



**Terms and Conditions of the
Lower Columbia River Programmatic Consultation
under Section 7 of the Endangered Species Act
for**



“Surveying, Exploration, Construction, Operation, and Maintenance”

Applicability: These conditions are applicable to {activity} included in a programmatic consultation between the U.S. Army Corps of Engineers (Corps) and the National Marine Fisheries Service (NMFS) that addressed certain activities in the Lower Columbia River within the State of Washington. For additional information, please refer to “Programmatic Biological Evaluation for Activities in the Lower Columbia River, Washington State for Species Listed or Proposed by National Marine Fisheries Service under the Endangered Species Act,” dated 22 March 2002, and “Programmatic Biological Opinion, Standard Local Operating Procedures for Endangered Species (SLOPES II) for Certain Activities Requiring Department of the Army Permits in Oregon and the North Shore of the Columbia River,” dated 8 July 2003.

Location: Within Washington State, the Lower Columbia programmatic consultation addressed activities that would occur in the mainstem Columbia River, including its sloughs and adjacent wetlands, downstream of McNary Dam. Washington tributaries of the Columbia River, the Columbia River drainage basin above McNary Dam, and all other portions of the Seattle District were excluded from the action area of this programmatic consultation.

Description of Activity: For purposes of this programmatic consultation, covered activities include routine drilling, surveying and hydraulic engineering activities. These activities are road construction, drill pad preparation, access road and drill pad reclamation, drilling and sampling operations, mobilization and set up, de-mobilization, boring abandonment, project development surveys, construction surveys, and boundary surveys.

Terms and Conditions: To comply with the requirements of the Endangered Species Act (ESA), a Department of the Army permittee for this activity must comply with the terms and conditions listed below, which are specified in the above-referenced programmatic biological opinion as requirements to implement the reasonable and prudent measures described in the biological opinion. These terms and conditions are non-discretionary, and compliance with these terms and conditions is necessary to exempt the permittee from the prohibitions of Section 9 of the ESA.

Conditions of Standard Local Operating Procedures for Endangered Species

- a. Project Access. Landowners are required to provide the Corps and NMFS reasonable access to the project area to facilitate monitoring of the use and effectiveness of these terms and conditions.
- b. Salvage notice. If a sick, injured or dead specimen of a threatened or endangered species is found, the finder must notify the Vancouver Field Office of NMFS Law Enforcement at 360/418-4246. The finder must take care in handling of sick or injured specimens to ensure effective treatment, and in the handling of dead specimens to preserve biological material in the best possible condition for later analysis of cause of death. The finder also has the responsibility to carry out instructions provided by Law Enforcement to ensure that the evidence intrinsic to the specimen is not disturbed unnecessarily.
- c. Exclusions. The following types of exploration and construction actions are not authorized, unless approved in writing by NOAA Fisheries:
 - a) Exploration and construction actions, including release of construction discharge water, within 300 feet upstream of active spawning areas or areas with native submerged aquatic vegetation as determined by a preconstruction survey.
 - b) Exploration actions in estuaries that cannot be conducted from an existing bridge, dock, or wharf.

General Conditions for Surveying, Exploration, Construction, Operation, and Maintenance

- 2) Hydraulic surveys. Hydraulic measurements that require access to the wetted channel will be done outside of the spawning season, or will have a fisheries biologist verify that there are no redds present at the site. If dye must be used, only non-toxic vegetable dyes is authorized; use of short pieces of plastic ribbon to determine

