

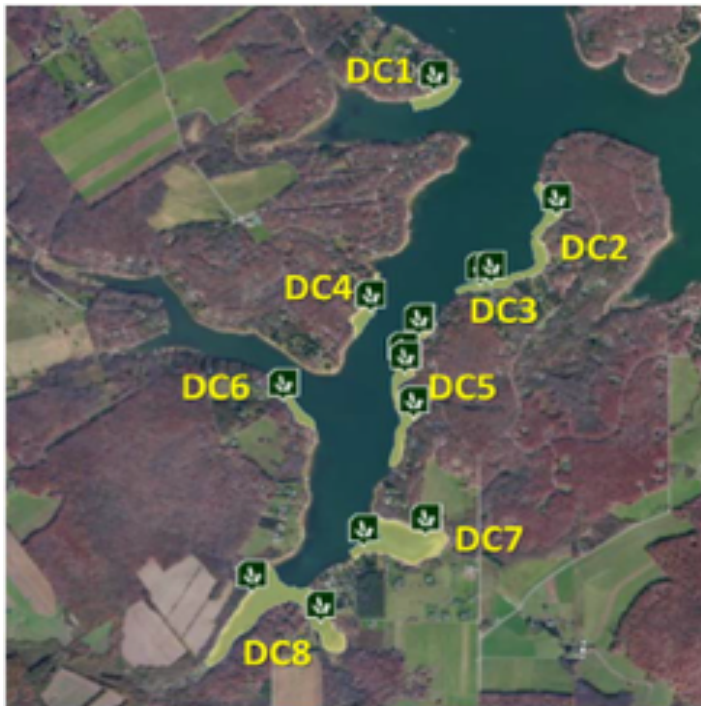
Hydrilla Control in Deep Creek Lake



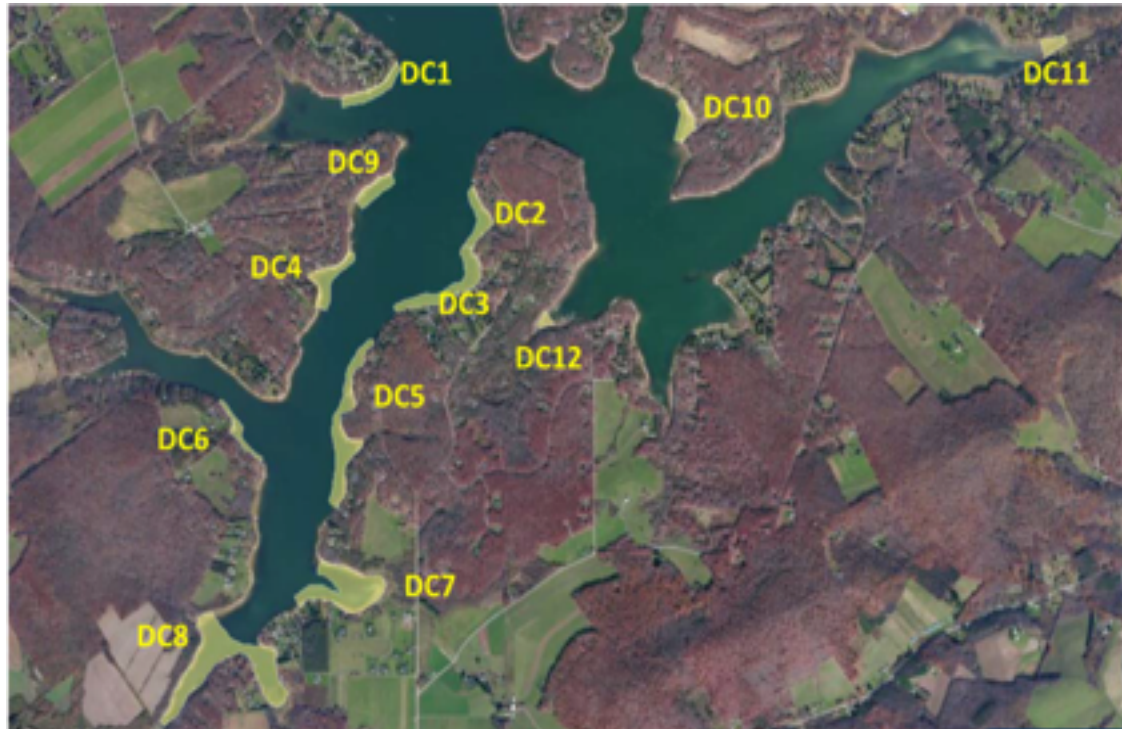
**2015 Hydrilla and SAV Strategy
DCL Policy Review Board Meeting
4/27/2015**

