RRWF Integrated Terrestrial Invasive Plant Control Plan 2017 Project Proposal

Purpose

The Integrated Terrestrial Invasive Plant Control Plan (ITIPCP) was developed by the Rocky Reach Wildlife Forum (RRWF) (Chelan County PUD 2012) as the integrated noxious weed control program required in the Rocky Reach Settlement Agreement (Chelan PUD 2006). The ITIPCP outlines the process for using the annual funding available to the RRWF under Section 4.4 of the Rocky Reach Wildlife Habitat Management Plan (RRWHMP) to implement project proposals. This 2017 Project Proposal is a component of the ITIPCP necessary for project implementation and requires RRWF approval before implementation.

Consistent with the Rocky Reach Settlement Agreement (Chapter 7; Section 4.2.5, Chelan PUD 2006) and the RRWHMP (Section 4.4, Chelan PUD 2009) Chelan PUD shall, in consultation with the RRWF, make available \$10,000 per year for the term of the new license and any subsequent annual licenses for implementation of an integrated noxious weed control program in the Rocky Reach Wildlife Area (RRWA). The RRWA is defined as a 3-mile buffer from the center of Rocky Reach Reservoir (Chelan PUD 2009). Implementation of the integrated noxious weed control program will be conducted by Chelan PUD personnel or other qualified personnel selected by the RRWF (Chelan PUD 2006). Projects proposed shall not require maintenance or monitoring to ensure success, rather, all projects are one-time treatments (Chelan PUD 2009).

Until the ITIPCP was developed in 2012, the RRWF had no means to implement the weed control plan. From 2009 to 2012, funds accrued under this program. From 2012 to 2016 the RRWF has spent \$97,807.64 implementing the ITIPCP within the RRWA. For 2017, the annual funding available is approximately \$13,000.

Recent wildfire (2014 Mills Canyon and 2015 Chelan Complex fires) within the RRWA increases the risk of invasive plant species spreading following the fires, including Dalmatian toadflax (*Linaria genistifolia ssp. dalmatica*), diffuse and spotted knapweeds (*Centaurea diffusa, C. maculosa*), and pockets of Russian knapweed (*Acroptilon repens*), which are all class B noxious weeds in Chelan County, Washington (Chelan County Weed Control Board website, 2017). The heaviest infestations occur in post-fire areas north of Swakane Canyon to the Entiat River and from Chelan Butte north to Wells Dam along Rocky Reach Reservoir. This area is important mule deer and bighorn sheep winter and spring range. The area also hosts known populations of sensitive plants.

Much of the area impacted by Dalmatian toadflax occurs within roadless areas with steep canyons and rocky areas, making chemical control difficult to impossible. The Washington State University Douglas County Extension released 90,076 biological control agents within or adjacent to the RRWA between 2012 and 2016 as directed by the RRWF and the ITIPCP as approved in 2012 (Chelan PUD 2015). The majority of the releases focused on weed infestations

within recent burn scars. The remainder of untreated areas within burn scars with high densities of invasive weeds has been recommended by RRWF members as a priority during 2017.

Therefore, the RRWF proposes to use funding available under Section 4.4 of the RRWHMP (up to \$13,000) to reduce the cover of Dalmatian toadflax and knapweeds within the RRWA within the Mills Canyon and Chelan Complex burn scars via the release of biological control insects during the spring and summer of 2017 consistent with the ITIPCP.

Project Detail

The RRWF proposes one action for funding under Section 4.4 of the RRWHMP through the ITIPCP in 2017. Approval of the project proposal will initiate action on the approved project and, per RRWF approval of project completion, approve the release of funds under Section 4.4 of the RRWHMP.

Proposal 2017-A: Biological control agents for Dalmatian toadflax and a variety of knapweeds (spotted, diffuse, and Russian) within recent burn scars and in previously untreated areas.

