

## **5 CONCLUSIONS AND RECOMMENDATIONS**

### **5.1 SUMMARY OF THE STAFF'S ENVIRONMENTAL ANALYSIS**

The conclusions and recommendations presented in this section are those of the environmental Staff of the FERC. We have determined that construction and operation of the proposed Project would result in limited adverse environmental impacts based on information provided by CIG and further developed from data requests; field investigations; scoping; literature research; alternatives analysis; contacts with federal, tribal, state, and local agencies; and input from individuals, groups, and organizations. These limited impacts would be more significant during the period of construction.

As part of our analysis, we developed specific mitigation measures that we believe are appropriate and reasonable for the construction and operation of the proposed Project. We believe environmental impacts would be minimized if the proposed Project is constructed and operated in accordance with applicable laws and regulations, CIG's proposed mitigation, and our additional mitigation measures. We are, therefore, recommending that our mitigation measures be attached as conditions to any authorization issued by the Commission. A summary of the proposed Project impacts and our conclusions are presented below by resource.

#### **Geology**

The Project would cross about one mile of land where shallow and hard bedrock may be encountered. CIG stated that trenching through these areas would be completed using tractor-mounted mechanical rippers or rock trenchers, and that no blasting would be required to construct the pipeline.

The Project would cross oil and gas producing fields, scattered gravel deposits and bituminous coal seams, and an inactive gravel pit. CIG stated it would provide access to oil and gas wells and tanks throughout construction. Future exploitation of the oil and gas fields could be affected by prohibiting exploration from the permanent right-of-way; however, modern drilling techniques would allow continued development of the fields below the Project area despite the presence of the pipeline. Five abandoned coal mines are located along proposed pipeline routes. Future exploitation of these and other near-surface coal deposits would be precluded from future development within the permanent right-of-way; however, it is unlikely that these small coal deposits would be mined in the foreseeable future. Future exploitation of the gravel pit also would be precluded similarly. However, the gravel pit is presently inactive and there is no indication that it would re-open in the near future. Potential impacts on mineral resources would be minor.

The abandoned coal mines could present a safety hazard during construction or operation by accidental entrapment in an open or inadequately closed mine shaft. We are recommending that CIG locate abandoned mine shafts within 100 feet of all construction workspaces and consult with the mine owners to determine if they are properly closed. Further, we are recommending that CIG install appropriate warning signs and fencing on the construction right-of-way to mark the mine locations.

The Project would cross an area of relatively low seismic risk, and damage to the pipeline from earthquake or soil liquefaction hazard would be minimal. There are no areas prone to landslides or sinkhole development along any of the proposed pipeline routes. Flooding could occur along the major rivers crossed by the Project and flash flooding could occur in any number of the intermittent drainages. To mitigate potential impacts from flooding, CIG would avoid construction of waterbody crossings during periods of high flow or during heavy precipitation events as outlined in its Procedures and BMPs. Geologic risk associated with construction and operation of the proposed Project would not be significant.

## **Soils**

The soils in the proposed Project area are diverse and include dune sands, thick loess (wind-blown silts), and loamy and clayey soils derived from various bedrock materials. Pipeline construction activities such as clearing, grading, trenching, and backfilling, as well as the movement of construction equipment along the right-of-way may result in adverse impacts on soil resources. These impacts would include soil mixing, compaction, and erosion by water and wind. Impacts on soils would be effectively minimized through the implementation of CIG's Plan and Reclamation Plan, which includes measures for soil management, seeding, mulching, and monitoring.

## **Water Resources**

*Groundwater Resources* – The proposed Project would cross the High Plains and Denver aquifers and an area in which aquifers either do not exist or yield too little water to wells to be significant. The pipeline route would also cross an unconfined, surficial aquifer associated with the South Platte River. None of the aquifers in the proposed Project area are USEPA-designated or petitioned sole-source aquifers. No designated wellhead protection areas would be crossed.

Construction of the pipeline and aboveground facilities could affect groundwater in several ways. Clearing, grading, trenching, and soil stockpiling activities could temporarily alter overland flow and groundwater recharge. Near-surface soil compaction caused by the operation of heavy construction equipment could reduce the soil's ability to absorb water which could increase surface runoff and the potential for ponding, and could alter aquifer recharge. However, these impacts would be localized and temporary. Upon completion of construction, CIG would restore the ground surface as closely as practicable to original contours, conduct decompaction where appropriate, and revegetate the right-of-way to restore preconstruction overland flow and recharge patterns.

