Letter of Compliance Completion

To: Michael Rubin, Chief of Maintenance

From: Elizabeth Dickey, Compliance Specialist

Subject: NEPA and NHPA Clearance: Replace 14 Culverts on the North Escarpment Waterline Access Road (PEPC: 96488) (PMIS: 249287,249491,249493,30894)

For complete compliance information see PEPC Project 96488.

The Superintendent and Interdisciplinary team have reviewed the scope of work and supporting documentation provided in the Planning, Environment, and Public Comment (PEPC) system, and all applicable associated compliance documentation and consultation (e.g. National Environmental Policy Act, National Historic Preservation Act, Endangered Species Act, Clean Water Act, Clean Air Act, Wilderness Act, Tribal consultation under EO13175, and other related laws and policies).

Pending approval by the Bureau of Land Management for work on their lands, the subject proposed project is now cleared for all compliance requirements. Project plans and specifications are approved, project funds may be released, and construction can commence with the following mitigations and conditions/stipulations.

Required Mitigations - For the proposed project actions to be within compliance requirements during construction and/or project implementation, the following mitigations must be adhered to:

- If tree removal is necessary from April 1- August 15, then nest surveys will be conducted within the action area of the project (50 m buffer around footprint). If active nests are detected in targeted (for removal) trees or within 50 meters of targeted trees, the nests will be monitored during the nesting/construction season. Any trees containing nests will not be removed until the nest is deemed inactive. The nest surveys will need to be conducted each migratory bird nesting season (April 1- August 15) during which construction activities are planned and before construction activities commence that season (i.e. pre-construction nest surveys/results conducted in May of 2021 would not be valid for construction in May of 2022, they would be valid through August 15 of 2021).
  Comment: Dates of nesting season have been updated. 7/28/2020
- The park will revegetate the disturbed culvert areas with a native seed mix tailored for the site conditions.
- The park will treat the Russian knapweed, Tamarisk and Siberian elm found around these culverts to prevent these species from expanding and invading other areas.
  Comment: Several non-native invasive species are present in the work area. Mesa Verde National Park will treat Russian knapweed, Tamarisk and Siberian elm pre-construction to prevent these species from spreading during construction and disturbance. Also, the park will require the contractor to clean vehicles and equipment before and after construction to prevent the spread of invasive species. The park will require contractors to follow the US Army Corps of Engineers BMPs for cleaning equipment and preventing the spread of invasive aquatic organisms (USACE 2017). Several non-native invasive species are present in the work area. Mesa Verde National Park will treat Russian knapweed, Tamarisk and Siberian elm pre-construction to prevent these species from spreading during construction and disturbance. Also, the park will require the contractor to clean vehicles and equipment before and after construction to prevent the spread of invasive species. The park will require contractors to follow the US Army Corps of Engineers BMPs for cleaning equipment and preventing the spread of invasive aquatic organisms (USACE 2017).
- Erosion and sediment controls as well as Best Management Practices will be used during project construction to minimize effects the intermittent drainages.

- Replacement of culverts are exempt from permitting of section 404 of the Clean Water Act under a maintenance exemption as long as the "maintenance does not include any modification that changes the character, scope, or size of the original fill design (USACE 2005)." The replacement of Culvert 1 is also eligible for a maintenance exemption despite the presence of the spring since the source of the water supplying the spring emanates 55 m (180 ft) from the upstream edge of the culvert. The point source of the water for the spring is located farther than the 100 ft of the proposed culvert replacement work which is the distance required for a pre-construction notification.
- Gilia haydenii, Penstemon breviculus and Cirsium arizonicum occur in the project area. During the culvert replacement project rare plants will be avoided when possible. In many instances, avoidance is not possible so mortality of individuals will occur. To compensate for rare plant losses the park will collect seed from these species and sow them immediately after project completion to ensure they continue to remain a component in the seed bank post-construction. Seed from Penstemon breviculus may be difficult to collect since the plant is palatable to livestock. Only a few were flowering or suitable for potential seed collection since most showed signs of being grazed.
- Archaeological monitoring is required during ground disturbing activities that have the potential to affect cultural resources. Notify Gay Ives (970-529-5023, gay_ives@nps.gov, Radio Call #505) prior to excavation. Provide construction schedule to Gay Ives when available.
- All construction equipment that will leave paved or dirt roads shall be pressure-washed prior to entering the project area and shall be clean of any soil, plant matter, or other materials. NPS natural resource specialists or the project manager shall inspect the vehicles prior to entry into the park.
- Water plant operators will need to locate water mains (one abandoned and one live) prior to construction. Special care needs to be in place when digging around these water mains. Provide water plant operators with SOP in case of a water main break. Provide water plant operators with construction schedule when available.

NHPA Recommendations for Conditions or Stipulations:

Provide Gay Ives (970-529-5023, gay_ives@nps.gov, Radio Call # 505) the construction schedule when available so that an archaeological monitor can be provided for ground disturbing activities.

ASSESSMENT OF ACTIONS HAVING AN EFFECT ON HISTORIC PROPERTIES

A. DESCRIPTION OF UNDERTAKING

1. Park: Mesa Verde National Park

2. Project Description:

Project Name: Replace 14 Culverts on the North Escarpment Waterline Access Road
Prepared by: Elizabeth Dickey **Date Prepared:** 07/05/2020 **Telephone:** 970-529-4664
PEPC Project Number: 96488 (Inclusive of PEPC #s 92530, 92536, 92556, & 92647)
Locations:
County, State: Montezuma, CO **District, Section:** CO03, **Other:** North Escarpment

Describe project:
MVNP is proposing to replace 14 culverts located along the Park's waterline right-of-way, located approximately one mile north and west of the Mesa Verde National Park boundary, along the North Escarpment, Montezuma County, Colorado. These culverts provide a drainage path within intermittent drainages that pass underneath the Park's main waterline and access road. These 14 non-historic culverts were constructed during the Waterline Replacement Project Phase III, in 1992. The replacement of the 14 culverts will take place on BLM, State of Colorado, and private land.

These drainage structures protect the main 8" waterline that traverses the Montezuma Valley floor from the Park's Water Treatment Plant west to the base of the North Escarpment. These culverts protect the pipeline from damage caused by flooding. The waterline is the Park's only water source and is critical for all operations, visitor services (585,000 annual visitors) and fire protection.

Most of the existing culverts are 28 years old and are corroded, deteriorated, and in some cases damaged beyond repair. Poor designs and improper channeling cause frequent plugging and extremely high maintenance as they do not allow debris to pass through the structures. They are not draining effectively and are contributing to erosion of the access road and embankments. If the structures plug during high water flooding events, the Park's waterline could be destroyed, causing the water supply to be lost, contaminated, and the park could be closed until repairs are made.

The intermittent drainages have been flooded and cleaned so many times, that it will be necessary to realign the drainages into and out of the culverts. The upgraded aprons and concrete head walls will prevent this from happening in the future.

The project is divided into four smaller projects for the purposes of contracting and funding. The work will be conducted between the summer of 2020 and the summer of 2022.

The scope of work for all 14 culvert replacements includes the following:

- The area of direct ground disturbance includes all staging areas, plus 25 ft around each culvert to maneuver equipment. The maximum depth of excavation is 10 feet.

- Impacts include compaction and surface ground disturbance within 25 ft of each culvert resulting from driving equipment in the area. Compaction and ground surface disturbance in the staging areas. Excavation up to 10 feet to remove existing culverts and install new culverts.

- Culverts and staging areas are located on BLM land, State of Colorado land, and private property. The Project Leader will be consulting and coordinating with property owners to time the construction. The project will have to

be scheduled around when the fields are used for cattle grazing and hunting season. Equipment and materials to be used on the culvert replacement project will be placed on the staging areas.

Scope of Work to Replace Culverts 13, 14, and 15
(PEPC # 92530, PMIS # 249491C)

This project involves in-kind replacement of three waterline crossing culverts in creek drainages over the main waterline on the park's northern boundary. Replacement of culverts 13, 14, and 15 is expected to start in August 2020.

Work on these culverts will be performed by NPS staff:

- Culvert #13 is 78 feet in length by 6 ft in diameter. The associated staging area is 0.32 acres (0.13 ha). The culvert and associated staging area are located on private property.

- Culvert #14 is 74 ft in length by 7 ft in diameter. The associated staging area is 0.28 acres (0.11 ha). Culvert #14 and the associated staging area are located on BLM property.

- Culvert #15 is 80 ft in length by 8 ft in diameter. The associated staging area is 0.10 acres (0.06 ha). Culvert #15 is located on private property and the staging area is located on BLM property.

Work will include excavation, minor drainage rerouting for the new culverts, and the re-bedding of the 6-inch diameter waterline 2 feet below the new culverts. All new culverts will be fitted with two replacement concrete aprons and head walls. Equipment used include a vibratory roller, front end loader, and a 50k-pound excavator.

Scope of Work to Replace Culverts 1, 2, 3, 4, and 6
(PEPC #92536, PMIS #249493C)

This project involves in-kind replacement of five waterline crossing culverts in unnamed intermittent drainages over the main waterline on the park's northern boundary. Replacement of culverts 1, 2, 3, 4, and 6 is expected to start in Fiscal Year (FY) 2021.

Work on these culverts will be performed by the Federal Highways Administration or a contractor:

- Culvert #1 is 76 feet (ft) in length by 8 ft in diameter. The associated staging area is 0.17 acres (0.074 ha). Culvert #1 and the associated staging area are located on BLM property.

- Culvert #2 is 48 ft in length by 4 ft in diameter. There are two associated staging areas for this culvert. Staging Area 2a is 0.09 acres (0.37 ha) and Staging Area 2b is 0.125 acres (0.61 ha). Culvert #2 and the associated staging areas are located on BLM property.

- Culvert #3 is 75 ft in length by 3 ft in diameter. The associated staging area is 0.28 acres (0.14 ha). Culvert #3 and the associated staging are located on BLM property.

- Culvert #4 is 54 ft in length by 4 ft in diameter. The associated staging area is 0.30 acres (0.92 ha). Culvert #4 and the associated staging area are located on BLM property.