Hydrilla Control in Deep Creek Lake

2014 Treatment Zones



2015 Treatment Zones-
4 new areas this year



Hydrilla Control in Deep Creek Lake



2015 Hydrilla Tuber Monitoring
Multiple sediment cores taken in each infested area prior to treatment. Post treatment collection will be done in the fall.

2015 Herbicide Strategy

- A review of 2014 results suggests these modifications can improve efficiency of the treatment program while still accomplishing the primary objectives of DNR:
 - containment of *Hydrilla* spread
 - depletion of germinating tubers
 - prevention of new tuber formation
 - selectivity to native aquatic plants as much as feasible

2015 Herbicide Strategy

- Similar Sonar pellet-based protocol is recommended for treatment. Slight modifications have been made to the dimensions of a couple of 2014 treatment areas.
- Rate and formulation choice for some of the original areas has been adjusted based on final analysis of 2014 data and site conditions.
- The modifications will reduce total application rates in most areas by approximately 10% and seek to limit number of applications to four versus five in 2014 (note: a fifth application in 2015 will be considered as a contingency).

Hydrilla Control in Deep Creek Lake

AEC Sonar PR
Application to Zone 3



2015 Launch Steward program



- DNR created partnership with Garrett College to staff ramp 5 days a week (Weds-Sun) from 6 AM to 6:30 PM
- Maryland Conservation Corps members will staff Mon/Tues from 6AM to 6:30 PM
- DNR has authority to inspect all vehicles coming into launch
- Vehicles covered with vegetation or mussels will be asked to clean/disinfect before launch

2015 Public Relations

- DNR will contact all of the local residents within the treatment area by mail with the details and instructions for closure and water use.
- All of the water withdrawal permit holders will be contacted to inform them of the treatment.
- DNR park ranger staff and Natural Resource Police officers will enforce water closures from boat traffic during the herbicide treatment.
- DNR field staff and contractors will monitor herbicide levels after application and will conduct water quality monitoring to assess water conditions post-treatment.

2015 Outreach and Education

PROTECT YOUR MARYLAND WATERS

Stop the spread of aquatic invasives

Non-native invasive species can aggressively colonize our waters and push out native populations. This has negative impacts on water resources, fisheries, habitat, recreation, and commerce. Here are a few simple steps you can take to prevent the spread of these harmful species in your waters.



REMOVE aquatic plants, debris, and mud from boat, motor, trailer, and fishing equipment before launching and after take out; place in trash.



NEVER RELEASE unwanted aquatic pets or dump aquaria into or near Maryland waters. Destroy any plants and humanely destroy aquatic animals.



DRAIN water onto the ground from boat motors, live wells, bilge, bait buckets and coolers after use and before accessing another water body.



DISPOSE of unused bait far from water or in trash.



RINSE boat, motor, trailer, live wells, bait buckets, coolers, SCUBA gear, waders, and boots with hot or high pressure water.

CALL 1-877-620-8DNR if you find a suspected invasive species. Keep and freeze any specimens and take lots of photos!

dnr.maryland.gov/invasives

Maryland Department of Natural Resources laws and regulations prohibit releasing invasive plant and animal species into the non-tidal waters of the State.