Unconfined aquifers and shallow groundwater areas could be vulnerable to contamination caused by inadvertent surface spills of hazardous materials used during construction. CIG developed its Spill Plan to address preventive and mitigative measures to avoid or minimize the potential for hazardous material spills during construction. We have reviewed CIG's Spill Plan and find that it adequately addresses the storage and transfer of hazardous materials and the response to be taken in the event of a spill.

The proposed pipelines would cross within 150 feet of two irrigation water wells and one spring. Each well and spring would be marked and avoided by equipment during construction. CIG would prohibit refueling and storage of hazardous materials within 150 feet of all private water wells and springs. However, in the event of a spill, CIG would implement its Spill Plan to minimize or avoid potential impacts.

CIG has stated that a limited amount of water required for hydrostatic testing, dust control, and trench compaction techniques would be obtained from water wells through arrangements with well owners. The use of groundwater for construction activities would result in short term, temporary increases in groundwater usage that could affect other groundwater users. However, the total volume of water CIG anticipates using is relatively low and the impacts of its use would be insignificant.

If CIG implements the mitigative measures described in its Plan, Restoration Plan, and Spill Plan then construction and operation of the Project would have minimal impact on groundwater resources.

*Surface Water Resources* – The proposed Project would cross three perennial and 119 intermittent waterbodies, drainages, canals, and washes. CIG would use the open-cut method for all

waterbody crossings, except canals which would be bored if flow is present at the time of construction. The South Platte River crossings on Line 250A at MP 41.3 and on Line 252A at MP 11.6 would be the only major waterbody crossings (*i.e.*, greater than 100 feet wide). CIG would minimize impacts on surface waters by implementing the waterbody construction and mitigation procedures contained in CIG's Procedures and its BMP. CIG would also comply with all conditions of its USACE Section 404 wetland permit and Section 401 state water quality certification or waiver.

CIG would hydrostatically test its pipeline prior to operation in compliance with DOT regulations. CIG would test only new pipe and no chemicals would be added to the water during testing. Water for hydrostatic testing would be withdrawn from the South Platte River. The South Platte River is considered sensitive because it is known to contain state-listed endangered and threatened species. Also, six federal-listed species downstream from the Project area in Nebraska were identified as potentially being affected by the proposed Project due to water depletions from the river (see section 4.6.1 and appendix N). CIG would obtain authorization to appropriate water from the South Platte River through the SPWRAP. By participating in this program, CIG would ensure its water withdrawals from the South Platte River are managed and conditioned to prevent negative impacts to the South Platte River and the biotic community that utilizes it; and it would provide for appropriate compensation to mitigate the impact of water withdrawal. Further, CIG would minimize the potential effects of hydrostatic testing by implementing the measures in its Procedures and its Hydrostatic Test Plan.

*Wetlands* – The pipeline route would cross 42 wetlands for a total distance of about 4,115 feet. Several of these wetlands would be under the jurisdiction of the USACE. CIG would minimize impacts on wetlands by complying with the USACE's Section 404 permit conditions and the state-issued Section 401 water quality certification or waiver, and by implementing the wetland construction and restoration measures contained in its Procedures and Reclamation Plan. These measures would apply to all wetlands crossed by the pipeline with the exception of wetlands in actively cultivated or rotated crop lands.

## **Vegetation**

The pipeline construction right-of-way, temporary extra workspaces and yard associated with the Project would disturb a total of about 2,427.3 acres of land. The most common vegetation type along the pipeline route is agricultural land (1,395.5 acres), which accounts for about 57 percent of the vegetation that would be cleared or affected by construction. The next most common vegetation types that would be disturbed by construction are pasture (337.2 acres), short grass prairie (261.0 acres), sand sagebrush shrub land (179.1 acres), CRP land (172.7 acres), mixed grass prairie (32.0 acres), riparian forest (30.7 acres), and wetland (6.9 acres). Industrial land comprises the remaining acreage (12.1 acres) but does not support a vegetative cover type. Construction of the aboveground facilities would impact about 28.7 acres of industrial land within existing facility sites, about 7.7 acres of agricultural land, about 7.4 acres of pasture, about 3.7 acres of short grass prairie, and less than 0.1 acre of CRP land. Permanent impacts due to operation of the proposed facilities would be related mainly to operation of the aboveground facilities since it would permanently change the existing vegetation to industrial use. After restoration of the pipeline right-of-way, most areas would revegetate to pre-construction conditions including about 587.6 acres of agricultural land, 124.9 acres of pasture, 109.2 acres of short grass prairie, 59.6 acres of sand sagebrush shrubland, 82.7 acres of CRP land, 13.8 acres of mixed grass prairie, and 3.0 acres of wetland that would be within the permanent pipeline right-of-way. The exception to this would be about 4.7 acres within riparian areas within the permanent right-of-way which would not be allowed to revegetate to pre-construction condition. To reduce impacts on vegetation within the temporary and permanent rights-of-way and improve revegetation potential, CIG would implement the measures for upland construction that are included in its Plan and Reclamation Plan. These measures include topsoil segregation in improved pastures and seeding of disturbed areas with seed mixes prescribed by the local soil conservation authorities or land management agency. We believe that implementation of the construction and

