On-line Cultural Resource Database, revealed no previously recorded cultural resources are located in the APE. This information was supplemented by a desktop search of readily available resources to identify any cultural resources of interest in the APE. An investigation into General Land Office (GLO) patent records available through the Bureau of Land Management (BLM) ([www.glorerecords.blm.gov](http://www.glorerecords.blm.gov)) was conducted. That research revealed in 1890, Pierce Crane purchased 160 acres of land in Township 5 South, Range 81 West in the northwest quarter of Section 17, which is the same location as the majority of the APE. No additional historic entries are listed. The only other record available states the same section of land was purchased by the Eagle Vail Metropolitan District in 2003.

*Above-Ground Resources.* The project area was historically utilized as agricultural land and, in the early 1970's, a residential golf course community subdivision was developed. Desktop resources revealed that the residential buildings in the project area consist of single- and multi-family dwellings constructed in the 1970s and 1980s. The dwellings are slab-on-grade, single- or two-story, and reflect a vernacular rustic style. These resources do not appear to possess the exceptional importance required for properties less than 50 years of age to be eligible for listing in the NHRP, either as individual resources or collectively as a historic district. Twelve properties listed in the NRHP are located in Eagle County. These NRHP-listed properties are located throughout the county and the resource types consist of bridges, archaeological sites, a resort, church, and one historic district – the Eagle Lake Commercial Historic District. The nearest NRHP-listed property is the Red Cliff Bridge, located in the community of Red Cliff approximately 10 miles southeast of the project area. No NRHP-listed properties are located in the APE.

In previous coordination with the Colorado Office of Archaeology & Historic Preservation (OAHP [State Historic Preservation Office]), the Eagle County Engineering Department, in a letter dated December 1, 2009, identified one building over 50 years of age in the vicinity of the project – a barn located on the Eagle-Vail Golf Course property. The barn falls within in the APE for above-ground resources. The OAHP requires the completion of an inventory form for each building or structure 50 years of age or older within the APE. As such, on April 15, 2011, Ms. Roberts visited the project area to record the barn per OAHP standards. During the field visit, Ms. Roberts took notes, measurements, and photographs. A Colorado Cultural Resource Survey (OAHP Form 1403) Architectural Inventory Form (Attachment 5) was completed with the assistance of Mr. Shaw. Ms. Roberts also requested an official site number from the OAHP. The barn is designated as 5EA2879.

Resource 5EA2879 is a single-story, front-gabled, barn oriented north-northwest to south-southeast, located approximately 20 feet south of the second hole tee on the Eagle-Vail Golf Course. According to the Eagle Vail Golf Club website, "the red barn near Hole #2 green served as feed and tack storage, a testament to the valley's agricultural heritage." The website stated that the barn was constructed in the 1930s. Although the physical characteristics of the barn are consistent with 1930s construction, it is not eligible for listing in the NRHP (See Attachment 4 – Photo Log). The barn does not appear to reflect unique design, and has been completely removed from its historic context, as the setting has changed from agricultural to residential and no other built resources contemporary to the barn remain extant.

June 10, 2011

Accordingly, FEMA has determined that no above-ground historic properties will be affected by the undertaking.

*Archaeological Resources.* As noted above, no previously recorded archaeological resources were identified in COMPASS in the APE. While the location of the project area along a small perennial stream is consistent with a moderate potential for prehistoric sites and sites related to the early historic settlement (e.g., mining, ranching, and a rural settlement) of Colorado, the project area has been thoroughly disturbed by modern development (residential subdivision and golf course), and it is a dynamic geomorphological setting, with active erosion and deposition.

Accordingly, FEMA has determined that no archaeological historic properties will be affected by the undertaking.

Assessment of Effects

FEMA has determined that no historic properties, either above-ground or archaeological, are located within the APE and that no historic properties will be affected by the undertaking. If unexpected discoveries are made during the course of project execution, FEMA will proceed in compliance with State and Federal laws protecting cultural resources, including Section 106 of the NHPA, and all work shall cease in the immediate vicinity of the find until appropriate parties are consulted.

We respectfully ask for your concurrence regarding FEMA's determination. Should you have any questions, or require additional information, please do not hesitate to contact me by telephone at (303) 235-4926 or by email at richard.myers@dhs.gov.

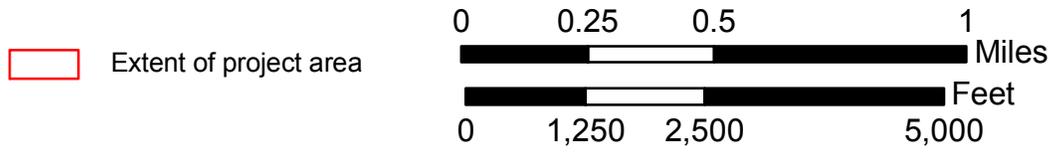
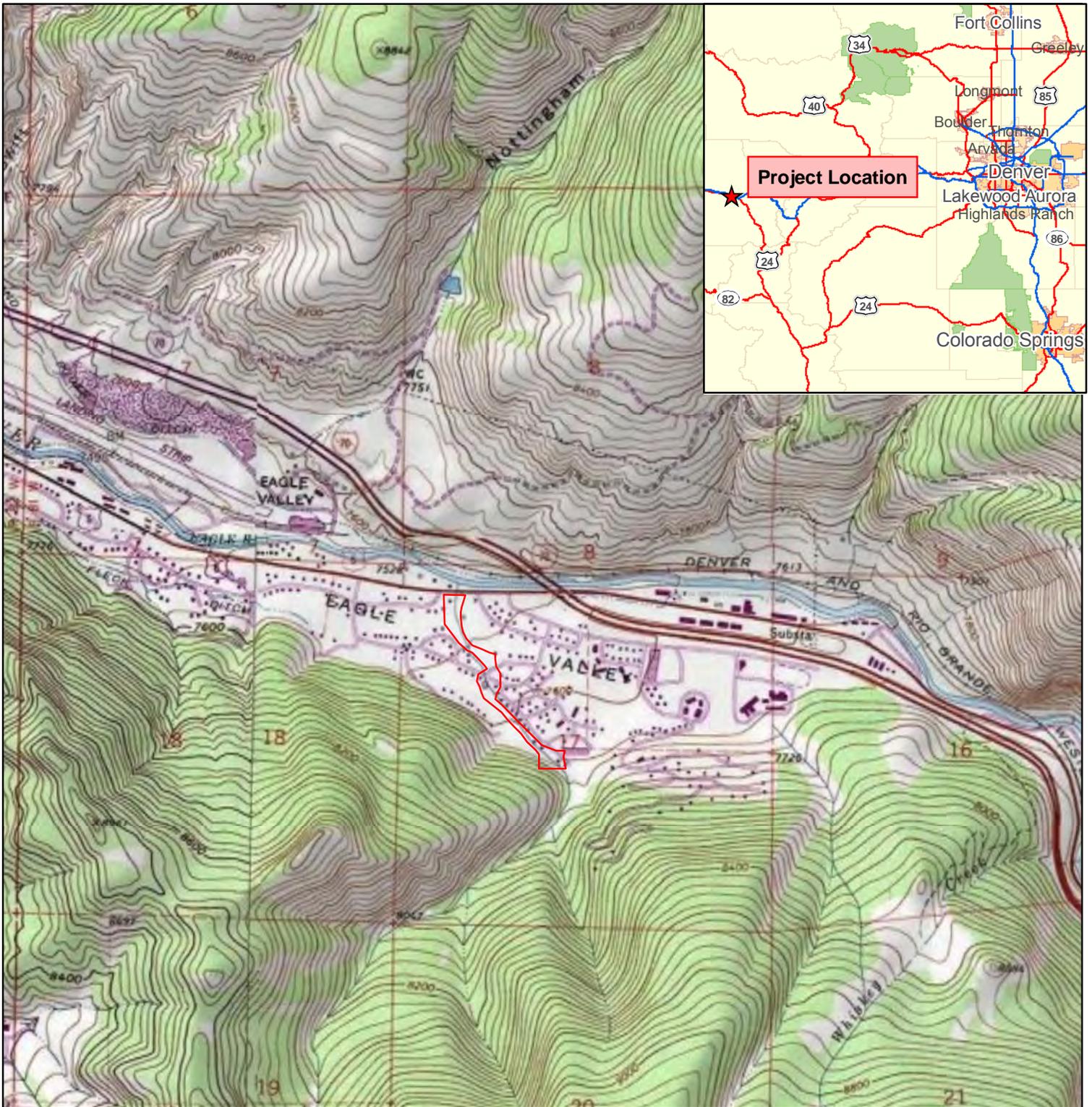
Sincerely,

  
Richard Myers  
Deputy Regional Environmental Officer  
FEMA Region VIII

Attachments:

- 1 – Project Location Map
- 2 – APE Map
- 3 – Exhibits 1-5 Detailed project drawings and index to project drawings
- 4 – Photographic Log
- 5 – Colorado Cultural Resource Survey Architectural Inventory Form (OAHP 1430)
- 6 – 5EA2879 Sketch Map
- 7 – 5EA2879 Location Map

cc: Quentin Bliss, URS  
Robert Mutaw, URS



**PROJECT** Section 106 Consultation – Channel Stabilization Project – FMA Stone Creek Floodplain, Eagle-Vail, Eagle County, Colorado

**SCALE** 1 inch = 2,000 feet

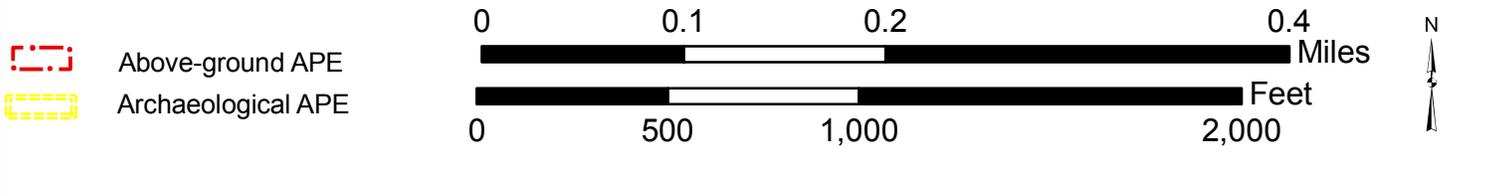
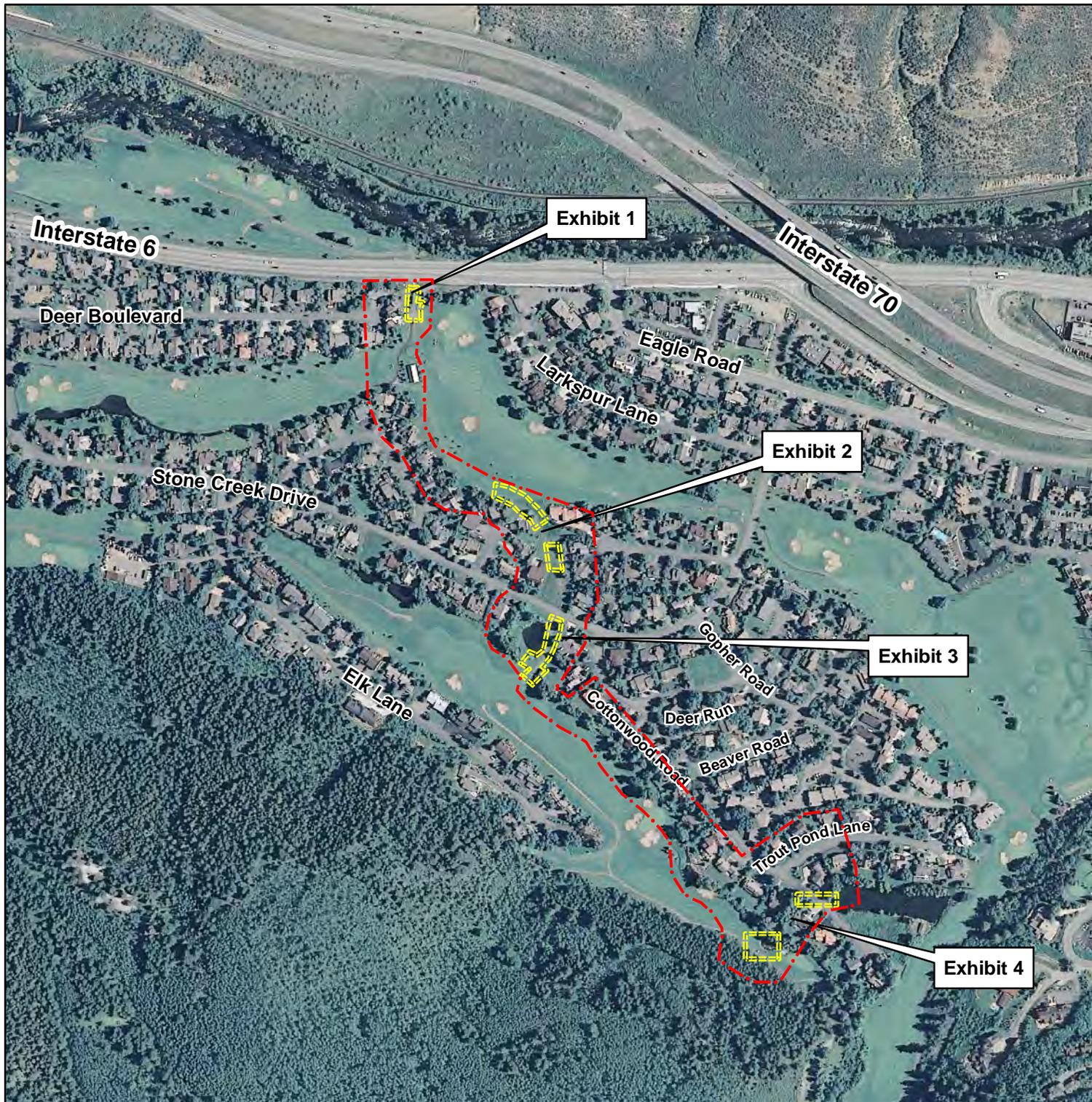
**SOURCE** Minturn, Colorado USGS 7.5 Minute Topographic Map 1970, p.r. 1987

