

UC Davis

Tahoe Research Group/Tahoe Environmental Research Center Publications

Title

STREAMLINING THE REVIEW OF ROUTINE TRANSPORTATION

Permalink

<https://escholarship.org/uc/item/5cb8m05r>

Author

Wood, Barbara

Publication Date

2003-08-24

STREAMLINING THE REVIEW OF ROUTINE TRANSPORTATION PROJECTS THAT REQUIRE ESA SECTION 7 REVIEW THROUGH THE DEVELOPMENT OF A PROGRAMMATIC CONSULTATION

Barbara Wood (Phone: 360-534-9307, E-mail: barb.wood@noaa.gov), Habitat Biologist, NOAA Fisheries, 510 Desmond Drive, Suite 103, Olympia, WA 98503-1291, Fax: 360-753-9517

Abstract: The 1999 listing of Puget Sound (PS) chinook salmon (*Oncorhynchus tshawytscha*) in Washington State was the first time a listing of a threatened or endangered species under the Endangered Species Act (ESA) of 1973, as amended, affected a metropolitan area. Since that time, transportation officials, as well as other entities, have had to retool their processes for environmental permit acquisition because of the additional level of review requirements specified under ESA.

The initial short-term solution for both action and regulatory agencies was to hire more staff. However, despite the additional staff at Washington State Department of Transportation (WSDOT) and National Marine Fisheries Service (NOAA Fisheries), project review for ESA consultations under Section 7 remains a very complicated, and thus prolonged process. Therefore, in 1999, WSDOT submitted a programmatic biological assessment (PBA) for a full programmatic consultation with NOAA Fisheries.

The objective of the PBA was to reduce the number of routine transportation projects that require an individual biological assessment (BA) to be written by the action agency and then reviewed by NOAA Fisheries. WSDOT and NOAA Fisheries have developed a defined set of specific standard conditions and conservation measures. The PBA covering nine transportation programs conducted within the Washington State was completed in 2002.

The completion of the PBA consultation provides WSDOT certainty when designing transportation infrastructure, while fulfilling their requirements under ESA. Standard conditions and conservation measures included in the PBA consultation provide a relatively simple approach that, when followed, will result in a transportation project that can be constructed in a timely manner, and in many cases improve the baseline environment for ESA listed and candidate salmonid species.

Background

Between the years of 1991 and 1999, there have been a total of 13 species of salmonids listed in the State of Washington under the authority of the Endangered Species Act (ESA). The Evolutionary Significant Unit (ESU) of each species combined covers approximately two thirds of Washington State. Prior to the listing of Puget Sound (PS) Chinook (*Oncorhynchus tshawytscha*) in 1999, the majority of the listed species habitat covered the more rural areas west and east of the Puget Sound. However, the 1999 listing of PS chinook salmon in Washington State was the first time a listing of a threatened or endangered species under the ESA of 1973 affected a metropolitan area. Since that time, transportation officials, as well as other entities, have had to retool their process for permit acquisition due to the additional consultation requirements specified under Section 7 of the ESA.

The 1999 listing of PS Chinook ESU covered the Puget Sound Trough region where the highest population and, thus, transportation network are located. Because the Puget Sound area includes large urban cities, such as Everett, Seattle, Tacoma, and Olympia, the number and complexity of transportation projects resulted in a huge workload increase for National Marine Fisheries Service (NOAA Fisheries) and other state and federal agencies. Projects that require a U.S. Army Corps of Engineer (COE) permit or receive funding from the Federal Highway Administration (FHWA) were now required to consult with NOAA Fisheries and U.S. Fish and Wildlife Service.

Under the ESA, project proponents with a federal nexus must submit a complete biological assessment (BA) to NOAA Fisheries for Section 7 consultations. Under the statutory guidelines, NOAA should respond within thirty days. The response can be a letter of concurrence (LOC) or a request for additional information. When additional information is required, the lag time between the request and the information being provided by the applicant can take months, and thus a prolonged Section 7 consultation.

The U.S. Fish and Wildlife Service Section 7 Handbook defines *streamlining* as "...interagency cooperation during early stages of project planning...". NOAA Fisheries participation in transportation streamlining activities include "Re-Invent NEPA," Signatory Agency Committee (SAC), and specific to Washington State, the Transportation Efficiency and Permit Accountability Committee (TEPAC). In addition, NOAA Fisheries participates in pre-BA consultation on a monthly basis with FHWA-funded projects. Early coordination in the planning process results in a better project design and includes a submittal of a complete description and analysis in the BA, thereby facilitating a quicker review by NOAA Fisheries.

The initial short-term solution for both action and regulatory agencies was to hire more staff, including funding by the Washington State Department of Transportation (WSDOT) to fund four liaison positions at the NOAA Fisheries to review transportation projects that have FHWA funding. Currently, there are three permanent transportation liaisons detailed to NOAA Fisheries. However, despite the additional staff at WSDOT and NOAA Fisheries, project review for ESA consultations remains a very complicated, and thus prolonged, process.