restoration measures in CIG's Plan and in the Reclamation Plan would minimize impacts on vegetation due to construction and operation of the Project.

Noxious weeds could potentially occur along the pipeline right-of-way and aboveground facility sites. CIG conducted noxious weed surveys during the summer of 2006 and identified several noxious weed species along the route. CIG has prepared an Invasive Species Plan that prescribes methods to prevent and control the spread of noxious weeds during and following construction. We believe that CIG's Invasive Species Plan would minimize the spread of noxious weeds to the greatest extent practicable.

### **Wildlife and Aquatic Resources**

Direct impacts of construction on wildlife would include the displacement of wildlife from the right-of-way and direct mortality of some individuals. The cutting, clearing, and/or removal of existing vegetation would also affect wildlife by reducing the amount of available habitat. In general, these effects are not expected to have a significant impact on wildlife populations because all of the habitats that would be affected are relatively abundant elsewhere in the proposed Project area and about 57 percent of the land use that would be affected by the Project is already disturbed by agriculture. Furthermore, CIG's implementation of its Plan and Procedures, and use of seed mixes prescribed by the local NRCS offices or the appropriate land management agency would improve the potential for successful revegetation of the right-of-way after construction.

Construction of aboveground facilities would permanently affect 7.9 acres of agricultural land and 1.9 acres of pasture. An additional 3.7 acres of industrial land located inside existing CIG compressor and meter stations would be affected by aboveground facilities. Habitat loss in agricultural land and pasture would not have a significant effect on wildlife in the area because of the abundance of these types of habitat in the vicinity of the proposed Project and the limited value of these habitat types to wildlife.

The South Platte River is the only waterbody that would be crossed by the proposed Project known to support or capable of supporting either warmwater or non-game fisheries. The South Platte River is also known to contain federal or state-listed special status species or designated critical habitat for listed species. CIG would minimize impacts on surface waters by implementing its Procedures, BMPs, and Spill Plan. It would also comply with the requirements of the SPWRAP and all conditions of its USACE Section 404 wetland permit and Section 401 state water quality certification. Since CIG would comply with these requirements, we believe impacts to aquatic resources would be minimized.

### **Special Status Species**

Based on consultations with the USFWS, 13 federal listed species were determined to potentially occur in the general vicinity of the proposed Project. CIG conducted surveys of the pipeline route to identify the presence of listed species in the proposed Project area. After completing the field surveys, CIG filed its survey reports and conservation plans with the FERC and the USFWS. On the basis of CIG's field survey reports and analysis of the potential effects of the proposed action we determined that construction and operation of the proposed Project may affect, but is not likely to adversely affect the Preble's meadow jumping mouse, the American burying beetle, the Colorado butterfly plant, and the Ute ladies'-tresses; and would have no effect on the Eskimo curlew or the Mexican spotted owl.

Further, six federal listed species in Nebraska were identified as potentially being affected by the proposed Project due to water depletions from the Platte River system: whooping crane (including its critical habitat), interior least tern, piping plover, pallid sturgeon, bald eagle, and western prairie fringed

orchid According to the USFWS, water depletion associated with appropriating water (0.1 acre-feet or more) from the South Platte River for hydrostatic testing of the pipeline, dust control, trench compaction, and HDD operations could have an effect on water levels downstream of the proposed Project and could adversely affect these species if not properly mitigated. The USFWS determined in a programmatic BO that the continued operation of existing and certain new water-related activities may adversely affect but would not likely jeopardize the continued existence of the endangered whooping crane, interior least tern, and pallid sturgeon, or the threatened northern Great Plains population of the piping plover. Further, the USFWS found that the continued operation of existing and certain new water-related activities may adversely affect but would not likely jeopardize the threatened bald eagle and western prairie fringed orchid associated with the central and lower reaches of the Platte River in Nebraska, and was not likely to destroy or adversely modify designated critical habitat for the whooping crane.