- Culvert #6 is 100 ft in length by 5 ft in diameter with a 30-degree bend at 20 ft. (State of Colorado land), The associated staging area is 0.42 acres (0.16 ha). Culvert #6 and its associated staging area are located on land owned by the State of Colorado.

Work will include excavation, minor drainage rerouting for the new culverts, and the re-bedding of the 6-inch diameter waterline 2 feet below the new culverts. All new culverts will be fitted with two replacement concrete aprons and head walls. Equipment used include a vibratory roller, front end loader, and a 50k-pound excavator.

Scope of Work to Replace Culvert 8, 10.1, and 10.2
(PEPC #92552, PMIS #249287C)

This project involves replacing three waterline crossing culverts in creek drainages over the main waterline on the park's northern boundary. Replacement of culverts 8, 10.1, and 10.2 is expected to start in Spring/Summer 2021.

Construction includes replacement of three corrugated culverts:

- Culvert #8 is 80 ft in length by 4 feet in diameter. The associated staging area is 0.29 acres (0.12 ha). Culvert #8 and the staging area are located on BLM property.

- Culvert #10.1 is 72 ft in length by 4ft in diameter. The staging area is 0.32 acres (0.19 ha). Culvert #10.1 and the staging area are located on BLM property.

- Culvert #10.2 is 72 ft in length by 4 ft in diameter. Culvert #10.2 will share the 0.32 acre staging area for Culvert #10.1. Culverts #10.1is located on BLM property.

Culverts 10.1 and 10.2 are in two smaller drainages converging into one bigger drainage as it crosses over the waterline. Work will include excavation, minor drainage rerouting for the new culverts, and the relocation of the 6-inch diameter waterline 2 feet below the new culverts. All new culverts will be fitted with two replacement concrete aprons and head walls.

Scope of Work to Replace Culvert 7, 11, and 12
(PEPC #92647, PMIS #308940B)

This project involves replacing three waterline crossing culverts in creek drainages over the main waterline on the park's northern boundary. Replacement of culverts 7, 11, and 12 is expected to start in FY 2021.

Construction includes replacement of three corrugated culverts:

- Culvert #7 is 100 ft in length by 5 feet in diameter. The associated staging area is 0.32 acres (0.15 ha). Culvert #7 is located on BLM property. The associated staging area is on private property.

- Culvert #11 is 68 ft in length by 6ft in diameter. The associated Staging Area is 0.29 acres (0.14 ha). Culvert #11 and the associated staging area are located on BLM property.

- Culvert #12 is 95 ft in length by 9 ft in diameter. The associated staging area is 0.33 acres (0.27 ha). Culvert #12 and the associated staging area are located on BLM property.

Work will include excavation, minor drainage rerouting for the new culverts, and the relocation of the 6-inch diameter waterline 2 feet below the new culverts. All new culverts will be fitted with replacement concrete aprons and head walls.

Area of potential effects (as defined in 36 CFR 800.16[d])

Potential impacts of the project include ground compaction, trampling, and disturbing the soil up to 10 feet deep. The ground surface will be trampled and compressed in the staging areas. Driving equipment, such as a track hoe, heavy trucks, or a dump truck, around the culvert construction site will disturb the top soil and plants. There will be a temporary increase in dust and noise during construction, but this will not have any permanent effects to the area. There are no anticipate cumulative impacts.

The APE includes all areas of direct impacts, including staging areas and access routes. The access route is the 20 ft wide Waterline Access Road. Staging areas for each culvert range in size from 0.1 acre to 0.42 acres. An area of 25 feet around each culvert is included as the construction area. Equipment and vehicles will be allowed to maneuver within this area.

3. Has the area of potential effects been surveyed to identify historic properties?

____ **No**

_X_ **Yes**

Source or reference:

1991 – Arrington, Kristie M
Report of Examination for Cultural and Paleontological Resources: Mesa Verde Water Pipeline Right-of-Way: Public Land Segments West of Mesa Verde National Park, Montezuma County, Colorado, Report Number #SJ91009. Bureau of Land Management, San Juan Resource Area.

1991 – Flint, Patricia Robins
Archeological Inventory, Mesa Verde National Park Aqueduct Replacement: Right-of-Way, Park Entrance Southwest to North Rim of Mesa, Package Number MEVE223B. Flint Research Associates.

1991 – Flint, Patricia Robins
Mesa Verde National Park Aqueduct Replacement, Archeological Inventory Access Roads, Package Number MEVE223B. Flint Research Associates.

1992 – Dominquez, Steve
Report on Staking of Archeological Sites Below North Rim for Mesa Verde Pipeline Replacement Project, Phase III. United States Department of the Interior, National Park Service, Midwest Archeological Center, Lincoln, Nebraska.

1992 – Dominquez, Steve
Preliminary Report on 1992 Field Investigations in Areas Impacted by Mesa Verde Aqueduct Construction, North of Mesa Verde National Park. United States Department of the Interior, National Park Service, Midwest Archeological Center, Lincoln, Nebraska.

1993 – Brisbin, Joel M. and Gay A. Ives
Mesa Verde Waterline Replacement Project Phase III, Data Recovery Revisions: Treatment Plan for 5MT10594, 5MT10595, and 5MV10834, Located on BLM Managed Lands. Mesa Verde National Park, Division of Research and Resources Management, Colorado.

1995 – Dominquez, Steve
Draft Report Testing and Excavation at Sites 5MT10594, 5MT10595, 5MT10834, 5MT11451, 5MT11667, 5MT11668, 5MT11709, 5MT11710, Montezuma Valley. United States Department of the Interior, National Park Service, Midwest Archeological Center, Lincoln, Nebraska.

1996 – Dominquez, Steve
Testing and Mitigation at Sites 5MT11451, 5MT11452, 5MT11667, 5MT11668, 5MT11709, and 5MT11710 in the Montezuma Valley. United States Department of the Interior, National Park Service, Midwest Archeological Center, Lincoln, Nebraska.

1999 – Ives, Gay A., Joel M. Brisbin, Julie A. Bell, Cynthia L. Williams, Patricia R. Flint-Lacey, and Steve Dominquez
Mesa Verde Waterline Replacement Project Phase III Archeological and Historical Studies, Package #223B. Division of Research and Resource Management, Mesa Verde National Park.

2000 –Gasser, Erv, U.S. Department of Interior, National Park Service

Bircher Fire, Burned Area Emergency Rehabilitation Plan. Southern States BAER Team, NPS Mesa Verde National Park, BIA Ute Mountain Ute Tribe; BLM San Juan Field Office; Cortez, Colorado.

2003 – Diederichs, Shanna; Jim Kleidon, Michael Hendrix, Dani Long, Sarah Payne, Ed Rezac, Bryan Shanks, Joseph Tuomey, Jeremy Karchut, Vince MacMillian, and John Beezley
Bircher New Site Inventory, Archeological Research Series. Mesa Verde National Park, Division of Research and Resource Management, PO Box 8, Mesa Verde National Park, Colorado 81330, 2003.

2017 – Harrison, G. William M., Justin S. Tweet, Vincent L. Santucci, and George L. San Miguel
Mesa Verde National Park, Paleontological Resources Inventory (Non-Sensitive Version) Natural Resources Report NPS/MEVE/NRR – 2017/1550. United States Department of the Interior, National Park Service, Natural Resource Stewardship and Science, Fort Collins, Colorado.

4. Potentially Affected Resource(s):

Archeological Resources Present: No

Archeological Resources Notes: The area has been disturbed in the past. The waterline access right-of-way and the staging areas have been used repeatedly for repairs to the waterline and staging equipment when the pipe was replaced as part of the Phase III Waterline Replacement project. The entire area is heavily grazed by cattle which have trampled the landscaped.

Historical Structures/Resources Present: Yes
Property Name: West Mancos Water Supply System (5MT22753) **LCS:** N/A **ParkID:** 5MT22753

Historical Structures/Resources Notes: The project will not impact the buried waterline. The road will be repaired in-kind (graded to eliminate potholes and ruts). The existing culverts are less than 50 years old and do not contribute to the West Mancos Water Supply System.

Cultural Landscapes Present: No

Ethnographic Resources Present: No

5. The proposed action will: (check as many as apply)

No Destroy, remove, or alter features/elements from a historic structure

No Replace historic features/elements in kind

No Add non-historic features/elements to a historic structure

Yes Alter or remove features/elements of a historic setting or environment (inc. terrain)

Yes Add non-historic features/elements (inc. visual, audible, or atmospheric) to a historic setting or cultural landscape

No Disturb, destroy, or make archeological resources inaccessible

No Disturb, destroy, or make ethnographic resources inaccessible>

Yes Potentially affect presently unidentified cultural resources

No Begin or contribute to deterioration of historic features, terrain, setting, landscape elements, or archeological or ethnographic resources

No Involve a real property transaction (exchange, sale, or lease of land or structures)

____ Other (please specify): _____

6. Supporting Study Data:
(Attach if feasible; if action is in a plan, EA or EIS, give name and project or page number.)

B. REVIEWS BY CULTURAL RESOURCE SPECIALISTS

The park 106 coordinator requested review by the park's cultural resource specialist/advisors as indicated by check-off boxes or as follows:

[X] 106 Advisor
Name: Elizabeth Dickey
Date: 07/05/2020
Comments: The project will replace culverts that are less than 50 years old. The project area has been previously surveyed for archaeological resources and the waterline corridor has been surveyed for architectural resources. The historic integrity of the West Mancos Water Supply System will not be diminished. Replacing the deteriorating culverts is necessary to maintain the park's only reliable source of water.

Check if project does not involve ground disturbance **[ ]**
Assessment of Effect: ___No Potential to Cause Effect ___No Historic Properties Affected __X__No Adverse Effect ___Adverse Effect __X__Streamlined Review
Recommendations for conditions or stipulations: When available, add daily construction reports to PEPC as documentation.