- flow patterns is not authorized.
- 3) Minimum area. Confine construction impacts to the minimum area necessary to complete the project.
 - 4) Timing of in-water work. Work below the bankfull elevation will be completed using the most recent Corps Seattle District preferred in-water work period, as appropriate for the project area, unless otherwise approved in writing by NOAA Fisheries.
 - 5) Cessation of work. Cease project operations under high flow conditions that may result in inundation of the project area, except for efforts to avoid or minimize resource damage.
 - 6) Fish screens. Have a fish screen installed, operated and maintained according to NOAA Fisheries' fish screen criteria on each water intake used for project construction, including pumps used to isolate an in-water work area. Screens for water diversions or intakes that will be used for irrigation, municipal or industrial purposes, or any use besides project construction are not authorized.
 - 7) Fish passage. Provide passage for any adult or juvenile salmonid species present in the project area during construction, unless otherwise approved in writing by NOAA Fisheries, and after construction for the life of the project. Upstream passage is not required during construction if it did not previously exist.
 - 8) Pollution and Erosion Control Plan. Prepare and carry out a pollution and erosion control plan to prevent pollution caused by surveying or construction operations. The plan must be available for inspection on request by Corps or NOAA Fisheries.
 - a) Plan Contents. The pollution and erosion control plan will contain the pertinent elements listed below, and meet requirements of all applicable laws and regulations.
 - i) The name and address of the party(s) responsible for accomplishment of the pollution and erosion control plan.
 - ii) Practices to prevent erosion and sedimentation associated with access roads, stream crossings, drilling sites, construction sites, borrow pit operations, haul roads, equipment and material storage sites, fueling operations, staging areas and roads being decommissioned.
 - iii) Practices to confine, remove and dispose of excess concrete, cement, grout, and other mortars or bonding agents, including measures for washout facilities.
 - iv) A description of any regulated or hazardous products or materials that will be used for the project, including procedures for inventory, storage, handling, and monitoring.
 - v) A spill containment and control plan with notification procedures, specific cleanup and disposal instructions for different products, quick response containment and cleanup measures that will be available on the site, proposed methods for disposal of spilled materials, and employee training for spill containment.
 - vi) Practices to prevent construction debris from dropping into any stream or water body, and to remove any material that does drop with a minimum disturbance to the streambed and water quality.
 - b) Inspection of erosion controls. During construction, monitor instream turbidity and inspect all erosion controls daily during the rainy season and weekly during the dry season, or more often as necessary, to ensure the erosion controls are working adequately.
 - i) If monitoring or inspection shows that the erosion controls are ineffective, mobilize work crews immediately to make repairs, install replacements, or install additional controls as necessary.
 - ii) Remove sediment from erosion controls once it has reached 1/3 of the exposed height of the control.
 - 9) Construction discharge water. Treat all discharge water created by construction (e.g., concrete washout, pumping for work area isolation, vehicle wash water, drilling fluids) as follows.
 - a) Water quality. Design, build and maintain facilities to collect and treat all construction discharge water, including any contaminated water produced by drilling, using the best available technology applicable to site conditions. Provide treatment to remove debris, nutrients, sediment, petroleum hydrocarbons, metals and other pollutants likely to be present.
 - b) Discharge velocity. If construction discharge water is released using an outfall or diffuser port, velocities may not exceed 4-feet per second, and the maximum size of any aperture may not exceed one inch.
 - c) Pollutants. Do not allow pollutants including green concrete, contaminated water, silt, welding slag, sandblasting abrasive, or grout cured less than 24-hours to contact any wetland or the 2-year floodplain.