**Project Location Map**



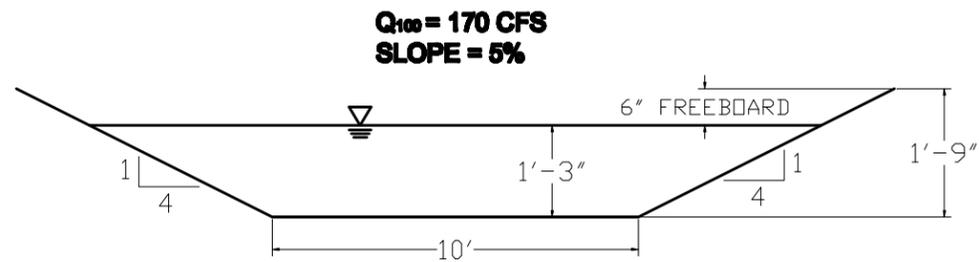
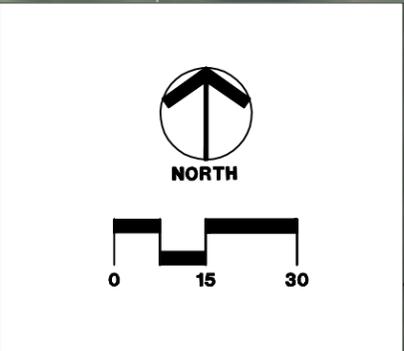
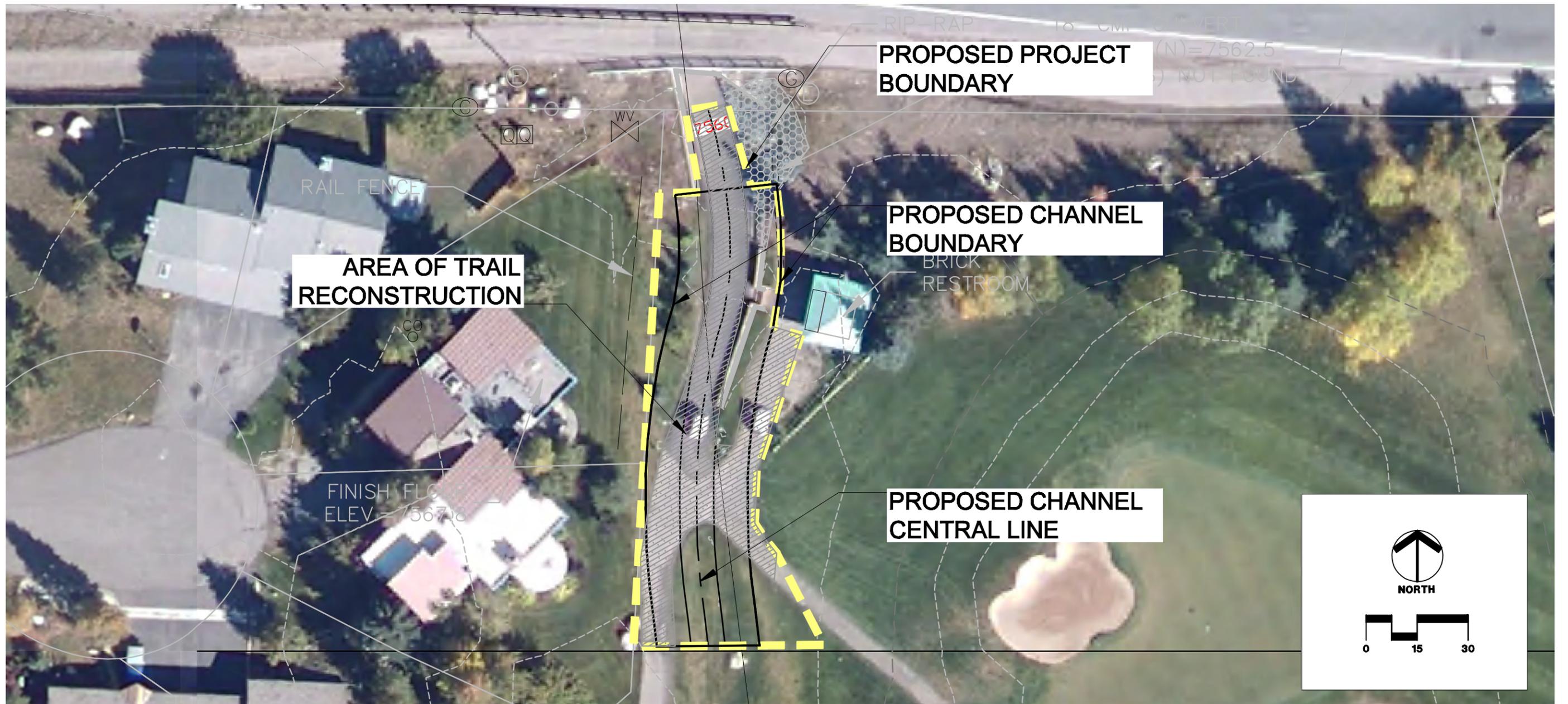
FEMA

ATTACHMENT NO. 1



<b>PROJECT</b>	Section 106 Consultation – Channel Stabilization Project – FMA Stone Creek Floodplain, Eagle-Vail, Eagle County, Colorado
<b>SCALE</b>	1 inch = 500 feet
<b>SOURCE</b>	Aerial Map Source National Geographic TOPO! 2010

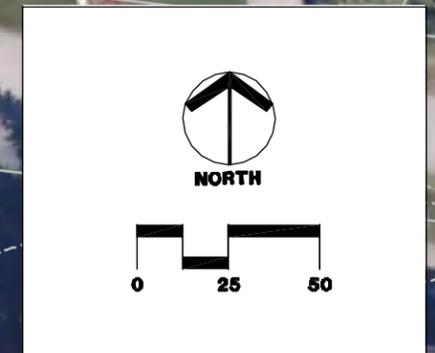
<b>Area of Potential Effects</b>	
	<b>FEMA</b>
<b>ATTACHMENT NO. 2</b>	



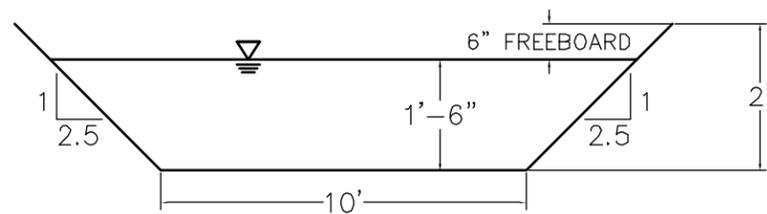
**CHANNEL CROSS SECTION (TYP.)**  
SCALE HORIZONTAL = 1" : 5'  
SCALE VERTICAL = 1" : 2.5'

**MITIGATION ACTIVITIES:**

REMOVE TRAIL ASPHALT	2,610	SF
REMOVE BRICK RETAINING WALL	50	LF
REMOVE 18" C.M.P.	83	LF
RECONSTRUCT TRAIL	2,610	SF
REGRADE NEW CHANNEL	135	LF
EXCAVATION	310	CY
REVEGETATION	2,990	SF



Q<sub>100</sub> = 170 CFS  
 SLOPE = 3%



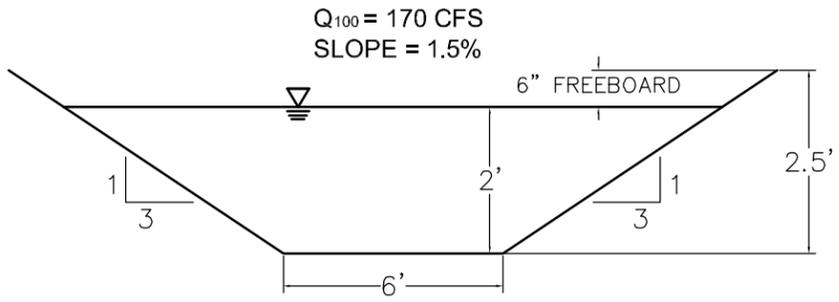
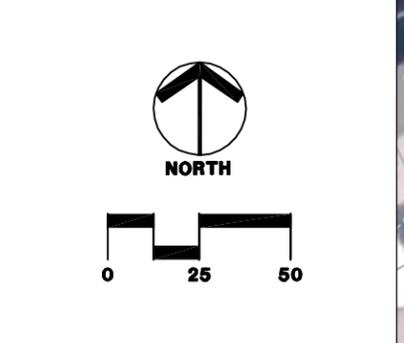
**CHANNEL CROSS SECTION (TYP.)**

SCALE HORIZONTAL 1"=5'  
 SCALE VERTICAL 1"=2.5'

**MITIGATION ACTIVITIES:**

REGRADE NEW CHANNEL	148	LF
REGRADE NEW CHANNEL	55	LF
EXCAVATION	260	CY
REMOVE AND SALVAGE 3 - 35"X58" C.M.P.	150	LF
REVEGETATION	4,900	SF

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**BYPASS CHANNEL CROSS SECTION (TYP.)**  
 SCALE HORIZONTAL 1"=5'  
 SCALE VERTICAL 1"= 2.5'

**MITIGATION ACTIVITIES :**

REMOVE 2-29"x42" ARCH C.M.P.	56	LF
REGRADE NEW CHANNEL	180	LF
DIVERSION STRUCTURE CONCRETE HEADWALL	10	CY
EXCAVATION	500	CY
58"x35" C.M.P.	30	LF
BACKFILL	97	CY
REVEGETATION	7,300	SF

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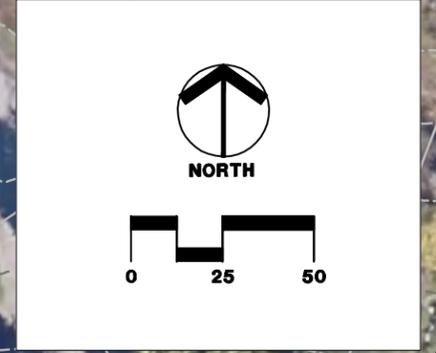
FINISH FLOOR  
ELEV. = 7642.2  
FINISH FLOOR  
ELEV. = 7641.3  
FINISH FLOOR  
ELEV. = 7642.2

**WORK AREA 4  
PROPOSED  
PROJECT  
BOUNDARY**

**PROPOSED  
UPPER SPLITTER  
STRUCTURE**

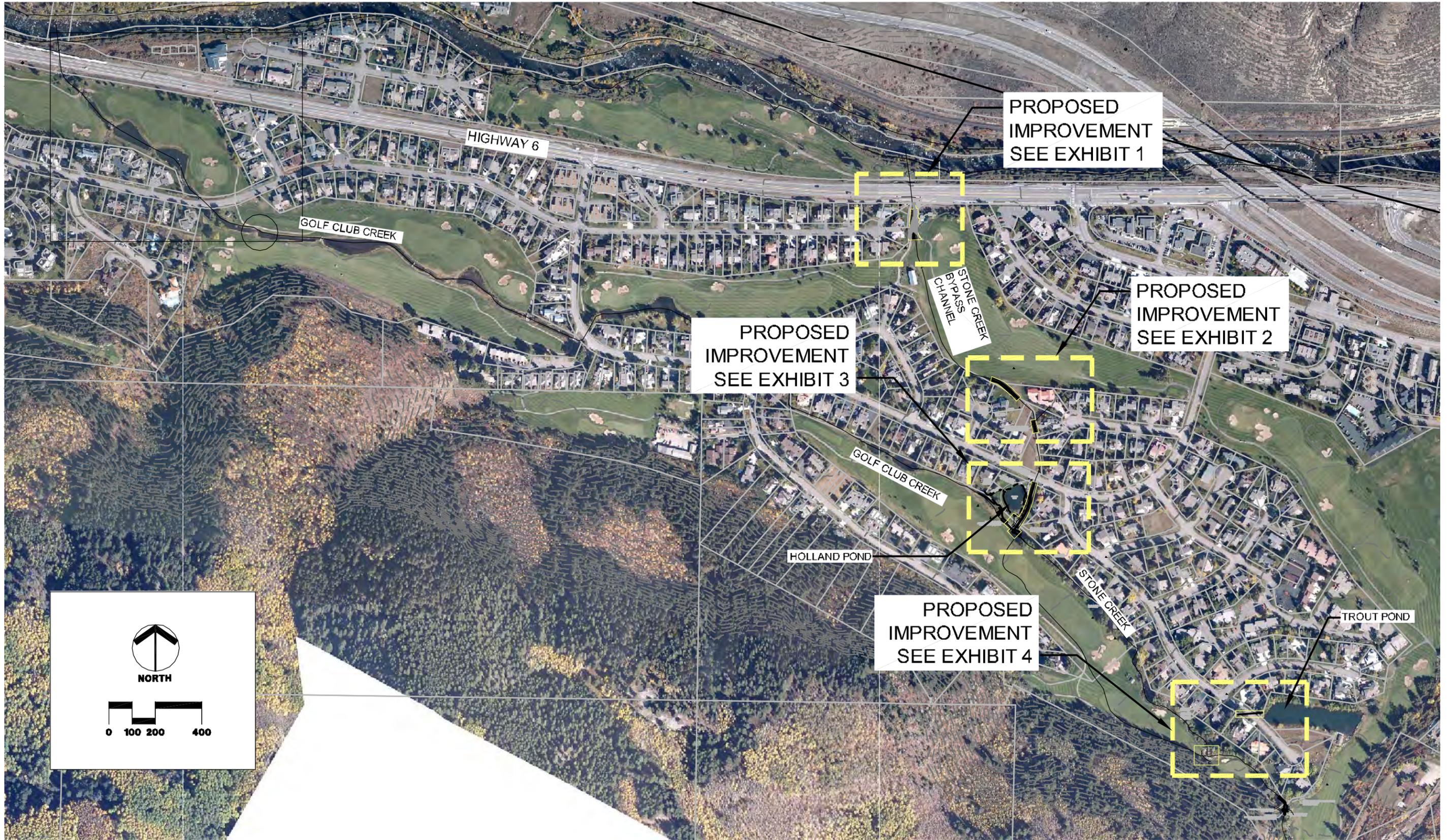
**WORK AREA 5  
PROPOSED  
PROJECT  
BOUNDARY**

**PROPOSED  
PARALLEL  
58"X35" C.M.P.**



**MITIGATION ACTIVITIES:**

REMOVE ASPHALT	585	SF
EXCAVATION	200	CY
INSTALL SALVAGED 58"X35" C.M.P.	108	LF
BACK FILL	155	CY
INLET STRUCTURE	1	LS
OUTLET STRUCTURE	1	LS
ASPHALT PAVEMENT	585	SF
ROCK DIVERSION STRUCTURE	26	TN
REVEGETATION	1,035	SF



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**APPENDIX D - (PART 2)**  
**AGENCY CORRESPONDENCE**



FEMA

# Attachment 4: PHOTOGRAPHIC LOG

**Subapplicant Name:**  
Eagle County, Colorado

**Project:**  
FMA Stone Creek Floodplain, Eagle-Vail, Eagle County, Colorado

**Photo No.**  
1      **Photo Date:**  
4/15/2011

**Site Number:**  
5EA2879

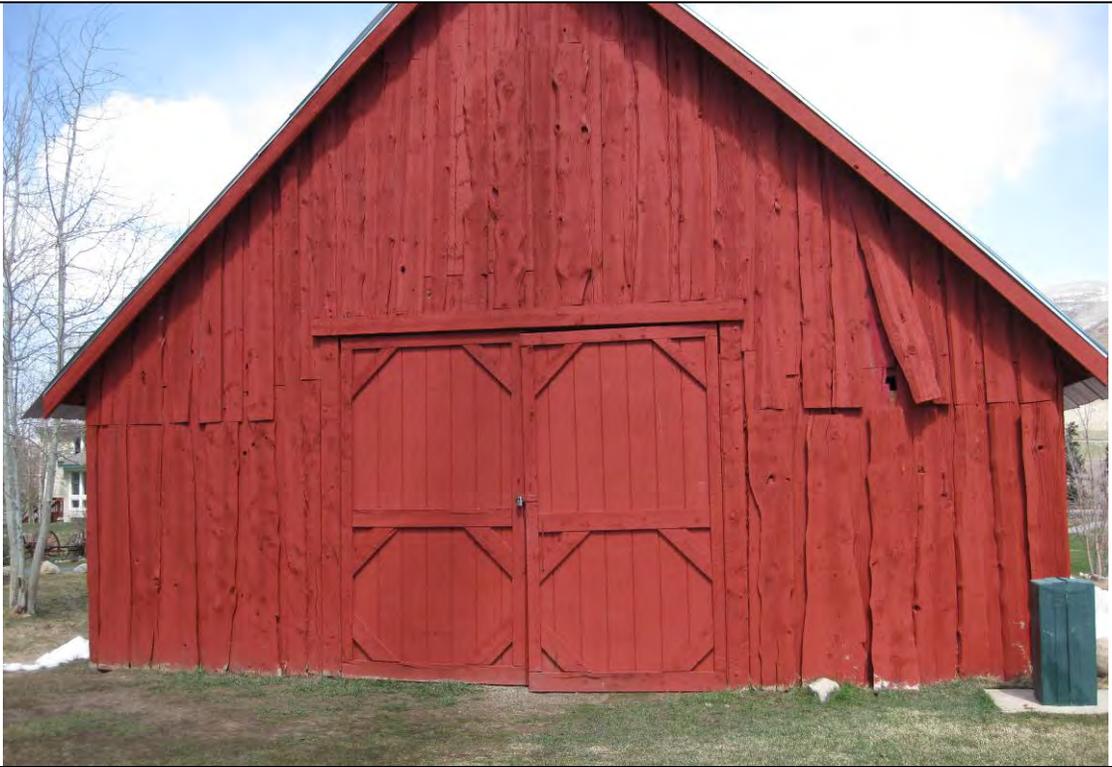
**Description:**  
Overview of barn looking northwest, note fairway, sandtrap, and modern residential buildings surrounding site.