Programmatic Consultation Process

The WSDOT submitted a statewide PBA for aquatic species in 1999 and requested a full programmatic consultation that addressed both informal and formal activities to reduce the number of individual Section 7 consultations, and thus streamline Section 7 consultations.

The objective of the PBA was to reduce the number of routine transportation projects that require an individual BA to be written by the action agency and then reviewed by NOAA Fisheries. However, NOAA Fisheries believed that the LAA actions would not be minor, repetitive, or predictable, and without individual project review, NOAA Fisheries determined that a more streamlined approach would be to split the PBA consultation into actions that are “may effect, not likely to adversely affect” (NLAA) from those that are “may effect, adversely affect” (LAA).

The focus of the programmatic consultation turned to defining limits for NLAA actions within the nine programs. The limits, or sideboards, specified in the consultation were based on previous individual section 7 consultations, where the actions are “insignificant or discountable” and existing state regulatory law and guidance.

For an action to be “insignificant or discountable” to the listed species or their habitat, the action must not result in “harm” (Harm is defined in 50 CFR Part 217 in 63 FR 24148, May 1998). NOAA Fisheries Matrix and Pathways Indicator (NMFS 1996) analysis is used to determine the effects of an action on the listed species. Thus, the project must not degrade the baseline status of the species or their habitat, as determined by the best available science. In addition, federal agencies have a responsibility under the ESA to conserve the species, which can often mean that improvement of baseline should be an outcome of the federal action for conservation to be likely.

Limits to specific activities in the PBA nine programs, such as new impervious surface through the addition of new highway lanes and/or interchanges, the amount of material that can be used in streambank hardening and or pier protection, the type of culvert/bridge replacement, and handling of listed fish or activities that have the potential to adversely effect individual listed species and/or their habitat, were determined by WSDOT and NOAA Fisheries.

The State of Washington Department of Fish and Wildlife (WDFW) currently provides technical guidelines to improve fish passage and minimize habitat impacts through the use of the Fish Passage at Road Crossing (WDFW 2002) and Integrated Stream Bank Protection Guidelines (ISPG) (WDFW 2003).

Fish Passage at Road Crossing (WDFW 2002) provides three model design criteria to provide passage of salmonids at adult and juvenile life stages. For a project to be eligible for inclusion into the PBA, the WSDOT has its choice of the three available designs. If WSDOT chooses to use the “stream simulation” method, then no follow up stream flow monitoring is required. However, if the action agency chooses to use either of the two other model designs, the action agency must monitor at high and low flows for a minimum of five years.

The ISPG provides a tool for the user to identify site and reach based mechanisms for failure of a specific problem, such as bank and channel erosion, that threatens road infrastructure, such as bridge abutments and piers, and road prisms. Following identification of the problem, the guidance provides a method for technique selection that stresses effectiveness, as well as, minimization of habitat impacts. All bank and channel erosion projects must complete an ISPG analysis prior to coverage under the PBA. In addition to the analysis, the amount of bank hardening material (riprap) must not exceed the as-built, or other footprint of the proposed protection. The limit of riprap is 100 cubic yards. These conditions were the result of past bank and pier protection projects that were submitted to NOAA Fisheries for individual review. Based on individual review prior to the PBA, 100 percent of the protection projects would have been covered under the PBA.

In addition to regulatory guidance, the WDFW regulates activities in waters of the State. WSDOT has multiple general hydraulic permit application (HPA) permits that are issued for typically a five-year period. NOAA Fisheries has reviewed those permits and has requested that as a requirement of the PBA that NOAA Fisheries is present during the review and renewal of two general permits: Beaver Dam Removal and General Debris Removal.

The amount of new impervious surface and treatment standards described in the letter of concurrence (LOC) is based on ongoing communications between the agencies on the type of stormwater treatment needed to conserve listed species. The conversion of forested landscape to impervious surface has been shown to degrade salmonid supporting streams. Some program activities, such as building or expanding roads for safety reasons, create new impervious surface. New or easier access to areas in the form of new impervious surface has the ability to contribute to an accelerated build-out of an area identified for a specific pattern of allowed growth. Therefore, there is a two-acre limit for coverage under the PBA because of the potential indirect effects of the action.

Thus, although two acres might appear to limit projects that could be covered, that is not the case. Based on past Section 7 consultations, approximately 60 percent of projects that create new impervious surface would have been covered under the PBA. That relationship appears to hold for WSDOT projects; however, HLP projects often create new roads or interchanges that would, and often do, exceed the two-acre limit.

Implementation of the PBA began in August 2001. WSDOT has provided training to staff regarding the activities that are covered in the PBA and how to assess the project for inclusion into the PBA consultation. The WSDOT regional biologist or consultant completes an ESA PBA checklist for submittal to NOAA Fisheries. One of the benefits of the PBA is that the project does not require individual review. Consultation is complete upon the submittal of the PBA checklist to NOAA Fisheries. There have been instances where a project is clearly eligible to be covered, but the language in the PBA LOC is vague. In those situations, individual review is completed and often approved for use under the PBA via phone call or e-mail. In those situations, the project type is discussed during the annual review of the PBA.