- d) Drilling discharge. All drilling equipment, drill recovery and recycling pits, and any waste or spoil produced, will be completely isolated to prevent drilling fluids or other wastes from entering the stream.
 - i) All drilling fluids and waste will be completely recovered then recycled or disposed to prevent entry into flowing water.
 - ii) Drilling fluids will be recycled using a tank instead of drill recovery/recycling pits, whenever feasible.
 - iii) When drilling is completed, attempts will be made to remove the remaining drilling fluid from the sleeve (e.g., by pumping) to reduce turbidity when the sleeve is removed.
- 10) Piling installation. Install temporary and permanent pilings as follows.
- a) Minimize the number and diameter of pilings, as appropriate, without reducing structural integrity.
 - b) Repairs, upgrades, and replacement of existing pilings consistent with these terms and conditions are allowed.
 - c) In addition to repairs, upgrades, and replacements of existing pilings, up to five single pilings or one dolphin consisting of three to five pilings may be added to an existing structure or marina per in-water construction period.
 - d) Drive each piling as follows to minimize the use of force and resulting sound pressure.
 - i) Hollow steel pilings greater than 24 inches in diameter, and H-piles larger than designation HP24, are not authorized with this opinion.
 - ii) When impact drivers will be used to install a wood or concrete pile, use the smallest driver and the minimum force necessary to complete the job. Use a drop hammer or a hydraulic impact hammer, whenever feasible and set the drop height to the minimum necessary to drive the piling.
 - iii) When using an impact hammer to drive or proof steel piles, one of the following sound attenuation devices will be used to reduce sound pressure levels by 20 decibels (re: 1 microPascal).
 - (1) Place a block of wood or other sound dampening material between the hammer and the piling.
 - (2) If the currents are 1.7 miles per hour or less, surround the piling being driven by an unconfined bubble curtain that will distribute small air bubbles around 100% of the piling perimeter for the full depth of the water column.
 - (3) If currents are greater than 1.7 miles per hour, surround the piling being driven by a confined bubble curtain (e.g., a bubble ring surrounded by a fabric or metal sleeve) that will distribute small air bubbles around 100% of the piling perimeter for the full depth of the water column.
 - (4) Other sound attenuation devices as approved in writing by NOAA Fisheries.
- 11) Piling removal. If a temporary or permanent piling will be removed, the following conditions apply.
- a) Dislodge the piling with a vibratory hammer.
 - b) Once loose, place the piling onto the construction barge or other appropriate dry storage site.
 - c) If a treated wood piling breaks during removal, either remove the stump by breaking or cutting 3-feet below the sediment surface or push the stump in to that depth, then cover it with a cap of clean substrate appropriate for the site.
 - d) Fill the holes left by each piling with clean, native sediments, whenever feasible.
- 12) Treated wood.
- a) Projects using treated wood that may contact flowing water or that will be placed over water where it will be exposed to mechanical abrasion or where leachate may enter flowing water are not authorized, except for pilings installed following NOAA Fisheries' guidelines. Treated wood pilings must incorporate design features to minimize abrasion of the treated wood from vessels, floats or other objects that may cause abrasion of the piling.
 - b) Projects that require removal of treated wood will use the following precautions.
 - i) Treated wood debris. Take care to ensure that no treated wood debris falls into the water. If treated wood debris does fall into the water, remove it immediately.
 - ii) Disposal of treated wood debris. Dispose of all treated wood debris removed during a project, including treated wood pilings, at an upland facility approved for hazardous materials of this classification. Do not leave a treated wood piling in the water or stacked on the stream bank.
 - c) Visually inspect treated wood before final placement to detect and replace wood with surface

residues and/or bleeding of preservative.

13) Preconstruction activity. Complete the following actions before significant alteration of the project area.

- a) Marking. Flag the boundaries of clearing limits associated with site access and construction to prevent ground disturbance of critical riparian vegetation, wetlands and other sensitive sites beyond the flagged boundary.
- b) Emergency erosion controls. Ensure that the following materials for emergency erosion control are onsite.
 - i) A supply of sediment control materials (e.g., silt fence, straw bales).
 - ii) An oil absorbing floating boom whenever surface water is present.
- c) Temporary erosion controls. All temporary erosion controls will be in-place and appropriately installed downslope of project activity within the riparian area until site restoration is complete.

14) Temporary access roads and drilling pads. All temporary access roads and drilling pads will be constructed as follows.

- a) Existing ways. Use existing roadways, travel paths, and drilling pads whenever possible, unless construction of a new way or drilling pad would result in less habitat take. When feasible, eliminate the need for an access road by walking a tracked drill or spider hoe to a survey site, or lower drilling equipment to a survey site using a crane.
- b) Steep slopes. Temporary roads or drilling pads built mid-slope or on slopes steeper than 30 percent are not authorized.
- c) Minimizing soil disturbance and compaction. Minimize soil disturbance and compaction whenever a new temporary road or drill pad is necessary within 150-feet of a stream, water body or wetland by clearing vegetation to ground level and placing clean gravel over geotextile fabric, unless otherwise approved in writing by NOAA Fisheries.
- d) Temporary stream crossings.
 - i) Minimize the number of temporary stream crossings.
 - ii) Design temporary road crossings as follows.
 - (1) Survey and map any potential spawning habitat within 300-feet downstream of a proposed crossing.
 - (2) Do not place a stream crossing at known or suspected spawning areas, or within 300-feet upstream of such areas if spawning areas may be affected.
 - (3) Design the crossing to provide for foreseeable risks (e.g., flooding and associated bedload and debris, to prevent the diversion of streamflow out of the channel and down the road if the crossing fails).
 - (4) Vehicles and machinery will cross riparian areas and streams at right angles to the main channel wherever possible.
- e) Obliteration. When the project is complete, obliterate all temporary access roads that will not be in footprint of a new bridge or other permanent structure, stabilize the soil, and revegetate the site. Abandon and restore temporary roads in wet or flooded areas by the end of the in-water work period.