Doc Method: Streamlined Review (PA)
Streamlined Activity:
11. Culvert Replacement

No Reviews From: Curator, Archeologist, Historical Architect, Historian, Other Advisor, Anthropologist, Historical Landscape Architect

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C. PARK SECTION 106 COORDINATOR'S REVIEW AND RECOMMENDATIONS

1. Assessment of Effect:

_____ No Potential to Cause Effects
_____ No Historic Properties Affected
____X____ No Adverse Effect
_____ Adverse Effect

2. Documentation Method:

[ ] A. Standard 36 CFR Part 800 Consultation
Further consultation under 36 CFR Part 800 is needed.

[X] B. Streamlined Review Under the 2008 Servicewide Programmatic Agreement (PA)
The above action meets all conditions for a streamlined review under section III of the 2008 Servicewide PA for Section 106 compliance.

Applicable Streamlined Review Criteria
(Specify 1-16 of the list of streamlined review criteria.)

11. Culvert Replacement.

[ ] C. Undertaking Related to Park Specific or Another Agreement
The proposed undertaking is covered for Section 106 purposes under another document such as a park, region or statewide agreement established in accord with 36 CFR 800.7 or 36 CFR 800.14.

[ ] D. Combined NEPA/NHPA Process
Process and documentation required for the preparation of an EA/FONSI or an EIS/ROD to comply with Section 106 is in accord with 36 CFR 800.8.c.

[ ] E. Memo to Project File

3. Consultation Information

SHPO Required: No
THPO Required: No
Advisory Council Participating: No
Additional Consulting Parties: Bureau of Land Management, Federal Highway Administration

4. Stipulations and Conditions: Following are listed any stipulations or conditions necessary to ensure that the assessment of effect above is consistent with 36 CFR Part 800 criteria of effect or to avoid or reduce potential adverse effects.

- Provide Gay Ives (970-529-5023, gay_ives@nps.gov, Radio Call # 505) the construction schedule when available so that an archaeological monitor can be provided for ground disturbing activities.

5. Mitigations/Treatment Measures: Measures to prevent or minimize loss or impairment of historic/prehistoric properties: (Remember that setting, location, and use may be relevant.)

Required Mitigations - For the proposed project actions to be within compliance requirements during construction and/or project implementation, the following mitigations must be adhered to:

- The park will revegetate the disturbed culvert areas with a native seed mix tailored for the site conditions.
- The park will treat the Russian knapweed, Tamarisk and Siberian elm found around these culverts to prevent these species from expanding and invading other areas.
  Comment: Several non-native invasive species are present in the work area. Mesa Verde National Park will treat Russian knapweed, Tamarisk and Siberian elm pre-construction to prevent these species from spreading during construction and disturbance. Also, the park will require the contractor to clean vehicles and equipment before and after construction to prevent the spread of invasive species. The park will require contractors to follow the US Army Corps of Engineers BMPs for cleaning equipment and preventing the spread of invasive aquatic organisms

(USACE 2017). Several non-native invasive species are present in the work area. Mesa Verde National Park will treat Russian knapweed, Tamarisk and Siberian elm pre-construction to prevent these species from spreading during construction and disturbance. Also, the park will require the contractor to clean vehicles and equipment before and after construction to prevent the spread of invasive species. The park will require contractors to follow the US Army Corps of Engineers BMPs for cleaning equipment and preventing the spread of invasive aquatic organisms (USACE 2017).

- Erosion and sediment controls as well as Best Management Practices will be used during project construction to minimize effects the intermittent drainages.
- Replacement of culverts are exempt from permitting of section 404 of the Clean Water Act under a maintenance exemption as long as the "maintenance does not include any modification that changes the character, scope, or size of the original fill design (USACE 2005)." The replacement of Culvert 1 is also eligible for a maintenance exemption despite the presence of the spring since the source of the water supplying the spring emanates 55 m (180 ft) from the upstream edge of the culvert. The point source of the water for the spring is located farther than the 100 ft of the proposed culvert replacement work which is the distance required for a pre-construction notification.
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- If tree removal is necessary from April 15- August 15, then nest surveys will be conducted within the action area of the project (50 m buffer around footprint). If active nests are detected in targeted (for removal) trees or within 50 meters of targeted trees, the nests will be monitored during the nesting/construction season. Any trees containing nests will not be removed until the nest is deemed inactive.
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- All construction equipment that will leave paved or dirt roads shall be pressure-washed prior to entering the project area and shall be clean of any soil, plant matter, or other materials. NPS natural resource specialists or the project manager shall inspect the vehicles prior to entry into the park.
- Water plant operators will need to locate water mains (one abandoned and one live) prior to construction. Special care needs to be in place when digging around these water mains. Provide water plant operators with SOP in case of a water main break. Provide water plant operators with construction schedule when available.

6. Assessment of Effect Notes:

The culvert replacement will occur within existing disturbed ground and the culverts are less than 50 years old.

D. RECOMMENDED BY PARK SECTION 106 COORDINATOR:

Compliance Specialist:

NHPA Specialist

Elizabeth Dickey _____ **Date:** 7/30/2020

E. SUPERINTENDENT'S APPROVAL

The proposed work conforms to the NPS *Management Policies* and *Cultural Resource Management Guideline*, and I have reviewed and approve the recommendations, stipulations, or conditions noted in Section C of this form.

Superintendent: CLIFFORD SPENCER Digitally signed by CLIFFORD SPENCER Date: 2020.07.30 13:27:21 -06'00' **Date:** _____

Clifford Spencer

Categorical Exclusion Documentation Form (CE Form)

Project: Replace 14 Culverts on the North Escarpment Waterline Access Road
PEPC Project Number: 96488
Description of Action (Project Description):

MVNP is proposing to replace 14 culverts located along the Park's waterline right-of-way, located approximately one mile north and west of the Mesa Verde National Park boundary, along the North Escarpment, Montezuma County, Colorado. These culverts provide a drainage path within intermittent drainages that pass underneath the Park's main waterline and access road. These 14 non-historic culverts were constructed during the Waterline Replacement Project Phase III, in 1992. The replacement of the 14 culverts will take place on BLM, State of Colorado, and private land.

These drainage structures protect the main 8" waterline that traverses the Montezuma Valley floor from the Park's Water Treatment Plant west to the base of the North Escarpment. These culverts protect the pipeline from damage caused by flooding. The waterline is the Park's only water source and is critical for all operations, visitor services (585,000 annual visitors) and fire protection.

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The intermittent drainages have been flooded and cleaned so many times, that it will be necessary to realign the drainages into and out of the culverts. The upgraded aprons and concrete head walls will prevent this from happening in the future.

The project is divided into four smaller projects for the purposes of contracting and funding. The work will be conducted between the summer of 2020 and the summer of 2022.

The scope of work for all 14 culvert replacements includes the following:

- The area of direct ground disturbance includes all staging areas, plus 25 ft around each culvert to maneuver equipment. The maximum depth of excavation is 10 feet.
- Impacts include compaction and surface ground disturbance within 25 ft of each culvert resulting from driving equipment in the area. Compaction and ground surface disturbance in the staging areas. Excavation up to 10 feet to remove existing culverts and install new culverts.
- Culverts and staging areas are located on BLM land, State of Colorado land, and private property. The Project Leader will be consulting and coordinating with property owners to time the construction. The project will have to be scheduled around when the fields are used for cattle grazing and hunting season. Equipment and materials to be used on the culvert replacement project will be placed on the staging areas.

Scope of Work to Replace Culverts 13, 14, and 15
(PEPC # 92530, PMIS # 249491C)

This project involves in-kind replacement of three waterline crossing culverts in creek drainages over the main waterline on the park's northern boundary. Replacement of culverts 13, 14, and 15 is expected to start in August 2020.

Work on these culverts will be performed by NPS staff:

- Culvert #13 is 78 feet in length by 6 ft in diameter. The associated staging area is 0.32 acres (0.13 ha). The culvert and associated staging area are located on private property.

- Culvert #14 is 74 ft in length by 7 ft in diameter. The associated staging area is 0.28 acres (0.11 ha). Culvert #14 and the associated staging area are located on BLM property.

- Culvert #15 is 80 ft in length by 8 ft in diameter. The associated staging area is 0.10 acres (0.06 ha). Culvert #15 is located on private property and the staging area is located on BLM property.

Work will include excavation, minor drainage rerouting for the new culverts, and the re-bedding of the 6-inch diameter waterline 2 feet below the new culverts. All new culverts will be fitted with two replacement concrete aprons and head walls. Equipment used include a vibratory roller, front end loader, and a 50k-pound excavator.

Scope of Work to Replace Culverts 1, 2, 3, 4, and 6
(PEPC #92536, PMIS #249493C)

This project involves in-kind replacement of five waterline crossing culverts in unnamed intermittent drainages over the main waterline on the park's northern boundary. Replacement of culverts 1, 2, 3, 4, and 6 is expected to start in Fiscal Year (FY) 2021.

Work on these culverts will be performed by the Federal Highways Administration or a contractor:

- Culvert #1 is 76 feet (ft) in length by 8 ft in diameter. The associated staging area is 0.17 acres (0.074 ha). Culvert #1 and the associated staging area are located on BLM property.

- Culvert #2 is 48 ft in length by 4 ft in diameter. There are two associated staging areas for this culvert. Staging Area 2a is 0.09 acres (0.37 ha) and Staging Area 2b is 0.125 acres (0.61 ha). Culvert #2 and the associated staging areas are located on BLM property.

- Culvert #3 is 75 ft in length by 3 ft in diameter. The associated staging area is 0.28 acres (0.14 ha). Culvert #3 and the associated staging are located on BLM property.

- Culvert #4 is 54 ft in length by 4 ft in diameter. The associated staging area is 0.30 acres (0.92 ha). Culvert #4 and the associated staging area are located on BLM property.

- Culvert #6 is 100 ft in length by 5 ft in diameter with a 30-degree bend at 20 ft. (State of Colorado land), The associated staging area is 0.42 acres (0.16 ha). Culvert #6 and its associated staging area are located on land owned by the State of Colorado.

Work will include excavation, minor drainage rerouting for the new culverts, and the re-bedding of the 6-inch diameter waterline 2 feet below the new culverts. All new culverts will be fitted with two replacement concrete aprons and head walls. Equipment used include a vibratory roller, front end loader, and a 50k-pound excavator.

