**Program name:**

**Organization name:**

**Program Coordinator and QAQC Officer:**

Name, Position title

Work Address

**Email:**

**Phone:**

**Steward Program start date:**

**Steward Program end date:**

**Steward Program location(s):**

**Number of stewards:**

**Number of hours each week stewards are eligible to work:**

**Problem Definition/Background:**

Using a standardized protocol, the student-stewards demonstrate and teach boaters the nationally-recognized Clean, Drain, Dry principles of the Stop Aquatic Hitchhikers campaign as a part of a simple watercraft inspection that helps minimize and prevent the spread of aquatic invasive species (AIS). Specific duties and responsibilities are outlined in the following pages.

**APPROVALS**

This Quality Assurance and Quality Control (QAQC) Plan was prepared by *ORGANIZATION* in 2014 for use by the *ORGANIZATION* Launch Steward Program that is funded in partnership with the Finger Lakes Watershed Protection Alliance with US Fish and Wildlife Service Great Lakes Restoration Funding Initiative funds. By signing this page, the Launch Steward Program Coordinator, Chief Steward and Launch Stewards agree that they have read and will adhere to the guidelines of this QAQC.

*Name*, Program Coordinator & QA Officer, *Organization* Date

*Name*, Launch Steward, Date

*Name*, Launch Steward, Date

*Name*, Launch Steward, Date

*Name*, Launch Steward, Date

*Name*, Launch Steward, Date

*Name*, Launch Steward, Date

*Name*, Launch Steward, Date

*Name*, Launch Steward, Date

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**Problem Definition/Background**

Many lake, river, and pond associations around the Great Lakes basin, specifically Lakes Ontario and Oneida, are engaged in aquatic invasive species (AIS) spread prevention efforts. AIS are non-native plants, animals or pathogens that once introduced have the potential to cause harm to the environment, economy, or human health. One pathway by which invasive species spread is overland transport on boats and recreational equipment. In 2011, *ORGANIZATION* began a boat launch steward program along the eastern shore of Lake Ontario that is modeled after the Paul Smith’s College Adirondack Watershed Institute’s Watershed Stewardship and the Lake Champlain’s and Lake George Association’s Boat Steward Programs. Boat launch steward and greeter programs are growing in the Great Lakes region and are supported as an effective method to prevent the overland transport, introduction, and spread of AIS that can hitchhike from one body of water to another on boats, trailers, and other recreational equipment.

Steward/greeter programs support trained stewards to greet users to a water body, conduct a courtesy inspection of the boat and trailer before it launches and after it is retrieved to remove any visible aquatic plant or animal life, share information about spread prevention measures, collect survey data, and inform users of AIS impacts. This interaction provides an opportunity to gather information about the user, the last body of water the vessel was in, the state of vessel registration, and whether or not the operator of the vessel has taken any AIS spread prevention measures.

In order to ensure that the *ORGANIZATION Launch Steward Program* functions at the same high standards as others in the basin and other *ORGANIZATION* outreach efforts, this QAQC has been developed to outline the responsibilities and duties for launch steward program activities and promotes consistency within this program and among established programs.

*A summary of results from the boat launch steward program surveys to be included in the final report will contain: the number of steward to boat-launch user interactions, the number of users contacted, the number of aquatic invasive species intercepted, and summary information on the vessel state of origin, last body of water visited, and possible AIS spread prevention measures taken by users.*

***Program Name* Roles & Expectations**

*Organization: Chain of Command:*

*Organization* Launch Steward Program Coordinator

*Organization* Launch Stewards (LS)

***Organization, Position Title, Steward Program Coordinator:***

* *Name* is direct supervisor of all facets of the *Organization* Launch Steward Program including the chief steward, launch stewards and program associated activities
* Main contact for work-related emergencies and all unanswered questions
* Has final approval on all steward program decisions and publications
* Unless otherwise noted, the program coordinator must be notified of ALL emergencies at the time of the emergency

***ORGANIZATION* Launch Steward Expectations**

*NY Sea Grant Steward Program: Chain of Command:*

*ORGANIZATION* Launch Steward Program Coordinator

*ORGANIZATION* Chief Steward

***ORGANIZATION* Launch Steward**

*ORGANIZATION* *Position Title/*Launch Steward Program Coordinator

* *Name* is direct supervisor of all facets of the *ORGANIZATION* Launch Steward Program including the chief steward, launch stewards and program associated activities
* Main contact for work-related emergencies and all unanswered questions
* Has final approval on all steward program decisions and publications