15) Heavy Equipment. Restrict use of heavy equipment as follows.

- a) Choice of equipment. When heavy equipment will be used, the equipment selected will have the least adverse effects on the environment (e.g., minimally sized, low ground pressure equipment).
- b) Vehicle and material staging. Store construction materials, and fuel, operate, maintain and store vehicles as follows.
 - i) To reduce the staging area and potential for contamination, ensure that only enough supplies and equipment to complete a specific job will be stored on-site.
 - ii) Complete vehicle staging, cleaning, maintenance, refueling, and fuel storage in a vehicle staging area placed 150-feet or more from any stream, water body or wetland, unless otherwise approved in writing by NOAA Fisheries.
 - iii) Inspect all vehicles operated within 150-feet of any stream, water body or wetland daily for fluid leaks before leaving the vehicle staging area. Repair any leaks detected in the vehicle staging area before the vehicle resumes operation. Document inspections in a record that is available for review on request by Corps or NOAA Fisheries.
 - iv) Before operations begin and as often as necessary during operation, steam clean all equipment that will be used below bankfull elevation until all visible external oil, grease, mud, and other visible contaminants are removed.

- v) Diaper all stationary power equipment (e.g., generators, cranes, stationary drilling equipment) operated within 150-feet of any stream, water body or wetland to prevent leaks, unless suitable containment is provided to prevent potential spills from entering any stream or water body.
- 16) Site preparation. Conserve native materials for site restoration.
- a) If possible, leave native materials where they are found.
 - b) If materials are moved, damaged or destroyed, replace them with a functional equivalent during site restoration.
 - c) Stockpile any large wood, native vegetation, weed-free topsoil, and native channel material displaced by construction for use during site restoration.
- 17) Isolation of in-water work area. If adult or juvenile fish are reasonably certain to be present, or if the work area is 300-feet upstream of spawning habitats, completely isolate the work area from the active flowing stream using inflatable bags, sandbags, sheet pilings, or similar materials, unless otherwise approved in writing by NMFS.
- 18) Capture and release. Before and intermittently during pumping to isolate an in-water work area, attempt to capture and release fish from the isolated area using trapping, seining, electrofishing, or other methods as are prudent to minimize risk or injury.
- a) The entire capture and release operation must be conducted or supervised by a fishery biologist experienced with work area isolation and competent to ensure the safe handling of all ESA-listed fish.
 - b) Do not use seining or electrofishing if water temperatures exceed 18°C.
 - c) If electrofishing equipment is used to capture fish, comply with NOAA Fisheries' electrofishing guidelines.
 - d) Handle ESA-listed fish with extreme care, keeping fish in water to the maximum extent possible during seining and transfer procedures to prevent the added stress of out-of-water handling.
 - e) Transport fish in aerated buckets or tanks.
 - f) Release fish into a safe release site as quickly as possible, and as near as possible to capture sites.
 - g) Do not transfer ESA-listed fish to anyone except NOAA Fisheries personnel, unless otherwise approved in writing by NOAA Fisheries.
 - h) Obtain all other Federal, state, and local permits necessary to conduct the capture and release activity.
 - i) Allow NOAA Fisheries or its designated representative to accompany the capture team during the capture and release activity, and to inspect the team's capture and release records and facilities.
- 19) Earthwork. Complete earthwork (including drilling, excavation, dredging, filling, and compacting) as quickly as possible.
- a) Drilling and sampling. If drilling, boring or jacking is used, the following conditions apply.
 - i) Isolate drilling operations in wetted stream channels using a steel pile, sleeve or other appropriate isolation method to prevent drilling fluids from contacting water.
 - ii) If it is necessary to drill through a bridge deck, use containment measures to prevent drilling debris from entering the channel.
 - iii) If directional drilling is used, the drill, bore or jack hole will span the channel migration zone and any associated wetland.
 - iv) Sampling and directional drill recovery/recycling pits, and any associated waste or spoils will be completely isolated from surface waters, off-channel habitats and wetlands. All waste or spoils must be covered if precipitation is falling or imminent. All drilling fluids and waste will be recovered and recycled or disposed to prevent entry into flowing water.
 - v) If a drill boring conductor breaks and drilling fluid or waste is visible in water or a wetland, all drilling activity will cease pending written approval from NOAA Fisheries to resume drilling.
 - b) Site stabilization. Stabilize all disturbed areas, including obliteration of temporary roads, following any break in work unless construction will resume within four days.
 - c) Source of materials. Obtain boulders, rock, woody materials and other natural construction materials used for the project outside the riparian area.
- 20) Stormwater Management. Prepare and carry out a stormwater management plan for any project that will produce a new impervious surface or a land cover conversion that slows the entry of water into the soil. The plan must be available for inspection on request by Corps or NOAA Fisheries.

