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MANAGEMENT OF A FEDERALLY LISTED PLANT SPECIES IN THE HIGHWAY RIGHT OF WAY

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Problem Statement

There are 10 species of plants in Washington State that are listed as threatened or endangered under the federal Endangered Species Act. One species, showy stickseed *Hackelia venusta*, occurs within the Washington State Department of Transportation (WSDOT) right-of-way of SR 2, in Tumwater Canyon, along with four other rare plant species. Tumwater Canyon is located in the Wenatchee National Forest (WNF), and a portion of the canyon has been designated the Tumwater Botanical Area, which is managed as a Special Interest Area. The potential for conflicts between the management of rare plants and public transportation has long been recognized for this section of the canyon.

Project Objective

The objective of this project was to move the management of this species beyond a project-by-project basis, by developing a management plan to cover necessary highway maintenance activities.

Funding Source

U.S. Geological Surveys' Species at Risk Grant Program provided \$20,700 plus matching funds from WSDOT. Additional assistance came from the US Forest Service - WNF and the Washington State Department of Natural Resources (DNR). Project Period: 1998 through 2000.

Methods

The first step in the creation of the management plan was to conduct a survey of the canyon to determine the presence of showy stickseed and other rare plants. Intensive surveys were completed in 1997, 1998, and 1999 during the flowering period. Surveys were conducted within 60m (200ft) of the highway from milepost (MP) 90.62 near the north end of the canyon to MP 99.05 at its south end. Information gathered during the inventory included species composition and, for the rare plants, their location and an estimate of their abundance and distribution in Tumwater Canyon. Locations were documented through the use of a global positioning system (GPS). A total of three rare plant species were identified and located throughout the canyon.

Once the inventory was complete, a management plan was written to identify roles and responsibilities for managing the plant species within the Canyon. The plan addressed how WSDOT would coordinate projects such as slope stabilization with the WNF and how herbicides would be used and avoided in areas supporting rare plants. Once the management plan was complete, WSDOT, the WNF and DNR, identified a total of 13 actual and potential threats to rare plants. Some of the threats, such as wild fire, low seedling establishment, and low reproductive capacity, were threats that changes in WSDOT management practices would not help, but other threats, such as competition from non-native and/or state-listed noxious plant species, mass-wasting, soil erosion, and use of roadway anti-icers and deicers, were identified as threats that could be addressed through best management practices. A set of best management practices addressing each of the threats was developed.

Application

Both the management plan and best management practices were incorporated into a programmatic Endangered Species Act consultation with the U.S. Fish and Wildlife Service. Both the management plan and best management practices have resulted in better communication, understanding, and cooperation between WSDOT and resource agencies involved in managing the plants. An example of enhanced cooperation is the funding that WSDOT provided to the University of Washington's Center for Urban Horticulture to complete a research project on measuring the effects of anti-icer compounds on showy stickseed.

Implications

The management plan and best management practices are designed to allow for better management of the listed and rare plant species within Tumwater Canyon. This approach may be applied to other situations where WSDOT has listed plant species growing within the highway right of way.