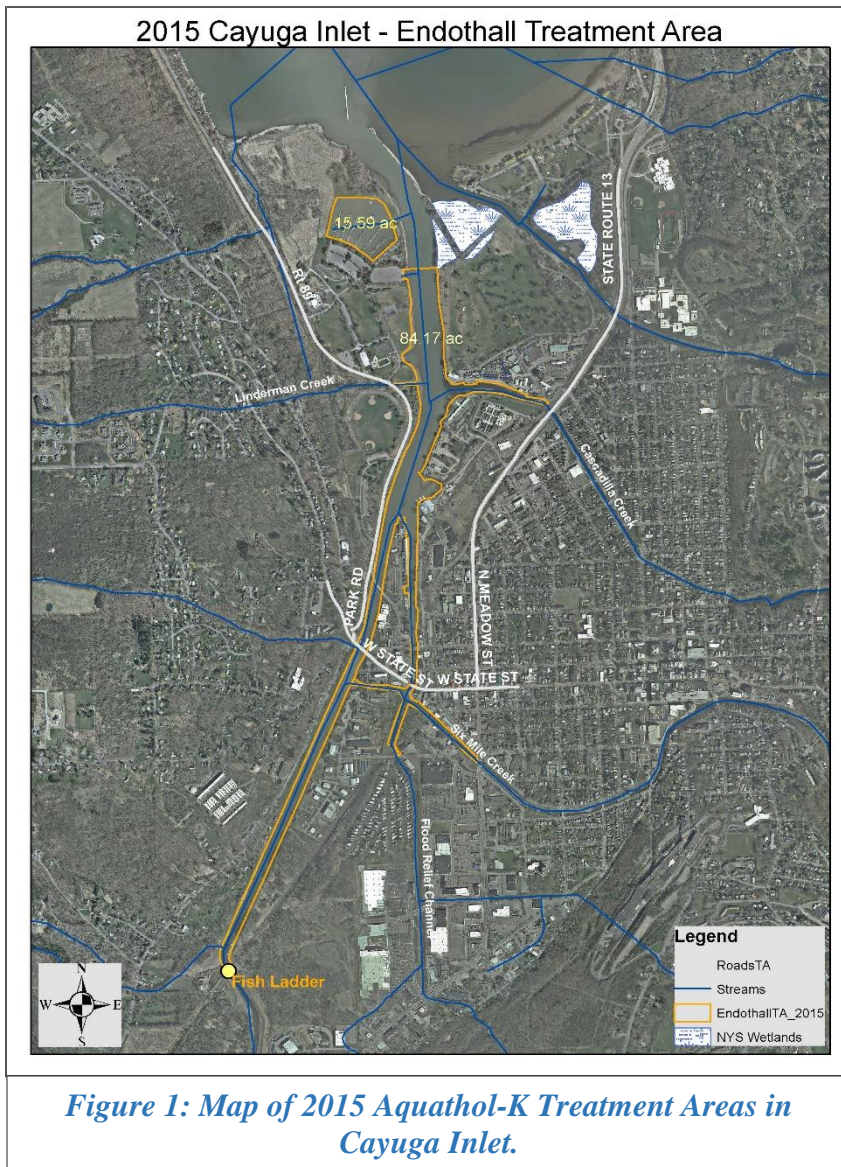


2015 MANAGEMENT EFFORTS

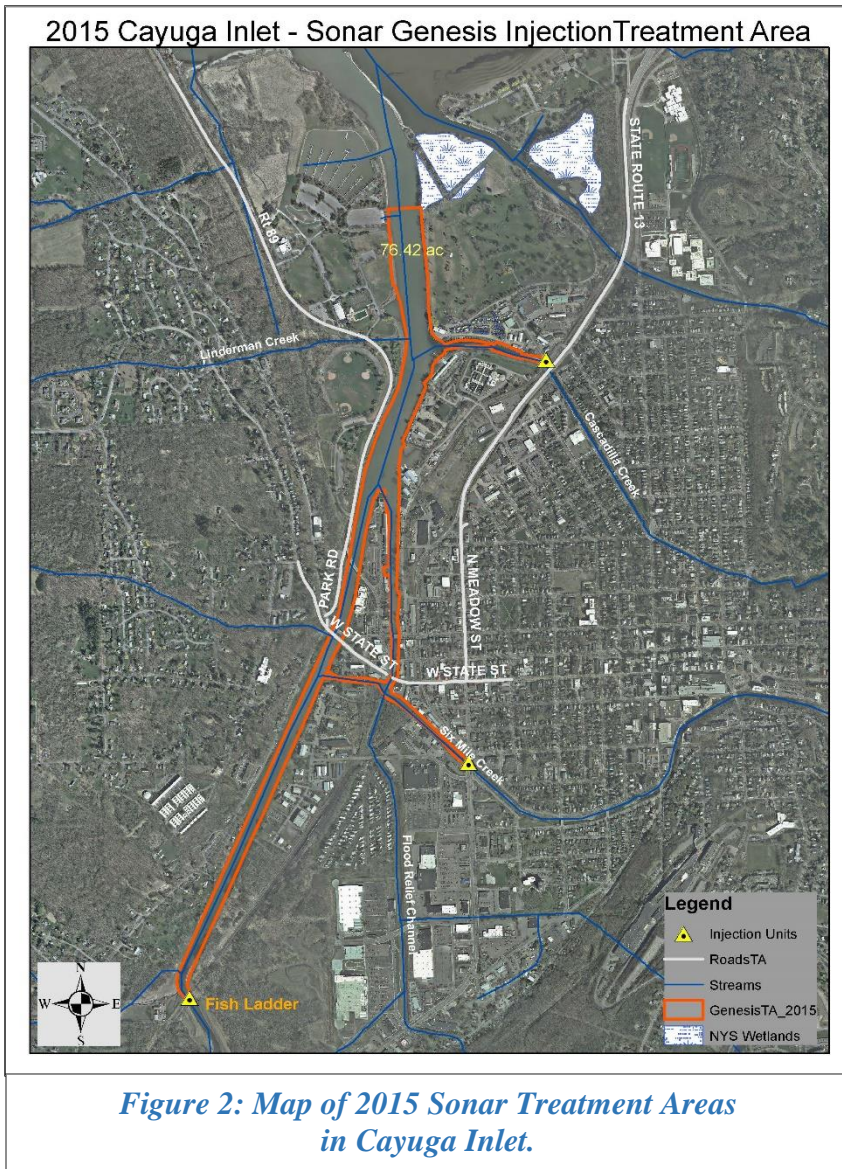
Background

The external peer review process was conducted on March 27, 2015. Input from national scientists/experts, Project contractors, as well as extensive plant community monitoring data from 2014 was used to develop the treatment plan for 2015.



CAYUGA INLET

Similar to previous seasons, a dual herbicide approach was used in the Cayuga Inlet for 2015. A single, preliminary treatment of the contact herbicide Aquathol-K (Aq-K) was applied to approx. 92-acres of the Cayuga Inlet on August 18, 2015 (See Figure 1). Cayuga Inlet was closed to boat/recreational use for 24-hrs in conjunction with Aq-K treatment. Application was achieved through sub-surface injection using airboat, johnboat, and backpack application equipment. Endothall concentration levels on day of treatment and 24hrs post-treatment ranged from 1 to 3ppm (on average), with levels up to 5ppm near the north end of the treatment zone. Levels between 1 to 1.4ppm were observed at 72-hrs post-treatment. Overall, endothall concentration and retention time was on target in Cayuga Inlet; effective treatment/kill is expected.



Follow-up treatment with Sonar Genesis (liquid) and Sonar One (pellets) (active ingredient: fluridone) in Cayuga Inlet commenced on September 1, 2015 (See Figure 2). The same treatment area was covered with Sonar product (approx. 92 acres). Sonar Genesis injection units were again used in the inlet (See Figure 2) and Sonar One pellets were applied in Allan Treman Marina and Linderman Creek areas. Sonar treatment in Cayuga Inlet continued until October 12, 2015, when injection units were shut down for the season. Fluridone concentration levels ranged from 3-6ppb on average, with some observations ranging below 3ppb AND above 7ppb. Overall, fluridone concentration and retention time was on target in Cayuga Inlet; effective treatment/kill is expected.

FALL CREEK:

A major difference for 2015 was the Aq-K application protocol in Fall Creek. Based on rapid dilution and partial effectiveness observed during the 2014 Fall Creek application, Aq-K was applied via sub-surface injection unit over a 36hr period in Fall Creek. The goal of this updated application protocol was to increase Aq-K retention time and to maintain target concentrations over a longer period, thereby improving treatment efficacy.