**Photo No.**  
2      **Photo Date:**  
4/15/2011

**Site Number:**  
5EA2879

**Description:**  
View looking north at south face of barn.





FEMA

# PHOTOGRAPHIC LOG

<b>Subapplicant Name:</b> Eagle County, Colorado		<b>Project:</b> FMA Stone Creek Floodplain, Eagle-Vail, Eagle County, Colorado
<b>Photo No.</b> 3	<b>Photo Date:</b> 4/15/2011	
<b>Site Number:</b> 5EA2879		
<b>Description:</b> Detail view of lapped board on board siding on south face of barn. View looking north-northeast.		

<b>Photo No.</b> 4	<b>Photo Date:</b> 4/15/2011	
<b>Site Number:</b> 5EA2879		
<b>Description:</b> View looking east at west side of barn from golf cart path. Note: new modern landscaping.		



FEMA

# PHOTOGRAPHIC LOG

**Subapplicant Name:**

Eagle County, Colorado

**Project:**

FMA Stone Creek Floodplain, Eagle-Vail, Eagle County, Colorado

**Photo No.**

5

**Photo Date:**

4/15/2011

**Site Number:**

5EA2879

**Description:**

View looking south at north face of barn. Note: speakers on northeast corner, and electric box on northwest corner.



**Photo No.**

6

**Photo Date:**

4/15/2011

**Site Number:**

5EA2879

**Description:**

View looking south-southwest at east face of barn. Note: modern landscaping.





**Subapplicant Name:**  
Eagle County, Colorado

**Project:**  
FMA Stone Creek Floodplain, Eagle-Vail, Eagle County, Colorado

**Photo No.**  
7

**Photo Date:**  
4/15/2011

**Site Number:**  
5EA2879

**Description:**  
Detail view of lapped board on board siding exposed and notched rafters with open eave.



**Photo No.**  
8

**Photo Date:**  
4/15/2011

**Site Number:**  
5EA2879

**Description:**  
Detail of gravel surrounding structure. No foundation is present around the structure, and the structure is supported by posts at the corners.





FEMA

# PHOTOGRAPHIC LOG

<b>Subapplicant Name:</b> Eagle County, Colorado		<b>Project:</b> FMA Stone Creek Floodplain, Eagle-Vail, Eagle County, Colorado
<b>Photo No.:</b> 9	<b>Photo Date:</b> 4/15/2011	
<b>Site Number:</b> 5EA2879		
<b>Description:</b> Overview looking south at the barn with the second hole tee box in the foreground.		

<b>Photo No.:</b> 10	<b>Photo Date:</b> 4/15/2011	
<b>Site Number:</b> 5EA2879		
<b>Description:</b> Overview looking north from the second hole tee box toward Stone Creek, within the APE for the project.		



FEMA

# PHOTOGRAPHIC LOG

**Subapplicant Name:**

Eagle County, Colorado

**Project:**

FMA Stone Creek Floodplain, Eagle-Vail, Eagle County, Colorado

**Photo No.**

11

**Photo Date:**

4/15/2011

**Site Number:**

5EA2879



**Description:**

View looking east at farm equipment with barn in background. It is not known if the equipment is related to the barn, or was relocated here to provide a "rustic feel" to the landscape.

**Photo No.**

12

**Photo Date:**

4/15/2011

**Site Number:**

5EA2879



**Description:**

Detailed view of farm equipment, view looking south.

Resource Number: 5EA2879  
Temporary Resource Number:

## Attachment 5

OAHP1403  
Rev. 9/98

### COLORADO CULTURAL RESOURCE SURVEY

# Architectural Inventory Form

Official eligibility determination  
(OAHP use only)

Date \_\_\_\_\_ Initials \_\_\_\_\_  
 Determined Eligible- NR  
 Determined Not Eligible- NR  
 Determined Eligible- SR  
 Determined Not Eligible- SR  
 Need Data  
 Contributes to eligible NR District  
 Noncontributing to eligible NR District

## I. IDENTIFICATION

1. Resource number: 5EA2879
2. Temporary resource number:
3. County: Eagle
4. City: Eagle-Vail, Colorado
5. Historic building name: Unknown/none
6. Current building name: Unknown/none
7. Building address: See owner name and address, item 8
8. Owner name and address: Eagle Vail Golf Course, 431 Eagle Drive, Avon, CO

## II. GEOGRAPHIC INFORMATION

9. P.M. 6th Township 5 South Range 81 West  
NW  $\frac{1}{4}$  of SE  $\frac{1}{4}$  of NW  $\frac{1}{4}$  of NW  $\frac{1}{4}$  of section 17
10. UTM reference  
Zone 1 3 ; 3 7 2 1 1 8 mE 4 3 8 6 8 2 4 mN
11. USGS quad name: Minturn, Colorado  
Year: 1970 p.r. 1987 Map scale: 7.5' X 15' Attach photo copy of appropriate map section.
12. Lot(s): \_\_\_\_\_ Block: \_\_\_\_\_  
Addition: \_\_\_\_\_ Year of Addition: \_\_\_\_\_
13. Boundary Description and Justification: The boundary is limited to the area immediately encompassing the structure; 30 feet east to west, and 65 feet north to south.

## III. Architectural Description

14. Building plan (footprint, shape): Rectangle
15. Dimensions in feet: Length 30 ft x Width 65 ft
16. Number of stories: 1
17. Primary external wall material(s): Vertical siding
18. Roof configuration: Front gabled
19. Primary external roof material: Metal roof
20. Special features: None
21. General architectural description: The bulding is a single-story, rectangular, barn, oriented NNW to SSE. The barn is a wood-framed building, covered with rough-cut planks, which are applied in a lapped, vertical manner.

## Attachment 5

Resource Number: 5EA2879

Temporary Resource Number:

The barn is front-gabled and is the modern roof is constructed of standing-seam metal. No foundation is present beneath the building, but vertical support beams are visible in each corner and a 6-inch-wide band of pea-sized gravel surrounds the exterior base of the building.

22. Architectural style/building type: Barn
23. Landscaping or special setting features: The building is adjacent to, and south of, the second hole tee box on the Eagle-Vail Golf Course. The landscape surrounding the building is primarily immature trees, rock planters, golf cart paths, and golf course fairways. Modern residential buildings surround the fairway around the site.
24. Associated buildings, features, or objects: The building is currently used as storage for golf course equipment. A piece of farm equipment has been incorporated into the landscape west of the barn. It is impossible to determine if the farm equipment is related to this barn, or has been brought in to give the landscape a more rustic feel.

### IV. ARCHITECTURAL HISTORY

25. Date of Construction: Estimate: 1934 Actual: Unknown  
Source of information: USGS 15' Topographic map (1934, minor corrections made in 1950) has an outbuilding symbol in the same location as 5EA2879
26. Architect: Unknown  
Source of information: N/A
27. Builder/Contractor: Unknown  
Source of information: N/A
28. Original owner: Unknown  
Source of information: N/A
29. Construction history (include description and dates of major additions, alterations, or demolitions): Unknown
30. Original location      Moved      Date of move(s): Unknown

### V. HISTORICAL ASSOCIATIONS

31. Original use(s): Agriculture: Storage/Barn
32. Intermediate use(s): Unknown
33. Current use(s): Commerce/Trade/Recreation-related
34. Site type(s):
35. Historical background: Government Land Office records indicate that Pierce Crane purchased the land in the northwest quarter of Section 17 in 1890 ([www.glorerecords.blm.gov](http://www.glorerecords.blm.gov)). No barn or outbuilding appears on any plat or survey maps until the 1934 USGS 15' Topographic Quadrangle Map of Minturn, Colorado.
36. Sources of information: [www.glorerecords.blm.gov](http://www.glorerecords.blm.gov), USGS 15' Topographic Quadrangle map, Minturn, Colorado (1934; revised 1950)

### VI. SIGNIFICANCE

37. Local landmark designation: Yes      No X Date of designation:               
Designating authority:

Resource Number: 5EA2879

## Attachment 5

Temporary Resource Number:

38. Applicable National Register Criteria:

- A. Associated with events that have made a significant contribution to the broad pattern of our history;
- B. Associated with the lives of persons significant in our past;
- C. Embodies the distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or that possess high artistic values, or represents a significant and distinguishable entity whose components may lack individual distinction; or
- D. Has yielded, or may be likely to yield, information important in history or prehistory.
- Qualifies under Criteria Considerations A through G (see Manual)
- Does not meet any of the above National Register criteria

39. Area(s) of significance:

40. Period of significance:

41. Level of significance: National  State  Local

42. Statement of significance: The building is not known to be associated with significant persons or events, nor is it architecturally distinctive. It is unlikely to yield additional information important to a greater understanding of local history.

43. Assessment of historic physical integrity related to significance: The building lacks integrity of setting, and feeling and appears to have been restored, restructured, and painted recently.

### VII. NATIONAL REGISTER ELIGIBILITY ASSESSMENT

44. National Register eligibility field assessment:

Eligible  Not Eligible  Need Data

45. Is there National Register district potential? Yes  No

Discuss: There is no National Register district potential for this site. This site represents an individual historic outbuilding that has no related context in the surrounding landscape. The building lacks integrity of setting, location, materials, workmanship, feeling and association, and is not related to specific person or event, and will not contribute to the greater understanding of historic agricultural practices in Eagle County.

If there is National Register district potential, is this building: Contributing  Noncontributing

46. If the building is in existing National Register district, is it: Contributing  Noncontributing

Resource Number: 5EA2879  
Temporary Resource Number:

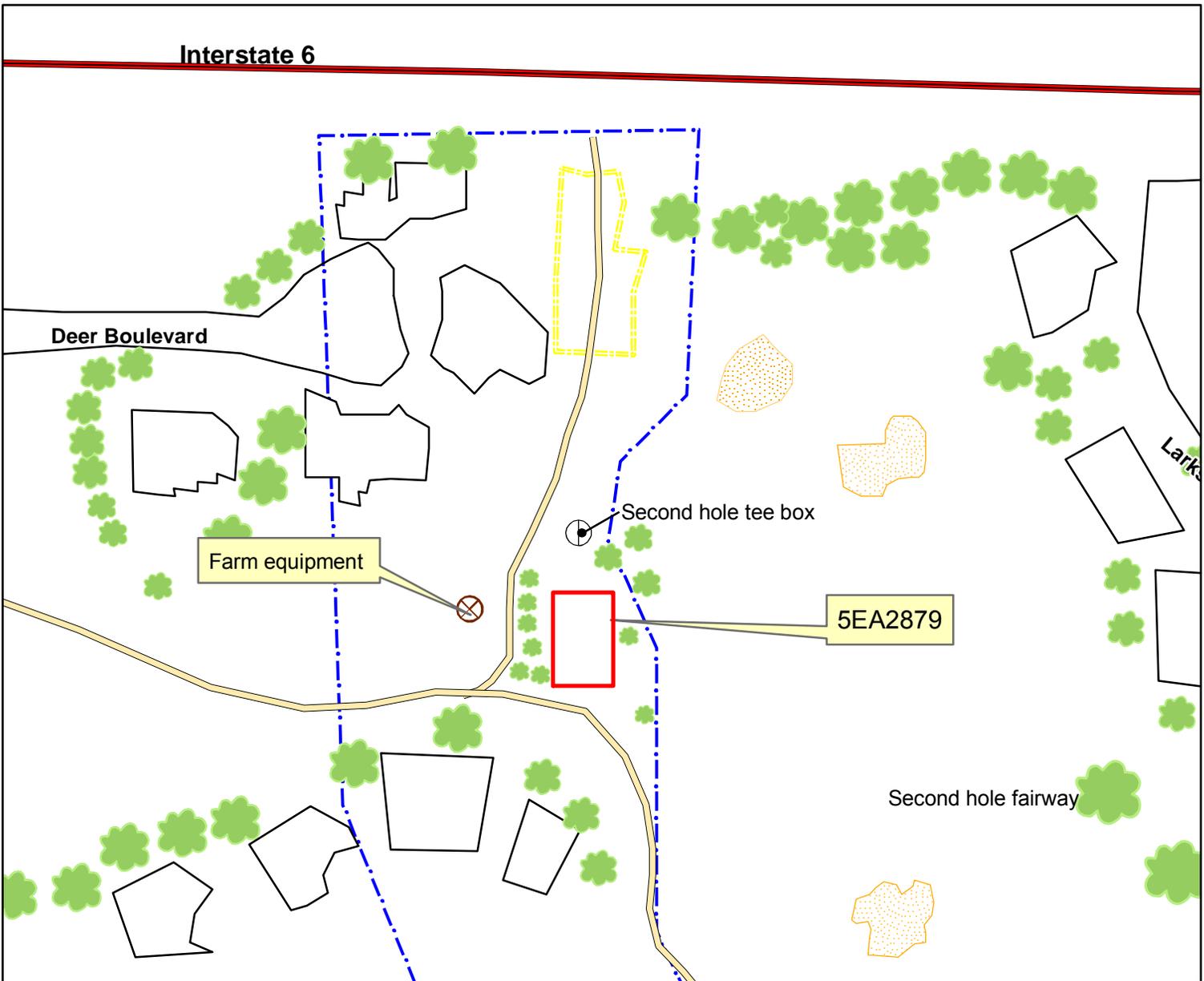
## Attachment 5

### VIII. RECORDING INFORMATION

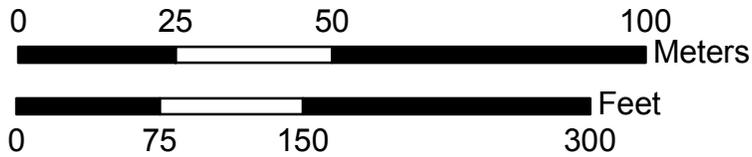
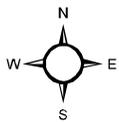
47. Photograph numbers: Photo Numbers 1-35  
Negatives filed at: URS Corporation, Denver Colorado
48. Report title: Section 106 Consultation – Channel Stabilization Project – FMA Stone Creek Floodplain, Eagle-Vail, Eagle County, Colorado
49. Date(s): 4/15/2011
50. Recorder(s): E. Roberts
51. Organization: URS Corporation
52. Address: 8181 East Tufts Ave
53. Phone number(s): 303-694-2770

NOTE: Please include a sketch map, a photocopy of the USGS quad map indicating resource location, and photographs.