Scope of Work to Replace Culvert 8, 10.1, and 10.2
(PEPC #92552, PMIS #249287C)

This project involves replacing three waterline crossing culverts in creek drainages over the main waterline on the park's northern boundary. Replacement of culverts 8, 10.1, and 10.2 is expected to start in Spring/Summer 2021.

Construction includes replacement of three corrugated culverts:

- Culvert #8 is 80 ft in length by 4 feet in diameter. The associated staging area is 0.29 acres (0.12 ha). Culvert #8 and the staging area are located on BLM property.

- Culvert #10.1 is 72 ft in length by 4ft in diameter. The staging area is 0.32 acres (0.19 ha). Culvert #10.1 and the staging area are located on BLM property.

- Culvert #10.2 is 72 ft in length by 4 ft in diameter. Culvert #10.2 will share the 0.32 acre staging area for Culvert #10.1. Culverts #10.1is located on BLM property.

Culverts 10.1 and 10.2 are in two smaller drainages converging into one bigger drainage as it crosses over the waterline. Work will include excavation, minor drainage rerouting for the new culverts, and the relocation of the 6-inch diameter waterline 2 feet below the new culverts. All new culverts will be fitted with two replacement concrete aprons and head walls.

Scope of Work to Replace Culvert 7, 11, and 12
(PEPC #92647, PMIS #308940B)

This project involves replacing three waterline crossing culverts in creek drainages over the main waterline on the park's northern boundary. Replacement of culverts 7, 11, and 12 is expected to start in FY 2021.

Construction includes replacement of three corrugated culverts:

- Culvert #7 is 100 ft in length by 5 feet in diameter. The associated staging area is 0.32 acres (0.15 ha). Culvert #7 is located on BLM property. The associated staging area is on private property.

- Culvert #11 is 68 ft in length by 6ft in diameter. The associated Staging Area is 0.29 acres (0.14 ha). Culvert #11 and the associated staging area are located on BLM property.

- Culvert #12 is 95 ft in length by 9 ft in diameter. The associated staging area is 0.33 acres (0.27 ha). Culvert #12 and the associated staging area are located on BLM property.

Work will include excavation, minor drainage rerouting for the new culverts, and the relocation of the 6-inch diameter waterline 2 feet below the new culverts. All new culverts will be fitted with replacement concrete aprons and head walls.

Project Locations:

Location

County:	Montezuma	**State:**	CO
District:	CO03	**Section:**	
		Other:	North Escarpment

Mitigation(s):

- If tree removal is necessary from April 1- August 15, then nest surveys will be conducted within the action area of the project (50 m buffer around footprint). If active nests are detected in targeted (for removal) trees or within 50 meters of targeted trees, the nests will be monitored during the nesting/construction season. Any trees containing nests will not be removed until the nest is deemed inactive. The nest surveys will need to be conducted each migratory bird nesting season (April 1- August 15) during which construction activities are planned and before construction activities commence that season (i.e. pre-construction nest surveys/results conducted in May of 2021 would not be valid for construction in May of 2022, they would be valid through August 15 of 2021).
  Comment: Dates of nesting season have been updated. 7/28/2020
- The park will revegetate the disturbed culvert areas with a native seed mix tailored for the site conditions.
- The park will treat the Russian knapweed, Tamarisk and Siberian elm found around these culverts to prevent these species from expanding and invading other areas.
  Comment: Several non-native invasive species are present in the work area. Mesa Verde National Park will treat Russian knapweed, Tamarisk and Siberian elm pre-construction to prevent these species from spreading during construction and disturbance. Also, the park will require the contractor to clean vehicles and equipment before and after construction to prevent the spread of invasive species. The park will require contractors to follow the US Army Corps of Engineers BMPs for cleaning equipment and preventing the spread of invasive aquatic organisms (USACE 2017). Several non-native invasive species are present in the work area. Mesa Verde National Park will treat Russian knapweed, Tamarisk and Siberian elm pre-construction to prevent these species from spreading during construction and disturbance. Also, the park will require the contractor to clean vehicles and equipment before and after construction to prevent the spread of invasive species. The park will require contractors to follow the US Army

Corps of Engineers BMPs for cleaning equipment and preventing the spread of invasive aquatic organisms (USACE 2017).

- Erosion and sediment controls as well as Best Management Practices will be used during project construction to minimize effects the intermittent drainages.
- Replacement of culverts are exempt from permitting of section 404 of the Clean Water Act under a maintenance exemption as long as the "maintenance does not include any modification that changes the character, scope, or size of the original fill design (USACE 2005)." The replacement of Culvert 1 is also eligible for a maintenance exemption despite the presence of the spring since the source of the water supplying the spring emanates 55 m (180 ft) from the upstream edge of the culvert. The point source of the water for the spring is located farther than the 100 ft of the proposed culvert replacement work which is the distance required for a pre-construction notification.
- Gilia haydenii, Penstemon breviculus and Cirsium arizonicum occur in the project area. During the culvert replacement project rare plants will be avoided when possible. In many instances, avoidance is not possible so mortality of individuals will occur. To compensate for rare plant losses the park will collect seed from these species and sow them immediately after project completion to ensure they continue to remain a component in the seed bank post-construction. Seed from Penstemon breviculus may be difficult to collect since the plant is palatable to livestock. Only a few were flowering or suitable for potential seed collection since most showed signs of being grazed.
- Archaeological monitoring is required during ground disturbing activities that have the potential to affect cultural resources. Notify Gay Ives (970-529-5023, gay_ives@nps.gov, Radio Call #505) prior to excavation. Provide construction schedule to Gay Ives when available.
- All construction equipment that will leave paved or dirt roads shall be pressure-washed prior to entering the project area and shall be clean of any soil, plant matter, or other materials. NPS natural resource specialists or the project manager shall inspect the vehicles prior to entry into the park.
- Water plant operators will need to locate water mains (one abandoned and one live) prior to construction. Special care needs to be in place when digging around these water mains. Provide water plant operators with SOP in case of a water main break. Provide water plant operators with construction schedule when available.

CE Citation: C.8 Replacement in kind of minor structures and facilities with little or no change in location, capacity or appearance.

CE Justification:

Project will replace existing culverts with new culverts of similar size and appearance.

Decision: I find that the action fits within the categorical exclusion above. Therefore, I am categorically excluding the described project from further NEPA analysis. No extraordinary circumstances apply.

Signature

Superintendent: CLIFFORD SPENCER Digitally signed by CLIFFORD SPENCER Date: 2020.07.30 13:28:32 -06'00' **Date:** _____

Clifford Spencer

Extraordinary Circumstances:

If implemented, would the proposal...	Yes/No	Notes
A. Have significant impacts on public health or safety?	No	Maintaining the culverts is required to protect the park's waterline from possibly blowing out during flooding events.
B. Have significant impacts on such natural resources and unique geographic characteristics as historic or cultural resources; park, recreation, or refuge lands; wilderness areas; wild or scenic rivers; national natural landmarks; sole or principal drinking water aquifers; prime farmlands; wetlands (Executive Order 11990); floodplains (Executive Order 11988); national monuments; migratory birds; and other ecologically significant or critical areas?	No	
C. Have highly controversial environmental effects or involve unresolved conflicts concerning alternative uses of available resources (NEPA section 102(2)(E))?	No	
D. Have highly uncertain and potentially significant environmental effects or involve unique or unknown environmental risks?	No	
E. Establish a precedent for future action or represent a decision in principle about future actions with potentially significant environmental effects?	No	
F. Have a direct relationship to other actions with individually insignificant, but cumulatively significant, environmental effects?	No	
G. Have significant impacts on properties listed or eligible for listing on the National Register of Historic Places, as determined by either the bureau or office?	No	Culverts are less than 50 years old and are not historic. There will be no impacts to the West Mancos Water Supply System that diminishes its integrity.
H. Have significant impacts on species listed or proposed to be listed on the List of Endangered or Threatened Species, or have significant impacts on designated Critical Habitat for these species?	No	No T&E species are present. Two sensitive species on the MVNP list are in the project area.
I. Violate a federal, state, local or tribal law or requirement imposed for the protection of the environment?	No	
J. Have a disproportionately high and adverse effect on low income or minority populations (EO 12898)?	No	
K. Limit access to and ceremonial use of Indian sacred sites on federal lands by Indian religious practitioners or adversely affect the physical integrity of such sacred sites (EO 130007)?	No	
L. Contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area or actions that may promote the introduction, growth, or expansion of the range of such species (Federal Noxious Weed Control Act and Executive Order 13112)?	No	Measures (e.g. re-seeding and washing equipment) are stipulated to reduce the spread of noxious weeds.

Other Compliance/Consultations Form

Park Name: Mesa Verde National Park
PEPC Project Number: 96488
Project Title: Replace 14 Culverts on the North Escarpment Waterline Access Road
Project Type: Reconstruction
Project Location:
County, State: Montezuma, CO District, Section: CO03, Other: North Escarpment
Project Leader: Michael Rubin

ESA

Any Federal Species in the project Area? No
If species in area: No Effect
Was Biological Assessment prepared?
If Biological Assessment prepared, concurred?
Formal Consultation required? No
Formal Consultation Notes: N/A

Formal Consultation Concluded: N/A
Any State listed Species in the Project Area? Yes
Consultation Information: Gilia haydenii and Penstemon breviculus occur in the project area and are G3/S2 Colorado Natural Heritage Program tracked species. They are identified in the designation of the BLM ACEC. Seed from these species will be collected and re-seeded in disturbed areas after construction is completed.
General Notes:

Data Entered By: Tova Spector **Date:** Jul 29, 2020

ESA Mitigations

Mitigation ID	Text
105235	Gilia haydenii, Penstemon breviculus and Cirsium arizonicum occur in the project area. During the culvert replacement project rare plants will be avoided when possible. In many instances, avoidance is not possible so mortality of individuals will occur. To compensate for rare plant losses the park will collect seed from these species and sow them immediately after project completion to ensure they continue to remain a component in the seed bank post-construction. Seed from Penstemon breviculus may be difficult to collect since the plant is palatable to livestock. Only a few were flowering or suitable for potential seed collection since most showed signs of being grazed.