*ORGANIZATION* Chief Steward is responsible for all launch steward expectations as well as:

* Assist the Coordinator with program activities
* Meet all deadlines and expectations set by the Coordinator
* Be a role model for launch stewards
* Be responsive to Coordinator and steward communications
* Field questions of stewards and the public

***ORGANIZATION* Launch Steward**

* Stewards are supervised by *ORGANIZATION’s Program Coordinator and Chief Steward.* Launch Steward’s supervise no other employees; however, supervision of volunteers may be required.
* Responsibilities are further described below

**Position Summary:**

Help keep NY’s waters clean of aquatic invasive species (AIS) by teaching boaters how to look for, remove and dispose of unwanted aquatic hitchhikers. Stewards will provide public outreach (education) about local natural resources, threats of AIS to waterways, and ways to minimize/prevent the spread of AIS. They will help prevent the introduction and transport of unwanted aquatic hitchhikers by teaching boaters, by demonstration, how to visually inspect boats and trailers for debris. Using standard protocol, stewards will collect, enter and analyze boat inspection data. Stewards will submit weekly reports and time cards and attend weekly meetings. Work days will be spent outdoors, in all weather, and will include weekends and holidays. While on duty, successful candidates will wear a provided uniform.

**Responsibilities include but are not limited to the following:**

1. Conduct one-on-one on site public education, outreach programs, monitor watercraft launch sites & assist boat owners with watercraft inspection (removal of AIS); develop educational materials, press releases and other materials as requested.
2. Educate the public about relevant topics.
3. Conduct informal and formal outreach programs for various audiences including boaters, students, and landowner associations.
4. Participate in special projects as identified by *ORGANIZATION* & partners (i.e. clean & safe boat, AIS hand-pulls, event fairs, etc.).
5. Monitor human/wildlife usage patterns, ecosystem condition/threats and progress of restoration projects. Report these data in a timely fashion according to prescribed protocols.

**Site Duty:**

Assignment areas will include one or more of the following: *List all launches covered by program* [Example: Lake Ontario and associated tributaries from Sodus Bay (Wayne County) to Henderson Harbor (Jefferson County), Oneida Lake, and the Salmon River Reservoir (Redfield NY).]

* List of steward duties below
* Ex. Conduct surveys and inspections
* Ex. Record Data
* Ex. Hand out AIS resources
* Ex. Answer Boater Questions

**Data:**

* Follow Data Protocol Document precisely
* Each section should be completely and properly filled out
  + Not following directions results in issues with analyzing
* Launch Steward *must* be responsible with tablet used for data collection
* Data is one of the most important components of the *ORGANIZATION* Launch Steward Program. Therefore all data collected must be accurate.
* Though electronic data is collected, keeping personal notes for daily activities and species found is highly recommended.

**Media Projects:**

* Everyone will work on media project, see attached project guidelines\*
* Project should be related to boat inspections or aquatic invasive species.
* Components to be completed include a newspaper article, education program and summary sheet.
* Detailed outline includes: working title, introductory paragraph, topics and supporting ideas for subsequent paragraphs.
* When writing steward articles, the integrity of *ORGANIZATION* must be upheld, many editorial corrections will be implemented. Multiple drafts are possible before completion of either the article and/or one pager.

**Outreach Events & Educational programs:**

* Speak about *ORGANIZATION* and provide information about launch steward program
* Work alongside other stewards
* Set up and break down displays
* Speak with visitors about AIS
* Hand out AIS resources
* Answer all questions possible, others directed to Chief Steward
* All information must also be reported in the *launch steward metrics* document

**Weekly Reports:**

* Follow Weekly Report Template
* Keep concise records of weekly information to compile and email to Chief Steward. Include all questions and comments in weekly reports. Weekly Report questions will be addressed at weekly meetings.
* If responsible for multiple sites, list each site and summarize the weekly experience for each site
* Break down observations and summarize by date if it is important

**Metrics Report:**

* Metrics Milestone Report must be updated and emailed weekly.
* Strictly follow template, as all stewards’ reports are compiled. Consistency is pertinent.
* Keep one large living document throughout season (all information combined on one document being updated weekly)
  + Report title, location, date and times of events
  + Count all visitors at display booth that were spoken with.
  + Count documents that are handed out or collected from table
  + Compile these numbers into weekly report and metrics document
  + Important events and facts throughout the event should also be logged (ex. Oswego County Legislator spoke with and collected information from Launch Steward at event… Launch Stewards pulled 300lbs of Water Chestnuts during the pull event)
* See Metrics template for more details

**Special Activities**

May be responsible to attend activities such as but not limited to:

* Team Meetings
* Outreach Events
* Educational Events
* Update/Improve Edu. activities
* Design display kiosks
* Pictures
* Plant Identification
* Plant collection
* Plant Pressing

**Weekly Submission Tasks:**

Keeping up with all weekly submission tasks is vital.