Colorado Historical Society - Office of Archaeology & Historic Preservation  
1300 Broadway, Denver, CO 80203 (303) 866-3395



- Key:**
- Modern Building
  - Archaeological APE
  - Above ground APE
  - Site boundary
  - Location of farm equipment
  - Golf cart path
  - Modern landscape/trees
  - Sand trap



**PROJECT** Section 106 Consultation – Channel Stabilization Project – FMA Stone Creek Floodplain, Eagle-Vail, Eagle County, Colorado

**SCALE** 1 inch = 100 feet

**SOURCE** Aerial Map Source  
National Geographic  
TOPO! 2010

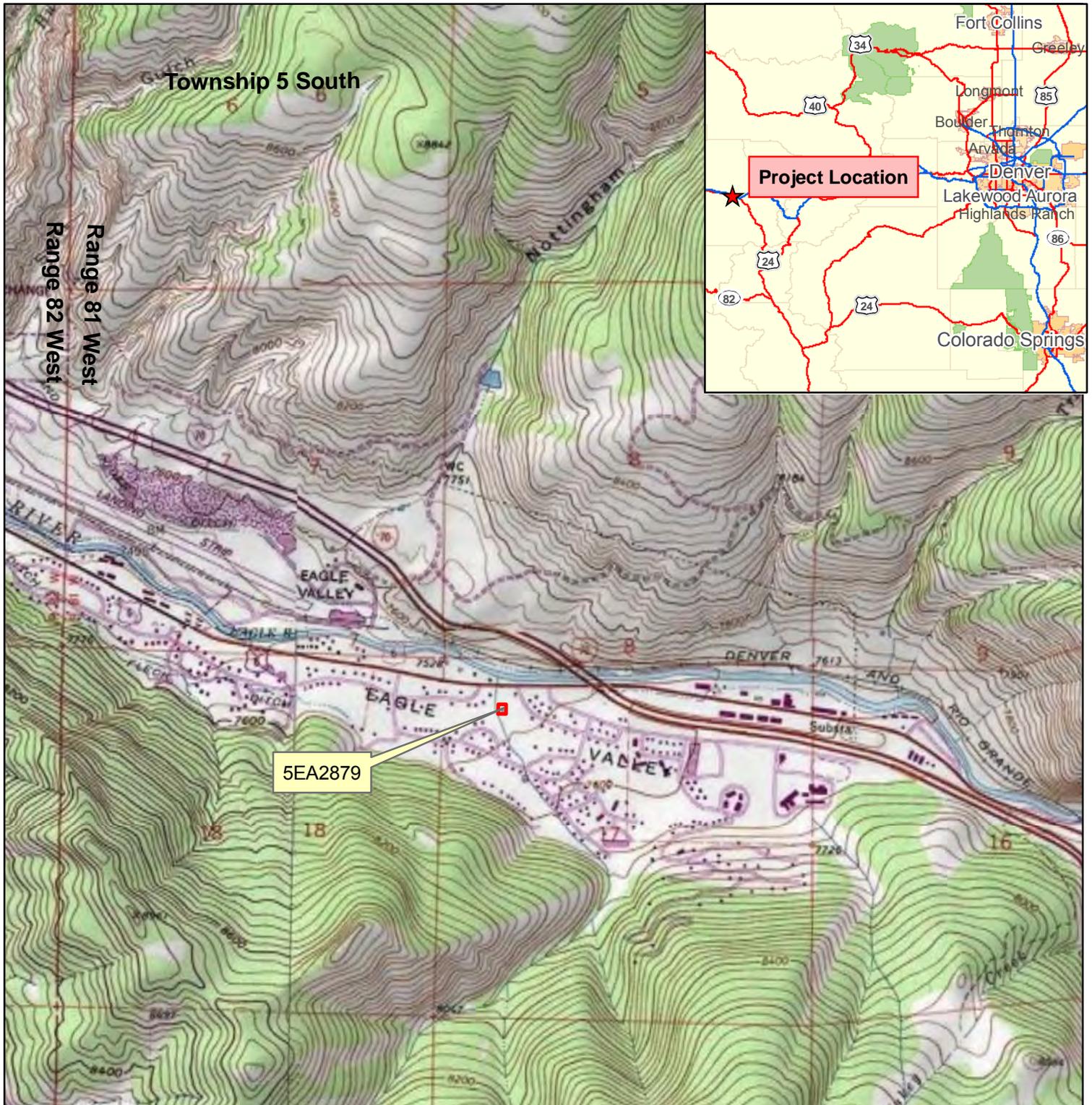
**5EA2879 Sketch Map**



**FEMA**

5EA2879 Sketch Map

**ATTACHMENT NO.6**



<b>PROJECT</b>	Section 106 Consultation – Channel Stabilization Project – FMA Stone Creek Floodplain, Eagle-Vail, Eagle County, Colorado
<b>SCALE</b>	1 inch = 2,000 feet
<b>SOURCE</b>	Minturn, Colorado USGS 7.5 Minute Topographic Map 1970, p.r. 1987

<b>Site Location Map</b>	
 <b>FEMA</b>	5EA2879 Location Map
<b>ATTACHMENT NO. 7</b>	

## TELEPHONE MEMORANDUM

DATE 6/13/11 TIME 1430 AM  
PM PROJECT NO. 15702511 2230 P

TO Mr.  
 FROM Ms. Ellen Mayo PROJECT Stone Creek EA

COMPANY USFWS - Grand Junction, CO FEMA - Region VIII

PHONE NO. (970) 243-2778 - Ext. 14

RE Potential For Ute Ladies tresses to be in Stone Creek Project Area. RECORDED BY D. Bliss

I called the USFWS Grand Junction Office with intent of talking with Gina Glenne (Botanists). ~~Ms~~ Ms Glenne was out and was referred to Ms. Ellen Mayo (Botanists). I identified myself and indicated that we were working on flood control project in Eagle/Vail and wanted to discuss potential for Ute ladies tresses to be affected by the project. I presented the following points

- Occurrence has not been documented in the Eagle Valley in CO.
- Project area is above 7000 feet elevation which is listed as maximum elevation for species.
- Project would impact less than 0.05 acre of potential habitat and for last 25<sup>+</sup> years, the potential areas have been mowed
- Disturbed area within Bypass Channel ~~is~~ does not have wet meadow type habitat.
- Post project areas of potential habitat would ~~be~~ not be changed.

I indicated that we have evaluated potential effects in regard to No Effect Determination or Likely to Effect but not Likely to Adversely Effect Determination and that I was leaning toward the No Effect Determination. Ms Mayo indicated that seemed to be appropriate especially since the project was above the established elevation for the species.

She indicated that the Official Determination would need to come from FEMA. I agree that the Determination Letter would be from FEMA.



**FEMA**

R8-EHP

June 16, 2011

Western Colorado Field Office  
U.S. Fish and Wildlife Service  
764 Horizon Drive, Building B  
Grand Junction, CO 81506-3946

ATTN: Mr. Al Pfister, Project Leader

RE: Stone Creek Floodplain Mitigation Project, Eagle-Vail, CO

Dear Mr. Pfister:

The Federal Emergency Management Agency (FEMA) is in the process of preparing an Environmental Assessment for a proposed Floodplain Mitigation Project that would be completed by Eagle County, CO. The proposed project is located on Stone Creek/Golf Club Creek adjacent to the Stone Creek Subdivision and the Eagle Vail Golf Course in the community of Eagle-Vail, CO. The latitude and longitude coordinates for the lower end of the project are: 39.6222 (latitude) and -106.4896 (longitude).

The overall goal of the proposed project is to reduce potential flooding of residential structures that are located adjacent to the creek. To achieve this goal, the existing bypass channel (Stone Creek Bypass) would be improved by upgrading an existing diversion structure and by excavating, re-grading, and realigning limited areas within the bypass channel. Upstream of the diversion structure, flooding would be reduced by increasing the conveyance capacity of the discharge of a small retention pond (Trout Pond) and by directing flood flows onto the golf course and away from the residential structures. In total, less than 1 acre would be disturbed and all areas that would be disturbed have been previously disturbed during construction of the golf course, bypass channel, and subdivision.

Proposed project features are shown on the attached figure. A brief description of project activities that would occur at each area is provided below. The segments are discussed from bottom to top as shown on the figure.

Segment 1 Immediately upstream of the US Highway 6 road crossing, the Stone Creek Bypass would be excavated and realigned. Following construction, the disturbed areas would be re-vegetated with turf grasses that are presently used on the golf course.

- Segment 2    Excavation and regarding of open channel of Stone Creek Bypass immediately down gradient of piped portion of the bypass channel. Following construction, the disturbed areas would be re-vegetated with turf grasses that are presently used on the golf course.
  
- Segment 3    Removal of existing corrugated metal pipes and converting this segment of Stone Creek Bypass to an open channel, which would require excavation and regarding of the channel. Following construction, the disturbed areas would be re-vegetated with a native grass mixture.
  
- Segment 4    Replacement of existing diversion structure, which includes the removal of two collapsed 48-inch CMPs and the construction of a new diversion structure that would limit flows in the creek downstream of the diversion to 85 cubic feet per second (cfs) and direct flows in excess of 85 cfs into the Stone Creek Bypass. During a 100-year flood event, it is expected that flows in the Stone Creek Bypass would be approximately 170 cfs. Following construction, the disturbed areas on the golf course would be re-vegetated with turf grass that presently occurs on the golf course and disturbed areas adjacent to residential areas would be re-vegetated with a native grass mixture.
  
- Segment 5    Presently a spillway has been created on Stone Creek that allows flood flows to spill onto the golf course. However even with this feature, sufficient flows remain in the creek to contribute to flooding of houses located along the creek between the diversion structure and this spillway area. Activities at this location would involve lowering the sill of the spillway to allow more of the flood flows to spill onto the golf course. Following construction, the disturbed areas would be re-vegetated with turf grasses that are presently used on the golf course.
  
- Segment 6    Within this segment, the conveyance capacity of the discharge from Trout Pond would be increased by the addition of a culvert adjacent to the existing culvert. The disturbed area would be primarily within the right-of-way of Cottonwood Drive. Disturbed area not within the roadway would be re-vegetated with a mixture of native grasses.

The U.S. Fish and Wildlife Service (USFWS) database for Eagle County, CO indicated that nine federally-listed threatened, endangered, or proposed for listing species have the potential to occur in Eagle County, Co. These species included:

Canada lynx <i>Lynx canadensis</i>	Threatened
Mexican spotted owl <i>Strix occidentalis lucida</i>	Threatened
Mountain plover <i>Charadrius montanus</i>	Proposed
Humpback chub <i>Gila cypha</i>	Endangered
Colorado pikeminnow <i>Ptychocheilus Lucius</i>	Endangered
Bonytail chub <i>Gila elegans</i>	Endangered

Razorback sucker <i>Xyrauchen texanus</i>	Endangered
Uncompahgre fritillary butterfly <i>Boloria acrocynema</i>	Endangered
Ute ladies' tresses <i>Spiranthes diluvialis</i>	Threatened

The Canada lynx is found in dense sub-alpine forest and willow choked corridors along mountain streams and avalanche chutes where the snowshoe hare, its favor prey, is found. The proposed project would not adversely affect habitat normally utilized by the Canada lynx. In a telephone discussion with Bill Andree of the Colorado Division of Wildlife (CDOW), he indicated that the lynx has been documented on decks within subdivisions in the Eagle Vail area, but their presence in the subdivision does not indicate that habitat for the species occurs within or in the vicinity of the proposed project area.

Old growth or mature forests that contain complex structural components are the primary habitat utilized by the Mexican spotted owl. Canyons with riparian or conifer communities also represent important habitat for the spotted owl. Mexican spotted owl nesting habitat is primarily characterized by mixed conifer or pine-oak that has multiple canopies, dense canopy cover, high tree basal area, and an abundance of snags and dead/down logs. They also occur in canyon habitats that provide nesting sites in shallow caves and ledges where the ambient temperature remains cool throughout the day. Nests consist of tree cavities, old stick nests built by another species, debris platforms, and cliff ledges. The project area does not include habitat that would be used by the Mexican spotted owl. Additionally, the CDOW does not include Eagle County in their distribution map for the species.

Short vegetation, bare ground, and flat topography define nesting and wintering habitat of the mountain plover. In Colorado, mountain plovers typically nest from late March to late April and fall migration normally occurs in August and September. The CDOW does not include Eagle County in their distribution map for the species. In addition, the level of human activity in the project area would likely preclude the use of the project area by mountain plovers.

The humpback chub, Colorado pikeminnow, bonytail chub, and razorback sucker occur in the Colorado River and have not been reported to occur in the Eagle River or Stone Creek/Golf Club Creek. Since the proposed project would not adversely impact aquatic habitat within the Colorado River, these species would not be affected by the proposed project.

The uncompahgre fritillary butterfly is limited to 11 verified sites in the San Juan Mountains in southwest Colorado. All known populations are associated with large patches of snow willow that are located above 12,000 feet elevation. Since the proposed project is located well below this elevation, it does not have the potential to affect the species.

The Ute ladies' tresses is an orchid that occurs along riparian edges, gravel bars, old oxbows, high flow channels, and moist to wet meadows along perennial streams that are below 7,000 feet in elevation. Although potential habitat for the Ute ladies' tresses is located in Eagle County, the presence of the species in the county has not been documented. In a telephone conversation with Ms. Ellen Mayo of your staff on June 13, 2011, she confirmed that 7,000 feet elevation was the upper limit for the species and that the species had not been documented in Eagle County. A limited amount of riparian habitat (less than 0.05 acre) would be impacted by the proposed project. Photographs showing the riparian areas that would be disturbed are

June 16, 2011

attached. As shown, vegetation is limited as these areas are manicured as part of the routine maintenance of the golf course, which has been in operation for over 35 years. When all of these factors are considered, it was concluded that the Ute ladies' tresses would not be present in the proposed project area.

**Determinations**

Based on the information presented, FEMA has made the determination that the proposed Stone Creek Floodplain Mitigation Project would have No Effect on the nine federally-listed threatened, endangered, or proposed for listing species that have the potential to occur in Eagle County. This letter is for your files and is meant to serve as notification of the project and FEMA's determination. No response is necessary. If you need additional information or have questions, please call me at (303) 235-4926.