- Private marinas will be provided with signs and encouraged to have stations to dispose of vegetation and to educate the public.
- Marina owners will be invited to attend the launch steward training to learn how to effectively avoid introduction of aquatic nuisance species.

Survey Results from 2014 Launch Steward Program

- In 2014, two launch stewards working 40 hours per week inspected 1,066 vessels between June 3rd and September 23rd.
- Of those boats inspected, 23 vessels (2.2%) were carrying vegetation.
 - The vegetation was mostly found on the hull, trailer bunks and propellers
 - There was no correlation between the presence of vegetation and the type of vessel
 - Most common grass species found was wild celery (*Vallisneria americana*) and several types of pondweeds
 - one boat was identified with Eurasian watermilfoil (*Myriophyllum spicatum*)

Survey Results from 2014 Launch Steward Program

State of origin

MD	528
PA	341
WV	66
VA	47
OH	38
NY	10
DE	10
NJ	8
FL	5
NC	6
CT	1
IA	1
IL	1
IN	1
KY	1
TN	1
UT	1

- Vessels coming mostly from MD, PA and WV
- Concern is that PA and WV have lakes infested with *Hydrilla* and zebra mussels

Survey Results from 2014 Launch Steward Program

Most Common Body of water

Deep Creek Lake	479
Unknown	226
Other(Lakes, rivers)	201
Chesapeake Bay	39
Deep Creek Lake + others	30
Youghiogheny	25
Monongahela	19
Cheat Lake	15
Potomac	18
Susquehanna	14

- Many boats are local or kept locally
- Susquehanna boats are of greater concern due to zebra mussel infestation in the Flats

Survey Results from 2014 Launch Steward Program

Type of vessel

Ski Boats	539
Fishing Boats	276
Pontoons	111
Skiffs	44
Outboards	35
Jet skis(PWC)	33
John Boats	23
Sailboat	2
Dinghy	1
Trailers	2

- Ski and fishing boats are the most popular vessel at DCL
- Both user groups more inclined to take boats to other water bodies

Deep Creek Lake Submerged Aquatic Vegetation Sampling Locations

- Proposed New Transects
- Existing Transects



04/13/2015

Proposed locations are approximate and subject to change

Deep Creek Lake SAV Monitoring Program

- SAV monitoring design modifications are based on analysis of 5 year's worth of SAV data
 - The objectives of this monitoring are to define the distribution and relative abundance of SAV species present throughout Deep Creek Lake and to record their changes over time.
 - This program includes six transect locations throughout the lake which are surveyed three times each summer (June, August, and September).

Deep Creek Lake SAV Monitoring Program

- After analyzing five year data set, RAS biologists recommend eliminating the June and September surveys while expanding the August survey.
 - Statistical analyses and field observation indicate that there is no difference between the three sampling months with the exception of there being greater SAV biomass later in the growing season when the plants reach peak biomass.
 - SAV presence and diversity, including the invasive and rare species, do not differ between sampling months.
 - improve our spatial coverage while providing better use of limited resources.
 - we can redirect time and resources to expand the August survey to include additional sites within the lake, as well as additional transects at each of the existing sites.
 - The two additional sites would be located across from each other in the middle portion of the lake (see map).
 - This would increase the area of lake bottom surveyed, improve the statistical power of our long-term analyses, and still accomplish our initial objectives of monitoring SAV distribution throughout Deep Creek lake and changes over time.

This will not impact our Hydrilla control strategy or annual SAV shoreline survey

Hydrilla Control in Deep Creek Lake

Stay up to date on Hydrilla control efforts in
Deep Creek Lake

[http://dnr2.maryland.gov/publiclands/Pages/
western/deepcreeknrma.aspx](http://dnr2.maryland.gov/publiclands/Pages/western/deepcreeknrma.aspx)