2016 Kerr Reservoir AVMP Action Plan

Date: March 2016

<u>Current Status of Invasive Aquatic Vegetation</u>: The 2015 aquatic vegetation survey found 975 acres of standing hydrilla in the lake, which is a decrease of 349 acres from 1274 acres in 2014. Decrease may be attributed mainly to poor growing conditions and scouring of plants from some sites during high flows. Brittle naiad (*Najas minor*) continues to be present in several locations.

All actions are subject to the availability of funding.

A. <u>Chemical Control – herbicide treatments</u>

Objective: Target herbicide treatments of hydrilla in high use and high threat areas.

2015 Actions Completed:

- 1) USACE
 - a. No USACE areas treated with herbicides.
 - b. Three commercial herbicide applicators received authorization. Completed 139 acres of treatment by commercial applicators contracted by Shoreline Permit holders and NCDPR.
- 2) NCDPR
 - a. Treated 38 acres herbicide treatment for hydrilla

2016 Proposed Actions:

- 1) USACE
 - a. Treat hydrilla in USACE managed areas as needed, subject to available funding.
 - b. Continue to review applicator permit applications, pre-treatment requests, and post treatment reports
- 2) <u>NCDPR</u>
 - a. Treatment of 35 +/- acres of hydrilla in Kerr Lake State Recreation Area via cost share project with NCDWR Aquatic Weed Control Program

B. Biological Control - stocking of triploid grass carp

<u>Objective:</u> Decrease acreage of hydrilla throughout the reservoir with emphasis on Nutbush and Little Nutbush Creek

2015 Actions Completed:

1) <u>USACE</u>

a. Completed supplemental stocking of 4000 triploid grass carp to keep at fish at target rate of approximately 15 fish per vegetated acre of hydrilla. Rate is determined utilizing NCWRC stocking model.

Annual stocking	
Year	# stocked
2013	13320
2014	4200
2015	4000
2016	3400*
*proposed	

2) <u>VDGIF</u>

a. Made stocking recommendations

b. Annual fisheries monitoring

3) <u>NCWRC</u>

a. Made stocking recommendations based on grass carp stocking model and issued stocking permit

2016 Proposed Actions:

1) USACE

a. Contract for supplemental stocking of 3400 triploid grass carp.

2) <u>VDGIF</u>

a. Stocking recommendations and stocking permit

b. Annual fish monitoring

3) <u>NCWRC</u>

a. Stocking recommendations and stocking permit

C. Hand Removal

<u>Objective:</u> Temporarily open areas congested with hydrilla and remove plants in small areas, concentrating on high use and high threat areas

2015 Actions Completed:

- 1) USACE
 - a. No requests received

2016 Proposed Actions:

- 1) USACE
 - a. Review requests for hand removal

D. <u>Native Aquatic Vegetation</u>

<u>Objectives:</u> Promote native aquatic vegetation in areas where invasive plants have been removed and suitable areas that have not been colonized by native vegetation

2015 Action Completed

- 1) USACE
 - a. Initiated partnership with B.A.S.S. to cultivate and plant native aquatic vegetation.

2016 Proposed Actions:

- 1) USACE
 - a. Continue to partner with B.A.S.S and others
 - b. Identify potential sites for planting native aquatic vegetation
 - c. Identify Partners/Volunteers to assist with plantings
 - d. Draft plans for planting pilot project
 - e. Identify suitable sources for native plants

E. Survey and Monitoring

Objective: Assess effectiveness of control measures and population of aquatic vegetation

2015 Actions Completed:

- 1) USACE
 - a. Funded 2015 NCSU contract to complete Kerr Lake Aquatic Vegetation Survey
- 2) NCSU
 - a. Completed aquatic vegetation survey contract
 - b. Provided management recommendations

2016 Proposed Actions:

- 1) USACE
 - a. Fund NCSU contract to complete Kerr Lake Aquatic Vegetation Survey.
 - b. Install exclusion cages in hydrilla infested areas to determine effectiveness of grazing by grass carp.
- 2) NCSU
 - a. Aquatic vegetation survey contract
 - b. Provided management recommendations

F. Public Education

<u>Objective</u>: Inform the public and stake holders about how to identify native and invasive aquatic vegetation, report occurrences of invasive species, avoid spreading invasive vegetation, participate and/or contribute to aquatic vegetation management activities, and report unauthorized treatment and illegal transport or dispersal of invasive plants.

2015 Actions Completed:

1) <u>USACE</u>

- a. Maintained public information on Corps' web page
- b. Included printed information on aquatic vegetation in shoreline permit holder mailings
- 2) NC Agricultural Extension Service
 - a. Provided information and updates to public and interested stake holders via "kerr hydrilla" mailing list
- 3) <u>NCSU</u>
 - a. Maintain NCSU aquatic vegetation management website

2016 Proposed Actions:

- 1) All Managing Agencies continue to maintain invasive aquatic species/hydrilla information signs at access points
- 2) USACE
 - a. Continue to maintain AVMP web page and providing printed information on aquatic vegetation in shoreline permit mailing
- 3) <u>NC Agricultural Extension Service</u>
 - a. Continue to provide information and updates to public and interested stake holders via "kerrhydrilla" mailing list
- 4) <u>NCSU</u>
 - a. Continue to maintain NCSU aquatic vegetation management website

G. Enforcement

<u>Objective:</u> Ensure compliance with existing laws and regulations pertaining to aquatic weeds, herbicide application, fish stocking, and planting of aquatic vegetation

2015 Actions Completed:

- 1) USACE
 - a. Enforced invasive species posted restrictions including requirement to clean visible mud, plants, and animals from boats, trailers and other equipment to avoid spread of invasive species.
 - No citations for non-compliance issued. No instances of visitors out of compliance reported.

2016 Proposed Actions:

- 1) USACE
 - a. Continue to enforce rules and regulations