The U.S. Department of the Interior and the States of Wyoming, Colorado, and Nebraska signed a Cooperative Agreement for Platte River research and other efforts relating to endangered species and habitats. This agreement, in turn, resulted in the PRRIP. The PRRIP allows for existing and future water uses while assisting in the recovery of the target species. It also provides streamlined ESA compliance procedures. Under the new program, individual projects are asked to contribute money, not water, to address their depletive impacts on target species. Individual projects then rely on the program's offsetting measures as their means to avoid jeopardy to the species and adverse modification of critical habitat. Colorado has set up the SPWRAP for implementing the PRRIP program.

CIG would participate in the SPWRAP to appropriate water from the South Platte River. One-time uses covered by the SPWRAP, such as the appropriation of water for hydrostatic testing, cost the water user a one-time flat-rate fee for each increment of 100 acre-feet provided water is returned to the river. Uses that do not return water to the river, such as CIG's proposal are assessed fees on a case-by-case basis. Accordingly, the impacts of the proposed Project on whooping crane (including its critical habitat), interior least tern, piping plover, pallid sturgeon, bald eagle, and western prairie fringed orchid are covered and offset by operation of Colorado's SPWRAP.

We provided the USFWS with our BA (appendix N) which addresses impacts on federal listed threatened or endangered species due to construction, including CIG's proposed water withdrawal from the South Platte River, and operation of the proposed Project. The BA includes our determinations of effect on these species. USFWS concurrence is pending. We are recommending that CIG not be allowed to start construction until consultation is complete.

The CDOW identified 34 sensitive species that have the potential to occur in the proposed Project area. By implementing the mitigation measures identified by CIG, construction of the proposed Project is not likely to adversely affect these species.

### **Land Use, Recreation, and Visual Resources**

Construction of CIG's pipeline facilities would affect a total of about 2,427.3 acres of land, consisting of 1,984.1 acres for the construction right-of-way, 297.8 acres for temporary extra workspace, and 145.4 acres for contractor/pipe storage/offloading yards. Up to an additional 208.2 acres of land would be affected by access roads. Agricultural land and pasture would be the primary land uses affected by construction of the pipeline facilities, but a small amount of grassland, shrubland, riparian forest, and wetland would also be disturbed. Of the 2,427.3 acres of land that would be affected by construction of the pipeline facilities, about 993.2 acres would be retained as new permanent right-of-way. The remaining 1,434.1 acres used for temporary construction right-of-way and temporary extra workspace would be allowed to revert to prior uses following construction with no restrictions. A total of 47.6 acres

of land would be disturbed by construction of the proposed aboveground facilities. About 14.5 acres would be permanently affected; however about 3.7 acres of this permanent requirement would be within CIG's existing aboveground facilities.

About 156.2 miles (95.4 percent) of the land that would be affected by construction and operation of the pipelines is privately owned. The remaining 7.4 miles (4.6 percent) is managed by a variety of state and local agencies. All of the proposed aboveground facilities would be located on private land. The proposed Project would be constructed adjacent to powerline rights-of-way in some areas. We are recommending that CIG consult with affected powerline companies and develop measures for safe construction and operation of the proposed Project facilities in the vicinity of powerlines.

Three residences and one restaurant would be within 50 feet of proposed construction work areas. Additionally, the Project would cross two heavily developed commercial/industrial areas consisting of several warehouses, parking lots, and office buildings. CIG would implement the measures described in its Plan for construction and restoration in residential areas. We are recommending that CIG develop a R&BCM Plan which includes provisions for landowner notification of construction schedules, maintaining access, repairing damage, and restoring disturbed residential and business areas. Also, we are recommending that CIG develop and implement an environmental complaint resolution procedure. Implementation of these measures will minimize impacts due to construction and operation of the Project on residential and business properties.

The proposed pipelines would cross one recreation and/or special interest area, the Mitani-Tokuyasu State Wildlife Area at the South Platte River crossing on proposed Line 250A. This area is used for hunting, fishing, and related activities. Impacts would be minimized by implementing CIG's Procedures and BMP when crossing the South Platte River. In general, impacts on recreation in this area would be short term and would be limited to the period of active construction and the time needed for construction workspaces to revegetate.

