Cox Creek Confluence Restoration – Plant Establishment
Grant #212-3999-9894 *Progress Report*
Calapooia Watershed Council
June 5, 2015

Active revegetation continues to occur at the Cox Creek-Willamette Confluence in Albany, where 15 acres of riparian and floodplain habitats along lower Cox Creek and the mainstem Willamette River, have undergone significant weed control and native plant installation. This is a report on progress of these efforts to date.

Restoration methods closely followed the *Rapid Riparian Revegetation Approach* (Guillozet et al. 2014). Site preparation activities were completed in 2012, where invasive weeds, primarily blackberry, English ivy, and reed canarygrass, were controlled using both mechanical and chemical methods. Native grasses were seeded in the blackberry Native trees and shrubs were installed in March 2013, with interplanting occurring during March 2014. Native grasses were seeded in the blackberry areas in the fall of 2012, and seeded in the reed canarygrass areas in spring of 2014.

Plant establishment activities began in spring of 2013, and are still in progress. The project manager visits the site every 1-2 months to monitor performance in achieving objectives. To date, plant establishment activities have been very successful, with this site being one of our top performing out of over 70 sites in the entire Calapooia-Santiam Revegetation Program. Plant survival is at least 95%. Plant vigor and growth is tremendous, and most of the plants are well-past 'free-to-grow'. All that remains to be accomplished is establishing native ground cover across the entire site in order to prevent re-invasion/continuing invasion by weeds, which frequently are dispersed many times annually via flood events, where the Willamette overtops its banks and backfloods Cox Creek. To date, native grasses have been established across approximately 50% of the lower 11 acre confluence. Other natives have self-recruited, such as western march cudweed, waterpepper, and water parsley, among others. Invasive species such as reed canarygrass, yellow flag iris, common tansy, thistles, and jewelweed continue to self-recruit and are the primary targets for weed control/plant establishment activities. Blackberry and English ivy are rarely spotted, but if are treated if present.

Due to site layout, plant establishment activities have almost exclusively been chemical spot spray release/weed treatments. A small portion of the site (less than 5 acres has undergone some hand mechanical work), but the larger confluence section has seen almost no mechanical activities. This strategy deploys contract crews several times per year during the growing season in order to quickly comb the entire site and treat weeds and other undesirable vegetation while they are relatively small and before they become established and/or go to seed.

Funding for plant establishment activities continues until 12/31/2017 when this grant expires. We anticipate that we will continue to visit the site and treat invasives through fall of 2017.

Cox Creek Restoration Photos

Figure 3. Cox Creek Confluence vegetation photo point - BEFORE. Post flail mow, pre reed canarygrass spray, summer 2012.

Figure 4. Cox Creek Confluence vegetation photo point - AFTER. Post site prep, planting, and 2 seasons of plant establishment, summer 2014.

Figure 5. Cox Creek Photo Point - BEFORE. Post flail mow, pre reed canarygrass spray, summer 2012.

Figure 7. Cox Creek Photo Point - AFTER. Post planting, after 2 seasons of plant establishment, summer 2014.

Figure 8. Cox Creek Photo Point - BEFORE. Post reed canarygrass flail mow, pre spray and pre planting, summer 2012.

Figure 10. Cox Creek Photo Point - AFTER. Post planting, 2nd year of plant establishment, summer 2014.