1. Scheduled Hours
   1. Time Card
      1. Submitted Monday’s by 5:00PM to *Name* (cc: *Program Coordinator*)
2. Weekly Report
   1. Submitted Monday’s by 5:00PM to Chief Steward (cc: *Program Coordinator*)
3. Metrics Document
   1. Submitted Monday’s by 5:00PM to Chief Steward (cc: *Program Coordinator*)
   2. All Metrics from entire season compiled on one document
   3. Follow all template guidelines strictly
4. Data Collected
   1. Uploaded Monday’s by 5:00PM to Chief Steward (cc: *Program Coordinator*)

**Data acceptance criteria**

All boat launch steward field survey forms must be filled out completely. Lack of data entry in the field survey form will be considered as “no information was collected”. Questions need to be asked directly as follows to ensure accuracy and consistency. Legible and organized field survey forms are imperative for quality assurance when the electronic data is not working properly. Descriptions of each column of the *ORGANIZATION* Launch Steward field survey form and how entries should be recorded are below (note that not all of these parameters are mandatory).

* **Time** should be recorded in military time. The time that is recorded is the time when the boat approaches the boat launch to either launch (from the road or boat launch) or retrieve (from the body of water) and the steward then begins collecting the survey data. This data may be collected without any contact with the boat launch user. This is a mandatory data point.
* **Launch/Retrieve** is recorded as “L” if the vessel is preparing to go into the water and “R” if the vessel is coming out of the water at the boat launch. This data may be collected without any contact with the boat launch user. This is a mandatory data point.
* **Boat type** is recorded as “M” if it is a motorized vessel, “PWC” if it is a personal watercraft or jet ski, “S” if it is a sailboat, “C” if it is a canoe, “K” if it is a kayak, and “R” if it is a rowboat. If there is another boat type, the steward should record the best match for the vessel encountered. For example, a barge is not represented in the survey key, but is motorized and should be recorded as “M”. This data may be collected without any contact with the boat launch user. This is a mandatory data point.
* **State of registration** is recorded in two capital letters that represent the U.S. state of vessel registration. Some non-motorized vessels do not have a state of registration and the field should then be left blank. If the vessel is registered in a Canadian province that should be represented similarly with two capital letters representing the province, with the exception of Prince Edward Island (PEI). Quebec would be represented as “QC”. New Brunswick is represented as “NB”, etc. This data may be collected by observation without any contact with the boat launch user. This is a mandatory data point.
* **Registration number is recorded (last three numbers only)** This is not a mandatory data point.
* **Group size** is recorded as the total number of people that are part of the vessel party. It is recorded as a numeric number. This data may be collected without any contact with the boat launch user. This is a mandatory data point.
* **Inspected (Y/N)** indicates whether the steward conducted a courtesy boat inspection on their own or with the assistance of the vessel owner. A “Y” indicates that the steward conducted the inspection on their own or with the assistance of the vessel owner. “N” indicates that the steward did not conduct the inspection either because they did not have time or because they did not have cooperation from the vessel owner. This field should never be left blank. This is a mandatory data point.
* **Prior BLS contact (Y/N)** is a simple question that the steward asks the boat launch user. The appropriate question to ask is “Have you ever encountered a boat launch steward before”? This is recorded with a “Y” if the boat launch user has encountered a boat launch steward before and “N” if it is the first time the user has encountered a boat launch steward; contact with any boat launch steward (not just regional stewards) receives a yes answer. The answer to this question will help the steward form their interpretive message to the boat launch user. This is a mandatory data point.
* **Prior AIS Awareness** is a question to which the vessel owner rates how aware they feel they are to current AIS information. The responses must follow a scale of, *Very aware, Moderately aware, Somewhat aware, Not at all aware.* This is a mandatory data point.
* **Extent Awareness Raised** is a question to which the vessel owner rates how they feel the inspection raised their awareness of AIS. The responses must follow *Large amount, Moderate amount, Small amount, Not at all.* This is a mandatory data point.