Visual impacts associated with the pipeline would be greatest where the pipeline route parallels or crosses roads, or prominent off-site observation points, and where the pipeline right-of-way may be seen by passing motorists or other recreationists. Topographic alterations such as sidehill cuts that are necessary to construct the pipeline would be restored during right-of-way restoration. The visibility of such alterations would diminish over time as the affected areas age and begin to blend with the surrounding landscape. The short-term visual changes to vegetation would depend on the type of vegetation cleared, but may be noticeable for 3 to 5 years. CIG would mow the permanent right-of-way in a manner consistent with our Plan. This would limit the growth of larger shrubs and trees from the area within its bounds. Other long-term visual changes along the permanent pipeline right-of-way would be minor and limited to permanent pipeline markers that may be visible at pipeline crossing locations.

The proposed aboveground facilities would be new features in the landscape. However, they would be relatively small (*e.g.*, meter stations, MLVs, and pig launchers/receivers) and some would be located within or adjacent to existing industrial sites where they would be viewed in the context of other buildings and facilities in the immediate area. Overall, the total number of proposed aboveground facilities is relatively small and widely distributed and generally would only add marginally to the effect of existing structures in the area. CIG would minimize the visual impact of these new facilities by painting the exteriors consistent with the natural environment and/or planting trees or shrubs around the sites for visual screening.

## **Cultural Resources**

Surveys of the APE identified 51 cultural resources and 39 isolated finds. These included 20 previously recorded sites identified during site file searches. Of the 51 sites within the APE, 27 would be avoided or mitigated because of eligibility or potential eligibility for listing on the NRHP. These include eight canals, eight ditches, seven railroads, two electric transmission lines, and two farmsteads.

CIG submitted its recommendations to the SHPO who concurred with CIG's recommendations that there would be no adverse effects on historic properties if the recommended construction methods are used to protect certain NRHP-eligible and potentially eligible cultural resources. The SHPO also stated that, should unidentified archaeological resources be discovered in the course of the project, work should stop until the resources have been evaluated and the SHPO's office consulted. CIG has filed a plan for the unanticipated discovery of cultural resources with the FERC and the SHPO.

The FERC, in consultation with the SHPO, will make final determinations of NRHP eligibility and project effects. The FERC, as the lead federal agency, will comply with Section 106 of the NHPA and the implementing regulations in Title 36 CFR Part 800 by notifying the ACHP of any adverse effects to afford it an opportunity to participate in consultation. According to CIG, some project areas have not been reviewed or surveyed due to lack of landowner permission and traditional cultural property consultations have not been completed with Native American groups. To ensure that the FERC's responsibilities under the NHPA and its implementing regulations are met, we are recommending that CIG completes review and/or survey and Native American consultations for all project areas prior to construction.

## **Socioeconomics**

Construction of the proposed Project would result in a temporary increase in population, traffic, and demand for temporary housing and public services. Due to the temporary and limited nature of these impacts, they are not considered significant. Construction and operation of the proposed Project would have a beneficial impact on local tax revenues and economies. The operation and maintenance of the proposed facilities would contribute to property and sales tax revenues, although the contributions would be minimal compared to the overall tax revenues generated in the state.

## **Air Quality and Noise**

Construction of the proposed pipeline and aboveground facilities would result in intermittent and short-term fugitive emissions. Emissions from construction of the pipeline and aboveground facilities are not expected to cause or significantly contribute to a violation of an applicable ambient air quality standard. The construction equipment would be operated on an as-needed basis and the emissions from gasoline and diesel engines would be minimized to the extent practicable because the engines would be built and maintained to meet the standards for mobile emissions sources established by the USEPA regulations.

Noise would be generated during construction of the pipeline and aboveground facilities. Construction activities in any one area could last from several weeks to several months on an intermittent, as-needed basis. While individuals in the immediate vicinity of the construction activities would experience an increase in noise, this effect would be temporary and local. Nighttime noise is not expected to increase during construction because most construction activities would be limited to daytime hours.

## **ALTERNATIVES CONSIDERED**

The No Action or Postponed Action Alternative was considered. While the No Action or Postponed Action Alternative would eliminate the environmental impacts identified in this EIS, CIG's customers would be denied access to the 899,000 Dth/d of natural gas that could be transported on CIG's system. Furthermore, new natural gas supply development in the Central Rocky Mountain supply region could also be hindered due to a lack of major, interstate pipeline transportation options to deliver the gas to eastern Colorado markets. Denying or postponing action on CIG's applications could force CIG's customers into seeking natural gas from other sources, using alternative energy sources, or using alternative fuels.