Floodplains/Wetlands/§404 Permits

Question	Yes	No	Details

A.1. Is project in 100- or 500-year floodplain or flash flood hazard area?		No	Not in floodplain or flash flood hazard area.
A.2. Is Project in wetlands as defined by NPS/DOI?	Yes		Determined to be exempt from compliance with Director's Order #77-1 and no Wetland Statement of Findings required.
B. COE Section 404 permit needed?		No	No placement of fill in waters of the United States.
C. State 401 certification?		No	
D. State Section 401 Permit?		No	**Issue Date:** **Expiration Date:**
E. Tribal Water Quality Permit?		No	
F. CZM Consistency determination needed?			N/A
G. Erosion & Sediment Control Plan Required?	Yes		
H. Any other permits required?		No	**Permit Information:**
Other Information:			Project exempt from CWA section 404 if culvert is replaced to be the same size, scope and character of the original fill. Must comply with conditions for maintenance exemption. See evaluation report.

Data Entered By: Tova Spector **Date:** Jul 29, 2020

FloodPlains & Wetlands Mitigations

No FloodPlains & Wetlands mitigations are associated with this project.

Wilderness

Question	Yes	No	
A. Does this project occur in or adjacent to Designated, Recommended, Proposed, Study, Eligible, or Potential Wilderness?		No	
B. Is the only place to conduct this project in wilderness?		No	
C. Is the project necessary for the administration of the area as wilderness?		No	
D. Would the project or any of its alternatives adversely affect (directly or indirectly) Designated, Recommended, Proposed, Study,		No	

Eligible, or Potential Wilderness? (If Yes, Minimum Requirements Analysis required)			
E. Does the project or any of its alternatives involve the use of any of the Wilderness Act Section 4(c) prohibited uses: commercial enterprise, permanent road, temporary road, motor vehicles, motorized equipment, motorboats, landing of aircraft, mechanical transport, structure, or installation? (If Yes, Minimum Requirements Analysis required)		No	
If the answer to D or E above is "Yes" then a Minimum Requirements Analysis is required. Describe the status of this analysis in the column to the right.	N/A		**Initiation Date: Completed Date: Approved Date:**
Other Information:	N/A		

Data Entered By: Elizabeth Dickey **Date:** Jul 5, 2020

Other Permits/Laws *Questions A & B are no longer used.*

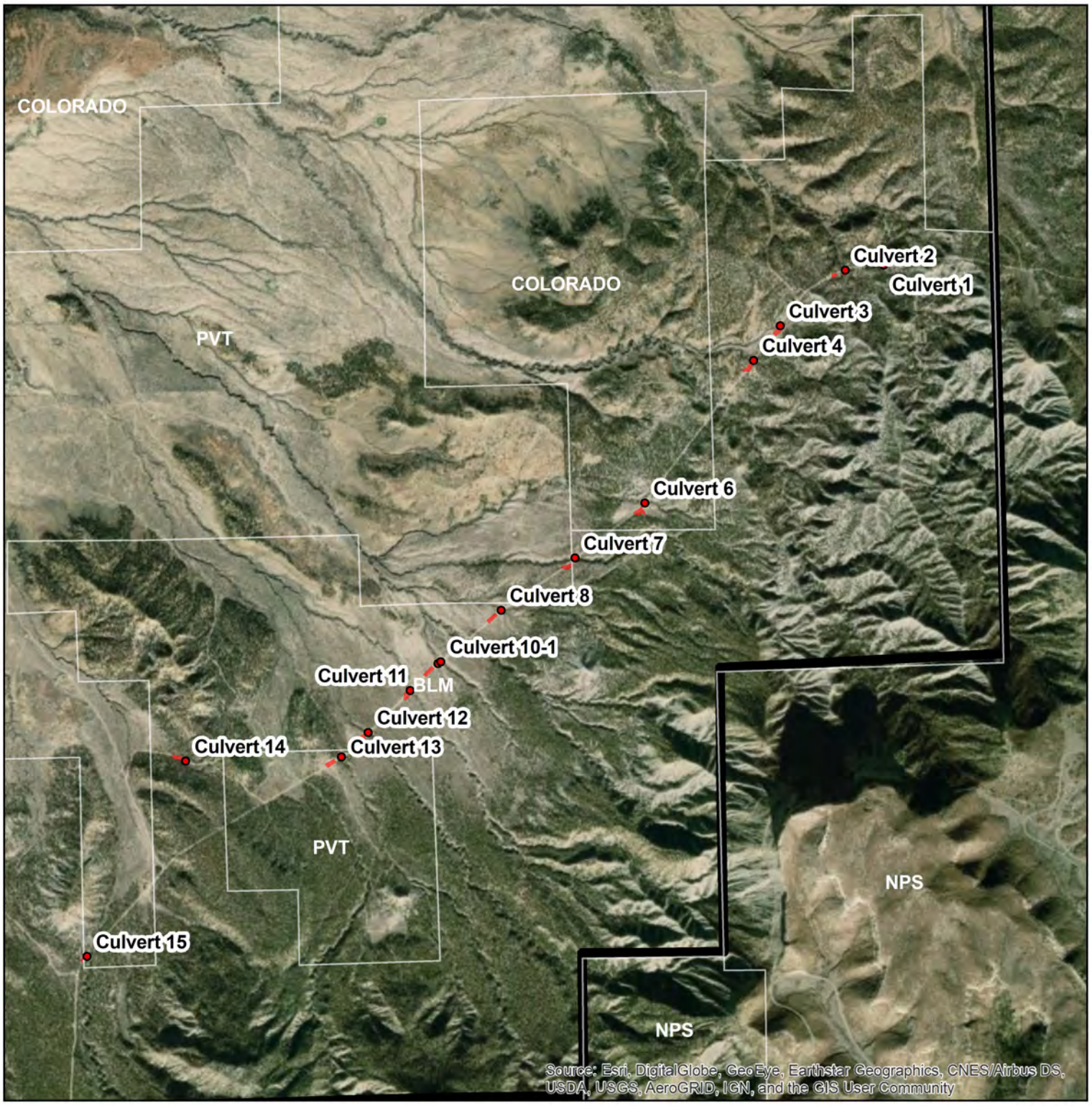
Question	Yes	No
C. Wild and scenic river concerns exist?		No
D. National Trails concerns exist?		No
E. Air Quality consult with State needed?		No
F. Consistent with Architectural Barriers, Rehabilitation, and Americans with Disabilities Acts or not Applicable? (If N/A check Yes)	Yes	
G. Other: N/A		

Other Information:

Data Entered By: Elizabeth Dickey **Date:** Jul 5, 2020

Mesa Verde Culvert Replacement
Montezuma County, Colorado

National Park Service
Department of the Interior



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Mesa Verde National Park Boundary

N

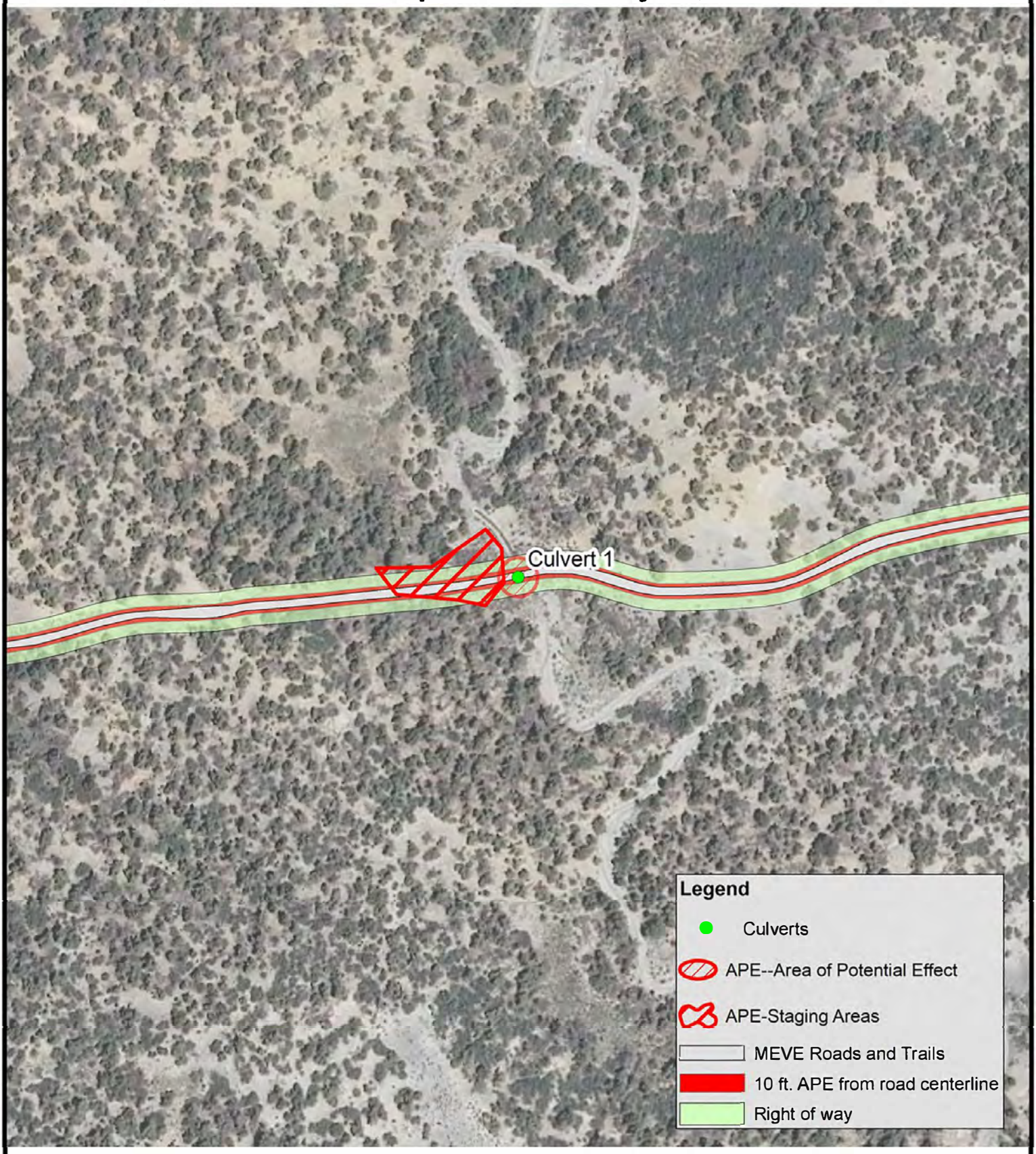
March 2020

Universal Transverse Mercator, North American Datum 1983
Produced by Mesa Verde National Park, Compliance - Map for Informational Purposes Only

