

Appendix A. Parks and Wildlife Code subchapter G, Aquatic Vegetation Management (§§ 11.081-11.086)

§ 11.081. Definitions

In this subchapter:

(1) "Governing entity" means the state agency or other political subdivision with jurisdiction over a public body of surface water.

(2) "Integrated pest management" means the coordinated use of pest and environmental information and pest control methods to prevent unacceptable levels of pest damage by the most economical means and in a manner that will cause the least possible hazard to persons, property, and the environment.

(3) "Local plan" means a local aquatic vegetation management plan authorized by Section 11.083.

(4) "Public body of surface water" means any body of surface water that is not used exclusively for an agricultural purpose. The term does not include impounded water on private property.

(5) "State plan" means the state aquatic vegetation management plan authorized by Section 11.082 and developed and implemented under this subchapter.

(6) "Water district" means a conservation and reclamation district or an authority created under authority of Section 52(b)(1) or (2), Article III, or Section 59, Article XVI, Texas Constitution, that has jurisdiction over a public body of surface water. The term does not include a navigation district or a port authority.

Added by Acts 1999, 76th Leg., ch. 1461, § 1.

§ 11.082. State Aquatic Vegetation Management Plan

(a) The department shall develop and by rule adopt a state aquatic vegetation management plan following the generally accepted principles of integrated pest management. The state plan shall apply throughout the state unless a governmental entity has adopted an approved local plan.

(b) The department shall develop the state plan in coordination with the Texas Natural Resource Conservation Commission*, the Department of Agriculture, water districts and other political subdivisions of the state with jurisdiction over public bodies of surface water, and public drinking water providers.

(c) The state plan must:

(1) establish minimum standards for a governing entity that regulates a public body of surface water;

(2) require that any application of aquatic herbicide complies with label rates approved by the United States Environmental Protection Agency;

(3) ensure that any public drinking water provider that has an intake within two river miles of a site at which an application of aquatic herbicide is proposed to occur receives notice of the proposed application not later than the 14th day before the date the application is to occur;

(4) provide for the coordination, oversight, public notification, and enforcement of all aquatic herbicide use to protect state fish and wildlife resources and habitat and to prevent unreasonable risk from the use of any aquatic herbicide; and

(5) require that the written notice of a proposed application of herbicide include information demonstrating that the proposed application of herbicide under a plan will not result in exceeding:

(A) the maximum contaminant level of the herbicide in finished drinking water as set by the Texas Natural Resource Conservation Commission* and the United States Environmental Protection Agency; or

(B) the maximum label rate, if the aquatic herbicide does not have a maximum contaminant level established by the Texas Natural Resource Conservation Commission* and the United States Environmental Protection Agency.

Added by Acts 1999, 76th Leg., ch. 1461, § 1.

§ 11.083. Local Aquatic Vegetation Management Plan

Text of section effective upon notice of adoption of aquatic vegetation management plan

(a) A governing entity may develop and adopt a local aquatic vegetation management plan. A local plan must be approved by the department, the Texas Natural Resource Conservation Commission*, and the Department of Agriculture.

(b) A local plan may take into account the particular needs and uses of the public bodies of surface water to which it will apply, but the plan may not be approved unless the plan meets the minimum standards set by the state plan. The local plan may allow herbicide use if the person proposing to apply the herbicide notifies the governing entity not later than the 14th day before the proposed date of application.

Added by Acts 1999, 76th Leg., ch. 1461, § 1.

§ 11.084. Application of Aquatic Herbicide in Public Body of Surface Water

Text of section effective upon notice of adoption of aquatic vegetation management plan

(a) No person may apply aquatic herbicide in a public body of surface water unless the herbicide is applied in a manner consistent with the plan adopted by the governing entity.

(b) State money may not be used to pay for treatment of a public body of surface water with a chemical herbicide unless the application of the herbicide is performed by an applicator licensed for aquatic herbicide application by the Department of Agriculture.

(c) An individual who does not hold an applicator's license and who desires to apply an aquatic herbicide on a public body of surface water shall give written notice not later than the 14th day before the date the application of the aquatic herbicide is to occur to the governing entity with jurisdiction over the body of water on which the application of the herbicide is proposed. The governing entity shall respond to the individual's application not later than the day before the date the application of the aquatic herbicide is to occur. The individual may not apply the aquatic herbicide unless the governing entity finds that the application will be consistent with the state or local plan adopted by the entity.