- a) Plan contents. The goal is to avoid and minimize adverse effects due to the quantity and quality of stormwater runoff for the life of the project by maintaining pre-project conditions, or by restoring more natural conditions. The plan will meet the following criteria and contain the pertinent elements listed below, and meet requirements of all applicable laws and regulations.
 - i) A system of management practices and, if necessary, structural facilities, designed to complete the following functions.
 - (1) Minimize, disperse and infiltrate stormwater runoff onsite using sheet flow across permeable vegetated areas to the maximum extent possible without causing flooding, erosion impacts, or long-term adverse effects to groundwater.
 - (2) Pretreat stormwater from pollution generating surfaces, including bridge decks, before infiltration or discharge into a freshwater system, as necessary to minimize any nonpoint source pollutant (e.g., debris, sediment, nutrients, petroleum hydrocarbons, metals) likely to be present in the volume of runoff predicted from a 6-month, 24-hour storm.
 - (3) Ensure that the duration of post project discharge matches the pre-developed discharge rates from 50% of the 2-year peak flow up to the 50-year peak flow.
 - ii) For projects that require engineered facilities to meet stormwater requirements, use a continuous rainfall/runoff model, if available for the project area, to calculate stormwater facility water quality and flow control rates.
 - iii) Use permeable pavements for load-bearing surfaces, including multiple-use trails, to the maximum extent feasible based on soil, slope, and traffic conditions.
 - iv) Install structural facilities outside wetlands or the riparian buffer area whenever feasible, otherwise, provide compensatory mitigation to offset any long-term adverse effects.
 - v) Document completion of the following activities according to a regular schedule for the operation, inspection and maintenance of all structural facilities and conveyance systems, in a log available for inspection on request by the Corps and NMFS.
 - (1) Inspect and clean each facility as necessary to ensure that the design capacity is not exceeded, heavy sediment discharges are prevented, and whether improvements in operation and maintenance are needed.
 - (2) Promptly repair any deterioration threatening the effectiveness of any facility.
 - (3) Post and maintain a warning sign on or next to any storm drain inlet that says, as appropriate for the receiving water, "Dump No Waste - Drains to Ground Water, Streams, or Lakes."
 - (4) Only dispose of sediment and liquid from any catch basin in an approved facility.
 - b) Runoffs/discharge into a freshwater system. When stormwater runoff will be discharged directly into fresh surface water or a wetland, or indirectly through a conveyance system, the following requirements apply.
 - i) Maintain natural drainage patterns and, whenever possible, ensure that discharges from the project site occur at the natural location.
 - ii) Use a conveyance system comprised entirely of manufactured elements (e.g., pipes, ditches, outfall protection) that extends to the ordinary high water line of the receiving water.
 - iii) Stabilize any erodible elements of this system as necessary to prevent erosion.
 - iv) Do not divert surface water from, or increase discharge to, an existing wetland if that will cause a significant adverse effect to wetland hydrology, soils or vegetation.
 - v) The velocity of discharge water released from an outfall or diffuser port may not exceed 4-feet per second, and the maximum size of any aperture may not exceed one inch.
- 21) Site Restoration. Prepare and carry out a site restoration plan as necessary to ensure that all streambanks, soils and vegetation disturbed by the project are cleaned up and restored as follows. Make the written plan available for inspection on request by the Corps or NOAA Fisheries.
- a) General considerations.
 - i) Restoration goal. The goal of site restoration is renewal of habitat access, water quality, production of habitat elements (e.g., large woody debris), channel conditions, flows, watershed conditions and other ecosystem processes that form and maintain productive fish habitats.
 - ii) Streambank shaping. Restore damaged streambanks to a natural slope, pattern and profile suitable for establishment of permanent woody vegetation, unless precluded by pre-project