The RRWF proposes that Chelan PUD contract through Washington State University (WSU) to collect and release the biological control agents *Mecinus janthinus*, *Larinus minutus*, *Cyphocleonus achates, and Jaapiella ivannokovi* for Dalmatian toadflax, spotted knapweed, diffuse knapweed, and Russian knapweed, respectively, at multiple locations within the RRWA within the Mills Canyon and Chelan Complex burn scars on public lands. Priority is to be given to areas where infestations have not been treated in the past seasons (Figs 1 and 2). Two general areas suggested by the RRWF for treatment include the Chelan River Gorge and the Douglas County side of the RRWA between Wells Dam and McNeil Canyon (Chelan Complex burn scar). In the vicinity of the Chelan River Gorge, *M. janthinus* should be released to control toadflax infestations at the WDFW Beebe Springs Unit in 2 locations: East of the Highway 150 trailhead parking lot and north of the springs (Figure 3).

Chelan PUD will pay for the contact services with WSU and then Chelan PUD will invoice the RRWF for work completed under the approved 2017 proposal. Releases of biological control agents will take place during spring and summer of 2017. Timing of releases will take into consideration the phenology of Dalmatian toadflax and knapweeds at the proposed release sites. Releases may have to occur at different times and intervals so as to give the biological control agents the best opportunity to become established at the proposed release sites.

Many of the release sites will likely be located far from main roads and will involve hiking into the sites to conduct the releases. Releases will occur on public land, where allowed, or on private land with landowner permission. Release areas will be within the burn scars shown in Figures 1 and Figure 2, and are to focus on areas where releases have not yet occurred. Priority to these sites was selected in consultation with the land managers (USFS, BLM, and WDFW) and RRWF members. However, the exact number and location of release sites may change depending on phenology, cover, availability of biological control agents, and site conditions at the time of release. The contractor will mark release sites with GPS coordinates and photograph each release site. The release coordinates and photo documentation of release sites shall be included with the final billing to Chelan PUD. A final summary report will be provided to the RRWF stating the number and location of release sites, dates of release, and approximate number of biological control agents released at each site.

For 2017, the contract will not exceed \$13,000 including up to 5% budgeted for contingency. Work will be conducted between March 2017 and October 2017. Upon completion of the project, Chelan PUD will pay contractor and invoice the RRWF for reimbursement by December 1, of 2017. Any unspent dollars for the 2017 proposal will roll-over and be available for future projects.

Considerations for Species of Conservation Concern

Populations of three sensitive species of plants are known to occur within the RRWA. The plant species of concern for each project proposal are listed below. Both WDFW and the USFS were contacted to assess presence of sensitive species. Biological control agents proposed for this project have been approved for widespread use on Dalmatian toadflax and knapweeds within Washington State. The biological control agents proposed for this project have demonstrated narrow host specificity, attacking only closely related Eurasian species with no effect to non-target native plants (Wilson et al 2005). The biological controls are already widely used within Chelan County and may already exist at some of the proposed sites, but the RRWF proposes to increase numbers of these agents in the field so as to reduce cover of Dalmatian toadflax and knapweeds within recent burn scars. At this time, we are not aware of any property owner limitations or restrictions that would prevent this activity.

Species	Wa State Status	Federal Status
Chelan rockmat	Endangered	Species of Concern
Petrophyton cinerascens		
Longsepal globemallow Ilamna longisepala	Sensitive	USFS Sensitive
Thompson's clover Trifolium thompsonii	Threatened	Species of Concern

Literature Cited

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- Wilson, L. M., S. E. Sing, G. L. Piper, R. W. Hansen, R. De Clerck-Floate, D. K. MacKinnon, and C. Randall. 2005. Biology and Biological Control of Dalmatian and Yellow Toadflax. USDA Forest Service, FHTET-05-13.

Figure 1. Proposal 2017-A: Biological control agent release sites from 2012 – 2016 within the RRRWA for Dalmatian toadflax and knapweeds within the Mills Canyon burn scar.



Figure 2. Proposal 2017-A: Biological control agent release sites from 2012 – 2016 within the RRRWA for Dalmatian toadflax and knapweeds within the Chelan Complex burn scar.



Figure 3. Proposed *M. janthinus* release sites on the WDFW Beebe Springs Unit in 2 locations: East of the Highway 150 trailhead parking lot and north of the springs within the Chelan Complex burn scar.