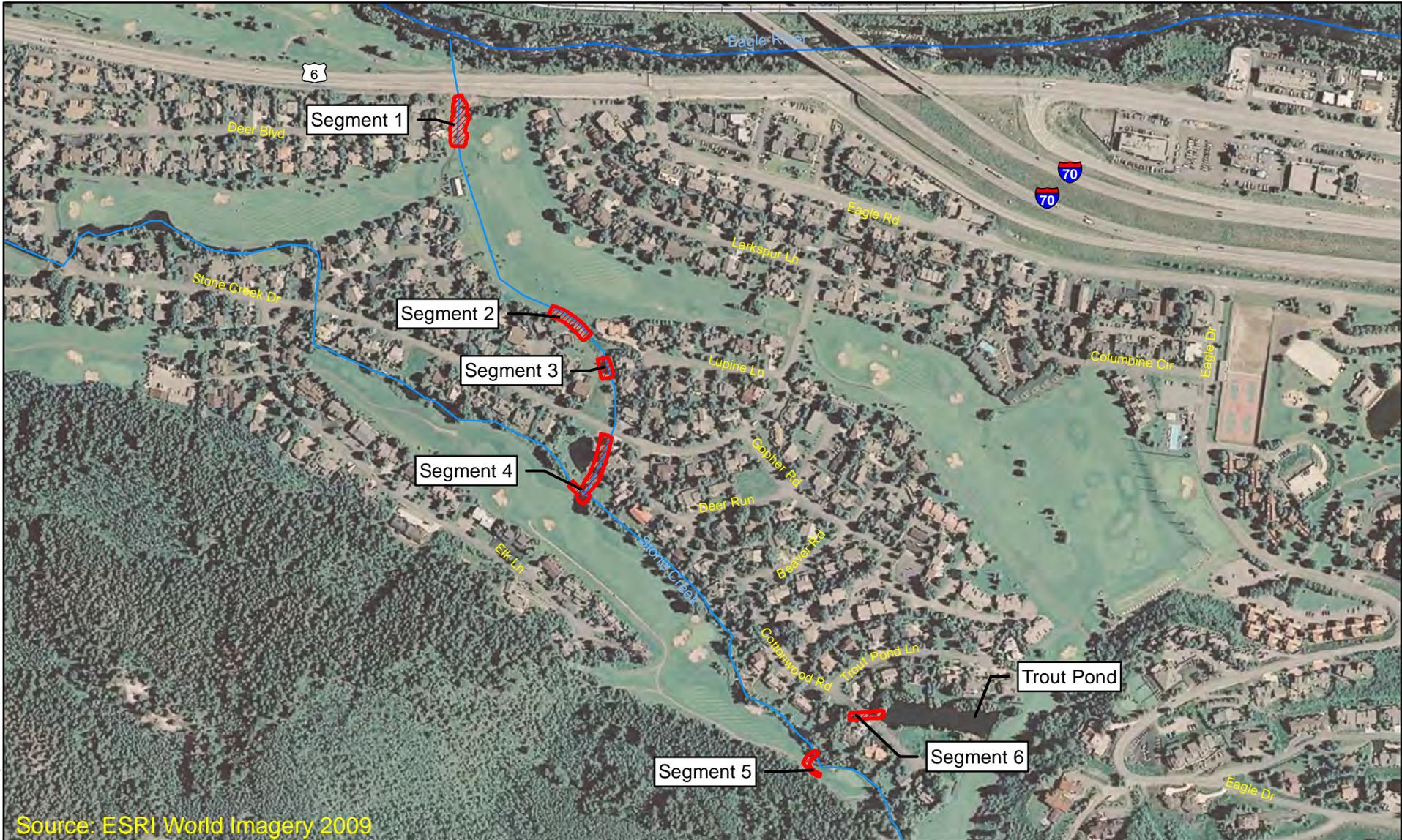
Sincerely,



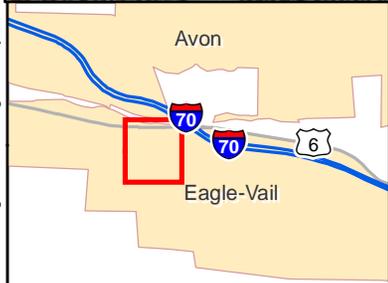
Richard Myers  
Deputy Environmental Officer  
FEMA – Region VIII

Attachments

cc: Quentin Bliss, URS



Source: ESRI World Imagery 2009



**Legend**

-  Project Segments
-  Streams



Project Location  
 Stone Creek Floodplain  
 Mitigation Project  
 Eagle County, Colorado

Drawn By: JBW	Date: 06/15/11	Project No. 15702511
Checked By: QB	Revision: 0	

**SITE VISIT PHOTOGRAPHS**

**Client Name:**  
Eagle County, Colorado

**Project:**  
Stone Creek Floodplain Mitigation Project

**Photo No.**  
1

**Date:**  
05-17-11

**Description:**  
Stone Creek at  
diversion structure



**Photo No.**  
2

**Date:**  
05-17-11

**Description:**  
Stone Creek and Stone  
Creek Bypass at  
diversion structure



**SITE VISIT PHOTOGRAPHS**

**Client Name:**  
Eagle County, Colorado

**Project:**  
Stone Creek Floodplain Mitigation Project

**Photo No.**  
3

**Date:**  
05-17-11

**Description:**  
Vegetation along Stone Creek immediately upstream of the diversion structure.



**Photo No.**  
4

**Date:**  
05-17-11

**Description:**  
Vegetation along Stone Creek immediately upstream of the diversion structure.



## SITE VISIT PHOTOGRAPHS

**Client Name:**

Eagle County, Colorado

**Project:**

Stone Creek Floodplain Mitigation Project

**Photo No.**

5

**Date:**

05-17-11

**Description:**

View of stream channel of Golf Club Creek (Stone Creek) approximate 1000 feet downstream from diversion structure.

**Photo No.**

6

**Date:**

05-17-11

**Description:**

View of spillway area on Stone Creek. Note how short vegetation is maintained on this area of golf course.





HISTORY *Colorado*

June 16, 2011

Richard Myers  
Deputy Regional Environmental Officer  
Federal Emergency Management Agency  
U.S. Department of Homeland Security  
Region VIII  
Denver Federal Center, Building 710  
P.O. Box 25267  
Denver, CO 80225-0267

Re: Channel Stabilization Project – FEMA Stone Creek Floodplain, Eagle-Vail, Eagle County, Colorado (CHS #56086)

Dear Mr. Myers:

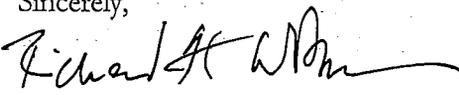
Thank you for your correspondence dated June, 10 2011 (received by our office on June 10, 2011) regarding the subject project.

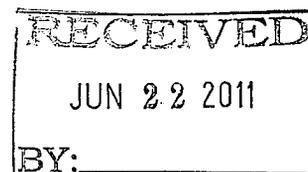
Following our review of the documentation provided, we concur that site 5EA2879 is **not eligible** for the National Register of Historic Places (NRHP). Further we believe that the nature of the proposed project in addition to the noted disturbances within the archaeological area of potential effects (APE) that no additional historic properties will be affected and the project may proceed without additional on-the-ground cultural resources inventory. As such, we concur that a finding of **no historic properties affected** is appropriate for the proposed undertaking.

Should unidentified archaeological resources be discovered during the course of the project, work must be interrupted until the resources have been evaluated in terms of the National Register of Historic Places eligibility criteria (36 CFR 60.4) in consultation with our office.

Thank you for the opportunity to comment. If we may be of further assistance please contact Mark Tobias, Section 106 Compliance Manager, at (303) 866-4674 or [mark.tobias@chs.state.co.us](mailto:mark.tobias@chs.state.co.us).

Sincerely,

*for*   
Edward C. Nichols  
State Historic Preservation Officer  
ECN/MAT



**APPENDIX E**  
**RESULTS OF CULTURAL RESOURCE SURVEY**



**FEMA**

R8-EHP

June 10, 2011

Mr. Edward Nichols  
State Historic Preservation Officer  
History Colorado  
Civic Center Plaza  
1560 Broadway, Suite 400  
Denver, CO 80202

**RE: Section 106 Consultation – Channel Stabilization Project – FMA Stone Creek Floodplain, Eagle-Vail, Eagle County, Colorado (Latitude 39.6222; Longitude - 106.4896)**

Dear Mr. Nichols,

Eagle County (County) has applied for funding under the Federal Emergency Management Agency (FEMA) Flood Mitigation Assistance (FMA) grant program. Funding will be used to implement channel stabilization of the Stone Creek/Golf Club Creek in Eagle-Vail, Eagle County (Attachment No. 1). The project is located in the mountains of Colorado, approximately 100 miles west of Denver (latitude 39.6222, longitude -106.4896). Eagle-Vail is an unincorporated mountain community near the ski towns of Avon and Vail in Eagle County.

The project area is bounded to the north by U.S. Highway 6, to the south by steep foothills, to the west by Deer Boulevard and southwest by Elk Lane, and to the east by Gopher Road and Larkspur Lane. The APE crosses two fairways and Stone Creek Drive.

FEMA has determined that this action qualifies as an undertaking under Section 106 of the National Historic Preservation Act (NHPA), and as such, submits its findings and determinations as presented below for your consideration. Concurrent with the Section 106 process, FEMA is preparing an Environmental Assessment (EA) for the action in compliance with the National Environmental Policy Act (NEPA). FEMA has retained URS Group, Inc. (URS) to provide technical support in carrying out their responsibilities under the NHPA and NEPA.

#### Undertaking

Five areas of improvements are proposed along Stone Creek and the Stone Creek Bypass. These improvements include:

- removal of a cinder block retaining wall and approximately 120 feet of golf cart path, excavating the channel of the bypass channel, and reconstructing the cart path in the bottom of the channel (Attachment No. 3, Exhibit 1);

- removal of obsolete corrugated metal pipes within the Bypass Channel and converting it to an open channel (approximately 150 feet) (Attachment No. 3, Exhibit 2);
- removal of collapsed low flow culverts at the diversion point, construction of a concrete junction box to direct flows to a 30-inch pipe that discharges to Golf Club Creek and a 60-inch pipe that discharges flood flows to the Stone Creek Bypass, and excavation of the Bypass Channel downstream of the diversion (approximately 200 feet) (Attachment No. 3, Exhibit 3);
- construction of a spillway to replace an existing make-shift spillway (the new spillway will be constructed such that it directs overbank flows onto the golf course and away from residential buildings) (Attachment No. 3, Exhibit 4); and
- installation of a 35-inch by 58-inch arch pipe parallel to the existing 42-inch pipe outlet at an existing pond (Trout Pond) to provide adequate capacity to pass flows associated with the 100-year flood event (Attachment No. 3, Exhibit 4).

Post-project, the modified channel areas would be 1 foot to 2 feet deep and 6 feet to 10 feet wide at the bottom. Approximately 2,600 cubic yards of excavation and channel reshaping would occur with this project. Additionally, the project would require approximately 16,000 (0.4 acres) square feet of re-vegetation.

The original engineering plans for the subdivision reserved a drainage easement that would allow flows associated with the 100-year flood event to be conveyed past the majority of the developed community. The Bypass Channel was intended to have a capacity of at least 300 cubic feet per second, which is more than the accepted 100-year flood. However, since the construction of the subdivision in 1972, the condition of this Bypass Channel has deteriorated. Post-project, the capacity of the Stone Creek Bypass would be at its design capacity and all side slopes would be 3 to 1.

#### Area of Potential Effects (APE)

For above-ground resources, FEMA has determined the APE to consist of the footprint of the proposed project and the residential parcels immediately adjacent to the proposed project to account for indirect effects (Attachment No. 2). For archaeological resources, FEMA has determined the APE to consist of the areas where ground disturbance associated with the undertaking could potentially occur (Attachment No. 2). The size of the APE is based on the residential parcel size, the limited nature of the undertaking, and the fact that the disturbance will take place on and near ground level

#### Identification of Historic Properties

Elizabeth Roberts, a URS archaeologist, and Brian Shaw, a URS architectural historian, qualified under the *Secretary of the Interior's Professional Qualification Standards* (36 CFR Part 61) for archaeology and architectural history, respectively, conducted an assessment of the project's potential to affect historic properties within the APE. A historic property is defined at 36 CFR 800.16 as one that is eligible for listing in, or listed in the National Register of Historic Places (NRHP).

A records search of COMPASS, Colorado's On-line Cultural Resource Database, revealed no previously recorded cultural resources are located in the APE. This information was supplemented by a desktop search of readily available resources to identify any cultural resources of interest in the APE. An investigation into General Land Office (GLO) patent records available through the Bureau of Land Management (BLM) ([www.glorerecords.blm.gov](http://www.glorerecords.blm.gov)) was conducted. That research revealed in 1890, Pierce Crane purchased 160 acres of land in Township 5 South, Range 81 West in the northwest quarter of Section 17, which is the same location as the majority of the APE. No additional historic entries are listed. The only other record available states the same section of land was purchased by the Eagle Vail Metropolitan District in 2003.

*Above-Ground Resources.* The project area was historically utilized as agricultural land and, in the early 1970's, a residential golf course community subdivision was developed. Desktop resources revealed that the residential buildings in the project area consist of single- and multi-family dwellings constructed in the 1970s and 1980s. The dwellings are slab-on-grade, single- or two-story, and reflect a vernacular rustic style. These resources do not appear to possess the exceptional importance required for properties less than 50 years of age to be eligible for listing in the NHRP, either as individual resources or collectively as a historic district. Twelve properties listed in the NRHP are located in Eagle County. These NRHP-listed properties are located throughout the county and the resource types consist of bridges, archaeological sites, a resort, church, and one historic district – the Eagle Lake Commercial Historic District. The nearest NRHP-listed property is the Red Cliff Bridge, located in the community of Red Cliff approximately 10 miles southeast of the project area. No NRHP-listed properties are located in the APE.

In previous coordination with the Colorado Office of Archaeology & Historic Preservation (OAHP [State Historic Preservation Office]), the Eagle County Engineering Department, in a letter dated December 1, 2009, identified one building over 50 years of age in the vicinity of the project – a barn located on the Eagle-Vail Golf Course property. The barn falls within in the APE for above-ground resources. The OAHP requires the completion of an inventory form for each building or structure 50 years of age or older within the APE. As such, on April 15, 2011, Ms. Roberts visited the project area to record the barn per OAHP standards. During the field visit, Ms. Roberts took notes, measurements, and photographs. A Colorado Cultural Resource Survey (OAHP Form 1403) Architectural Inventory Form (Attachment 5) was completed with the assistance of Mr. Shaw. Ms. Roberts also requested an official site number from the OAHP. The barn is designated as 5EA2879.

Resource 5EA2879 is a single-story, front-gabled, barn oriented north-northwest to south-southeast, located approximately 20 feet south of the second hole tee on the Eagle-Vail Golf Course. According to the Eagle Vail Golf Club website, "the red barn near Hole #2 green served as feed and tack storage, a testament to the valley's agricultural heritage." The website stated that the barn was constructed in the 1930s. Although the physical characteristics of the barn are consistent with 1930s construction, it is not eligible for listing in the NRHP (See Attachment 4 – Photo Log). The barn does not appear to reflect unique design, and has been completely removed from its historic context, as the setting has changed from agricultural to residential and no other built resources contemporary to the barn remain extant.

June 10, 2011

Accordingly, FEMA has determined that no above-ground historic properties will be affected by the undertaking.

*Archaeological Resources.* As noted above, no previously recorded archaeological resources were identified in COMPASS in the APE. While the location of the project area along a small perennial stream is consistent with a moderate potential for prehistoric sites and sites related to the early historic settlement (e.g., mining, ranching, and a rural settlement) of Colorado, the project area has been thoroughly disturbed by modern development (residential subdivision and golf course), and it is a dynamic geomorphological setting, with active erosion and deposition.