(d) The state plan may provide for use of an aquatic herbicide consistent with the plan if:

(1) the individual who desires to apply the aquatic herbicide gives notice to the appropriate governing entity in the same manner as provided by Subsection (c) for an unlicensed applicator; and

(2) the governing entity does not disapprove the application.

(e) After receiving notice of a proposed application of aquatic herbicide, the governing entity shall:

(1) provide the individual proposing the application with a copy of the state or local plan, as appropriate;

(2) notify the individual in writing that it is a violation of state law to apply aquatic herbicides in that body of water in a manner inconsistent with the plan; and

(3) determine whether the proposed application is consistent with the plan.

(f) The governing entity shall:

(1) prohibit a proposed application of aquatic herbicide if the governing entity finds that the proposed application is inconsistent with the appropriate plan; or

(2) notify the individual proposing the application of the herbicide that the proposed application is not inconsistent with the appropriate plan if the governing entity finds that the proposed application is not inconsistent with the plan.

Added by Acts 1999, 76th Leg., ch. 1461, § 1.

§ 11.085. Liability

Text of section effective upon notice of adoption of aquatic vegetation management plan

(a) The liability under other law of a governing entity that receives notice of a proposed application of aquatic herbicide is not affected by the requirements of this subchapter.

(b) Notice by a governing entity to an individual under Section 11.084(f)(2) does not constitute authorization by that entity for the application of the herbicide.

(c) This subchapter does not relieve an individual who applies aquatic herbicide to a public body of surface water of the obligation to comply with all applicable federal, state, or local laws, rules, ordinances, or orders relating to the application of the herbicide in the body of water.

Added by Acts 1999, 76th Leg., ch. 1461, § 1.

§ 11.086. Records

Text of section effective upon notice of adoption of aquatic vegetation management plan

A governing entity shall maintain for not less than five years all records relating to notifications received under Section 11.084 and any other information relevant to a particular individual request for shoreline treatment.

Added by Acts 1999, 76th Leg., ch. 1461, § 1.

***TNRCC is now Texas Commission for Environmental Quality (TCEQ)**

Appendix B. 31 Texas Administrative Code subchapter K, Aquatic Vegetation Management Rules, §§ 57.930-57.934 and 57.936 (includes the State Plan as § 57.932).

§57.930. Definitions. The following words and terms, when used in this subchapter, shall have the following meanings, unless the context clearly indicates otherwise. All other words and terms in this subchapter shall have the meanings assigned in the Texas Parks and Wildlife Code.

(1) Canal – an artificial waterway used for the transportation of water for agricultural and/or industrial purposes but for no other purpose.

(2) EPA - the United States Environmental Protection Agency.

(3) Governing entity - the state agency or other political subdivision with jurisdiction over a public body of surface water.

(4) Integrated pest management - the coordinated use of pest and environmental information and pest control methods to prevent unacceptable levels of pest damage by the most economical means and in a manner that will cause the least possible hazard to persons, property, and the environment. Integrated pest management includes consideration of ecological, biological, chemical, and mechanical strategies for control of nuisance aquatic vegetation.

(5) Licensed Applicator - a person who holds a valid license for aquatic herbicide application from the Texas Department of Agriculture.

(6) Local plan - a local aquatic vegetation management plan authorized by Parks and Wildlife Code, §11.083 and meeting the requirements in §57.933 of this title (relating to Adoption and Applicability of Local Aquatic Vegetation Plans) and §57.934 of this title (relating to Local Aquatic Vegetation Plan).

(7) MCL - maximum contaminant level.

(8) Nuisance aquatic vegetation - any non-native or native vascular plant species that is determined, in consideration of TPWD guidance, to have the potential to substantially interfere with the uses of a public body of surface water.

(9) Public body of surface water - any body of surface water that is not used exclusively for an agricultural purpose. The term does not include impounded water on private property or water being transported in a canal.

(10) Public drinking water provider - any person who owns or operates a system for the provision to the public of water for human consumption through pipes or other constructed conveyances, if such system has at least fifteen service connections or regularly serves at least twenty-five individuals at least 60 days out of the year.