Mesa Verde National Park
Colorado

National Park Service
U.S. Department of the Interior

Culvert 1, APE Culvert Replacement Project, PEPC#96488



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July 2020

Mesa Verde National Park
Colorado

National Park Service
U.S. Department of the Interior

Culvert 2, APE Culvert Replacement Project, PEPC#96488

0 50 100 200 300 400 Feet
0 15 30 60 90 120 Meters

North

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July 2020

Mesa Verde National Park
Colorado

National Park Service
U.S. Department of the Interior

Culvert 3, APE Culvert Replacement Project, PEPC#96488

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July 2020

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Colorado

National Park Service
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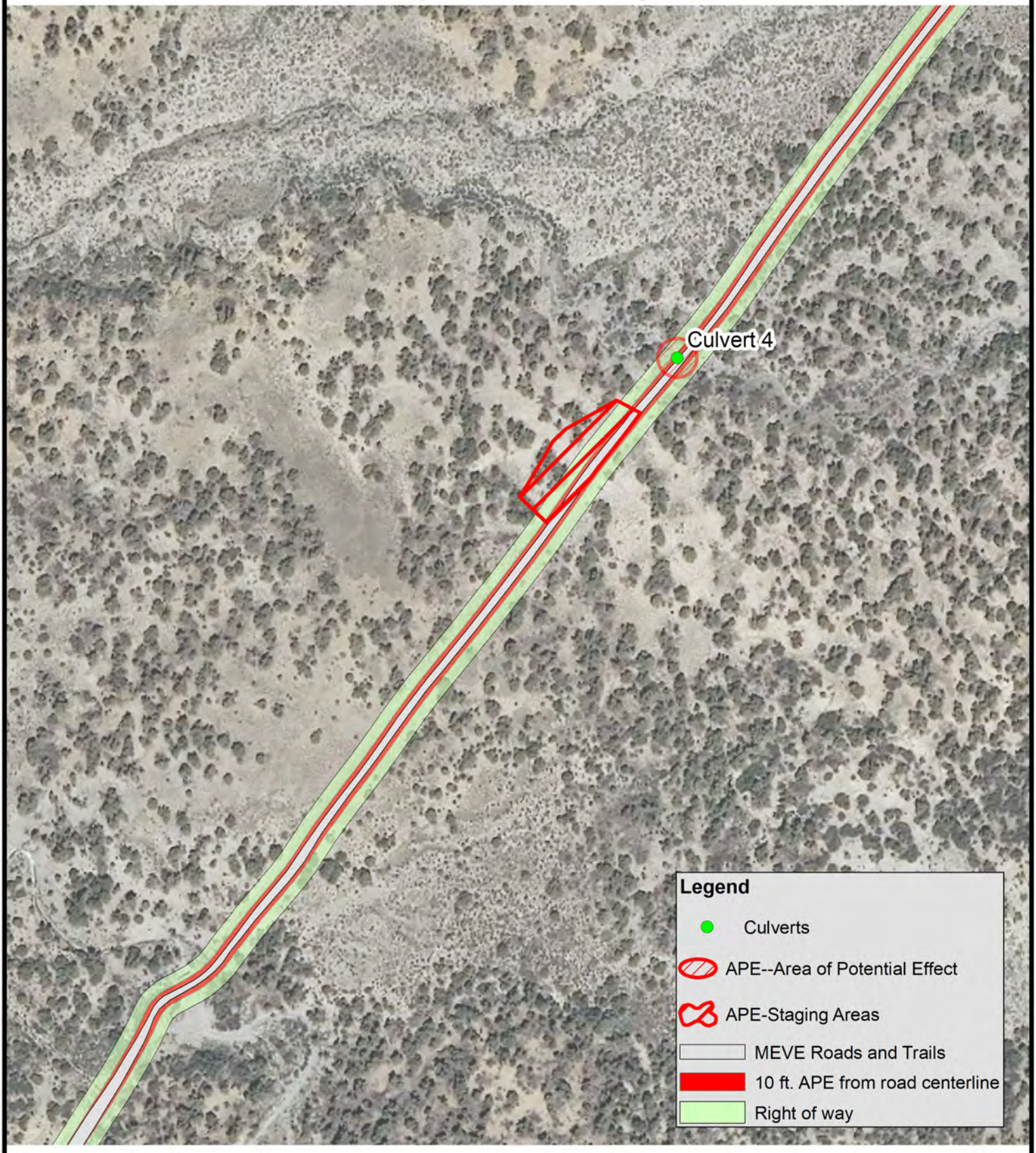
Culvert 4, APE Culvert Replacement Project, PEPC#96488



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Colorado

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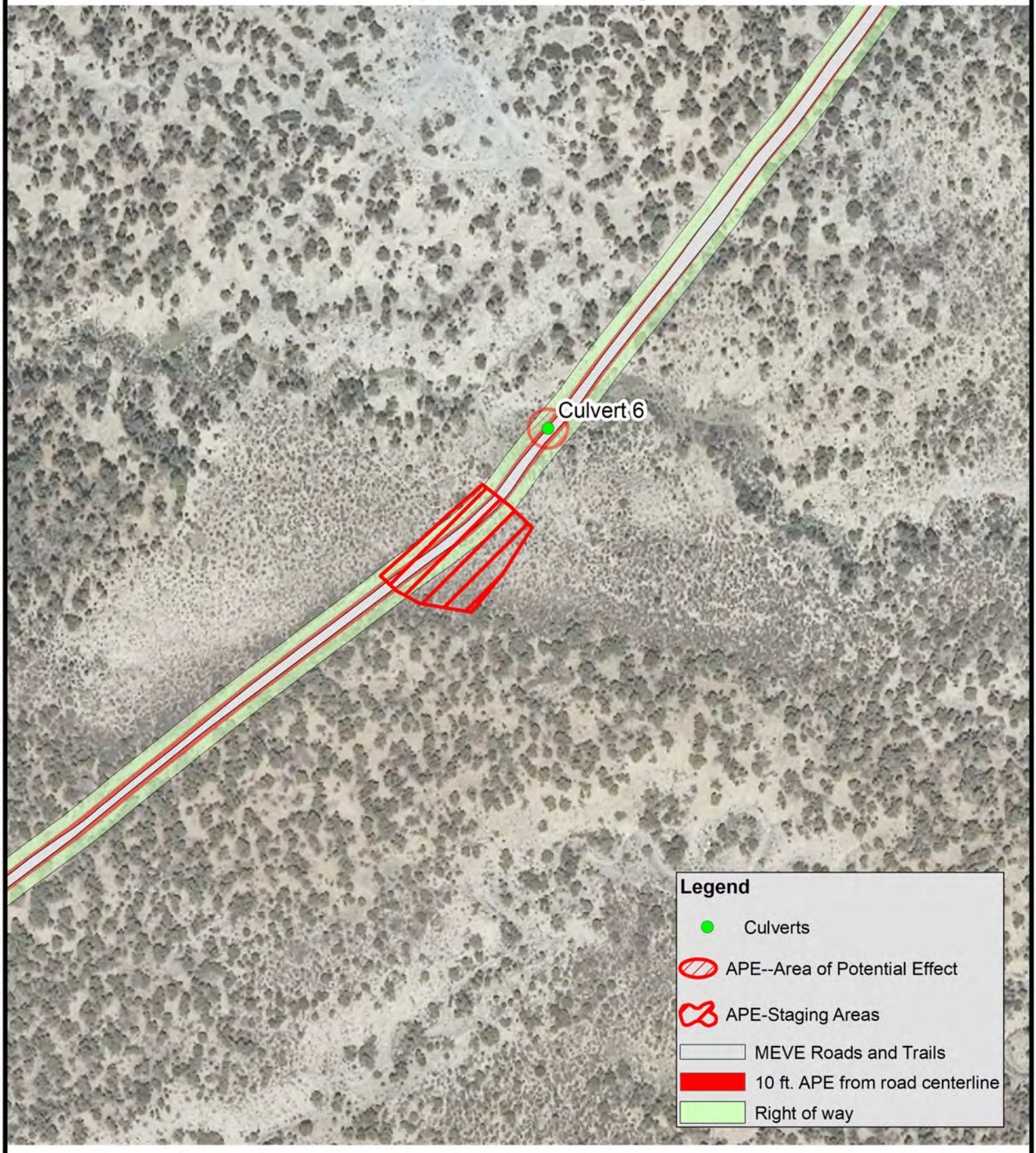
Culvert 6, APE Culvert Replacement Project, PEPC#96488



