

ECONOMIC IMPACT ANALYSIS OF CRITICAL HABITAT DESIGNATION FOR THE PREBLE'S MEADOW JUMPING MOUSE: SUMMARY

Background

In July 2002, the U.S. Fish and Wildlife Service (the Service) proposed designating critical habitat for the Preble's meadow jumping mouse (PMJM) (*Zapus hudsonius preblei*) on approximately 57,446 acres in Wyoming (Albany, Converse, Laramie and Platte Counties) and Colorado (Boulder, Douglas, El Paso, Jefferson, Larimer, Teller and Weld Counties). Approximately 28 percent of the designated area is located on federally-owned or managed lands; seven percent on land owned or managed by state agencies; and 65 percent on private land or on land owned or managed by local authorities.



(Zapus hudsonius preblei)

KEY FINDINGS

- Section 7 consultations and resultant project modifications involving the PMJM are expected to cost \$79 million to \$183 million over the next 10 years, or approximately \$8 million to \$18 million per year.
- Residential development project costs represent almost 80 percent of these costs.
- The cost of project modifications account for almost 90 percent of the costs of the designation.
- Over 70 percent of the costs of the designation are expected to occur in units A1 (the Arkansas River Drainage in El Paso County, Colorado) and SP12 (West Plum Creek in Douglas County, Colorado). Most of these costs are associated with development requiring section 404 permits from the Army Corps of Engineers.

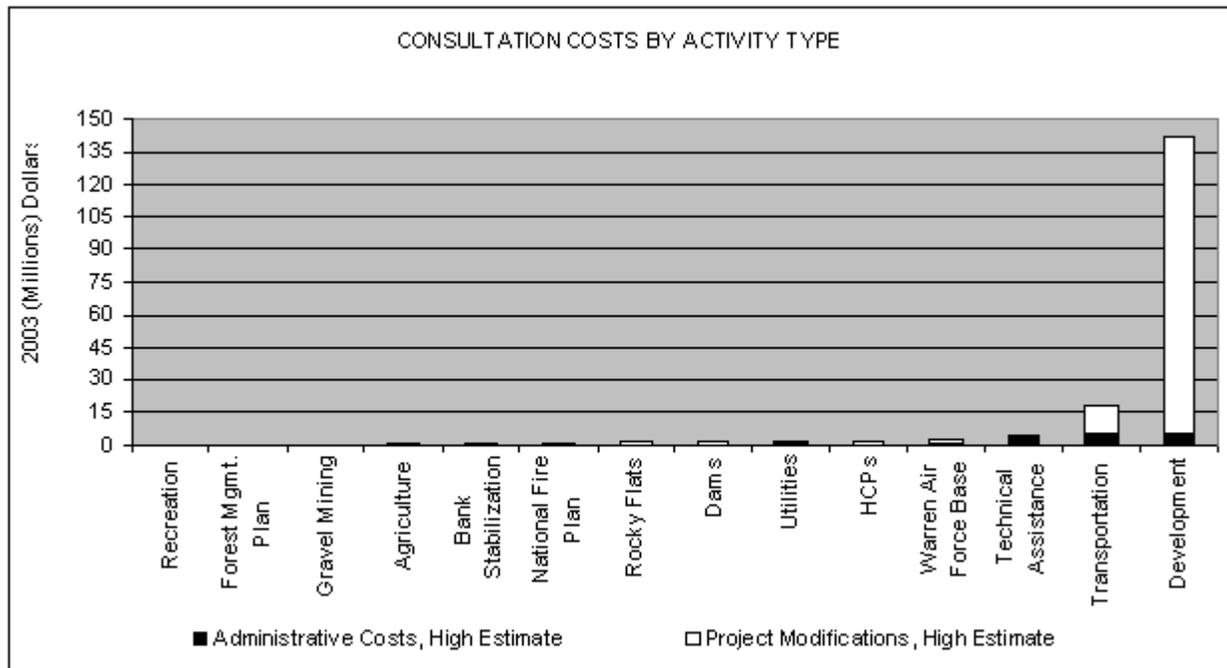
Major Effects of the Proposed Rule

Activities potentially affected by the designation include residential and related development in Colorado, agriculture in Wyoming, and road and bridge construction and maintenance activities in both states. Significant development pressure exists within and surrounding some of the areas proposed for designation in Colorado. The Service consults on development projects that overlap with the proposed critical habitat, and for which there is a Federal nexus. Impacts to residential and related development projects consist of administrative costs associated with the consultation process, costs of project delays, and costs of mitigative measures to protect habitat. Given the availability of substitute development sites in the study area, total residential development (i.e., the number of new housing units constructed) is not likely to significantly decline as a result of the proposed critical habitat designation. It is likely, however, that project delays and required project modifications will

result in impacts to landowners, developers, and/or housing consumers. Total costs associated with development are forecasted to range from \$57 million to \$142 million over the next ten years. These costs account for less than one percent of revenues for all residential development in the area (Boulder, Douglas, El Paso, Jefferson, Larimer and Weld Counties).