Accordingly, FEMA has determined that no archaeological historic properties will be affected by the undertaking.

Assessment of Effects

FEMA has determined that no historic properties, either above-ground or archaeological, are located within the APE and that no historic properties will be affected by the undertaking. If unexpected discoveries are made during the course of project execution, FEMA will proceed in compliance with State and Federal laws protecting cultural resources, including Section 106 of the NHPA, and all work shall cease in the immediate vicinity of the find until appropriate parties are consulted.

We respectfully ask for your concurrence regarding FEMA's determination. Should you have any questions, or require additional information, please do not hesitate to contact me by telephone at (303) 235-4926 or by email at richard.myers@dhs.gov.

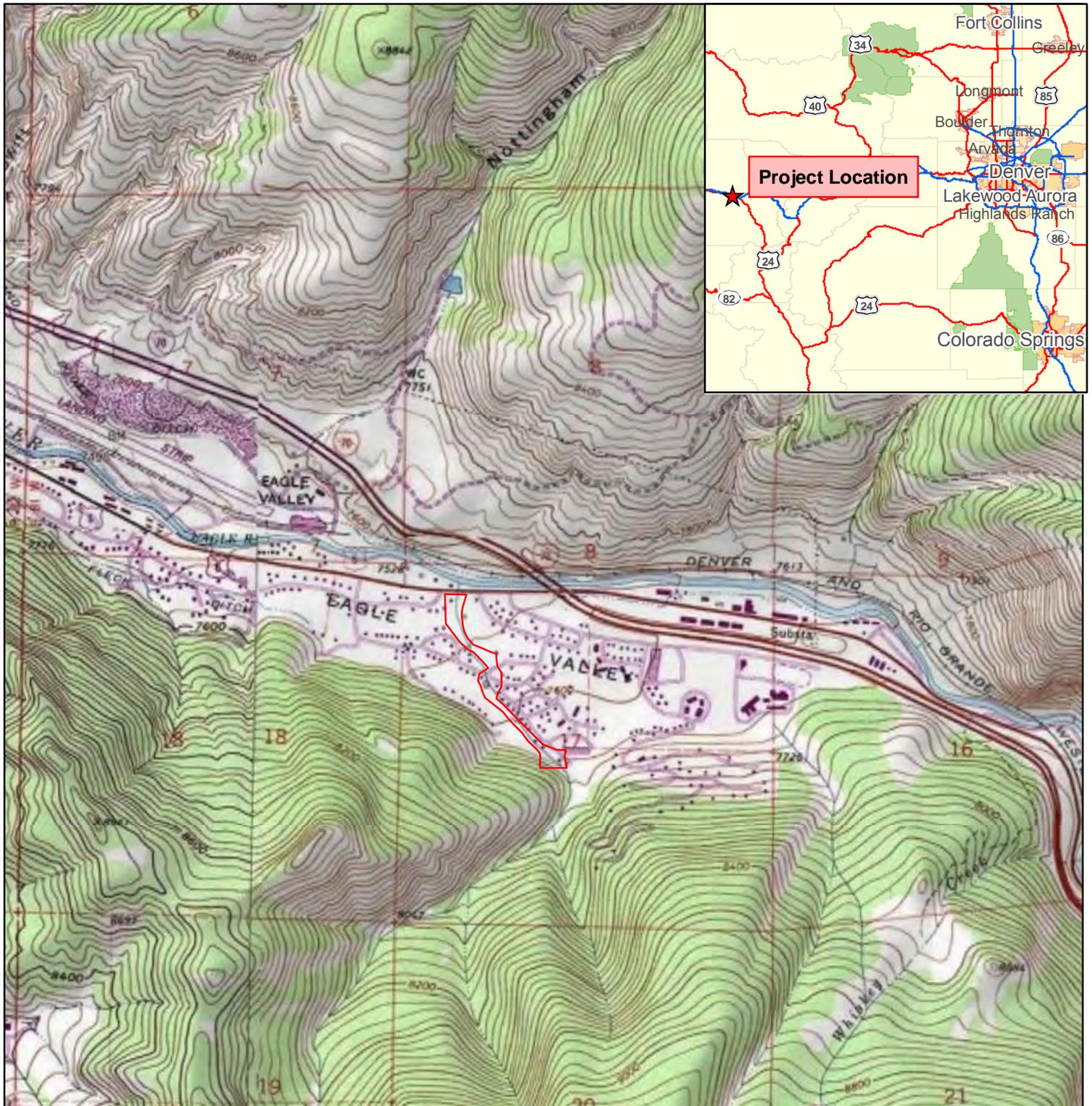
Sincerely,

  
Richard Myers  
Deputy Regional Environmental Officer  
FEMA Region VIII

Attachments:

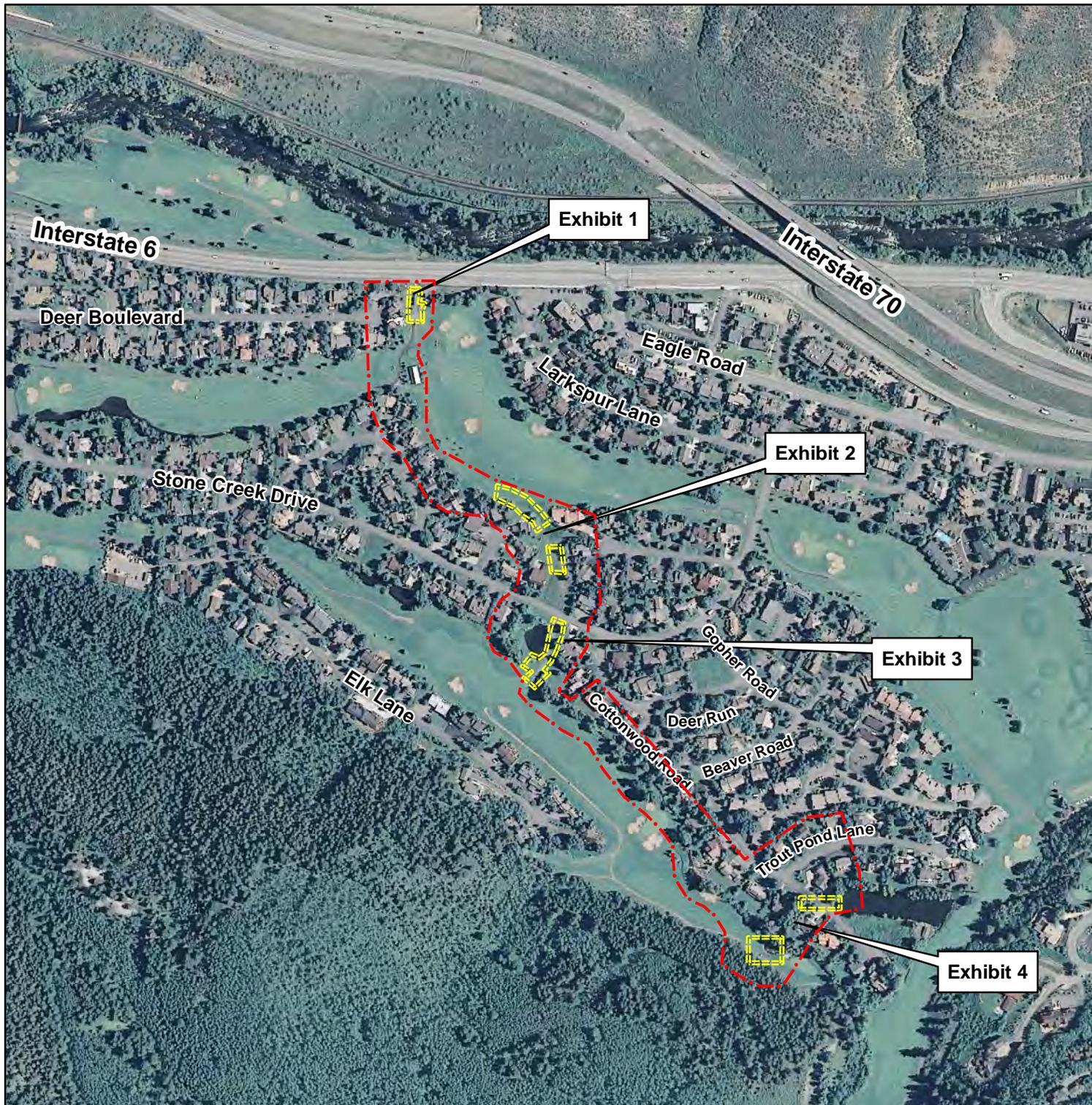
- 1 – Project Location Map
- 2 – APE Map
- 3 – Exhibits 1-5 Detailed project drawings and index to project drawings
- 4 – Photographic Log
- 5 – Colorado Cultural Resource Survey Architectural Inventory Form (OAHP 1430)
- 6 – 5EA2879 Sketch Map
- 7 – 5EA2879 Location Map

cc: Quentin Bliss, URS  
Robert Mutaw, URS



<b>PROJECT</b>	Section 106 Consultation – Channel Stabilization Project – FMA Stone Creek Floodplain, Eagle-Vail, Eagle County, Colorado
<b>SCALE</b>	1 inch = 2,000 feet
<b>SOURCE</b>	Minturn, Colorado USGS 7.5 Minute Topographic Map 1970, p.r. 1987

<b>Project Location Map</b>	
	<b>FEMA</b>
<b>ATTACHMENT NO. 1</b>	



Above-ground APE  
Archaeological APE



**PROJECT** Section 106 Consultation – Channel Stabilization Project – FMA Stone Creek Floodplain, Eagle-Vail, Eagle County, Colorado

**SCALE** 1 inch = 500 feet

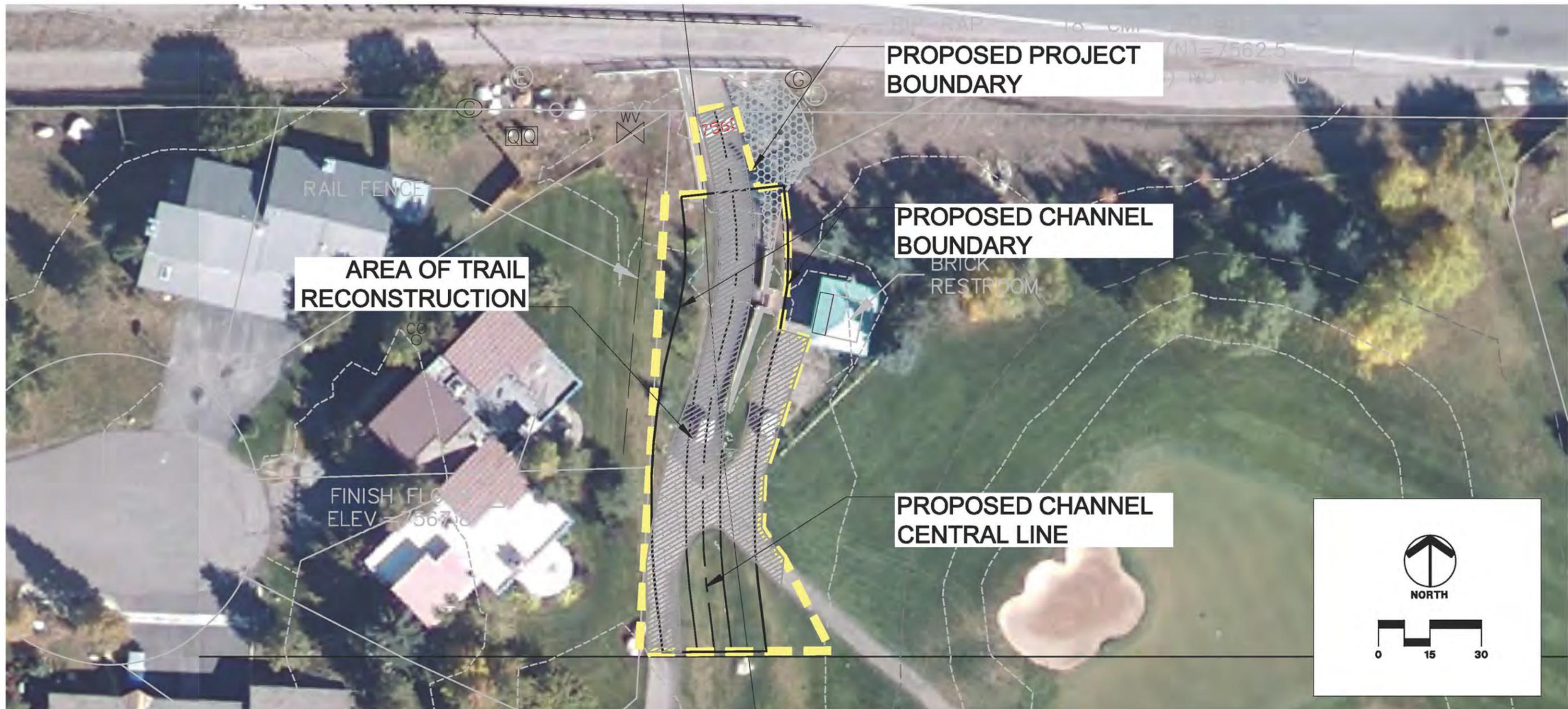
**SOURCE** Aerial Map Source  
National Geographic  
TOPO! 2010

