

**PROTECTIVE DESIGN FEATURES**  
(as provided in the Environmental Assessment and Plan of Development)  
**NMNM 126958 and NMNM 126958-01**  
**Mid-America Pipeline Company, LLC**  
**DOI-BLM-NM-F010-2013-0146-EA**  
**July 2013**

The following protective design features will be implemented throughout the construction, maintenance, termination (or relinquishment), and reclamation of this project.

**Geologic Resources and Groundwater Resources**

- A. Report immediately any cave or karst feature, such as a deep sinkhole, discovered during construction or operation on BLM-managed lands to the AO. An evaluation of the discovery will be made by the AO to determine appropriate action(s). Any decision as to further mitigation measures will be made by the AO after consulting with MAPL.

**Soils**

- B. Implement the SWMP (see Appendix E to the POD);
- C. Schedule construction to avoid periods when soils are saturated and more susceptible to compaction/rutting damage and increased runoff and potential erosion;
- D. Properly install and maintain erosion and sediment control devices in accordance with the SWMP;
- E. Salvage 6-inches of topsoil from the trench line and construction right-of-way (working and non-working side unless otherwise directed by BLM or BIA), where available;
- F. Store the topsoil on the edge of the construction right-of-way separately from the trench spoil and evenly distributing the topsoil over the areas it was salvaged from prior to seeding;
- G. Salvage 12 inches of topsoil and vegetation in wetlands for replacement during restoration (no wetlands would be affected by the Proposed Action);
- H. Narrow the construction right-of-way and utilizing equipment mats to minimize soil disturbance in wetlands;
- I. Regrade/recontour all disturbed areas back to their approximate original contours during reclamation to restore original drainage patterns;
- J. Control the release of hydrostatic test water to prevent erosion;
- K. Scarify or rip where necessary to loosen/mitigate compacted areas;
- L. Prepare a roughened seedbed which would hold broadcasted seed, reduce runoff, promote infiltration, and minimize wind and water erosion potential;
- M. Utilize appropriate seed mixtures and rates that are adaptable to the habitat/soil conditions disturbed to enhance plant establishment and soil protection (includes appropriate use of certified seed and tested seed, using rates based on Pure Live Seed [PLS], and doubling seeding rates where broadcast seeding occurs);
- N. Utilize appropriate seeding methods and techniques (drilling, broadcast, hydroseeding) based on site-specific conditions (includes appropriate calibrated seeding equipment and lightly covering seed as site conditions/equipment allow);
- O. Seed during the appropriate seeding window;
- P. Apply adequate weed free mulch during restoration at a rate to provide a temporary cover to protect disturbed soils and enhance revegetation success; and

- Q. Monitor restoration efforts and conducting maintenance actions, including weed control, as needed.
- R. Prohibit construction or travel on roads during periods when the soil is too wet to adequately support construction equipment. The soil shall be deemed too wet to work if such equipment creates ruts in excess of 6 inches deep. Vegetation clearing and soil segregation activities shall also cease if ruts greater than 6 inches are observed in soils, unless approved by the BLM AO.
- S. Develop and implement supplemental restoration measures to reestablish soil productivity if, after construction and reclamation are complete, the BLM determines that monitoring results indicate soil productivity has not been restored to its pre-disturbance condition.
- T. Address immediately after observation erosion features such as rilling, gully, piping, and mass wasting on the right-of-way or adjacent to the right-of-way as a result of this action by contacting the BLM Realty Specialist and submitting a plan to assure successful soil stabilization with BMPs to address erosion problems.
- U. Prohibit side casting of soils off slopes if the material may slide out of the right-of-way. Any side casted soil shall be retrieved for re-contouring during final reclamation.
- V. Minimize fugitive dust by controlling traffic speeds on the construction right-of-way and spraying water on all appropriate areas as necessary as determined by MAPL or BLM's AO. Water spraying to control fugitive dust and soil loss may be necessary on topsoil and spoil piles, the construction right-of-way, temporary use area and access roads

#### **Invasive, Non-native Plants**

- W. Implement MAPL's Integrated Noxious and Invasive Weed Management Plan (see Appendix G to the POD), which includes:
  - o All equipment used at previous construction sites, or within sites with weed seed contaminated soil shall be power-washed to remove mud, weed seeds, and propagules before entering the project area and/or moving to uncontaminated terrain. All maintenance vehicles shall be regularly cleaned of soil.
  - o MAPL shall avoid vehicle travel through weed infested areas, where feasible.
  - o Topsoil stockpiles shall be seeded with non-invasive sterile hybrid grasses if stored longer than one growing season.
  - o Treatment strategies for weedy species documented shall consider effective methods and timing for preventing seed production of that species and could include hand/machine pulling, cutting roots just below soil level, treatment with herbicides, or mowing.
  - o Surface disturbances shall be reseeded at the appropriate time and with the recommended seed mix outlined in the Reclamation and Monitoring Plan (see Appendix D to the POD).
- X. Implement MAPL's Reclamation and Monitoring Plan (see Appendix D to the POD).
- Y. Treat or remove weeds documented within and/or adjacent to the project area prior to ground-disturbing activities to limit weed seed production and dispersal, as well as reduce the potential for expansion. Follow-up inventories and re-treatment during the same growing season may be necessary to provide additional control.
- Z. Work in conjunction with BLM field offices to determine the best methods to control noxious weeds on lands disturbed during construction.