Conclusion

Programmatic consultations can provide a streamlined approach to Section 7 consultation requirements. There are three basic types of a programmatic consultation; informal, full, and tiered. *Informal* consultations include “may effect, not likely to adversely effect (NLAA)” actions to the listed species. A letter of concurrence is written by NOAA Fisheries. *Full* consultation includes NLAA activities and “may effect, likely to adversely effect (LAA) activities. Full consultation requires a jeopardy analysis in a biological opinion that describes, “take” limits. *Tiered* consultation is a full consultation, except that project-specific review must be done before take exemption is applied. The Washington Habitat Branch of NOAA Fisheries has completed nine programmatic consultations with various federal agencies that cover activities ranging from buoy placement to road construction activities.

Current application of the PBA is limited to WSDOT regional projects only. The number of WSDOT projects represent approximately 50 percent of the NLAA consultations NOAA Fisheries conducted with the FHWA over the August 2002 to August 2003 period. During the first year of PBA use, a total of 63 projects funded by FHWA were submitted to NOAA Fisheries for informal consultation. Thirty-one WSDOT projects were submitted; fifteen projects were submitted under the PBA, while sixteen individual BAs were submitted for individual project review. In the same time period, FHWA-funded Highway and Local Programs (HLP) submitted 32 projects for individual project review.

The most obvious benefit to both the action agency and NOAA Fisheries in completing a programmatic consultation is the reduction of workload for both agencies. The benefits to NOAA Fisheries to complete programmatic consultations (on routine transportation projects) include more consistent use of conservation measures, efficient workload management, improved internal communication, and better public relations (NOAA Fisheries Programmatic Guidance 2003).

The NOAA Fisheries LOC provides a quick and easy document to determine if a project will fit under the PBA. Implementation of the PBA is made easier with the limits, standard conditions and conservation measures included in the NOAA Fisheries LOC.

Recommendations

Future PBA consultations could include HLP projects where FHWA funds are the nexus. Based on the period between August 2001 and August 2002 and FHWA-funded projects, there is the potential to reduce another 30 to 50 percent of individual review of HLP projects through the development and implementation of a PBA for HLP projects.

Also, projects where the primary purpose is to provide fish passage and/or habitat restoration could be another PBA consultation to streamline beneficial projects. Many projects are beneficial to the listed species, but the species has a life stage where they are present year round. In cases where there is no approved work window in the water to avoid the listed species presence, formal consultation is required because of the possibility of encountering listed species. Therefore, often the activity will result in “take” because of harm to listed species. Where the project will benefit the listed species, such as the replacement of an undersized stream crossing, a full programmatic for enhancement projects or where the only take will be handling the listed species, an option for FHWA-funded projects might include a PBA that addresses fish handling.

Other potential streamlining tools include the development of a habitat conservation plan (HCP). An HCP could provide conservation measures and commitments for non-federal actions, and could expedite Section 7 consultations if the project can follow the measures and commitments in the HCP. The other benefit of an

HCP is that typically it includes multiple species and multiple landowners, thereby providing a more ecological approach to the conservation of candidate and listed species.

Because time and funding is not always obtainable to complete an HCP, another approach could be to batch projects and submit them on a sub-basin or basin scale. This would provide both FHWA and NOAA Fisheries the opportunity to evaluate the effects of activities from multiple projects in a basin where the species of concern is present.

The development and implementation of a PBA consultation provides WSDOT certainty when designing transportation infrastructure, and fulfilling its requirements under ESA. Standard conditions and conservation measures included in the PBA consultation provide a relatively simple approach that, when followed, will result in a transportation project that can be constructed in a timely manner, and in many cases improve the baseline environment for listed and candidate salmonid species.

Biographical Sketch: Barbara Wood has been a WSDOT NOAA liaison since August 2000. Prior to that Wood worked for the past seven years as a biologist/toxicologist for various local governments and private industry groups. In 1997 Wood designed, built, and operated a state accredited water quality laboratory to conduct EPA WET tests for NPDES permits. Wood earned her bachelor's degree in biology and chemistry from Pacific Lutheran University in 1992 and her master's in environmental science and regional planning from Washington State University in 1997.

References

NMFS. 1996. *Making Endangered Species Act Determinations of Effect for Individual or Grouped Actions at the Watershed Scale* (MPI) (1996).

NOAA Fisheries Guidance for Programmatic Consultation. 2003.

WDFW 2003. Integrated Stream Bank Protection Guidelines (ISPG) can be found at Aquatic Habitat Guidelines <http://www.wa.gov/wdfw/hab/ahg/>.

WDFW 2003. Fish Passage Design at Road Crossings <http://www.wa.gov/wdfw/hab/engineer/habeng.htm>.