

## Appendix E Tidewater Goby Avoidance Measures

The following measures will be incorporated into the project to avoid or minimize adverse project effects:

- Construction activities at stream crossings will only occur between June 15 and October 31 (and November 15 if there is no significant rain event) to avoid or minimize adversely affecting fish, bird, and plant species of concern and to minimize soil compaction and sediment transport.
- Equipment will not be operated directly within tidal waters or stream channels of flowing streams.
- Work will be done during low tide when no water or fish are present, to temporarily prevent fish species of concern gaining access to the vicinity of the work area. If water is present, the work area will be seined and a fish barrier installed to isolate the work area. At this time, gobies are susceptible to being injured or crushed by workers while they are entangled in, or being removed from netting. In order to minimize potentially adverse effects to gobies, all translocation/removal of tidewater gobies will be conducted by qualified biologists under a scientific recovery permit pursuant to section 10(a)(1)(A) of the Act.
- The temporary fish barrier will be removed after work is completed.
- Silt fences will be deployed at culvert removal areas to prevent any sediment from flowing into the creek or wetted channels. If the silt fences are not adequately containing sediment, construction activity will cease until remedial measures are implemented that prevents sediment from entering the waters below.
- All exposed surfaces will be slash-packed with native vegetation and planted with willow sprigging when the work has been completed.
- Construction materials, debris, or waste, will not be placed or stored where it may be allowed to enter into or be placed where it may be washed by rainfall into waters of the U.S./State.
- Turbid water will be contained and prevented from being transported in amounts that are deleterious to fish, or in amounts that could violate state pollution laws. Silt fences or water diversion structures will be used to contain sediment. If sediment is not being contained adequately, as determined by visual observation, the activity will cease.
- Areas subject to disturbance during work activities will be surveyed by a qualified biologist. Endangered plant populations, or populations of species of special concern, that may be encountered, will be flagged before the commencement of any restoration work. Work crews will be trained to avoid endangered plants.
- Reserve/Park staff will be on site to ensure that the area is recontoured as per approved specifications.
- Designated areas will be used for equipment refueling. If equipment must be washed, washing will occur where wash water cannot flow into wetlands or waters of the U.S./State.
- Best Management Practices (BMPs) will be implemented to prevent entry of storm water runoff into the excavation site, the entrainment of excavated contaminated materials leaving the site, and to prevent the entry of polluted storm water runoff into coastal waters during the transportation and storage of excavated materials.