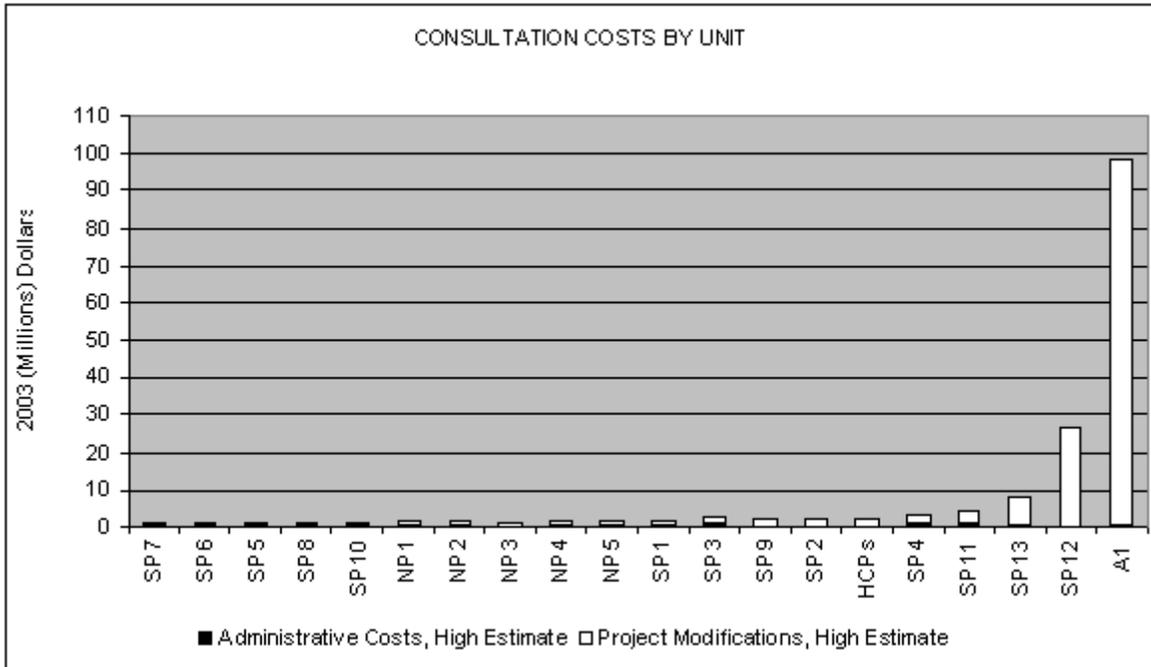
In Wyoming, critical habitat designation is expected to have a modest impact on agricultural land use. The Service consults on agricultural activities only if a Federal nexus exists. Even if a landowner’s operation involves a Federal nexus, the Service is not likely to stop or change the ongoing activity, since agricultural activities typically do not adversely modify PMJM habitat. Furthermore, the 4(d) rule lifts the section 9 take and section 10 HCP requirements for exempted activities (including ongoing agricultural activities) not subject to a Federal nexus. Because the Service proposes to extend the amended special 4(d) rule for a period of ten years, impacts are not anticipated for exempt agricultural activities not subject to a Federal nexus. Total consultation costs to agriculture in Wyoming are forecasted to approximate \$600,000 over the next ten years.

Road and bridge construction and maintenance (also known as transportation) consultation costs for the PMJM are forecast to range from \$10 million to \$18 million over the next ten years. These costs account for most of the costs expected to occur in Wyoming.



The graph above highlights the relative contributions of all land use activities to total section 7 costs. This graph provides a summary of the total forecasted administrative and project

modification costs associated with the listing and proposed critical habitat designation for the PMJM over the next ten years. The graph below provides a summary of the total forecasted costs associated with the listing and proposed critical habitat designation in each unit for the PMJM over the next ten years.



Benefits Associated with the Proposed Rule

Although the economic analysis does not quantify the benefits arising from designation of critical habitat for the PMJM, such benefits may include decreased habitat loss; decreased destruction of riparian habitat; creation of substitute habitat (mitigation); preservation of open space; enhanced recreation; improved ecosystem health; education/information; increased support for existing conservation efforts; increased protection for some bird species; and improved knowledge of the PMJM.

Key Assumptions

The following table presents the key assumptions of this economic analysis, as well as the potential direction of the bias introduced by each assumption.

CAVEATS TO THE ECONOMIC ANALYSIS AND POTENTIAL DIRECTION OF INTRODUCED BIAS ON TOTAL SECTION 7 COSTS	
Key Assumption	Effect on Cost Estimate
The rate of formal and informal consultations will not decrease over time.	++
The presence of other threatened and endangered species (i.e., Ute ladies' tresses orchid, Colorado butterfly plant, etc.) has no influence on consultation/project modification costs.	+
All future developments will be part of either large-scale residential and related or small scale developments subject to consultation.	++
As part of their planning efforts, developers will not account for prospective processing delays or will incur additional costs to avoid delays.	+++
There are no social welfare benefits from the preservation of open space (potentially reflected by increased home values on properties located near mitigation lands).	++
The historic occurrence and cost of project modifications are good predictors of future consultation costs.	?
The characteristics of historic residential and related developments are good indicators of the characteristics of future developments: number of units per development, median home price, etc.	?
Density of future development will remain the same following project modifications resulting from critical habitat.	?
Substitute development lots exist to offset development units lost within critical habitat areas.	-
Private ranchers will seek Federal funding for agricultural improvements, disaster relief, and voluntary conservation activities.	+
- : This assumption may result in an underestimate of real costs. + : This assumption may result in an overestimate of real costs. ? : This assumption has an unknown effect on estimates.	