(11) State plan - the state aquatic vegetation management plan authorized by Parks & Wildlife Code, §11.082, and described in §57.931 of this title (relating to State Aquatic Vegetation Plan Applicability) and §57.932 of this title (relating to State Aquatic Vegetation Plan).

(12) TDA - the Texas Department of Agriculture.

(13) TNRCC* - the Texas Natural Resource Conservation Commission.

(14) TPWD - the Texas Parks and Wildlife Department.

(15) Treatment proposal – a submission to TPWD on a TPWD-approved form that describes intended measures to control nuisance aquatic

vegetation.

(16) Water district - a conservation and reclamation district or an authority created under authority of Section 52(b)(1) or (2), Article III, or Section 59, Article XVI, Texas Constitution, that has jurisdiction over a public body of surface water. The term does not include a navigation district or a port authority.

§57.931. State Aquatic Vegetation Plan Applicability. The state plan governs throughout the state except where a governing entity has adopted an approved local plan.

§57.932. State Aquatic Vegetation Plan.

(a) Requirements Applicable to All Measures to Control Nuisance Aquatic Vegetation.

(1) Purpose. The purpose of the state aquatic vegetation plan is to provide for the coordination, oversight, guidance and where applicable public notice and enforcement of all activities related to the management of nuisance aquatic vegetation on public bodies of surface water. This includes, but is not limited to, coordination, oversight, public notification and enforcement of all aquatic herbicide use to protect state fish and wildlife resources and habitat and to prevent unreasonable risk from the use of any aquatic herbicide.

(2) Standards. All measures that a person undertakes to control nuisance aquatic vegetation shall be consistent with the principles of integrated pest management as defined in §57.930 of this title (relating to Definitions). A guidance document prepared by TPWD will describe measures to control nuisance aquatic vegetation, and the minimum standards applicable to governing entities that regulate a public body of surface water and persons who propose to treat nuisance aquatic vegetation. The guidance document will include:

(A) Encouragement of the growth and, where lacking, establishment of native aquatic vegetation that provides habitat for fish, the food chain that supports desirable fish populations, other desirable aquatic organisms and wildlife without interfering with reasonable recreational use, navigation, drinking water supply, flow of water to power plants, industrial use, irrigation, or other beneficial uses;

(B) Encouragement of efforts to address the root causes supporting the overgrowth of nuisance aquatic vegetation;

(C) Support for continued monitoring and assessment activities to identify new nuisance aquatic vegetation species and act appropriately to eliminate or minimize ecological impacts;

(D) Support for continued research and evaluation of vegetation control methods that will cause the least possible hazard to persons, property and the environment as required by application of integrated pest management principles;

(E) Encouragement of public input in decision-making processes;

(F) Encouragement of ongoing education and outreach efforts as to the importance of managing aquatic vegetation to assure the ecological health of public waters;

(G) Information to guide individuals wishing to treat nuisance

aquatic vegetation; and

(H) Criteria for choosing management responses to nuisance aquatic vegetation problems based on the uses of the water body and the nature of the problem. These criteria may take the form of a three-tier system: Tier I, which calls for immediate response and eradication; Tier II, which calls for ongoing control where nuisance aquatic vegetation is well-established; and Tier III, which calls for monitoring and a contingency plan in case the problem worsens. The three-tier system is subject to change as provided in paragraph (3) of this subsection.

(3) Modification of Guidance. TPWD will publish notice in the Texas Register and seek input from interested parties when it proposes to modify the guidance document. TPWD will also mail notice to persons who so request. Notice shall be provided at least 60 days prior to the effective date of any changes to the guidance document. The notice shall describe the proposed modifications and the reasons for the modifications, and how comments on the proposed modifications may be made to TPWD.

(4) Review by TPWD. Prior to undertaking any measures to control nuisance aquatic vegetation, a person operating under the state plan shall provide to TPWD a treatment proposal, on a form included in the guidance document, no later than the 14th day before the measures are to begin. TPWD will review and may disapprove or amend any treatment proposal and will respond no later than the day before the proposed control measures are to begin. Where appropriate, TPWD will provide technical advice and recommendations regarding prevention of nuisance aquatic vegetation problems. The person submitting the treatment proposal shall have the burden of demonstrating compliance with the state plan. Where a local plan governs, treatment proposals are not subject to TPWD review, approval, and amendment, but are to be submitted to TPWD (pursuant to §57.934(b) of this title, relating to Local Aquatic Vegetation Plan)) for informational purposes.