- conditions (e.g., a natural rock wall).
 - iii) Revegetation. Replant each area requiring revegetation before the first April 15 following construction. Use a diverse assemblage of species native to the project area or region, including grasses, forbs, shrubs and trees. Noxious or invasive species may not be used.
 - iv) Pesticides. Take of ESA-listed species caused by any aspect of pesticide use is not included in the exemption to the ESA take prohibitions provided by this incidental take statement. Pesticide use must be evaluated in an individual consultation, although mechanical or other methods may be used to control weeds and unwanted vegetation.
 - v) Fertilizer. Do not apply surface fertilizer within 50-feet of any stream channel.
 - vi) Fencing. Install fencing as necessary to prevent access to revegetated sites by livestock or unauthorized persons.
- b) Plan contents. Include each of the following elements.
 - i) Responsible Party. The name and address of the party(s) responsible for meeting each component of the site restoration requirements, including providing and managing any financial assurances and monitoring necessary to ensure restoration success.
 - ii) Baseline information. This information may be obtained from existing sources (e.g., land use plans, watershed analyses, subbasin plans), where available.
 - (1) A functional assessment of adverse effects, i.e., the location, extent and function of the riparian and aquatic resources that will be adversely affected by construction and operation of the project.
 - (2) The location and extent of resources surrounding the restoration site, including historic and existing conditions.
 - iii) Goals and objectives. Restoration goals and objectives that describe the extent of site restoration necessary to offset adverse effects of the project, by aquatic resource type.
 - iv) Performance standards. Use these standards to help design the plan and to assess whether the restoration goal is met. While no single criterion is sufficient to measure success, the intent is that these features should be present within reasonable limits of natural and management variation.
 - (1) Bare soil spaces are small and well dispersed.
 - (2) Soil movement, such as active rills or gullies and soil deposition around plants or in small basins, is absent or slight and local.
 - (3) If areas with past erosion are present, they are completely stabilized and healed.
 - (4) Plant litter is well distributed and effective in protecting the soil with few or no litter dams present.
 - (5) Native woody and herbaceous vegetation, and germination microsites, are present and well distributed across the site.
 - (6) Vegetation structure is resulting in rooting throughout the available soil profile.
 - (7) Plants have normal, vigorous growth form, and a high probability of remaining vigorous, healthy and dominant over undesired competing vegetation.
 - (8) High impact conditions confined to small areas necessary access or other special management situations.
 - (9) Streambanks have less than 5percent exposed soils with margins anchored by deeply rooted vegetation or coarse-grained alluvial debris.
 - (10) Few upland plants are in valley bottom locations, and a continuous corridor of shrubs and trees provide shade for the entire streambank.
 - v) Work plan. Develop a work plan with sufficient detail to include a description of the following elements, as applicable.
 - (1) Boundaries for the restoration area.
 - (2) Restoration methods, timing, and sequence.
 - (3) Water supply source, if necessary.
 - (4) Woody native vegetation appropriate to the restoration site. This must be a diverse assemblage of species that are native to the project area or region, including grasses, forbs, shrubs and trees. This may include allowances for natural regeneration from an existing seed bank or planting.
 - (5) A plan to control exotic invasive vegetation.
 - (6) Elevation(s) and slope(s) of the restoration area to ensure they conform with