Pre-treatment rhodamine dye studies were conducted on June 25th and August 25th to determine flow dynamics within the Fall Creek system. Rhodamine dye functioned as an analog for anticipated herbicide movement within the Fall Creek system. Data provided through the dye studies allowed herbicide applicators (Allied Biological), United Phosphorous Inc. (UPI. Aq-K producer), and the Hydrilla Task Force to adjust and optimize Aq-K injection within the Fall Creek system.

A preliminary treatment of Aq-K was applied to approx. 25-acres of Fall Creek starting on August 25, 2015. Application to the main channel of Fall Creek was achieved via injection unit over a 36-hour period (extending to August 27th). Shallow/backwater areas of Fall Creek (Fall Creek cove, Stewart Park pond, the golf course lagoon, and the Cornell wetland area NW of the golf course) were treated concurrently on August 26th via a single treatment using johnboat and backpack application equipment (See Figure 3).

2015 Fall Creek - Combined Aq-K & Sonar Treatment Areas



Figure 3: Map of 2015 Combined Aquathol-K Injection & Sonar Treatment Areas in Fall Creek.

Endothall concentrations ranged from <1ppm to 2ppm (on day 0 – 48hrs after treatment). Overall, endothall concentrations were slightly below target levels, but retention time within the main channel of Fall Creek improved compared to previous treatment seasons. In contrast, retention time was shorter in the backwater areas of Fall Creek (Fall Creek cove and the golf course lagoon) in 2015. This was likely due to the absence of floating curtains extending across the mouth of the golf course lagoon during treatment in 2015. The installation and presence of floating curtains in 2014 appears to have improved retention time in backwater treatment areas. The 2015 endothall treatment in Fall Creek was partially effective in killing hydrilla, but regrowth was observed in Fall Creek cove and the golf course lagoon following initial application.

It is important to note that leading up to the initial Aq-K application in Fall Creek, the HTF observed intense waterfowl grazing on hydrilla biomass in Fall Creek cove and the golf course lagoon. This led to a reduction in overall hydrilla biomass that was ultimately exposed to the Aq-K application. With less biomass present for exposure, overall efficacy of the herbicide application was likely reduced. Any plant material not

initially exposed to Aq-K grew back shortly after completion of application. The combination of waterfowl grazing AND lower Aq-K retention time in Fall Creek cove and the golf course lagoon were likely major contributing factors to the lowered efficacy of Aq-K treatment in those sections (specifically).

Follow-up treatment with Sonar One pellets occurred in the shallow/backwater areas of Fall Creek (**See Figure 3**). Sonar pellet applications began in Fall Creek on August 26th, and continued through October 8th. Bump treatments were required on a regular basis to maintain fluridone concentration levels. In working with SePRO (Sonar producer) and Allied Biological, the HTF observed improved target concentrations when the Sonar One bump treatment schedule was move up to every 7-10 days (as opposed to every two weeks). Fluridone levels ranged from <1.0ppb to 1.0ppb, on average. Overall, fluridone concentrations and retention time were below target levels. Partial kill/control expected.

In order to address hydrilla biomass/regrowth in the golf course lagoon, the HTF conducted a small-scale physical removal effort on September 23 - 24, 2015. Members of the HTF removed hydrilla biomass by hand from the golf course lagoon, and used small nets to capture fragments created during the removal process. Similar to the removal effort in Fall Creek cove in September 2014, this process was successful in addressing hydrilla biomass above the sediment. Hydrilla tubers were not targeted with this management strategy.

2015 Southeast Corner Cayuga Lake Treatment Area



Figure 4: Map of 2015 Sonar H4C Pellet Treatment Area in Southeast Corner of Cayuga Lake.

SOUTHEAST CORNER OF CAYUGA LAKE

A principal message from peer reviewers leading into 2015 was that a more proactive management strategy needed to be implemented in the southeast corner of Cayuga Lake to address isolated hydrilla patches discovered in 2013 and 2014. With management and eradication efforts in Cayuga Inlet and Fall Creek being highly successful, these areas are not actively contributing to the spread of hydrilla beyond the treatment zones. Moving forward, it will be isolated patches in southern Cayuga Lake that pose the greatest threat for future hydrilla spread. As such, the HTF assessed available management options and ultimately decided that proactive herbicide treatment in the southeast corner of Cayuga Lake would provide the best opportunity for success.