If CIG's customers were forced to seek natural gas from other sources, additional and/or new pipeline facilities in other locations would be required. If other natural gas facilities are approved and constructed, each project would result in its own set of specific impacts that could be greater than, equal to, or less than those associated with the current proposal. The use of alternative energy sources is infeasible because solar, wind, hydroelectric, and other energy sources such as geothermal or fuel cells are either not physically or commercially available in the market region or have not been developed to the point where they would be viable substitutes for natural gas. Using alternative fuels would require CIG's customers to apply for and seek regulatory approval to use these other fuels. Assuming regulatory approval to use alternative fuels could be obtained within the required time frame, use of alternative fuels could result in increased emissions.

Alternatives involving the use of other existing transmission systems were evaluated. We did not identify any existing pipeline system whose expansion would be environmentally preferable to the proposed facilities. Therefore, we eliminated other pipeline system alternatives from further consideration.

Alternative configurations of CIG's system were considered. These included pipeline diameter and operating pressure alternatives. We did not consider these alternatives to be reasonable and eliminated them from further consideration.

Three route alternatives were evaluated: 5ABC, Burroughs, and County Road Route Alternatives. The 5ABC alternative would make greater use of CIG's existing rights-of-way; however, we eliminated this alternative because it would be placed within an area that is congested with residential and commercial development up to the existing pipeline corridor and there is minimal space immediately adjacent to the existing pipelines for construction of another pipeline. The Burroughs Route Alternative and the County Road Route Alternative were proposed by commentors to minimize impacts on irrigated land with alternative pipeline routes that would not cross their properties. We eliminated these alternatives because they would conflict with Pawnee National Grassland (PNG) Land and Resource Management Plan guidelines and could jeopardize research within the Central Plains Experimental Range. The Burroughs Route Alternative would cross about 23.6 miles of the PNG and the County Road Route Alternative would cross about 27.9 miles of the PNG. Further, we believe the measures described in this EIS that CIG would use during construction of the pipeline, and for restoration and monitoring after construction are adequate to protect agricultural resources.

We evaluated three route variations. We eliminated one of the route variations (Ranchette) from further consideration because we did not consider it to be environmentally preferable. We recommend incorporating two variations (Owl Creek and Pioneer) into the pipeline route to minimize the impact of pipeline operation on planned residential development.

We looked at alternative sites for meter stations, MLVs, and pig launchers/receivers. The locations of many of these facilities would be determined by the locations of the interconnections with other pipelines and DOT regulations. We concluded that alternative sites offered no environmental advantages and we eliminated them from further consideration.

## 5.2 FERC STAFF'S RECOMMENDED MITIGATION

If the Commission authorizes the proposed Project, we recommend that the following measures be included as specific conditions in the Commission's Order. We believe that these measures would further mitigate the environmental impacts associated with the construction and operation of the proposed Project.

1. CIG shall follow the construction procedures and mitigation measures described in their applications, supplemental filings (including responses to staff data requests), and as identified in the EIS, unless modified by the Order. CIG must:
  - a. request any modification to these procedures, measures, or conditions in a filing with the Secretary;
  - b. justify each modification relative to site-specific conditions;
  - c. explain how that modification provides an equal or greater level of environmental protection than the original measure; and
  - d. receive approval in writing from the Director of the OEP **before using that modification.**
2. The Director of OEP has delegation authority to take whatever steps are necessary to ensure the protection of all environmental resources during construction and operation of the proposed Project. This authority shall allow:
  - a. the modification of conditions of the Order; and
  - b. the design and implementation of any additional measures deemed necessary (including stop work authority) to assure continued compliance with the intent of the environmental conditions as well as the avoidance or mitigation of adverse environmental impact resulting from proposed Project construction and operation.
3. **Prior to any construction**, CIG shall file an affirmative statement with the Secretary, certified by a senior company official, that all company personnel, EIs, and contractor personnel will be informed of the EI's authority and have been or will be trained on the implementation of the environmental mitigation measures appropriate to their jobs before becoming involved with construction and restoration activities.
4. The authorized facility locations shall be as shown in the EIS, as supplemented by filed alignment sheets and shall include the staff's recommended facility locations. **As soon as they are available, and prior to the start of construction**, CIG shall file with the Secretary revised detailed survey alignment map/sheets at a scale not smaller than 1:6,000 with station positions for all facilities approved by the Order. All requests for modifications of environmental conditions of the Order or site-specific clearances must be written and must reference locations designated on these alignment maps/sheets.

CIG's exercise of eminent domain authority granted under NGA Section 7(h) in any condemnation proceedings related to the Order must be consistent with these authorized facilities and locations. CIG's right of eminent domain granted under NGA Section 7(h) does not authorize it to increase the size of its natural gas pipeline to accommodate future needs or to acquire a right-of-way for a pipeline to transport a commodity other than natural gas.