**Area of Potential Effects**

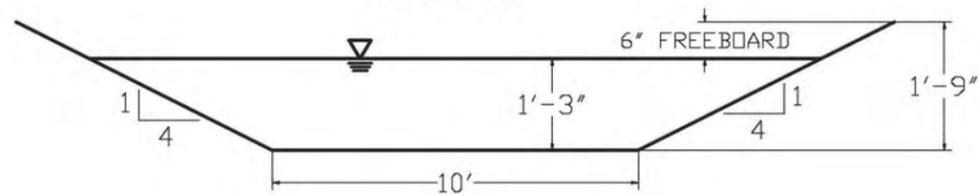


**FEMA**

**ATTACHMENT NO. 2**



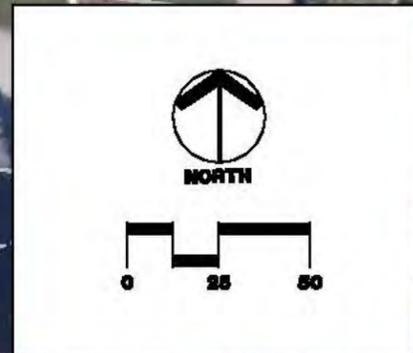
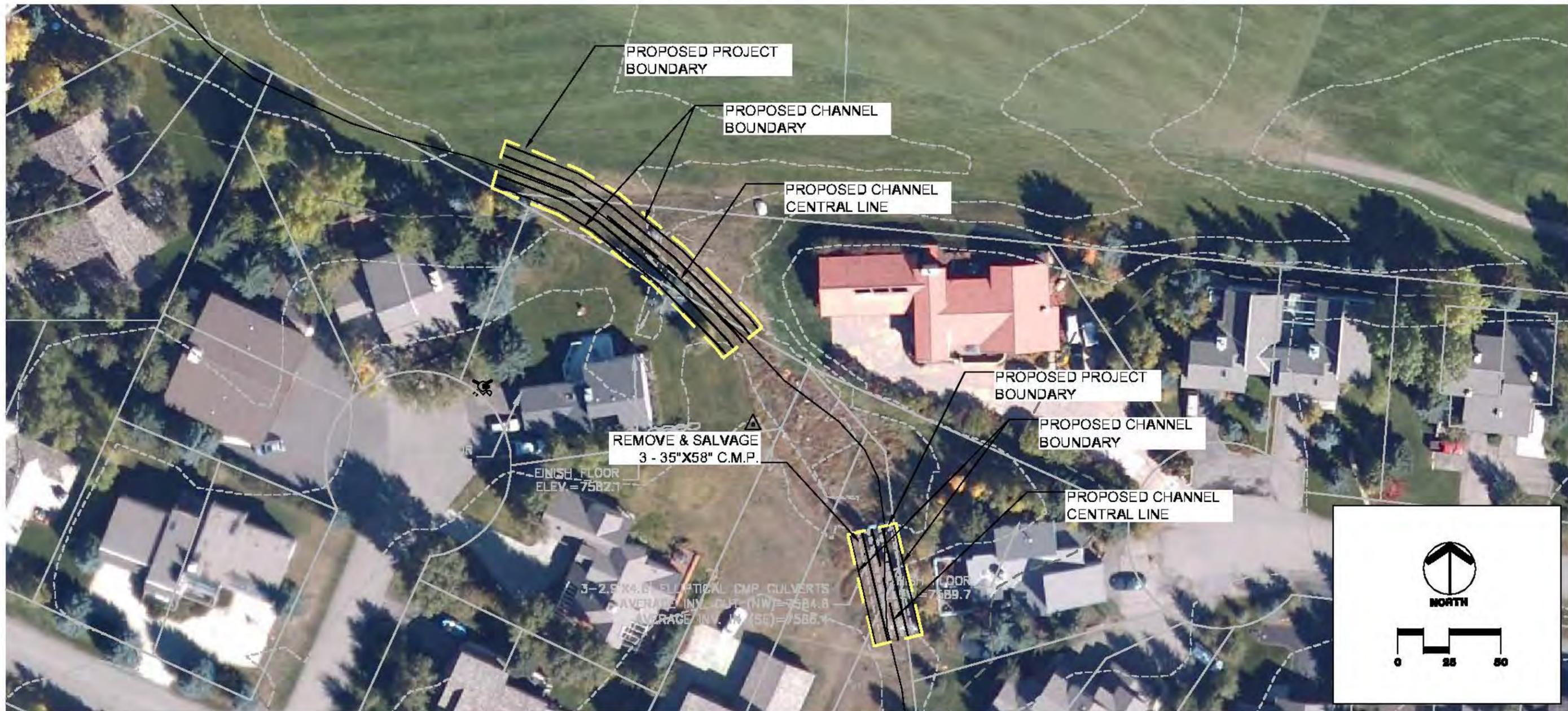
**Q<sub>100</sub> = 170 CFS**  
**SLOPE = 5%**



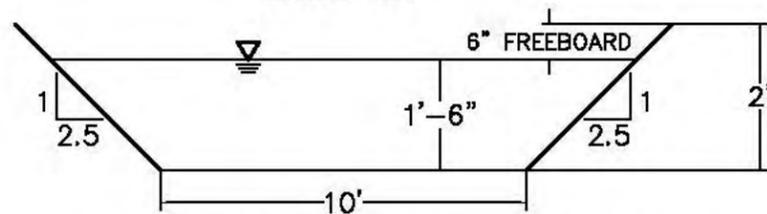
**CHANNEL CROSS SECTION (TYP.)**  
**SCALE HORIZONTAL = 1" : 5'**  
**SCALE VERTICAL = 1" : 2.5'**

**MITIGATION ACTIVITIES:**

REMOVE TRAIL ASPHALT	2,610	SF
REMOVE BRICK RETAINING WALL	50	LF
REMOVE 18" C.M.P.	83	LF
RECONSTRUCT TRAIL	2,610	SF
REGRADE NEW CHANNEL	135	LF
EXCAVATION	310	CY
REVEGETATION	2,900	SF



Q<sub>100</sub> = 170 CFS  
SLOPE = 3%



**CHANNEL CROSS SECTION (TYP.)**

SCALE HORIZONTAL 1"=5'  
SCALE VERTICAL 1"=2.5'

**MITIGATION ACTIVITIES:**

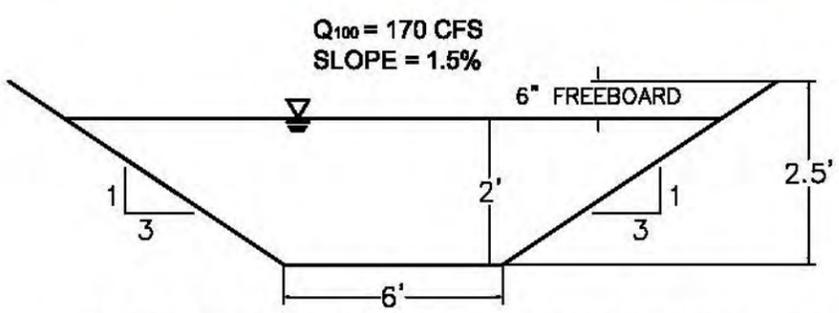
REGRADE NEW CHANNEL	148	LF
REGRADE NEW CHANNEL	55	LF
EXCAVATION	260	CY
REMOVE AND SALVAGE 3 - 35"X58" C.M.P.	150	LF
REVEGETATION	4,900	SF

R:\08.09.002 (Stone Creek Floodplain)\wp\Stone Creek - FEMA Grant.dwg 12/2/2009 9:45:51 AM MST



PROPOSED  
58"x35" ARCH C.M.P. OUT  
AND CONCRETE HEADWALL  
TO LIMIT FLOW TO 80 CFS  
IN GOLF CLUB CREEK

LOWER  
DIVERSION  
STRUCTURE AT  
HOLLAND POND



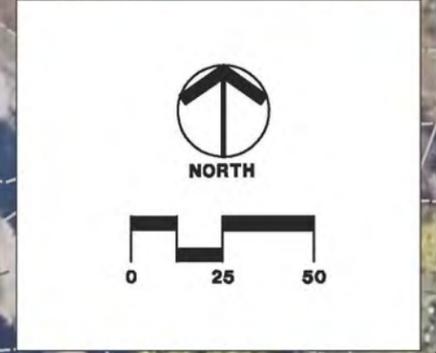
**BYPASS CHANNEL CROSS SECTION (TYP.)**  
SCALE HORIZONTAL 1"=5'  
SCALE VERTICAL 1"= 2.5'

**MITIGATION ACTIVITIES :**

REMOVE 2-29"x42" ARCH C.M.P.	56	LF
REGRADE NEW CHANNEL	180	LF
DIVERSION STRUCTURE CONCRETE HEADWALL	10	CY
EXCAVATION	500	CY
58"x35" C.M.P.	30	LF
BACKFILL	97	CY
REVEGETATION	7,300	SF

R:\08.093.002 (Stone Creek Floodplain)\dmg\Stone Creek - FEMA Grant.dwg 12/2/2009 9:45:51 AM MST

R:\08\_09\3\_002 (Stone Creek Floodplain)\dwg\Stone Creek - FEMA Grant.dwg 12/2/2009 9:45:51 AM MST



**MITIGATION ACTIVITIES:**

REMOVE ASPHALT	585	SF
EXCAVATION	200	CY
INSTALL SALVAGED 58"X35" C.M.P.	108	LF
BACK FILL	155	CY
INLET STRUCTURE	1	LS
OUTLET STRUCTURE	1	LS
ASPHALT PAVEMENT	585	SF
ROCK DIVERSION STRUCTURE	26	TN
REVEGETATION	1,035	SF





FEMA

# Attachment 4: PHOTOGRAPHIC LOG

**Subapplicant Name:**  
Eagle County, Colorado

**Project:**  
FMA Stone Creek Floodplain, Eagle-Vail, Eagle County, Colorado

**Photo No.**  
1      **Photo Date:**  
4/15/2011

**Site Number:**  
5EA2879

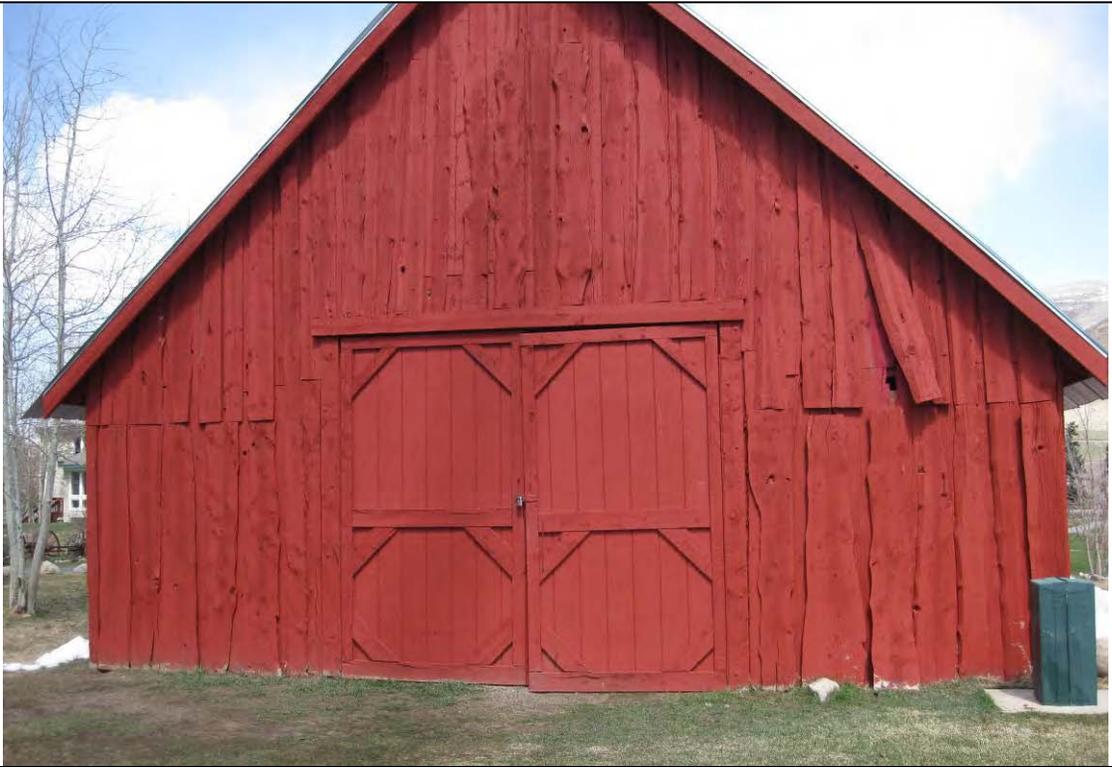
**Description:**  
Overview of barn looking northwest, note fairway, sandtrap, and modern residential buildings surrounding site.



**Photo No.**  
2      **Photo Date:**  
4/15/2011

**Site Number:**  
5EA2879

**Description:**  
View looking north at south face of barn.





FEMA

# PHOTOGRAPHIC LOG

**Subapplicant Name:**

Eagle County, Colorado

**Project:**

FMA Stone Creek Floodplain, Eagle-Vail, Eagle County, Colorado

**Photo No.**  
3

**Photo Date:**  
4/15/2011

**Site Number:**

5EA2879

**Description:**

Detail view of lapped board on board siding on south face of barn. View looking north-northeast.



**Photo No.**  
4

**Photo Date:**  
4/15/2011

**Site Number:**

5EA2879

**Description:**

View looking east at west side of barn from golf cart path. Note: new modern landscaping.





FEMA

# PHOTOGRAPHIC LOG

**Subapplicant Name:**

Eagle County, Colorado

**Project:**

FMA Stone Creek Floodplain, Eagle-Vail, Eagle County, Colorado

**Photo No.**

5

**Photo Date:**

4/15/2011

**Site Number:**

5EA2879

**Description:**

View looking south at north face of barn. Note: speakers on northeast corner, and electric box on northwest corner.



**Photo No.**

6

**Photo Date:**

4/15/2011

**Site Number:**

5EA2879

**Description:**

View looking south-southwest at east face of barn. Note: modern landscaping.





**Subapplicant Name:**  
Eagle County, Colorado

**Project:**  
FMA Stone Creek Floodplain, Eagle-Vail, Eagle County, Colorado

**Photo No.**  
7

**Photo Date:**  
4/15/2011

**Site Number:**  
5EA2879

**Description:**

Detail view of lapped board on board siding exposed and notched rafters with open eave.



**Photo No.**  
8

**Photo Date:**  
4/15/2011

**Site Number:**  
5EA2879

**Description:**

Detail of gravel surrounding structure. No foundation is present around the structure, and the structure is supported by posts at the corners.





FEMA

# PHOTOGRAPHIC LOG

<b>Subapplicant Name:</b> Eagle County, Colorado		<b>Project:</b> FMA Stone Creek Floodplain, Eagle-Vail, Eagle County, Colorado
<b>Photo No.:</b> 9	<b>Photo Date:</b> 4/15/2011	
<b>Site Number:</b> 5EA2879		
<b>Description:</b> Overview looking south at the barn with the second hole tee box in the foreground.		

<b>Photo No.:</b> 10	<b>Photo Date:</b> 4/15/2011	
<b>Site Number:</b> 5EA2879		
<b>Description:</b> Overview looking north from the second hole tee box toward Stone Creek, within the APE for the project.		



FEMA

# PHOTOGRAPHIC LOG

<b>Subapplicant Name:</b> Eagle County, Colorado		<b>Project:</b> FMA Stone Creek Floodplain, Eagle-Vail, Eagle County, Colorado
<b>Photo No.</b> 11	<b>Photo Date:</b> 4/15/2011	
<b>Site Number:</b> 5EA2879		
<b>Description:</b> View looking east at farm equipment with barn in background. It is not known if the equipment is related to the barn, or was relocated here to provide a "rustic feel" to the landscape.		

<b>Photo No.</b> 12	<b>Photo Date:</b> 4/15/2011	
<b>Site Number:</b> 5EA2879		
<b>Description:</b> Detailed view of farm equipment, view looking south.		

Resource Number: 5EA2879  
Temporary Resource Number:

## Attachment 5

OAHP1403  
Rev. 9/98

COLORADO CULTURAL RESOURCE SURVEY

# Architectural Inventory Form

Official eligibility determination  
(OAHP use only)

Date \_\_\_\_\_ Initials \_\_\_\_\_  
 Determined Eligible- NR  
 Determined Not Eligible- NR  
 Determined Eligible- SR  
 Determined Not Eligible- SR  
 Need Data  
 Contributes to eligible NR District  
 Noncontributing to eligible NR District

### I. IDENTIFICATION

1. Resource number: 5EA2879
2. Temporary resource number:
3. County: Eagle
4. City: Eagle-Vail, Colorado
5. Historic building name: Unknown/none
6. Current building name: Unknown/none
7. Building address: See owner name and address, item 8
8. Owner name and address: Eagle Vail Golf Course, 431 Eagle Drive, Avon, CO

### II. GEOGRAPHIC INFORMATION

9. P.M. 6th Township 5 South Range 81 West  
NW  $\frac{1}{4}$  of SE  $\frac{1}{4}$  of NW  $\frac{1}{4}$  of NW  $\frac{1}{4}$  of section 17
10. UTM reference  
Zone 1 3 ; 3 7 2 1 1 8 mE 4 3 8 6 8 2 4 mN
11. USGS quad name: Minturn, Colorado  
Year: 1970 p.r. 1987 Map scale: 7.5' X 15' Attach photo copy of appropriate map section.
12. Lot(s): \_\_\_\_\_ Block: \_\_\_\_\_  
Addition: \_\_\_\_\_ Year of Addition: \_\_\_\_\_
13. Boundary Description and Justification: The boundary is limited to the area immediately encompassing the structure; 30 feet east to west, and 65 feet north to south.