- required elevation and hydrologic requirements of target plant species.
 - (7) Geomorphology and habitat features of stream or other open water.
 - (8) Site management and maintenance requirements.
 - vi) Five-year monitoring and maintenance plan.
 - (1) A schedule to visit the restoration site annually for 5-years or longer as necessary to confirm that the performance standards are achieved. Despite the initial 5-year planning period, site visits and monitoring will continue from year-to-year until the Corps certifies that site restoration performance standards have been met.
 - (2) During each visit, inspect for and correct any factors that may prevent attainment of performance standards (e.g., low plant survival, invasive species, wildlife damage, drought).
 - (3) Keep a written record to document the date of each visit, site conditions and any corrective actions taken.
- 22) Long-term adverse effects. Prepare and carry out a compensatory mitigation plan as necessary to ensure the proposed action meets the goal of ‘no net loss’ aquatic functions by offsetting unavoidable long-term adverse effects to streams and other aquatic habitats. Make the plan available for inspection on request by Corps or NOAA Fisheries.
- a) Actions of concern. The following actions require a Compensatory Mitigation Plan to offset long-term adverse effects.
 - i) Riparian and aquatic habitats displaced by construction of structural stormwater facilities, new boat ramp, or scour protection (e.g., a footing facing, head wall, or other protection necessary to prevent scouring or downcutting of a culvert, water intake, utility line, or bridge support).
 - ii) Maintenance dredging in water closer than 50-feet from shore, or in waters less than 20-feet deep.
 - iii) Other activities that prevent development of properly functioning condition of natural habitat processes.
 - b) General considerations.
 - i) Make mitigation plans compatible with adjacent land uses or, if necessary, use an upland buffer to separate mitigation areas from developed areas or agricultural lands.
 - ii) Base the level of required mitigation on a functional assessment of adverse effects of the proposed project, and functional replacement (i.e., ‘no net loss of function’), whenever feasible, or a minimum one-to-one linear foot or acreage replacement.
 - iii) Acceptable mitigation includes reestablishment or rehabilitation of natural or historic habitat functions when self-sustaining, natural processes are used to provide the functions. Actions that require construction of permanent structures, active maintenance, creation of habitat functions where they did not historically exist, or that simply preserve existing functions are not authorized, unless otherwise approved in writing by NOAA Fisheries.
 - iv) Complete all work necessary to carry out the mitigation plan no later than the first full growing season following the start of project construction, whenever feasible.
 - v) When project construction is authorized before mitigation is completed, the applicant will show that a mitigation project site has been secured and appropriate financial assurances in place.
 - (1) Complete all work necessary to carry out the mitigation plan no later than the first full growing season following the start of project construction, whenever feasible.
 - (2) If beginning the initial mitigation actions within that time is not feasible, then include other measures that mitigate for the consequences of temporal losses in the mitigation plan.
 - vi) Actions to complete a mitigation plan that require a Corps permit will also meet all applicable terms and conditions for this Opinion, or complete a separate consultation.
 - c) Plan contents. Include all pertinent elements of a site restoration plan, outlined above, and the following elements.
 - i) Consideration of the following factors during mitigation site selection and plan development.
 - (1) Watershed considerations related to specific aquatic resource needs of the affected

- area.
 - (2) Existing technology and logistical concerns.
- ii) A description of the legal means for protecting mitigation areas, and a copy of any legal instrument relied on to secure that protection.

Stream and Wetland Restoration

- A. Stream or wetland restoration projects (a habitat restoration activity whose primary purpose is to restore natural aquatic or riparian habitat process or conditions that would not be undertaken but for its restoration purpose) that would alter streambank or channel conditions are not included in this programmatic consultation, except as follows:
 - i. Remove trash and other artificial debris dams that block fish passage.
 - ii. Remove sediment bars or terraces that block fish passage within 50 feet of a tributary mouth. No more than 25 cubic yards of sediment may be removed from within 25 feet of the mouth of the stream. Streambed grading could occur within 50 feet of the mouth of a stream.
 - iii. Remove levees, dikes, berms, weirs or other water control structures.