0 50 100 200 300 400 Feet
0 15 30 60 90 120 Meters

North

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July 2020

Mesa Verde National Park
Colorado

National Park Service
U.S. Department of the Interior

Culvert 7, APE Culvert Replacement Project, PEPC#96488

0 50 100 200 300 400 Feet
0 15 30 60 90 120 Meters

North

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July 2020

Mesa Verde National Park
Colorado

National Park Service
U.S. Department of the Interior

Culvert 8, APE Culvert Replacement Project, PEPC#96488

0 50 100 200 300 400 Feet
0 15 30 60 90 120 Meters

North

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July 2020

Mesa Verde National Park
Colorado

National Park Service
U.S. Department of the Interior

Culverts 10-1,10-2, APE Culvert Replacement Project, PEPC#96488

0 37.5 75 150 225 300 Feet
0 12.5 25 50 75 100 Meters

North

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Colorado

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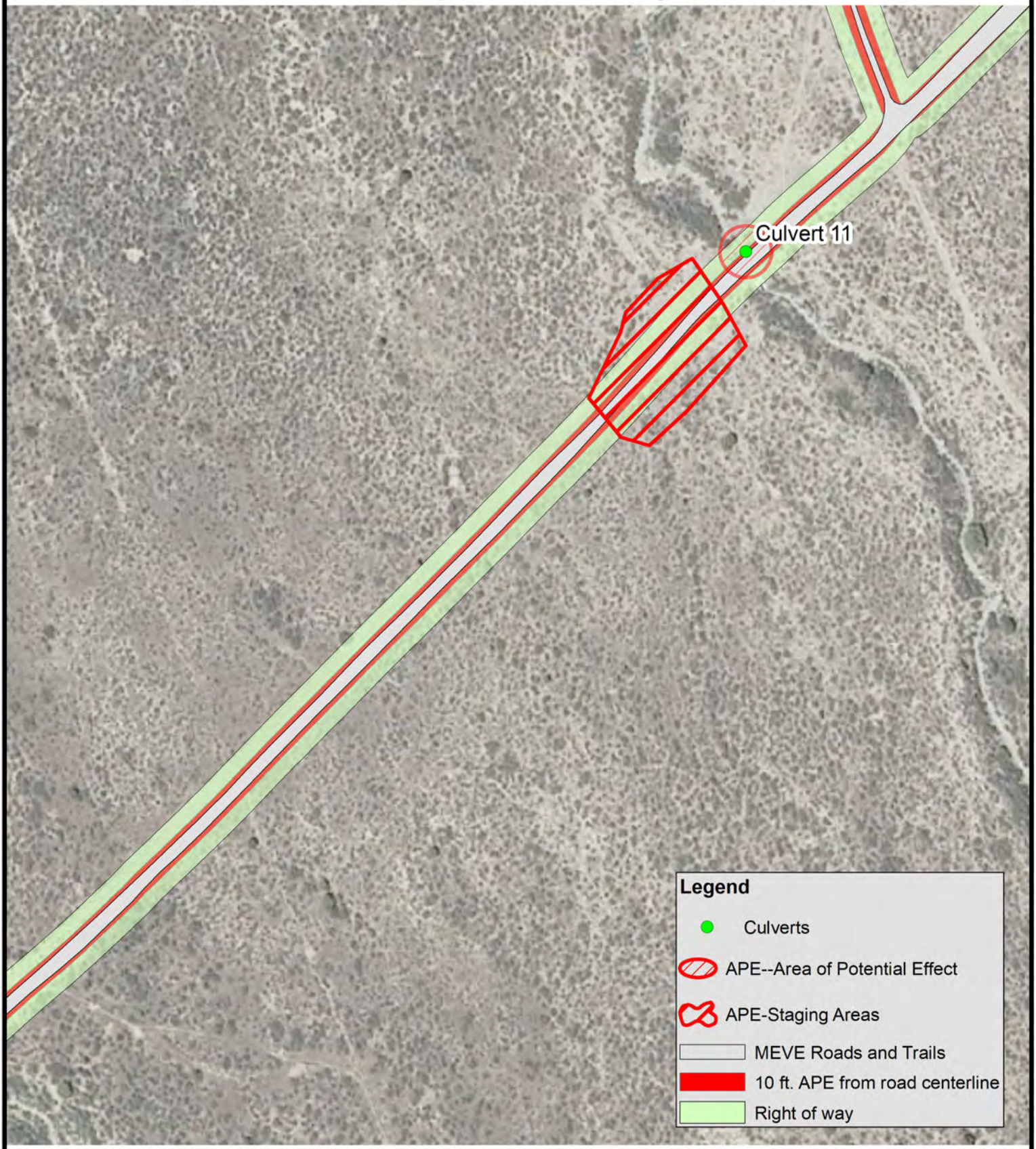
U.S. Department of the Interior

Culvert 11, APE Culvert Replacement Project, PEPC#96488



0 37.5 75 150 225 300 Feet
0 12.5 25 50 75 100 Meters

North

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Colorado

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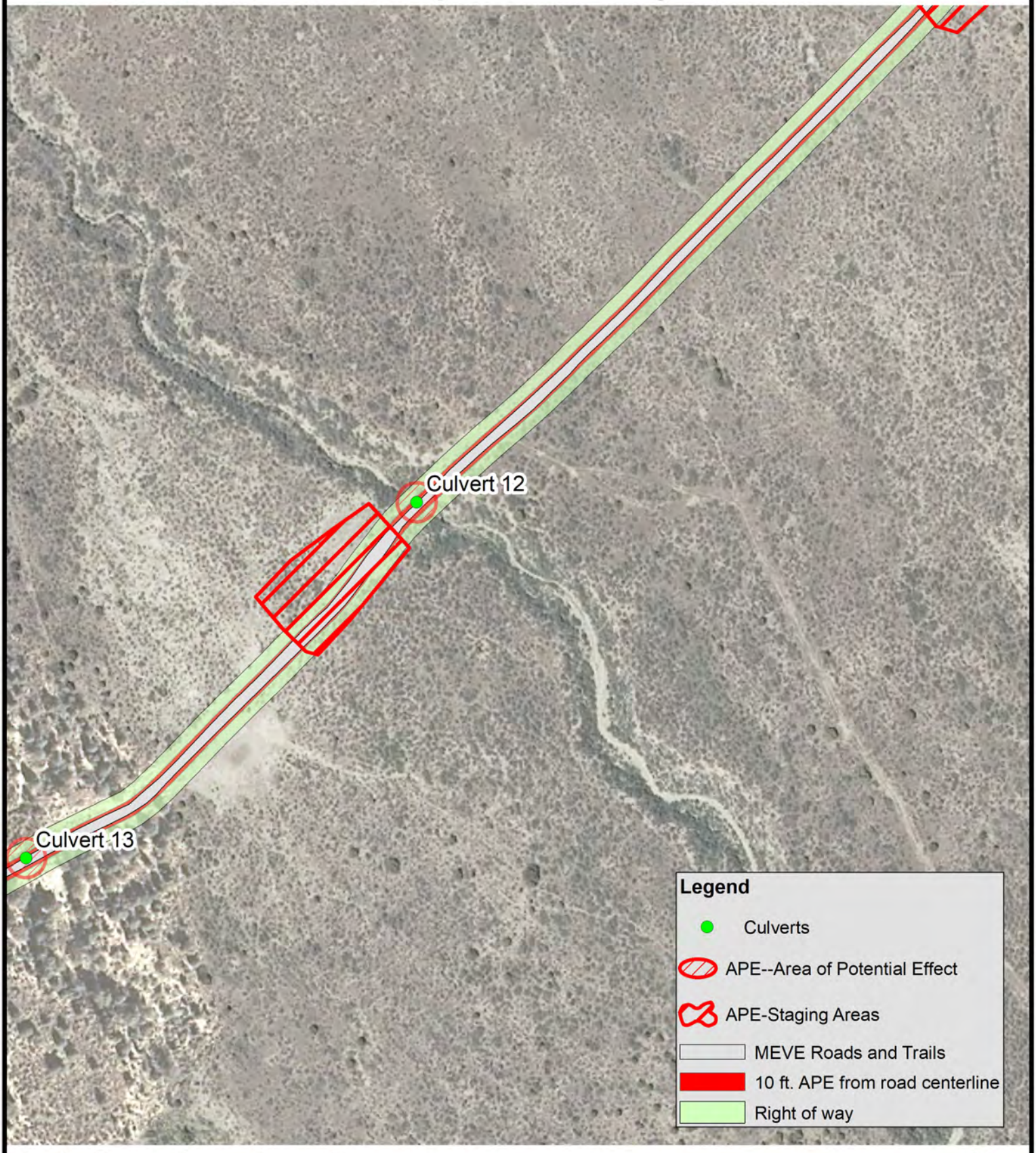
U.S. Department of the Interior

Culvert 12, APE Culvert Replacement Project, PEPC#96488



0 50 100 200 300 400 Feet
0 15 30 60 90 120 Meters

North

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Colorado

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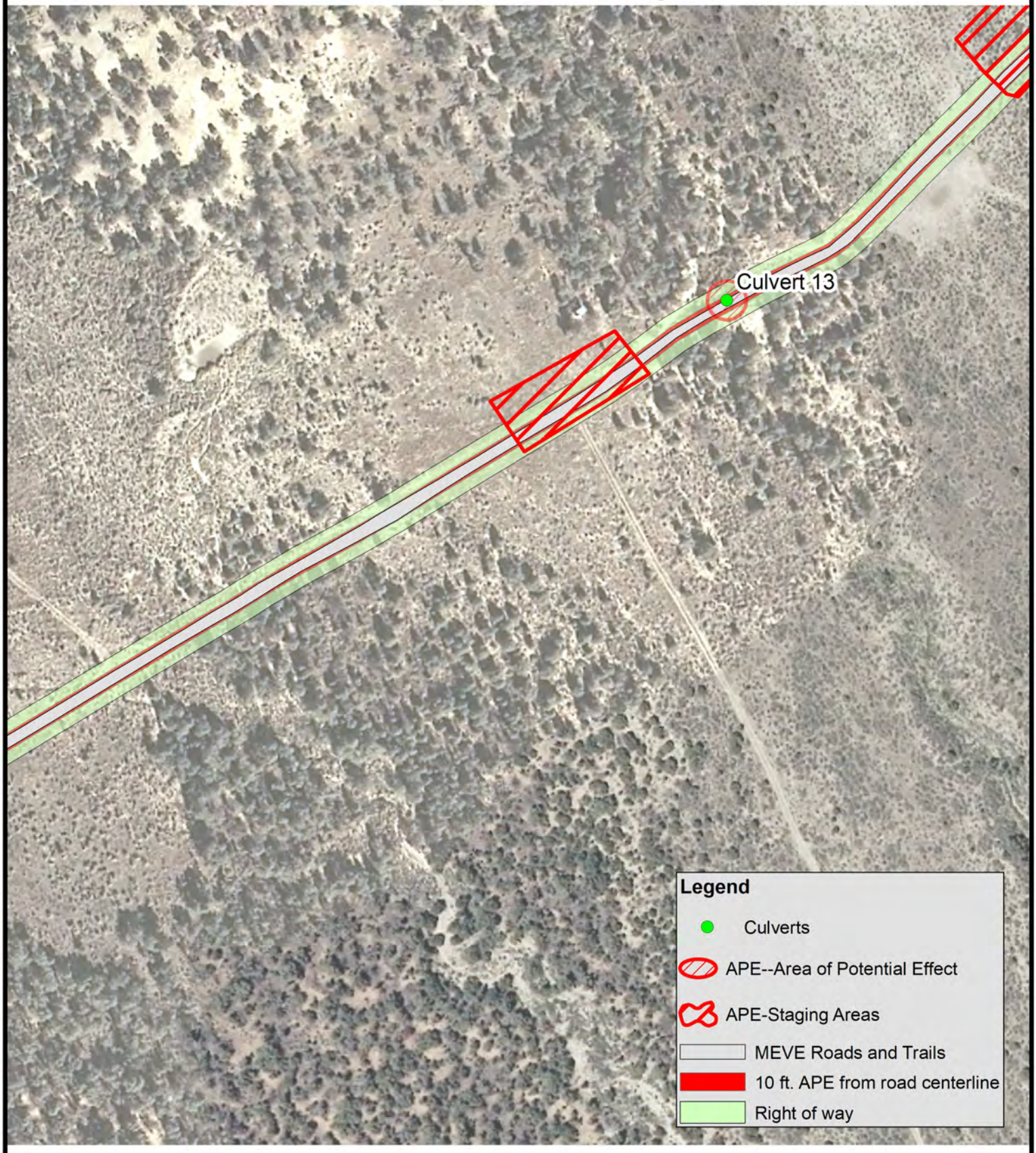
U.S. Department of the Interior

