The FairWays Foundation

LARGE PROJECT

CASE STUDY

Project

Jack Creek Riparian
Enhancement at Salmon Run GC

Applicant

Matt Swanson, Contracted Project
Manager for Curry Watersheds Partnership

Budget

2020 Grant: $24,084.00
2021 Grant: $22,352.00

PROJECT TIMELINE

PHASE 1 - 2020 grant

Fall 2020: assess riparian corridor and develop implementation plan

Nov 2020: Clear ~10 acres of Himalayan blackberry from understory of established plantings

Winter 2021: Plant 3000 seedling in cleared understory and host public planting event for members of Brookings-Harbor community

Spring/Summer 2021: Release seedlings from competition

August 2021: Cut English ivy from established trees and spray cut-stems and ground cover

Clear Himalayan blackberry from edges of riparian corridor

Fall 2021: Spray Himalayan blackberry regrowth to translocate herbicide to root zone.

PROJECT OUTLINE

Jack Creek is an important stream for salmon, steelhead, and trout that runs 1.77 miles through Salmon Run Golf Course. When the golf course was built in the late 1990's, a ~21-acre riparian buffer was established to restore native trees and shrubs along the creek, to improve fish habitat and cool summer water temperature. Over the last ~20 years, the golf course, local students, and multiple community organizations planted seedlings that are now thriving, but during that time invasive weeds also colonized much of the riparian corridor to the detriment of Jack Creek and Salmon Run Golf Course.

The FairWays Foundation contributed to the first and second phases of a multi-phase project to convert areas within the Jack Creek riparian corridor from invasive weeds into native trees and shrubs, and to interplant within established plantings to diversify and beautify the creek-side vegetation. During Phase I, we developed an implementation plan, cleared ~10 acres of invasive weeds, and planted 3,000 native seedlings. During Phase II, English ivy – a trailing and climbing vine – was cut off of ~90% of the established trees in the reserve, and the cut-stems and ground cover were treated with herbicide. An additional 6.2 acres of invasive Himalayan blackberry were also cleared and sprayed, and all of the Phase I seedlings were maintained. In 2023 (Phase III), 3,700 more seedlings will be planted and maintained, and the project area will be resprayed to suppress invasive weeds while the seedlings get established.

BUDGET MANAGEMENT

Riparian restoration is a core function of the Curry Watersheds Partnership's mission and the work of our contractors, so we were able to use comparable projects to develop material costs and production rates.

To develop the project budget, we conducted an assessment of the Jack Creek riparian corridor to determine the scope, scale, and timing of treatments. Knowing that the size and complexity of the site would require a long-term, phased approach, we prioritized treatments that preserved past plantings while also preparing the site for new plantings; and we scheduled treatments to align with the physiology of the invasive species, staff capacity, and the availability of funding.

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LEARNINGS

Typically, there is an optimal time of year to spray an invasive weed based on the physiology of the species and the climate of the project site, and often site prep is required weeks to months in advance in order to maximize the effectiveness of the treatment. Scheduling treatments to align with the physiology of the plant, staff capacity, and funding sources can be challenging, and when these variables don't align, treatments may be less effective. For this project, we intended to spray English ivy ground cover in late spring, but we didn't have the capacity to do so until August. By then English ivy was starting to go dormant due to drought stress, so the treatment was less effective than it would have been in the spring.

OUTCOMES

When we started this project, the health of the Jack Creek riparian corridor was on a downward trajectory because invasive weeds were undermining the success of earlier restoration and preventing native species from naturally colonizing the habitat. Through this project we treated the highest priority invasive weeds and planted native riparian trees and shrubs, to diversify the composition and increase the aesthetic beauty of the creek-side vegetation.

To date, we've removed English ivy from ~90% of the established trees within the Jack Creek riparian corridor, and we've reduced English ivy ground cover by ~70%. English ivy is particularly challenging because it thrives in shaded environments, and therefore cannot be controlled by establishing overstory vegetation. To the contrary, English ivy often climbs and topples overstory trees, and it forms dense mats of ground cover that prevent new seedlings from establishing. Through this project we also cleared ~16.2 acres of invasive Himalayan blackberry, which is also a challenging species because it forms tall, dense thickets that impede the establishment of native woody species.

To suppress regrowth and prepare for planting, we retreated English ivy and Himalayan blackberry 1-2 times with herbicide. We also planted ~3,000 seedlings in the winter of 2021 where blackberry had been cleared, and we're planning to plant an additional 3,700 seedlings this winter. As a result of this work, we've been able to preserve the ecological and aesthetic integrity of the Jack Creek corridor, and reduce maintenance for Salmon Run Golf Course. Over time, this project and future phases of restoration will set the riparian corridor on a new, upward trajectory that yields better-quality fish and wildlife habitat, and an easier to manage and more aesthetically pleasing interface with the golf course.

PROJECT TIMELINE

PHASE 2 - 2021 grant

Spring 2022: clear 6.2 acres of dense Himalayan blackberry to create new plantings areas

May 2022: Fly drone footage to document progress and plan future treatments

July 2022: Respray English ivy to suppress ground cover and release seedling from competition

Sept 2022: Order seedlings, fiberglass stakes and protective tree tubes for the 2023 planting season

Oct 2022: Spray Himalayan blackberry regrowth to translocate herbicide to root zone

HIGHLIGHTS

- Increased aesthetic beauty
- Removal of ~90% invasive ivy from trees and ~70% from ground cover
- Cleared 16.2 acres of invasive Himalayan blackberry
- Preserved ecological and aesthetic integrity
- Improved habitat for fish and wildlife