

Douglas County Behavior Change Grant Summary

2020-2021 AQUA WEED STICK LANDING STATION
IMPLEMENTATION
JUSTIN SWART

Target Audience and Behaviors

In March 2020, the MN DNR Invasive Species Program offered AIS Prevention Behavior Change Grants to help prevent the introduction and spread of AIS into Minnesota waters. Grant applicants were encouraged to submit project proposals using behavior change intervention strategies following recommendations made in the [DNR Moving Forward Report](#).

The Douglas County project proposal identified a behavior change intervention strategy targeted at anglers and boaters using area public water accesses. The strategy called for removing the barrier of no reasonable method to legally dispose of unwanted bait at a public water access while also providing boaters with new tools to remove aquatic vegetation from watercraft to thereby reduce the risk of aquatic invasive species transport.

Behavior Change Intervention Strategy Design

Douglas County’s application proposed the installation of three Aqua Weed Stick Landing Stations with attached designated bait disposal containers at three different high use public water accesses in Douglas County. The bait disposal bins were intended to collect only baitfish so the contents could be composted.

The stations also contain a tethered Aqua Weed Stick, a tool that allows boaters to reach, pull, and scrape aquatic vegetation off their watercraft and trailer. The station manufacturer included signage describing the intended use of the stick and the bin was labeled “Dispose of Unwanted Bait Here”. Updated signage with improved descriptors of what should not be disposed of



Figure 1 – Aqua Weed Stick Landing Station

in the bin was added prior to the start of the 2021 field season.

To evaluate the use of the stations, digital tally counters attached to both the retractable Aqua Weed Stick tool and bait disposal container logged the number of uses. In addition to their regular authorized inspector duties, county watercraft inspectors assigned to work at accesses with the stations were educated about the stations and how to best maintain them. Inspectors were trained to also inform boaters about the stations and request verbal commitments from the public to use the station in the future when possible. The stations were checked one to two times a week for the duration of the seasons primarily by the Douglas County AIS Prevention Coordinator and occasionally by county watercraft inspectors when they worked at those locations.

Pilot Implementation

With assistance from the Douglas County Public Works Department and permission from the access site administrator (MN DNR), the three stations manufactured by MAJK Solutions LLC were installed at public water accesses on Lake Miltona, Geneva, and Mary. The stations were open for approximately six weeks from August 31 through October 13 in the late summer of 2020 and were reopened on May 19, 2021 through October 12, 2021.

Douglas County sought to publicize the new stations through various outlets. When the stations were installed in late summer 2020, Douglas County issued a press release about the stations and shared the information on their social media channels. In 2021, the three related lake associations published information about the new stations on their lakes in their spring newsletters. Local sportsmen group Viking Sportsmen, Inc also shared information about the new stations at their monthly meeting and on the social media channels in 2021. Douglas County also partnered with Minnesota Traditions/Mississippi Headwaters Board on a social media campaign and they produced an article about the stations in Douglas County. The installation of the stations was also featured in the May 2021 issue of the Lakes County Service Communicator newsletter.

Douglas County staff also displayed the Wildlife Forever “Don’t Let It Loose” bait disposal posters at five of the most prominent bait sale locations in the county.

Expenses

Each Aqua Weed Stick Landing station unit was priced at \$2,381.00 for a total of \$7,143.00 for the three stations. New sticker signage produced in 2021 carried an expense of \$112.20. The grant covered \$4,530.00 of these costs and additional expenses were covered by Douglas County.

Project Evaluation

The pre-intervention data summary is provided in the [MN DNR Angler Survey Summary Report](#). Prior to the installation of these three stations in Douglas County, there were no alternative bait disposal bins or tools provided at the access for aquatic vegetation removal. There were also no trash cans provided on site at any of these accesses. Station use was tracked by reviewing the uses logged in the digital tally counters attached to both the retractable Aqua Weed Stick tool and bait disposal container. The number of commitments received by watercraft inspection staff was also recorded in both seasons.

A. 2020

In the pandemic shortened 2020 season, the three landing stations had steady usage even as boating traffic trailed off in September and October. There were 195 total bait disposal bin uses, 150 Aqua Weed Stick uses, and 71 verbal commitments received by watercraft inspectors. Bait was seldomly found in the bait disposal bins, with only 8 observed occurrences. Trash was found in the bait disposal bins on 75% of the site checks (Figure 2).

<u>Station Location</u>	<u>Total Bait Disposal Bin Uses</u>	<u>Total Aqua Weed Stick Uses</u>	<u># of Bin Contamination Occurrences (12 checks per site)</u>	<u># of Nearby Litter Occurrences (12 checks per site)</u>	<u>Verbal Commitments Received by Watercraft Inspector</u>
<u>Geneva</u>	57	76	7	1	0
<u>Mary</u>	72	30	10	0	27
<u>Miltona</u>	66	44	10	1	44
Totals	195	150	27	2	71

Figure 2 – Usage summary of three Aqua Weed Stick Landing Stations in Douglas County obtained 8/31/20 – 10/13/20. Sites were checked twice a week, twelve times per site. Bin contamination is defined as anything other than bait being found in the bait disposal bin.

In response to contamination being found in the bait disposal bins on most station checks, a new image was developed in the offseason and attached to the bait disposal bin lids when the stations were deployed in 2021 (Figure 3).