2015 was the first season that herbicide was applied to the open waters of Cayuga Lake. In order to address historic hydrilla patch areas discovered in 2013* and 2014*, a 30-acre area of the SE corner of Cayuga Lake was treated using Sonar H4C pellets (active ingredient: fluridone) in 2015 (See Figure 4). With a lower percentage of active ingredient per pellet, the benefit of using Sonar H4C is that it allowed for better spatial coverage of the treatment area.

***NOTE:** Isolated patches discovered in the SE corner of Cayuga Lake in 2013 & 2014 were addressed through physical removal and the installation of benthic mats. No hydrilla regrowth has been observed at these removal/benthic barrier installation sites. These efforts were considered very successful, and will continue to be used when/where appropriate.

Initial treatment with H4C pellets occurred on July 21st (in advance of any observed hydrilla growth). Bump treatments were conducted on 8/11, 9/16, and 10/1. Fluridone concentration levels in the SE corner ranged from <1.0ppb to 1.5ppb (averaged). High variability in concentration level was observed in the SE corner from

2015 Hydrilla/Plant Community Monitoring and Sampling

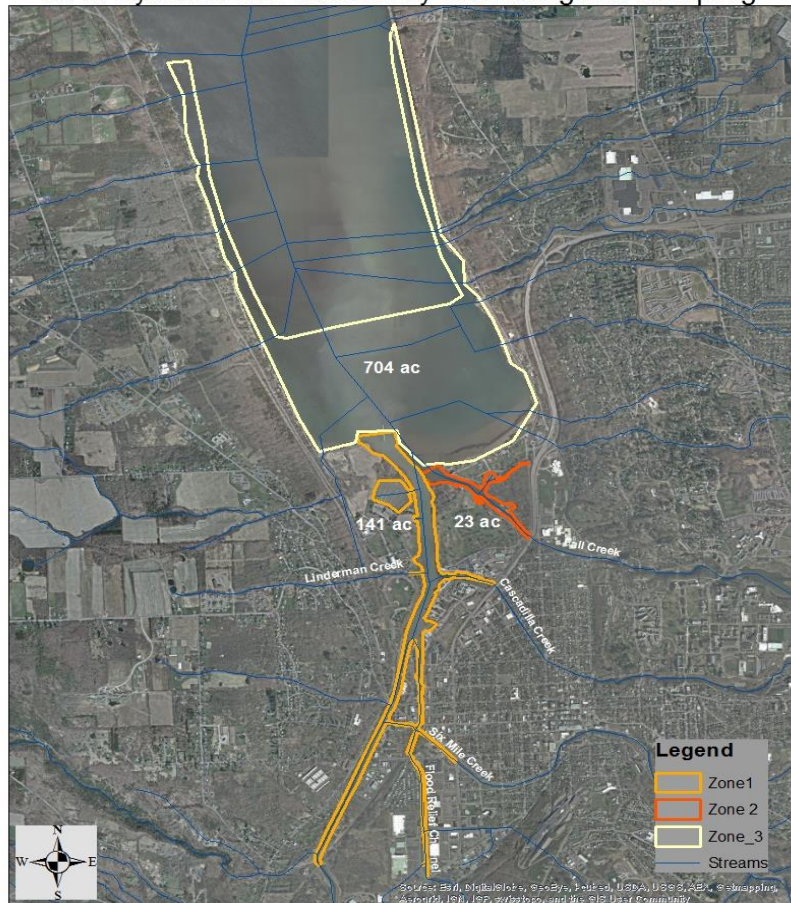


Figure 5: Map of 2015 Hydrilla/Plant Community Monitoring Areas.

week-to-week, which was likely due to the high turnover rate of water in the southern end of Cayuga Lake. Overall, concentration levels and retention time were partially on-target. With the significant lack of any hydrilla biomass in the 30-acre treatment zone, full assessment of Sonar H4C treatment efficacy will be challenging.

2015 Monitoring Observations

Racine-Johnson Aquatic Ecologists was in charge of all hydrilla/plant community monitoring and sampling for the 2015 season. Approximately 800+ acres of area within the Cayuga Lake Watershed were sampled via rake-toss (for vegetation) and sediment core samples (for hydrilla tubers) in 2015 (See Figure 5, above). This constituted 2,440 individual rake-toss locations and 3,952 sediment core samples collected throughout the entire season.

