Refuge/complex name: McNary NWR

Project title: Control of Tree of Heaven and Russian Olive on Wallula Unit.

Total amount requested: $15,000

Project Description:
This funding is necessary to operate a four-person invasive species strike team to treat invasive trees on the Wallula Unit of McNary NWR. Over a one month period the crew will cut and stump treat 100% of tree of heaven (*Ailanthis altissima*) and Russian olive (*Elaeagnus angustifolia)* on the 2,300 acre unit. The objective is to remove all immature and seed producing trees on the management unit. Tree of heaven has been newly identified as having a presence in the Wallula Unit as of 2014. This management action will seek to remove this tree species from the unit before it can establish a further foothold. Russian olive has a more long-standing and widely distributed presence on the unit, but remains at levels that we believe to be controllable.

Comment [BF1]: EDRR

Distinct project with well-defined objectives (10 points):
This project is supported in the CCP by Goal 5, Objective 5a: Provide high quality riparian habitats for the benefit of nesting and migrating birds, fish, riparian plants, and other wildlife. Much of the riparian forests of the Wallula Unit were degraded by a large fire in 2008. A funded BAER plan began restoration efforts which have since been followed up with allocated station funds. Beginning in FY2013, we have been restoring approximately 40 acres of native riparian woodland per year by promoting natural seedling recruitment of cottonwood and willow, supplemented with planting of several species of purchased shrubs and trees. This riparian enhancement requires providing moist bare soils for willow and cottonwood to establish. Removal of the seed bearing individuals of tree of heaven and Russian olive in the remainder of the management unit will reduce the invasion of these species onto the riparian woodland enhancement projects, which will eventually include most of the Walla Walla River floodplain within the unit.

Potential for maximum control/Likelihood of success (10 points):
The project goal is the removal of tree of heaven and Russian olive in order to allow the growth of native riparian trees and shrubs without competition from these invasive tree species. Tree of heaven is newly identified to be spreading on the unit and a thorough search and removal should eliminate the presence of this species. Russian olive presence on this unit is primarily small seedling trees establishing near managed wetland areas and isolated mature trees on the remaining riparian landscape. These trees have not yet grown together to form contiguous blocks and are therefore more easily treatable. The Walla Walla River valley is isolated on both sides by upland areas. Reinvasion is possible from upriver, but the incised nature of the Walla Walla reduces the potential for these species to establish along river banks and Walla Walla County has an extensive ongoing riparian restoration program on private lands upstream which has significantly reduced Russian olive. The greatest potential for re-establishment is the existing seed present in the seed bed and re-sprouting from treated trees. All sites will be revisited in 2016 for foliar spray of re-sprouts and new seedlings. Cut stump treatments followed by foliar spray has had a high (95%+) success rate in past MCRNWRC treatments.

Biological benefit to priority species or BIDEH (10 points): Halting the spread of tree of heaven and Russian olive into the Wallula unit will assist our ongoing riparian forest restoration efforts, reducing from non-native trees. Riparian willow and cottonwood woodlands in the arid west provide critical nesting and migration habit for migratory songbirds birds. Data from the Wallula MAPS station found that three of the six PIF focal species (lazuli bunting, yellow warbler, yellow breasted chat) for this habitat are found nesting on the Wallula Unit. A healthy riparian ecosystem will also enhance the value of the Walla Walla River for native salmonids, including bull trout, steelhead, and various salmon.

Comment [BF2]: I really like this description, but… It doesn't take the explanation far enough to score maximum points. There is no explanation here of the detriments of these two non-native trees existing alongside the native trees. I'm not reading that the non-natives are preventing the natives from growing. Rather, this is more about getting things back to the way things were, which is fine.

Sustainability (10 points):
Re-sprouting or establishment from existing seed will occur. Spot treatments to re-sprouts and seedlings will be applied in 2015. MCRNWRC has had high (95%+) control success with cut stump followed by foliar spray application.

All sites involved with the Wallula riparian woodland enhancement project have a minimum three year project window of active management associated with them. Maintaining these areas free of tree of heaven and Russian olive will become part of the yearly follow up for those areas.

Monitoring to document and evaluate project success (10 points): Monitoring will be accomplished through direct observation of treated tree of heaven and Russian olive re-sprouts and new seedling establishment. Infestations will be GPSed using hand-held Trimble® units and a customized data dictionary in TerraSync®. These GPS files will be imported into the Complex's GIS for long-term documentation and monitoring. Treated sites will be revisited in subsequent years and retreatments will be made as needed.

Budget: $15,000
Requested funds would cover salary and benefits costs for a 4-person invasive species strike team for two pay periods: four temp WG-05 for 160 hours each.
MCRNWRC will cover all other logistics expenses (vehicles, fuel, pesticide, equipment, GPS units, etc.).