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ENDANGERED SPECIES PROTECTION AND SECTION 7 COORDINATION: BUILDING CONSENSUS AMONG AGENCIES AND THE PUBLIC

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The Project

The Maryland Route 30 Bypass at Hampstead, Carroll County, Maryland is a long awaited 4.5 mile \$27 million safety and congestion relief project proposed by the Maryland State Highway Administration (MD SHA). However, an unanticipated problem arose during the final stages of design and prior to the submittal of state and federal environmental permits. Late in 1997, the northern population of a small turtle (*Clemmys muhlenbergi*), the bog turtle, was listed as a threatened species under the Endangered Species Act. The rural residential and agricultural lands surrounding Hampstead provide essential habitat for this rare turtle. While many saw this as potential threat to the project, others saw this as an opportunity for a creative approach for habitat and species protection.

Section 7 Requirements

Section 7(a)(2) of The Endangered Species Act requires that Federal agencies, in this case the Federal Highway Administration (FHWA), consult with the U.S. Fish and Wildlife Service (FWS) to ensure that actions they fund, authorize, permit, or otherwise carry out will not jeopardize the continued existence of any listed species or adversely modify designated critical habitats. A biological assessment is required to document the potential effects of the project on the listed species. When FWS issues a biological opinion, it will contain reasonable and prudent alternatives to the project including an incidental take statement. "Take" is defined as harassing, harming, pursuing, hunting, shooting, wounding, killing, trapping, capturing, or collection or attempting to engage in any such conduct. "Harm" is further defined to include significant habitat modification or degradation that may result in death or injury to a listed species by impairing behavioral patterns necessary to continue life history requirements such as breeding, feeding, and sheltering. Takings that result from, but are not the purpose of carrying out an otherwise lawful activity conducted by a federal agency or its applicant is known as an incidental take.

Building Consensus

MD SHA decided that a biological assessment for the Maryland Route 30 project would be needed for the bog turtle in order to fulfill FHWA/MD SHA's responsibilities under Section 7. It was further decided that an inclusive process of assembling the bioassessment would be in the best interests of the Federal and State resource agencies as well as the County, the Town of Hampstead, and various business interests all of whom were anxious to see this highway project move forward. Consequently, a bioassessment team was set up in 1998 to keep all interested groups apprised of the progress of research findings. A further benefit of this inclusive team approach was to enable the participants to become stakeholders in providing an imaginative solution to what would normally be perceived as a conflict between opposing interest groups.

The first obstacle placed in our path was the initial resistance of those who were focused on the need for the project and what they felt would be another unnecessary delay. This obstacle was overcome by explaining that the process of coordination with FWS was an essential ingredient in moving the project forward and that a cooperative effort would facilitate coordination. The team was then able to focus on learning more about this threatened species and how to allow for its coexistence with the proposed roadway. Providing for the bog turtle and its habitat has now become a primary goal in the cooperative development of the bioassessment.

Another problem that arose was how to coordinate assessment activities with the media. In the initial stages, the suspected controversy between conflicting interests was promoted as the driving theme of various news stories. The team moved quickly to change the focus of these reports. Those whose quotes in the press were being used to fuel this controversy were advised of the benefits of promoting the inclusive efforts being undertaken on behalf of the project. These benefits include a timely and informed opinion by the FWS, as well

as the town and county becoming primary examples of conflict resolution regarding important natural resources.

The Approach

Surveys completed in Maryland have recorded a 43 percent decline in historically occupied bog turtle sites between 1976 and 1994. Conservation efforts have focused on habitat protection and restoration usually at the scale of an individual wetland. However, a broader scope of analysis has been undertaken to satisfy concerns of 7(a)(2) for this bioassessment. Radio telemetry is being used to track turtle movements and to better understand typical home range activities within occupied wetlands and along travel corridors. Instead of looking only at the individual wetland that provides habitat for the bog turtle, a metapopulation approach to species conservation is being analyzed. This approach focuses on the need to protect connectivity between individual sites so that sub populations remain viable and healthy through the introduction of periodic, genetic variation. Individual populations have been shown to decline over time due to the isolation of the gene pool.

Additionally, to insure that the project does no "harm" as defined in 7(a)(2), hydrologic research is being conducted to insure that surface and subsurface components will not be altered in such a way as to affect wetland hydrology or hydroperiod. Data from deep groundwater monitoring wells, shallow groundwater piezometers, stream flow gauges, weather stations, soil chemistry and water quality samples is being analysed to insure that the roadway project will be designed in a way that maintains the viability of these critical wetland habitats.

A final component of the bioassessment will be a Habitat Management Plan that will make recommendations for future protection and management of the bog turtle. Using project monies dedicated to environmental mitigation and funds provided through the Transportation Equity Act for the 21st century (TEA21), FHWA and SHA are proposing the establishment of a metapopulation bio-reserve that will protect this species and its habitat through land purchases and/or perpetual easements. The bio-reserve will include individual wetlands as well as corridors to maintain gene flow. The team is seeking a partnering effort among the federal, state, county, local, and private interests to make acquisition a reality. Once designed, a management strategy will be developed that will insure the bio-reserve remains optimal for species survival.

Conclusion

Environmental issues and processes need not be a wedge driven between competing interests. Inclusion and dialog throughout the coordination process is showing that a consensus can be built that not only results in a better project but also serves to insure the long term viability of a valuable natural resource. If successful, this approach may provide a blueprint for resolving similar conflicts.

Biographical Sketch: Bill Branch is an environmental analyst with the Maryland State Highway Administration's Office of Environmental Design. With a B.A. in Biology, Bill has 26 years experience in providing solutions to the conflicts that arise between highway construction and environmental protection. He has written on various topics including wetland creation, use of native plants, and the endangered species consultation process.