5. CIG shall file with the Secretary detailed alignment maps/sheets and aerial photographs at a scale not smaller than 1:6,000 identifying all route realignments or facility relocations, and staging areas, pipe storage yards, new access roads, and other areas that would be used or disturbed and have not been previously identified in filings with the Secretary. Approval for each of these areas must be explicitly requested in writing. For each area, the request must include a description of the existing land use/cover type, documentation of landowner approval, whether any cultural resources or federally listed threatened or endangered species would be affected, and whether any other environmentally sensitive areas are within or abutting the area. All areas shall be clearly identified on the maps/sheets/aerial photographs. Each area must be approved in writing by the Director of OEP **prior to** construction in or near that area.

This requirement does not apply to route variations recommended herein or minor field realignments per landowner needs and requirements that do not affect other landowner or sensitive environmental areas such as wetlands.

Examples of alterations requiring approval include all route realignments and facility changes resulting from:

- a. implementation of cultural resources mitigation measures;
  - b. implementation of endangered, threatened, or special concern species mitigation measures;
  - c. recommendations by state regulatory authorities; and
  - d. agreements with individual landowners that affect other landowners or could affect sensitive environmental areas.
6. **Within 60 days of acceptance of the certificate and prior to construction**, CIG shall file an initial Implementation Plan with the Secretary for the review and written approval of the Director of OEP describing how CIG will implement the mitigation measures required by the Order. CIG must file revisions to the plan as schedules change. The plan shall identify:
    - a. how CIG will incorporate these requirements into the contract bid documents, construction contracts (especially penalty clauses and specifications), and construction drawings so that the mitigation required at each site is clear to onsite construction and inspection personnel;
    - b. the number of EIs assigned per spread and aboveground facility site, and how the company will ensure that sufficient personnel are available to implement the environmental mitigation;
    - c. company personnel, including EIs and contractors, who will receive copies of the appropriate materials;

- d. what training and instructions CIG will give to all personnel involved with construction and restoration (initial and refresher training as the proposed Project progresses and personnel change), with the opportunity for OEP staff to participate in the training session(s);
  - e. the company personnel (if known) and specific portion of CIG's organizations having responsibility for compliance;
  - f. the procedures (including use of contract penalties) CIG will follow if noncompliance occurs; and
  - g. for each discrete facility, a Gantt or PERT chart (or similar project scheduling diagram), and dates for:
    - i. the completion of all required surveys and reports;
    - ii. the mitigation training of onsite personnel;
    - iii. the start of construction; and
    - iv. the start and completion of restoration.
7. CIG shall file updated status reports with the Secretary **on a weekly basis** until all construction-related activities, including restoration, are complete. On request, these status reports will also be provided to other federal and state agencies with permitting responsibilities. Status reports shall include:
- a. the current construction status of each spread, work planned for the next reporting period, and any schedule changes for stream crossings or work in other environmentally sensitive areas;
  - b. a listing of all problems encountered and each instance of noncompliance observed by the EI(s) during the reporting period (both for the conditions imposed by the FERC and any environmental conditions/permit requirements imposed by other federal, state, or local agencies;
  - c. corrective actions implemented in response to all instances of noncompliance, and their cost;
  - d. the effectiveness of all corrective actions implemented;
  - e. a description of any landowner/resident complaints that may relate to compliance with the requirements of the Order, and the measures taken to satisfy their concerns; and
  - f. copies of any correspondence received by CIG from other federal, state, or local permitting agencies concerning instances of noncompliance, and CIG's response.
8. CIG must receive written authorization from the Director of OEP **before commencing service for each component** of the proposed Project. Such authorization will only be granted following a determination that rehabilitation and restoration of the right-of-way is proceeding satisfactorily.