- AA. Obtain BLM approval for a Pesticide Use Proposal (PUP) prior to the use of herbicides on land managed by the BLM, and SPA approval shall be obtained for a PUP prior to the use of herbicides on Zia trust lands.
- BB. Provide an annual report to respective BLM field offices and SPA (for Pueblo of Zia trust lands) that identifies the extent of noxious weed infestations and treatment used to eradicate or minimize undesirable species. Reports shall be provided by December 1, annually until the desired reclamation level is achieved, as determined by the BLM or BIA.

### **Vegetation**

- CC. Erect exclusion fencing along the revegetated right-of-way in highly vulnerable areas to exclude livestock, accelerate reclamation of surface disturbances, and minimize weed infestations, until monitoring has determined reclamation is successful (see Reclamation and Monitoring Plan, Appendix D the POD). The BLM AO shall determine areas for potential exclusion.
- DD. Place salt licks away from the revegetated right-of-way to reduce livestock use of the reclaimed right-of-way and increase the likelihood for successful reclamation within areas highly used for livestock grazing.

### **Wetlands, Riparian Areas, and Floodplains**

- EE. Reseed surface disturbance within the 100-year floodplains at the appropriate time and with the recommended seed mix outlined in the Reclamation and Monitoring Plan (see Appendix D to the POD).

### **Special Status Species and Migratory Birds**

- FF. Implement the Biological Resources Protection Plan (see Appendix H to the POD).

### **Terrestrial Wildlife**

- GG. Propose formally any entry whatsoever of hibernation sites on BLM-managed lands to the BLM (BLM, 2011) because pursuant to Federal Register Notice, Vol. 76, No. 16, page 4373, January 23, 2011, all known hibernacula are temporarily closed to public entry to monitor for the presence of WNS and attempt to prevent its spread if it arrives.
- HH. Ensure that anyone entering non commercial caves or mines on federally-managed lands in New Mexico must follow the most current USFWS White-Nose Syndrome Decontamination Protocols and gear dedication procedures (BLM, 2010a).

### **Cultural Resources**

- II. Adhere to the Programmatic Agreement (BLM PA NM 2013-F010-008).
- JJ. Implement the Treatment Plan.
- KK. Implement the Cultural Monitoring and Discovery Plan (see Appendix I to the POD).

### **Paleontological**

- LL. Implement the Unanticipated Discovery Plan for Paleontological Resources (see Appendix J to the POD).
- MM. Inform all persons associated with project that they would be subject to prosecution for knowingly disturbing paleontological sites, or for collecting fossils. Personnel shall be informed about the types of fossils they could encounter. If fossil materials are uncovered during any project or construction activities, the operator is to immediately

stop activities in the direct area of the find and immediately contact the BLM AO, as outlined in MAPL's POD.

NN. Prepare and submit a final technical report following completion of the paleontological surveys. The final report shall contain the results of mitigation work conducted, including a record of fossils collected listing locality and disposition of the fossils. The report shall also contain a discussion of the scientific significance of the specimens and geologic and paleontological setting of the fossils and their localities.

OO. Monitor during construction in PFYC Class 4 or 5 areas.

### **Visual Resources**

PP. Implement the Reclamation and Monitoring Plan (see Appendix D to the POD).

### **Transportation and Access**

QQ. Implement the Transportation Plan (see Appendix C to the POD).

RR. Obtain the approval of the BLM (or the SPA on Zia Pueblo trust lands) for upgrading or improving any access roads outside of the existing road footprint.

SS. Prohibit use of the permanent easement as a roadway and consulting with the BLM and BIA about measures to deter public use of the easement as a roadway (may include construction of deterrence structures).

### **Waste, Hazardous or Solid**

TT. Prohibit fueling or vehicle maintenance within 100 feet of any waterbody or wetland, including dry streambeds and dry or seasonal wetlands.

UU. Ensure that fuel trucks are equipped with a shovel and absorbent pads.

VV. Notify the BLM AO of any incident requiring notification to any other spill reporting hotline. The SPA and Pueblo of Zia tribal officials shall be notified of any similar incident on Zia Trust lands.

### **Recreation**

WW. Post the construction schedule and information signage at key sites in the Angel Peak Scenic Area and at trailheads in the WMBT and Ysidro Trials areas.

XX. Consult with the BLM and the New Mexico Trials Association to determine potential trail closures, trail reroutes, and planned organized trail events.

### **Range Management**

YY. Notify the BLM AO so that the AO can provide mitigation and a solution to avoid or minimize impacts to improvement(s) if they would be affected during construction.

ZZ. Cap the ends of the strung pipe to prevent animals from entering.

AAA. Construct escape ramps/cross overs every 1,320 feet including each end of the trench when left open overnight between the communities of Counselor and Cuba, New Mexico. Escape ramp/crossovers shall be constructed with a minimum 3:1 slope at each end of the crossover. Crossovers shall be a minimum of 10 feet wide.

BBB. Monitor open trenches on a daily basis for trapped wildlife and definitely just prior to lowering pipe into the trench. Any trapped wildlife or livestock discovered shall be promptly removed and released at least 150 yards from the open trench.

CCC. Provide written documentation that all livestock owners/grazing operators in the project area have been consulted about the project to include construction start date, anticipated end date, company contacts, and that MAPL accepted liability for livestock loss or injury. MAPL shall provide details about all mitigation agreements made with livestock grazing operators (plans/payments to move livestock out of project area, etc.) prior to implementation of such agreements.

**Fire and Fuels**

DDD. Implement MAPL's Fire Prevention and Suppression Plan (see Appendix O to the POD).

**Land Tenure**

EEE. Coordinate with existing right-of-way holders prior to construction.