* **Prevention Measures and Measures taken** is the place where the steward indicates whether or not the boat launch user/vessel owner has taken any spread prevention measures to reduce the spread of AIS. This portion of the question should follow a simple Y/N response. If the vessel owner indicated yes (Y) abbreviations are provided for common spread prevention steps on the field survey form. The answers should be categorized as, I (inspected), WB (washed boat), DB (Drained Bilge), BB (drained bait buckets), LW (drained livewell), Dis (disposed of bait), DRY (Dried boat). If the vessel owner takes some action to prevent the spread of AIS that is not indicated on the sheet then the steward should write that method in. A blank indicates that the steward did not have time to ask the question or the vessel owner did not answer the question. If the vessel owner has not/does not take steps to prevent the spread of AIS that should be indicated on the field survey form as “none”. Multiple spread prevention measures may be entered in the space provided. The appropriate question the steward should ask is “Do you take any steps to prevent the spread of AIS?” The steward should not list possible spread prevention measures in order to elicit a response from the vessel owner, but if the owner indicates that they do not take any measures the steward should record that and then provide examples of easy measures the vessel owner may take. This is a mandatory data point.
* **FQ Prior prevention methods** is how often the vessel owner indicated they follow spread prevention measures to reduce the spread of AIS. The responses must follow a scale of *Always, Very often, Somewhat often, Never.* This is a mandatory data point.
* **FQ Post prevention** is the place where the steward indicates whether the vessel owner agrees to take preventative steps in the future, how often the vessel owner indicated they will follow spread prevention measures to reduce the spread of AIS following the voluntary inspection and survey. The responses must follow a scale of *Always, Very often, Somewhat often, Never.* This is a mandatory data point.
* **Last waterbody visited in 2 weeks** (name, town, state) is recorded as the name of the body of water, the town, and the state. The name of the body of water and the state in which it is located must be recorded. The town name should be collected when possible. In the case of Lake Champlain no town or state is necessary. Stewards must pay particular attention to spelling. Many vessels will not have been in any body of water in the past two weeks and in that case the steward will record “none”. Stewards should only record the name of the body of water, the town, and the state of the body of water if the vessel has visited it in the past two weeks. If a vessel has been in multiple bodies of water in the past two weeks then the steward must only record the most recent body of water that the vessel was in during the past two weeks. A blank indicates that no data was collected because the steward did not have time to ask the question or the vessel owner refused to answer. This is a mandatory data point.
* **Aquatic organism(s) found** (Y/N) represents whether the steward found any aquatic plants or animals on the boat, trailer, or other recreational equipment during their inspection. “Y” indicates that organisms, native or non-native, were found. “N” indicates that no organisms were found. A blank cell indicates that the steward did not inspect the boat or have time to look for organisms. This is a mandatory data point.
* **Species identification** is where the steward fills in the abbreviation for the species found or writes in the species name if no abbreviation is provided on the field survey form. If multiple species are found they must all be recorded in this cell. A blank cell indicates that no species were found (which should be indicated in Aquatic organism(s) found cell as “N”) or that a species was found but was not able to be identified in the field. In such a case the steward is required to take a sample to send to the state of Vermont for identification. The steward is responsible for filling in this data point once the species has been identified. This is a mandatory data point.
* **Comments** are for any professional comments related to specific inspections. This is not a mandatory data point.

# Data Validation and Usability

## Data Review, Validation, and Verification Requirements

* The data quality will be reviewed for logical consistency and coding errors as identified in appropriate standards. The Program QA Officer will be responsible for overall validation and final approval of the data in accordance with project purpose and use of the data.

## Validation and Verification Methods

* The Program QA Officer will provide review and approval of the data before closure of the project. The Program Manager will review QC reports as applicable to ensure they are acceptable. The Program QA Officer will also compare final datasets with original source information for consistency.

## Reconciliation with User Requirements

* Once the data results are compiled, the Boat Launch Steward Program Manager and QA Officer will review the data quality to determine if it falls within acceptable limits per user requirements. Applicability of the data will be evaluated on a project-by-project basis when necessary. Limitations of the data will be discussed with the end user and documented within the project final report.
* If the quality of the data does not meet the project’s requirements, the data may be reevaluated to determine why the data quality did not meet the goals. Efforts will be made to determine inconsistencies in the base data or correct errors in the attribute data. If inconsistencies are found in the quality of the base data, an effort will be made to identify and obtain more accurate base data.