9. **Within 30 days of placing the certificated facilities in service**, CIG shall file an affirmative statement with the Secretary, certified by a senior company official;
  - a. that the facilities have been constructed in compliance with all applicable conditions, and that continuing activities will be consistent with all applicable conditions; or
  - b. identifying which of the certificate conditions CIG has complied with or will comply with. This statement shall also identify any areas along the right-of-way where compliance measures were not properly implemented, if not previously identified in filed status reports, and the reason for noncompliance.
10. Where the proposed pipelines would be constructed adjacent to or within powerline rights-of-way, CIG shall consult with affected powerline companies and develop measures for construction and operation of the proposed Project facilities in the vicinity of powerlines. These measures shall be filed with the Secretary **prior to construction**. (page 2-18)
11. CIG shall develop and implement an environmental complaint resolution procedure. The procedure shall provide landowners with clear and simple directions for identifying and resolving their environmental mitigation problems/concerns during construction of the Project and restoration of the right-of-way. **Prior to construction**, CIG shall mail the environmental complaint resolution procedure to each landowner whose property would be crossed by the Project.
  - a. In its letter to affected landowners, CIG shall:
    - (1) provide a local contact that the landowners should call first with their concerns; the letter shall indicate how soon a landowner should expect a response;
    - (2) instruct the landowners that if they are not satisfied with the response, they should call CIG's Hotline; the letter shall indicate how soon to expect a response; and
    - (3) instruct the landowners that if they are still not satisfied with the response from CIG's Hotline, they should contact the Commission's Enforcement Hotline at (888) 889-8030, or at [hotline@ferc.gov](mailto:hotline@ferc.gov).
  - b. In addition, CIG shall include in its weekly status report a copy of a table that contains the following information for each problem/concern:
    - (1) the date of the call;
    - (2) the identification number from the certificated alignment sheets of the affected property and approximate location by MP;
    - (3) the description of the problem/concern; and
    - (4) an explanation of how and when the problem was resolved, will be resolved, or why it has not been resolved. (page 2-22)
12. CIG shall incorporate the Owl Creek Route Variation (MPs 29.5 to 30.0) into the Line 250A pipeline route. **Prior to construction**, CIG shall file revised alignment sheets and all necessary

environmental information showing the modified route for review and written approval of the Director of the OEP. (page 3-11)

13. CIG shall incorporate the Pioneer Route Variation (MPs 58.3 to 61.5) into the Line 250A pipeline route. **Prior to construction**, CIG shall file revised alignment sheets and all necessary environmental information showing the modified route for review and written approval of the Director of OEP. (page 3-12)
14. CIG shall locate abandoned mine shafts within 100 feet of all construction workspaces along Line 250A between MPs 49.6 and 51.7. CIG shall revise its alignment sheets to show these locations and shall file the revised documents with the Secretary **prior to construction** for review and written approval of the Director of OEP. CIG shall consult with the mine owners to determine if the abandoned mine shafts are properly closed and shall install appropriate warning signs and fencing on the construction right-of-way to mark the mine locations. Abandoned mine shaft shall be located on the pipeline alignment sheets and filed with the Secretary for review and written approval of the Director of OEP. (page 4-4)
15. CIG shall not begin construction activities **until**:
  - a. staff has completed necessary consultations with the USFWS; and
  - b. CIG has received written notification from the Director of OEP that construction and/or use of mitigation may begin. (page 4-71)
16. If construction of the pipeline system has not begun within 1 year from the date of FERC approval of the Project, CIG shall consult with the appropriate office of the USFWS to update the species list and to verify that previous consultations and determinations of effect are still current. Documentation of these consultations, and additional surveys and survey reports (if required), and USFWS comments on the survey and its conclusions, shall be filed with the Secretary **prior to construction**. (page 4-71)
17. CIG shall develop a R&BCM Plan to be implemented as-needed during construction. The plan, which shall be filed with the Secretary for the review and written approval of the Director of OEP **prior to construction**, shall include provisions for:
  - a. coordinating construction work schedules with affected landowners prior to starting construction;
  - b. maintaining access to all businesses during business hours, and maintaining access to all residences except for brief periods essential to pipe-laying activities;
  - c. where necessary, installing temporary safety fencing to control access and minimize the hazards associated with an open trench;
  - d. notifying affected residents and business in advance of any scheduled disruption of utilities and limit the duration of any interruption to the smallest time possible;
  - e. repairing any damages to property that result from construction activities or provide compensation at fair market value; and

- f. restoring all areas disturbed by construction work areas to “as before or better” conditions. (page 4-83)
18. CIG shall implementation of any treatment plan/measures (including archeological data recovery); construction of facilities; and use of all staging, or temporary work areas and new or to-be-improved roads **until**:
- a. CIG files with the Secretary cultural resources survey and evaluation reports; any necessary treatment plans; Native American consultations; and the Colorado SHPO comments on the reports and plans; and
  - b. the Director of OEP reviews and approves all cultural resources survey reports and plans, and notifies CIG in writing that treatment plans/procedures may be implemented and/or construction may proceed.

All material filed with the Secretary containing location, character, and ownership information about cultural resources must have the cover and any relevant pages therein clearly labeled in bold lettering: "CONTAINS PRIVILEGED INFORMATION - DO NOT RELEASE." (page 4-88)