PRE-TREATMENT:

Plant community AND hydrilla growth was significantly delayed in 2015. Initial Aquathol-K treatments were postponed from original early-August dates due to absence of hydrilla biomass in Cayuga Inlet and Fall Creek. These treatments were pushed back to late August. Only trace/sparse amounts of hydrilla biomass were observed prior to treatment in 2015. These observations were in Fall Creek. No hydrilla biomass was observed in Cayuga Inlet.

POST-TREATMENT:

No hydrilla biomass/tubers were observed in Cayuga Inlet, and only sparse hydrilla (fragments) were observed in the 30-acre treatment zone in the SE corner of Cayuga Lake in 2015. An isolated patch of growing hydrilla was discovered outside of the 30-acre SE corner treatment zone; offshore from the Cornell Sailing center in approx. 3 to 3.5 meters of water (See Figure 6).

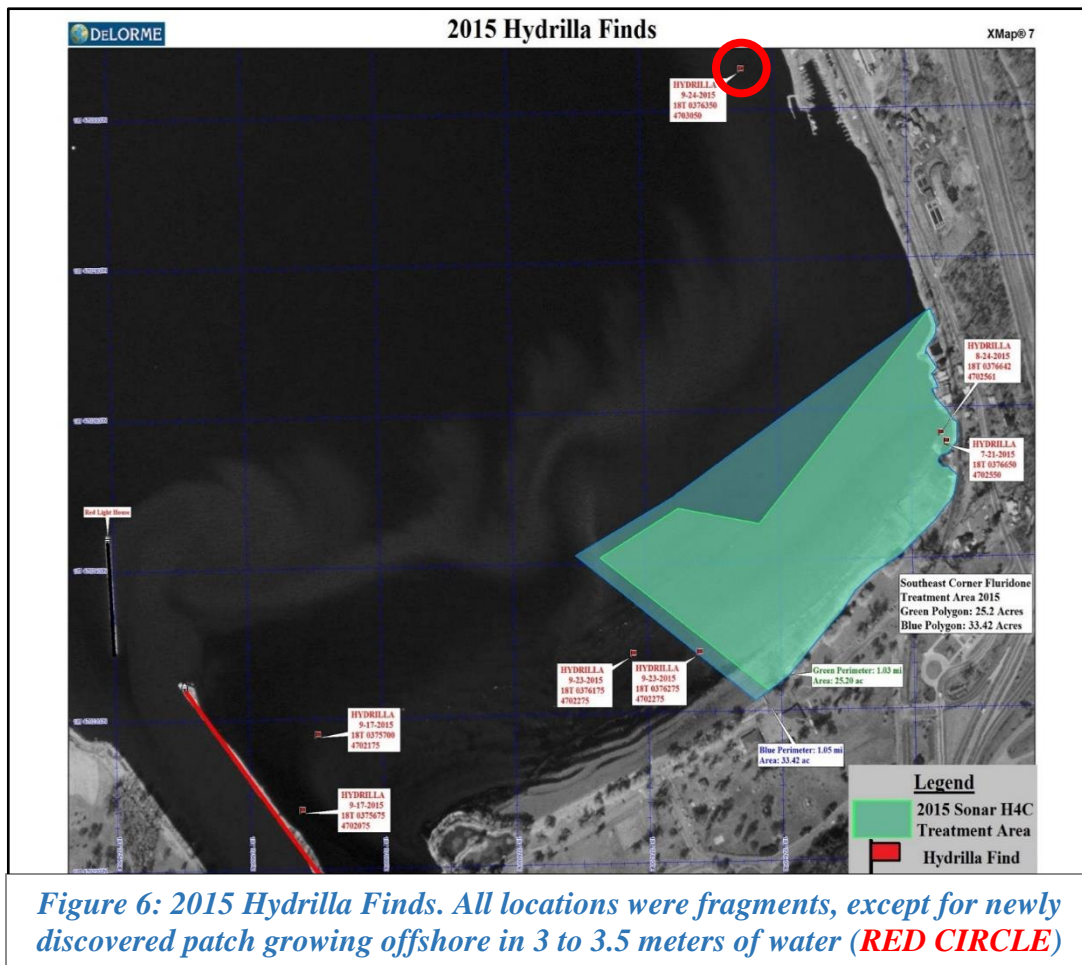


Figure 6: 2015 Hydrilla Finds. All locations were fragments, except for newly discovered patch growing offshore in 3 to 3.5 meters of water (RED CIRCLE)

Post-treatment hydrilla biomass and regrowth was observed in Fall Creek, primarily in Fall Creek cove and the golf course lagoon (See Figure 7). It is likely that some hydrilla survived initial Aquathol-K treatments in Fall Creek, and was too mature for subsequent low-level Sonar treatments to impact significantly.

