TOKEN CREEK
CONSERVANCY

AIRR-152-14 GRANT FINAL REPORT

THE PROBLEM

Japanese Knotweed (Knotweed) was discovered in several locations in the Token Creek Conservancy area owned by the Village of Windsor. The total contamination perimeter was estimated at roughly two and a half (2.5) acres but the estimated contamination and eradication area was confined to under 1 and a half (1.5) acres with varying degrees of density of the Knotweed. The Token Creek Conservancy Committee (with support from the Village of Windsor) was awarded an Aquatic Invasive Species Grant for Early Detection and Response to treat the Japanese Knotweed.

The Plan

The Token Creek Conservancy Committee (TCCC) developed an adaptive treatment plan to eradicate the Knotweed. The plan was designed to evaluate and adapt the treatment protocol to the most successful treatment option available when assessing the condition of the Knotweed colonies each year.

- **Step 1** of the plan included spring cutting of the dead Knotweed stalks and removal of vegetative debris. This helped to clear the treatment area and allow easier access to the Knotweed during the growing season. The cut stalks were hauled to a gravel parking lot and burned immediately.
- **Step 2** of the plan included a second Knotweed stalk cutting in mid-summer. It was believed that this cutting forced new shoots which may deplete the plant's reserves, weakening the plant community and making it more susceptible to herbicide treatment.
- **Step 3** of the plan called for either stem injection or foliar spray application of an approved herbicide. Best management practices dictate that stem injection shall be the preferred method especially early in the treatment plan when Knotweed stalks were appropriately sized for this form of treatment.

Treatment Plan Review and Observations

The Token Creek Conservancy Committee hosted workdays annually and has been very fortunate to have a great resource of volunteers that help with general maintenance. In 2013, 2014 and 2015 the spring work group looked for, marked and cut down any Japanese Knotweed that could be observed. Windsor Public Works staff and volunteers would treat by stem injection or foliar spray application in the summer or early fall. Due to the initial success in treatment in the first year, the supply of chemicals and tools were adequate for all follow-up maintenance and treatment of the Japanese Knotweed for the remainder of the project cycle.

After 2015, the main areas of infestation were nearly completely under control. Windsor Public Works staff and volunteers expanded the search perimeter and continued to treat any areas where Japanese Knotweed was found. The primary method of treatment was stem injection, followed by foliar spray depending on the size of the Japanese Knotweed.

Beginning in 2017, the Token Creek Conservancy Committee began working with Good Oak Ecological Services on a broader stewardship plan for the Token Creek Conservancy. Additional invasive species have been targeted as part of this effort. Good Oak Ecological Services provides periodic updates on the treatment targets and species identified. There are still small remnant findings of Japanese Knotweed in the Conservancy, however, it appears to be well managed at this point.

Looking Ahead

The plan for 2018 and beyond will likely require continued professional maintenance and management review. Given the size and diversity of the property, discovery of additional invasive plants, and the lack of staff knowledge of treatment protocol, the Token Creek Conservancy Committee will contract with a professional consulting firm for maintenance. During the spring workday TCCC members will monitor the property for new Japanese Knotweed sites.

Summary

The overall objective was met; the Japanese Knotweed has been substantially controlled. The most successful treatment method was stem injection with herbicide. However, areas of high Japanese Knotweed concentration did experience some herbicide residual effects. There were some areas of total vegetative death up to one year after treatment. That was an unintended result of the treatment and left soil bare and a concern for erosion. As a recommendation, areas of high Japanese Knotweed concentration should consider injecting one in three stems rather than each stem or reducing the amount of herbicide used. Also, it is questionable if the cutting and burning was a value added step, especially after the first year.

Respectfully Submitted by:

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