### III. Architectural Description

14. Building plan (footprint, shape): Rectangle
15. Dimensions in feet: Length 30 ft x Width 65 ft
16. Number of stories: 1
17. Primary external wall material(s): Vertical siding
18. Roof configuration: Front gabled
19. Primary external roof material: Metal roof
20. Special features: None
21. General architectural description: The bulding is a single-story, rectangular, barn, oriented NNW to SSE. The barn is a wood-framed building, covered with rough-cut planks, which are applied in a lapped, vertical manner.

## Attachment 5

Resource Number: 5EA2879

Temporary Resource Number:

The barn is front-gabled and is the modern roof is constructed of standing-seam metal. No foundation is present beneath the building, but vertical support beams are visible in each corner and a 6-inch-wide band of pea-sized gravel surrounds the exterior base of the building.

22. Architectural style/building type: Barn
23. Landscaping or special setting features: The building is adjacent to, and south of, the second hole tee box on the Eagle-Vail Golf Course. The landscape surrounding the building is primarily immature trees, rock planters, golf cart paths, and golf course fairways. Modern residential buildings surround the fairway around the site.
24. Associated buildings, features, or objects: The building is currently used as storage for golf course equipment. A piece of farm equipment has been incorporated into the landscape west of the barn. It is impossible to determine if the farm equipment is related to this barn, or has been brought in to give the landscape a more rustic feel.

### IV. ARCHITECTURAL HISTORY

25. Date of Construction: Estimate: 1934 Actual: Unknown  
Source of information: USGS 15' Topographic map (1934, minor corrections made in 1950) has an outbuilding symbol in the same location as 5EA2879
26. Architect: Unknown  
Source of information: N/A
27. Builder/Contractor: Unknown  
Source of information: N/A
28. Original owner: Unknown  
Source of information: N/A
29. Construction history (include description and dates of major additions, alterations, or demolitions): Unknown
30. Original location      Moved      Date of move(s): Unknown

### V. HISTORICAL ASSOCIATIONS

31. Original use(s): Agriculture: Storage/Barn
32. Intermediate use(s): Unknown
33. Current use(s): Commerce/Trade/Recreation-related
34. Site type(s):
35. Historical background: Government Land Office records indicate that Pierce Crane purchased the land in the northwest quarter of Section 17 in 1890 ([www.glorerecords.blm.gov](http://www.glorerecords.blm.gov)). No barn or outbuilding appears on any plat or survey maps until the 1934 USGS 15' Topographic Quadrangle Map of Minturn, Colorado.
36. Sources of information: [www.glorerecords.blm.gov](http://www.glorerecords.blm.gov), USGS 15' Topographic Quadrangle map, Minturn, Colorado (1934; revised 1950)

### VI. SIGNIFICANCE

37. Local landmark designation: Yes      No X Date of designation:               
Designating authority:

Resource Number: 5EA2879

## Attachment 5

Temporary Resource Number:

38. Applicable National Register Criteria:

- A. Associated with events that have made a significant contribution to the broad pattern of our history;
- B. Associated with the lives of persons significant in our past;
- C. Embodies the distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or that possess high artistic values, or represents a significant and distinguishable entity whose components may lack individual distinction; or
- D. Has yielded, or may be likely to yield, information important in history or prehistory.
- Qualifies under Criteria Considerations A through G (see Manual)
- Does not meet any of the above National Register criteria

39. Area(s) of significance:

40. Period of significance:

41. Level of significance: National  State  Local

42. Statement of significance: The building is not known to be associated with significant persons or events, nor is it architecturally distinctive. It is unlikely to yield additional information important to a greater understanding of local history.

43. Assessment of historic physical integrity related to significance: The building lacks integrity of setting, and feeling and appears to have been restored, restructured, and painted recently.

### VII. NATIONAL REGISTER ELIGIBILITY ASSESSMENT

44. National Register eligibility field assessment:

Eligible  Not Eligible  Need Data

45. Is there National Register district potential? Yes  No

Discuss: There is no National Register district potential for this site. This site represents an individual historic outbuilding that has no related context in the surrounding landscape. The building lacks integrity of setting, location, materials, workmanship, feeling and association, and is not related to specific person or event, and will not contribute to the greater understanding of historic agricultural practices in Eagle County.

If there is National Register district potential, is this building: Contributing  Noncontributing

46. If the building is in existing National Register district, is it: Contributing  Noncontributing

Resource Number: 5EA2879  
Temporary Resource Number:

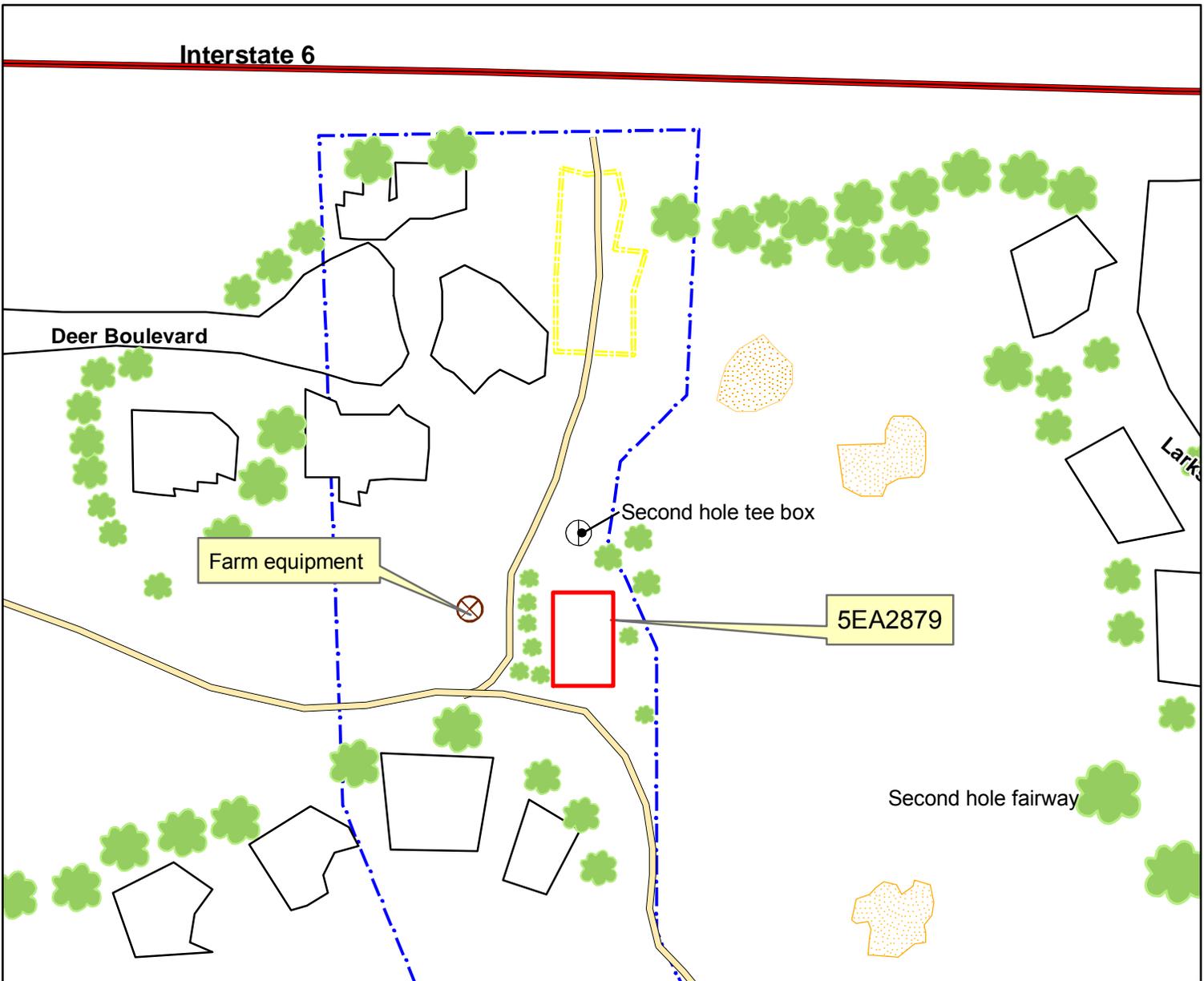
## Attachment 5

### VIII. RECORDING INFORMATION

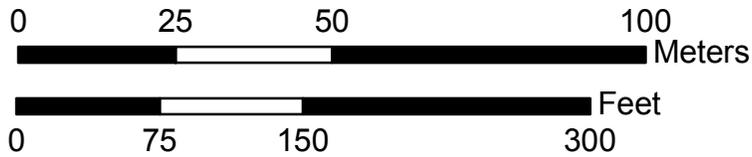
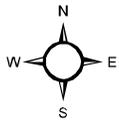
47. Photograph numbers: Photo Numbers 1-35  
Negatives filed at: URS Corporation, Denver Colorado
48. Report title: Section 106 Consultation – Channel Stabilization Project – FMA Stone Creek Floodplain, Eagle-Vail, Eagle County, Colorado
49. Date(s): 4/15/2011
50. Recorder(s): E. Roberts
51. Organization: URS Corporation
52. Address: 8181 East Tufts Ave
53. Phone number(s): 303-694-2770

NOTE: Please include a sketch map, a photocopy of the USGS quad map indicating resource location, and photographs.

Colorado Historical Society - Office of Archaeology & Historic Preservation  
1300 Broadway, Denver, CO 80203 (303) 866-3395



- Key:
- Modern Building
  - Archaeological APE
  - Above ground APE
  - Sand trap
  - Site boundary
  - Location of farm equipment
  - Golf cart path
  - Modern landscape/trees



**PROJECT** Section 106 Consultation – Channel Stabilization Project – FMA Stone Creek Floodplain, Eagle-Vail, Eagle County, Colorado

**SCALE** 1 inch = 100 feet

**SOURCE** Aerial Map Source  
National Geographic  
TOPO! 2010

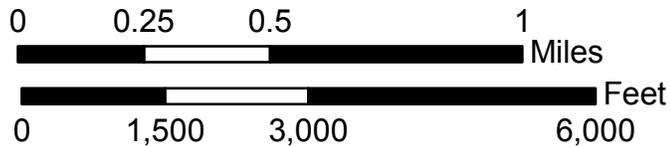
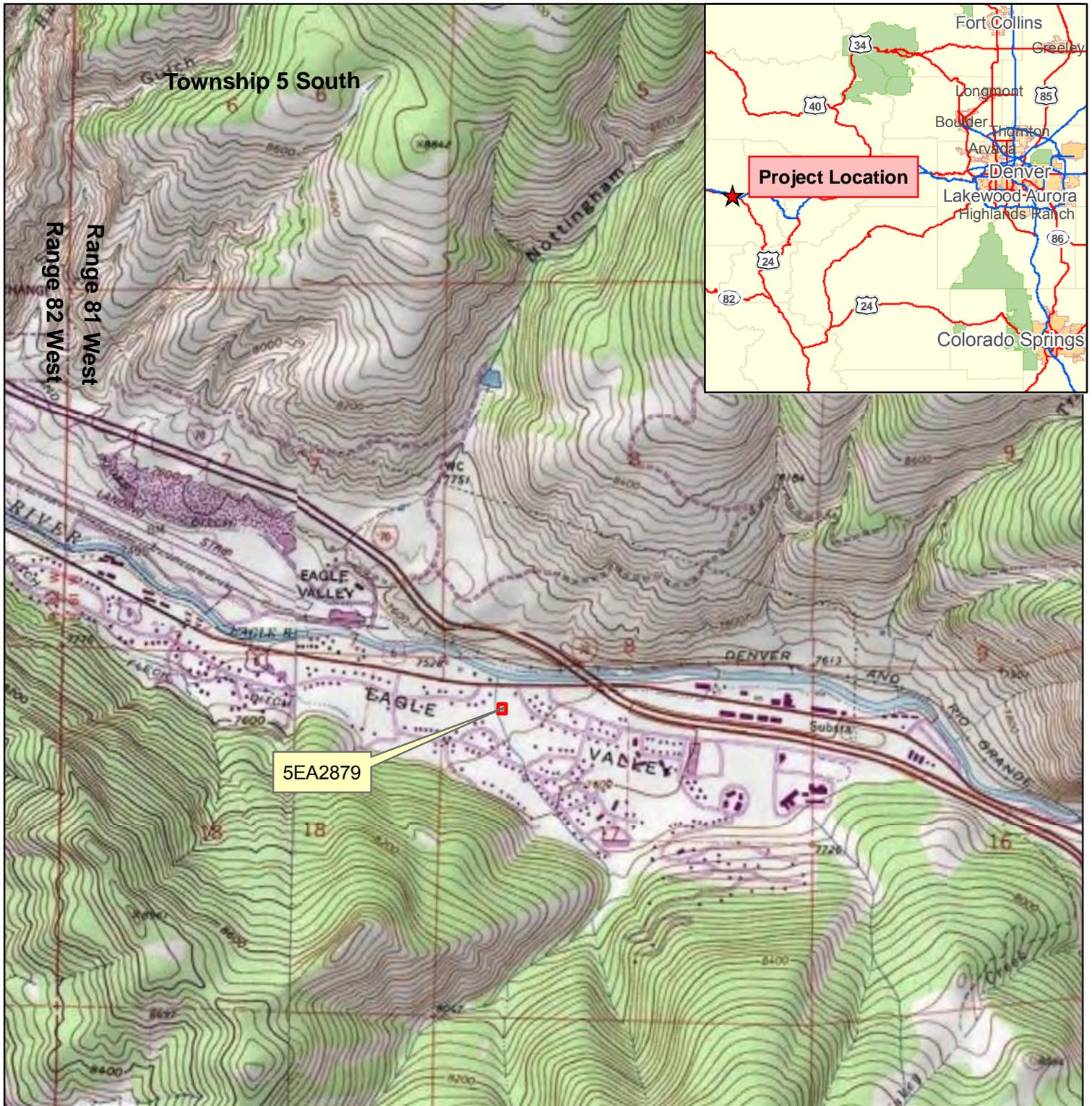
**5EA2879 Sketch Map**



**FEMA**

5EA2879 Sketch Map

**ATTACHMENT NO.6**



<b>PROJECT</b>	Section 106 Consultation – Channel Stabilization Project – FMA Stone Creek Floodplain, Eagle-Vail, Eagle County, Colorado
<b>SCALE</b>	1 inch = 2,000 feet
<b>SOURCE</b>	Minturn, Colorado USGS 7.5 Minute Topographic Map 1970, p.r. 1987

<b>Site Location Map</b>	
 <b>FEMA</b>	5EA2879 Location Map
<b>ATTACHMENT NO. 7</b>	