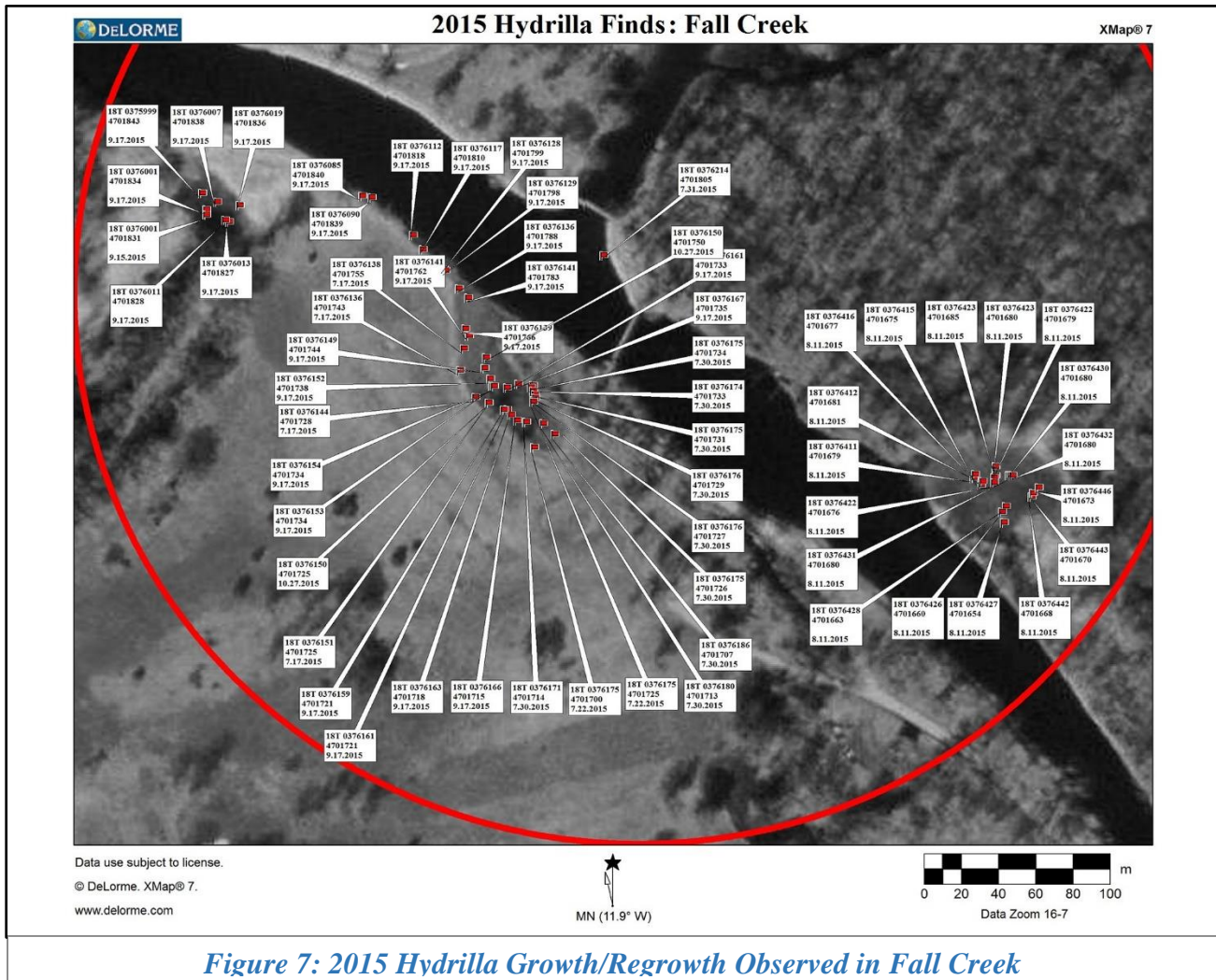


Figure 7: 2015 Hydrilla Growth/Regrowth Observed in Fall Creek