Appendix E

Measures To Be Implemented to Avoid and Minimize Water Quality Impacts During Construction

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As appropriate, Level 3 will implement measures during construction to avoid and minimize effects on the aquatic environment. These measures, along with all other permit requirements, will be included in contract specifications to be implemented by the contractor with rigorous surveillance by an experienced Level 3 environmental inspector.

General Requirements

In general, measures include the following:

- Bore under sensitive habitats when practicable.
- Implement erosion control measures during construction.
- Remove cover vegetation as close to the time of construction as practicable.
- Confine construction equipment and associated activities to the construction corridor.
- No refueling of construction equipment will take place within 100 feet of an aquatic environment.
- Comply with state, federal, and local permits.
- Perform proper sediment control.
- Prepare and implement a spill prevention and response plan.
- Remove all installation debris, construction spoils, and miscellaneous litter for proper offsite disposal.
- Complete post-construction vegetation monitoring and supplemental revegetation where needed.

Procedures for implementing these measures will be specified in the documents and practices described in the following sections.

Spill Prevention, Containment, and Control Plan (SPCC)

The Spill Prevention, Containment, and Control Plan (SPCC) describes planning, prevention, and control measures to minimize the potential for, and impacts of spills during construction. The Segment Manager and Environmental Inspector shall implement all measures detailed in the SPCC, including the following:

- In the event of a spill, immediately stop the cause and contain the extent of the spill.
- Equipment and materials needed for spill response must be accessible at all work sites at all times.
- Take necessary precautions to prevent spills of petroleum products or hazardous fluids.
- Regularly inspect equipment hoses, pipes, valves, and tanks, for leaks and deterioration. Leaks or deterioration that are identified shall be repaired prior to resuming use of equipment on the project.
- Only trained personnel shall handle fuels and other hazardous materials, and will be

responsible for quickly and effectively containing and cleaning up spills.

- Label all storage and waste containers. For hazardous contents, include dates of accumulation and temporary EPA identification numbers. Maintain MSDS sheets on site for all hazardous and petroleum products.

- All hazardous waste must be stored, shipped and disposed of in accordance with federal and state regulations.

- Do not transfer or store fuels, oils, or other hazardous materials or perform concrete washing within 100 feet of wetlands or waterbodies nor within 150 feet from wells.

- The Segment Manager and Environmental Inspector shall be contacted immediately and have the following information provided regarding a release: Date, Time, Location, Amount, Character, Status, and if any hydrocarbon material has entered a wetland or waterbody; for the purpose of internal reports and Notification(s).

- Notification of spills or releases when necessary will be done by the Segment Manager or Environmental Inspector.

Storm Water Pollution Prevention Plan (SWPPP)

Construction site operations cause water quality problems related to storm water discharges throughout the life of a project. The SWPPP is required and contains the plan and procedures with associated roles and responsibilities that are directed toward everyone.

- The different types of Best Management Practices (BMPs) that have been adopted, including: Construction practices and staging of construction methods; material handling, maintenance, and storage practices of hazardous materials and wastes; and, erosion and sedimentation control.

- One of the most important concerns on a construction site is soil erosion and sedimentation. Erosion is the loosening and detachment of soil by wind or water. Sedimentation is the settling out of the soil particles in a stream or wetland. The adverse results of Sedimentation are deposition of soil in waterbodies and turbidity or cloudiness caused by soil being suspended in waters of the State.

- To prevent runoff from eroding away soil particles and causing sedimentation we install Best Management Practices (BMPs). BMPs are vegetative, structural, and managerial practices used on construction sites to protect water resources.

- Every BMP is chosen for its ability to remove or limit erosion, to keep soil on site, and sedimentation control to reduce the impact of sedimentation. A system of BMPs are generally required to implement a “treatment train” to treat the effects of storm water runoff.

- Erosion also involves dissolving of particles and storm water carries with it many pollutants, including soil, oil, fuels, heavy metals and often fertilizers. Pollutant loading from coating of surfaces will degrade spawning and critical habitats and is highly undesirable.

- Dust control and road stabilization BMPs and air quality standards will be met to comply with permit requirements.

- General erosion and sedimentation control BMPs include: fiber rolls, silt fence, straw bales, water bars, sediment traps, gravel-filled bags, sediment blankets, and restoration measures e.g. clean-up and revegetation (seeding and mulching).

- Inspection, documentation, reporting, maintenance, remediation, communication, and notification(s) as necessary will be done by the Segment Manager and Environmental Inspectors.

- There will be a wide variety of BMPs that are listed and described in detail designed to keep the construction corridor right-of-way in compliance with Permits through a rigid mitigation program. The Segment Managers and Environmental Inspectors will evaluate and implement BMPs as required by the permit constraints.

Long-Term Storm Water Management

All areas outside of the ILA enclosure that are disturbed by this project will be returned to pre-construction state. Final stabilization will be obtained when soil-disturbing construction activities have been completed. Areas in which vegetation did not exist prior to project-related activities will be returned to their pre-construction state. Vegetative coverage will be re-established in areas where coverage existed prior to construction. Cover is considered established when the vegetation is at least 70 percent of pre-disturbance level. Environmental inspectors will monitor revegetation to ensure the 70 percent rate.

Erosion Control Inspection and Maintenance

Erosion control measures in use will be monitored and maintained during the entire construction process. Inspection records will include the name of the person conducting the inspection, inspection date, findings, corrective action taken/needed, and when the corrective actions were implemented. Any deficiencies will be noted and corrected within seven calendar days.

The following will be inspected:

- Disturbed areas of the construction site that have not been stabilized

- Areas used for storage of materials that are exposed to precipitation

- Locations where storm water leaves the site for evidence of erosion or sediment deposition

Environmental Compliance Program

Level 3 has an environmental compliance program and will retain environmental compliance teams to oversee construction. The environmental compliance team will work proactively with construction crews to avoid potential environmental issues and provide for the timely and responsive resolution of environmental concerns or incidents which occur during construction. The environmental compliance program will protect the environment surrounding the project to the greatest extent possible and ensure that project-associated disturbance to sensitive resources is minimized. The program includes environmental inventory, avoidance flagging and fencing, worker training, environmental inspection to ensure compliance with all federal, state, and local environmental requirements relevant to the project, and record keeping and internal reporting.

The key to Level (3)'s successful environmental compliance program is the strong commitment by the company's management, engineers, inspectors, and contractors to fulfill the company's obligation to protect environmental resources. The environmental program will operate based on four key strategies:

- Field presence
- Worker orientation
- Timely documentation
- Clear and responsive communication.

Field Presence Level 3's environmental compliance teams will be involved throughout all construction phases. Their role will be to observe, document, and enforce environmental compliance, as well as actively identify, anticipate, and solve potential environmental compliance concerns.

Worker Orientation The focus on environmental orientation will be to both educate and motivate all project personnel to minimize disturbance to the surrounding environment and to take actions to protect sensitive resources. Knowledgeable environmental compliance team members will be available to answer questions and provide information onsite as requested.

Timely Documentation Documentation of environmental compliance will include written reports of observations, documentation of events, follow-up, and project tracking.

Clear and Responsive Communication Effective communication regarding environmental compliance is critical to the success of the project's environmental compliance program. Verbal discussions and written documentation will be professional at all times. Communication between peer groups on the project is expected to occur as frequently as required to assure effective and timely transfer of information, concerns, and required resolutions.