

## **Appendix H – Social-Economics**

Restricted Use Alternative Analysis Model

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## Chapter 2.3.5 Restricted Use Alternative Analysis Model

The Restricted Use Alternative attempts to control weeds over the 10- to 15-year life of the project by using all available treatment methods. Its distinction from the proposed action is that herbicide treatment would not be allowed in riparian and special areas including wilderness, wild and scenic river corridors, municipal watersheds, and within 100 feet of SOLIs. The strategy would be to treat as many infested acres as early as possible. Therefore the initial emphasis is on broadcast herbicide applications in the uplands because broadcast application of herbicide is the most cost effective way to treat the most acres. Once the uplands are treated the emphasis shifts to treating riparian and special areas using manual/mechanical methods. During all years of the project, some of all treatment methods may be used, however the clear strategy emphasizes herbicides early in the project, then progressively moves away from herbicide treatments in favor of manual/mechanical and biocontrol methods as time goes on.

This spreadsheet models the Restricted Use Alternative discussed in section 2.3.5 of chapter 2. Like the Proposed Action, the model begins in year 1 (row 7 of the spreadsheet below) of the project with 22,842 acres of known invasive plant infestations to be treated (column B). In the first year available funding is spent using herbicides to treat approximately 4000 infested acres in the uplands. Years 2 and 3 (row 8 and 9) similarly treat approximately 3200 acres of previously untreated weeds (column E) and 800 acres previously treated (column G). At the same time, a minor acreage of manual/mechanical treatments may also occur in riparian and special areas (see alternative description in 2.3.5). The funding, acres treated and treatment methods in the first three years is virtually the same as the Proposed Action (Alternative B) except that treatment location is entirely in the uplands and not in any special areas, whereas Alternative B may treat in riparian and special areas with herbicides, as well as in the uplands.

Beginning in year 4 (row 10), differences between the Restricted Use Alternative and Alternative B begin to emerge. Sometime during year 4, herbicide treatment of the 11,179 acres of targeted upland areas not previously treated is completed. The herbicide retreatment continues and the remaining budget is spent on treating riparian or special areas using manual/mechanical and biocontrol methods. By year 5 (row 11), project emphasis is shifting from herbicide treatment methods to manual/mechanical methods. Treatment locations are also changing; shifting away from the uplands and focusing on riparian and special areas.

Because manual/mechanical methods cost more per acre, fewer acres can be treated given the same annual project budget. Per acre costs for each treatment method (columns Y – AK) used for this model are detailed in Chapter 2 of this EIS and are used to analyze Alternative B. Besides being more expensive, manual/mechanical methods are also less effective than herbicide treatments. Again the same assumptions of treatment method effectiveness used to analyze Alternative B were used to analyze this alternative. That is, 80 percent effective for herbicide treatments (column H) and 25 percent effective for manual/mechanical treatments (column I) (see Chapter 3.2 of this EIS for a more detailed discussion of effectiveness assumptions).

Initially, acres of weed infestation are reduced suggesting that the project purpose and need of eradicating, containing, and controlling weeds would be accomplished. However beginning in year 5, as herbicide use is curtailed and manual/mechanical methods are emphasized, the trend of weed reduction reverses and acres of weed infestation forestwide begin to increase. Ultimately, by the end of the project the area of weed infestation would roughly double from the present infestation level.

This spreadsheet is an approximation. Its purpose is not to precisely predict acres of weed infestation during the life of the project. Its purpose is to show trends of this alternative compared to the Proposed Action Alternative.

