Drawing Checklist for Common Hydraulic Projects

(Excludes water crossing design)

The primary means of communication between the designer and the builder is the construction drawings, which (explain what they are in a simple phrase). A complete set of drawings helps the biologist quickly obtain a clear understanding of what is proposed and how fish habitat will be affected. Misunderstandings often arise when construction drawings lack detail or contain inaccurate information, which can lead to delays and cost overruns.

Components of a complete set of construction drawings are a vicinity map, plan view, design details, elevation view, cross sections and notes. Drawings should include both existing and proposed features of a site so the biologist knows what is to be built and in what setting.

General Guidelines

☐Use the fewest number of pages necessary for your drawings and label them in clear black lettering
☐Use a graphic scale, even if drawings are created by hand. The graphic scale should be in feet
☐Vicinity maps and plan drawings must include an accurate north arrow
☐Show the existing water features overlaid with the pre-project and the proposed project changes

Title Block

☐Each page should have a title block with the applicants name, project name, location, date and the page number

Vicinity Map

☐Show and label the location of each project area (e.g. circle the perimeter, use an arrow, etc.)
☐Show and label the location of each mitigation site, if applicable
☐List latitude and longitude expressed in terms of decimal degrees and the section, township, and range and parcel numbers
☐Show and label all waterways (e.g. wetlands, ponds, streams, rivers, lakes, inlets, oceans, etc.)
☐For a river or stream project, show the bankfull width or the channel migration zone, whichever is greater, and the 100-year flood level if a floodplain exists at the project location
☐Show roads, streets, and/or mileage to nearest town or city limits

Plan View

☐Show the ordinary high water line of freshwater ponds, lakes, streams
☐Show the ordinary high water line and mean higher high water line (MHHW) of marine/tidal waters
☐Show dimensions of all proposed and existing structures to be removed or replaced
☐Direction of stream flow
☐Area of likely riparian vegetation damage

Elevation and/or Cross Section Views

☐Label banks in freshwater with the OHWL
☐Label marine/tidal water shorelines with the OHWL and MHHW line
☐Show and label original and proposed elevations, water depths, dimensions of proposed structures or fills, and vertical dimensions to top and base of structure/fill

Diversion Plan

☐Show location, height and width of diversion dam
☐Show the bypass pipe, size, length and coupling method
☐Show the sump location and sump capacity
☐Show backwater prevention method
☐Show and sediment treatment method, release point and extent of the sediment plume

Construction Erosion Control Plan

☐Show best management practices to control erosion and sediment during construction

Long-term Erosion Control Plan

☐Slope or bank stabilization and restoration details
☐Planting plan including plant types and locations
☐Maintenance plan, if necessary
☐Inspection plan, if necessary

Additional Information for Hydraulic Projects in Saltwater

The department may require an applicant to submit a seagrass and macroalgae survey as part of an HPA application for the following work:

1) Construction of a new dock, mooring buoy, or other overwater structure
2) Construction of a replacement overwater structure outside the previously allowed footprint
3) New dredging, trenching, filling or grading
4) Maintenance dredging, trenching, filling, or grading outside the previously allowed footprint