B. 2021

The Lake Miltona station had the most overall bait disposal bin uses while the Lake Geneva station had the most Aqua Weed Stick tool uses (Figure 4). Observations showed many of the bait disposal bin uses were for trash disposal or a mixture of bait in containers with trash even after new signage was added to the stations in 2021. When bait was disposed of in bags or boxes, it was sorted or disposed of in the trash since it could not be composted. Bait alone was seldomly found in the bait disposal bins, with only 7 observed occurrences. Trash was found in the bait disposal bins on 68% of the site checks and litter was found outside of the bin on 15% of the site checks (Figure 4). Landing stations had steady usage until boating traffic trailed off in September and October (Figure 5). Aqua Weed stick tool use peaked in July which may reflect peak boating activity and the seasonality of aquatic plant growth.



Figure 3 – New bait disposal signage displayed in 2021.

<u>Station Location</u>	<u>Total Bait Disposal Bin Uses</u>	<u>Total Aqua Weed Stick Uses</u>	<u># of Bin Contamination Occurrences</u>	<u># of Nearby Litter Occurrences</u>	<u>Verbal Commitments Received by Watercraft Inspector</u>
<u>Geneva</u>	156	129	20/25 checks	4	20
<u>Mary</u>	165	75	16/23 checks	2	2
<u>Miltona</u>	210	76	17/30 checks	6	85
Totals	531	280	53/78 checks	12	107

Figure 4 – Usage summary of three Aqua Weed Stick Landing Stations in Douglas County obtained May 19 – October 12, 2021. Sites were checked one to two times a week. Bin contamination is defined as anything other than bait being found in the bait disposal bin.

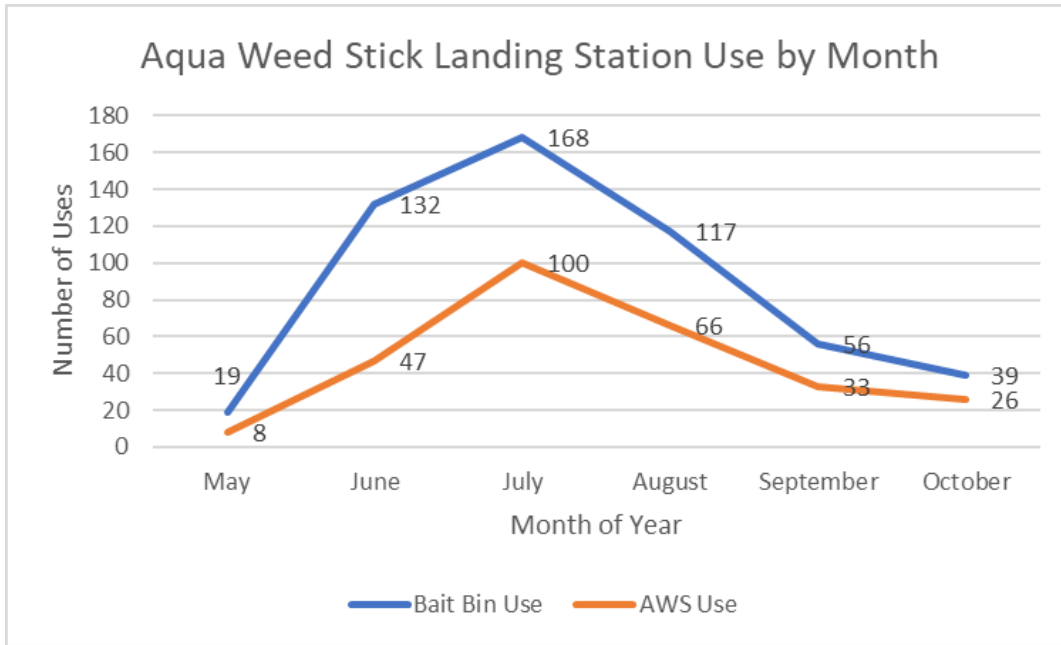


Figure 5 – Seasonal usage summary of three Aqua Weed Stick Landing Stations in Douglas County obtained May 19 – October 12, 2021. AWS = Aqua Weed Stick tool use.

Conclusion

The 2019 MN DNR Angler Survey showed that 75% of respondents would be very or extremely willing to dispose of unused live bait and packaging in the garbage if one was available on-site. However, this two-season pilot study found few instances of the provided bins being used for baitfish disposal. Many factors could influence this, including the use of live bait on the three pilot lakes, confusion about bait laws (as seen in the survey responses), and the stations being new. Even when signage was updated to clarify what was allowed in the bins at the start of the second season, users did not follow those instructions.

If bait disposal bins were to be utilized again in the future, a modified configuration where less trash could be fit into the bin would need to be installed. Consideration could also be given to allowing all bait-related trash to be disposed of in bins to eliminate the contamination issue, but the current demands of emptying trash twice a week from the bait disposal bins is labor intensive for staff and the desired behavior change by anglers has not been observed. The current bin configuration will not be used again next season.

When asked "What would motivate you to clean and drain your boat and trailer when leaving a lake or river?", 44% of respondents from the 2019 Angler Survey said "having cleaning tools

available." Results of this pilot show the Aqua Weed Stick tool was readily adopted by area boaters and had strong use across the season at all three locations. Watercraft inspectors anecdotally reported positive feedback from boaters about the presence of tools at the access to aid them in cleaning off their watercraft. There were approximately five occasions when the tool and its cable were not fully retracted back onto the spool but the sticks were placed in locations that did not interfere with use of the access. The current expectation is to deploy the sticks at the three stations again in 2022.