Culvert 13, APE Culvert Replacement Project, PEPC#96488



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North

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Colorado

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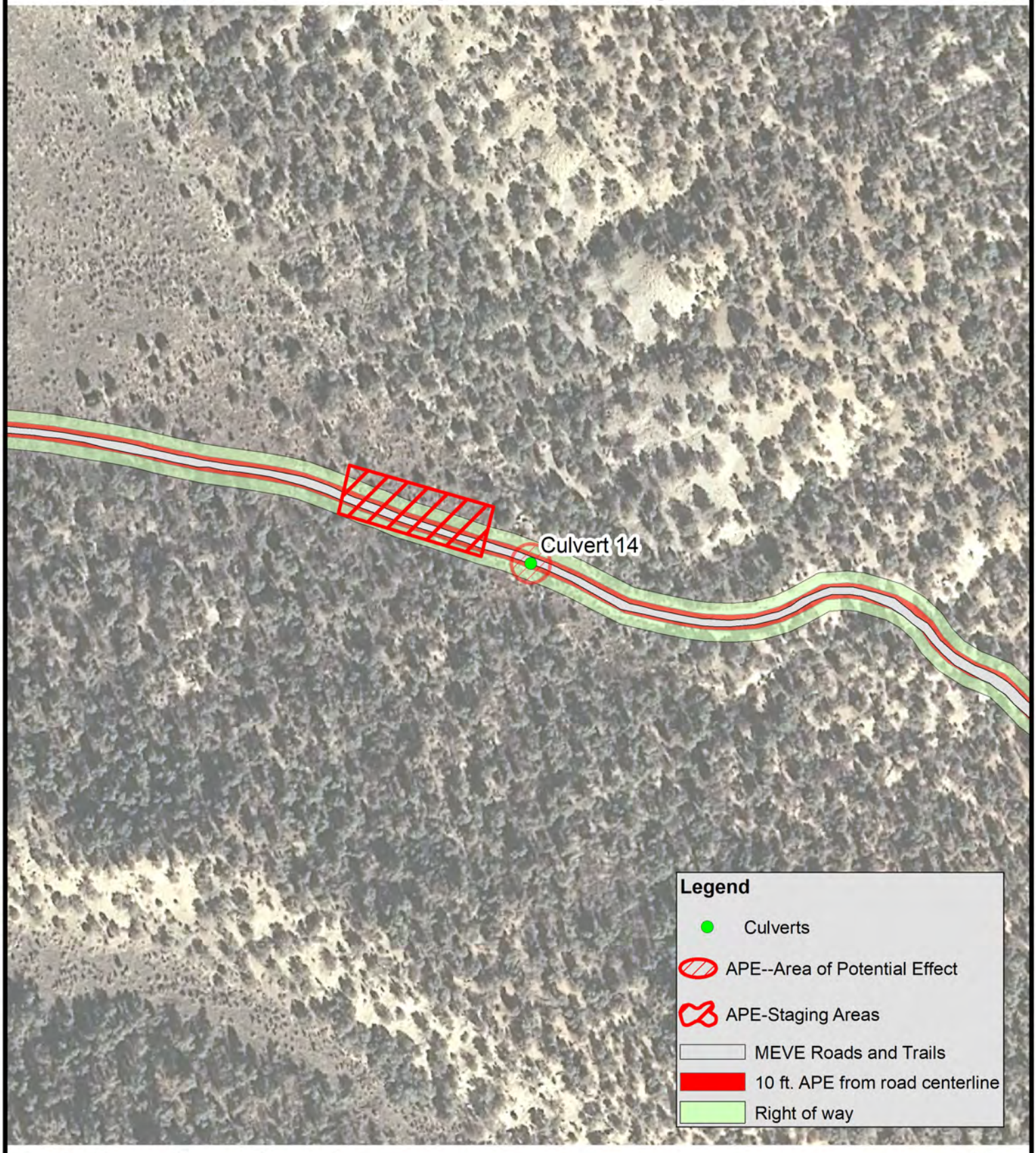
Culvert 14, APE Culvert Replacement Project, PEPC#96488



0 50 100 200 300 400 Feet
0 15 30 60 90 120 Meters

North

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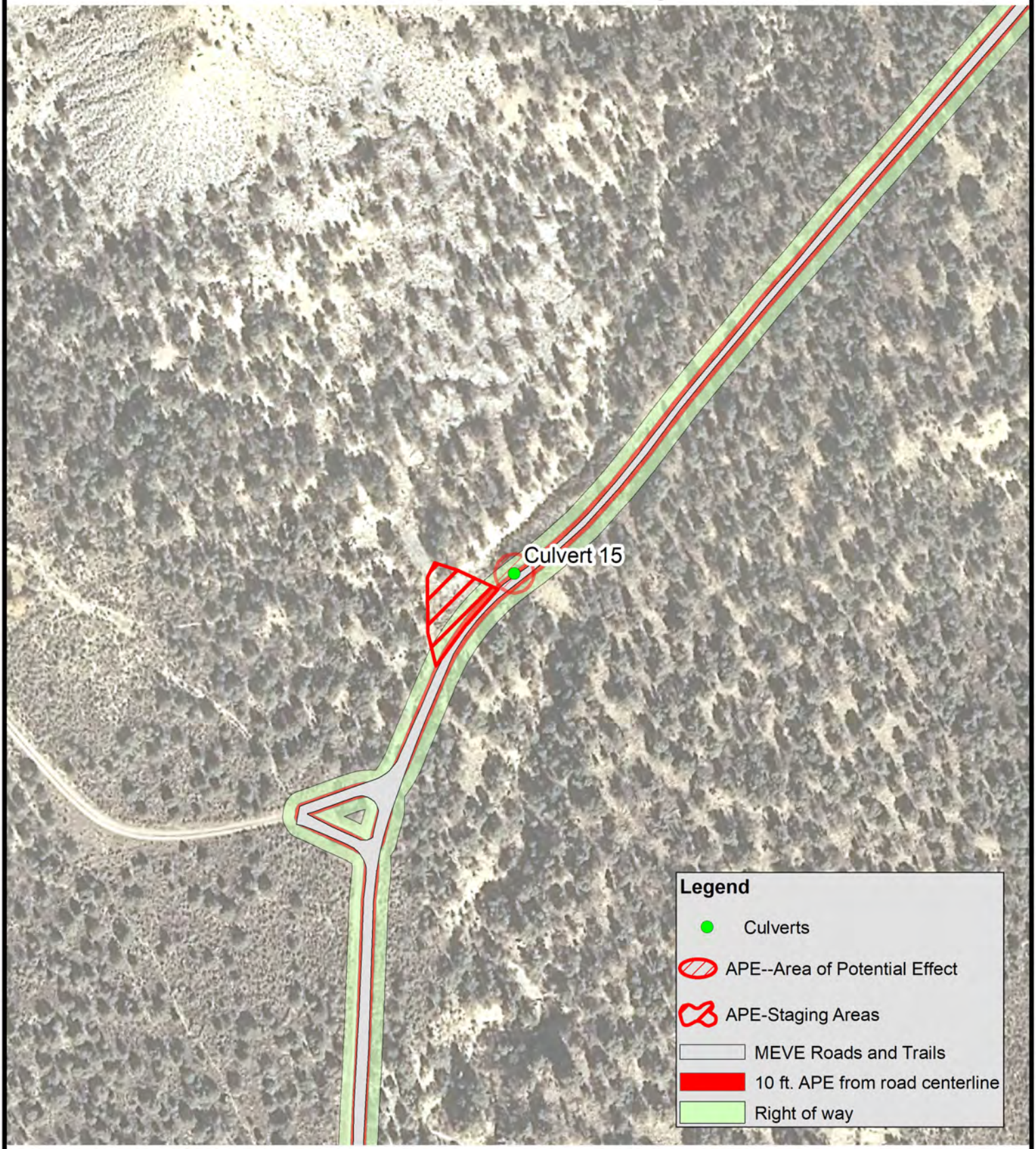
July 2020

Mesa Verde National Park
Colorado

National Park Service
U.S. Department of the Interior

Culvert 15, APE Culvert Replacement Project, PEPC#96488



Produced by Mesa Verde National Park

July 2020