(b) Additional Requirements Applicable to the Use of Aquatic Herbicides to Control Nuisance Aquatic Vegetation.

(1) No person shall apply aquatic herbicide in a public body of surface water where the state plan governs unless the herbicide is applied in a manner consistent with the state plan. No person shall apply aquatic herbicide in a public body of surface water where a local plan governs unless the herbicide is applied in a manner consistent with the local plan. Where a local plan has been adopted and approved, the requirements of the local plan supersede the requirements of this subsection.

(2) All persons intending to apply an aquatic herbicide shall provide written notice to the governing entity, TPWD, all public drinking water providers that have an intake within two river miles of a site at which an application of aquatic herbicide is proposed to occur, and all persons who have requested notice (TPWD will maintain a list) no later than the 14th day before the application is to occur. The notice shall include:

(A) the dates of the proposed application;

(B) all label information for the aquatic herbicide to be applied;

(C) a statement that TPWD's guidance document has been reviewed and the proposed herbicide application is consistent with the principles of integrated pest management as set forth in subsection (a)(2) of this section and that document;

(D) information demonstrating that the proposed application will not result in exceeding:

(i) the maximum contaminant level of the herbicide in finished drinking water as set by the TNRCC* and the EPA; or

(ii) if the aquatic herbicide does not have an MCL established by the TNRCC* and the EPA, the maximum label rate; and

(E) TDA applicator license number, if any.

(3) An individual who is not a licensed applicator may not apply aquatic herbicides unless the governing entity affirmatively finds, after receiving the proper notice as provided in subsection (b)(2) of this section, that the application will be consistent with the state plan. The governing entity shall respond to the notice given by an individual who is not a licensed applicator no later than the day before the date the application is scheduled to occur.

(4) An individual who is a licensed applicator may apply aquatic herbicide after notice consistent with subsection (b)(2) of this section if the governing entity finds that the application would be consistent with the state plan or does not disapprove the application no later than the day before the application is to occur.

(5) After receiving notice of a proposed application of aquatic herbicide, a governing entity, or TPWD in the absence of such an entity, shall:

(A) provide the individual proposing the application with the state plan;

(B) notify the individual in writing that it is a violation of state law to apply aquatic herbicides in a public body of water in a manner inconsistent with the state plan; and

(C) determine whether the proposed application is consistent with the state plan.

(6) The governing entity shall prohibit the proposed application of aquatic herbicide if the governing entity finds that the proposed application is inconsistent with the state plan, or, if the proposed application is consistent with the state plan, so notify the person.

(7) State money shall not be used to pay for treatment of a public body of surface water with an aquatic herbicide unless the application of the herbicide is performed by an applicator licensed for aquatic herbicide application by the TDA.

(8) Any application of aquatic herbicide shall comply with label rates approved by the EPA.

§57.933. Adoption and Applicability of Local Aquatic Vegetation Plans. A local aquatic vegetation plan may be adopted and shall apply to particular public bodies of surface water as provided in Texas Parks and Wildlife Code, §11.083. A governing entity intending to operate under a local aquatic vegetation plan shall seek approval of its proposed local aquatic vegetation plan under §57.934

of this title (relating to Local Aquatic Vegetation Plan).

§57.934. Local Aquatic Vegetation Plan.

(a) To be approvable by TNRCC*, TPWD, and TDA, a local plan must meet the minimum standards set forth in §57.932 of this title (relating to State Aquatic Vegetation Plan). Additional or more specific requirements are approvable.

(b) A local plan may take into account the particular needs and uses of the public body or bodies of surface water to which it will apply. The local plan may allow herbicide use if the person proposing to apply the herbicide notifies the governing entity not later than the 14th day before the proposed date of application. The local plan shall provide that treatment proposals shall be submitted concurrently to TPWD and the governing entity (on the form provided in the guidance document) no later than the 14th day before the measures are to begin and that the governing entity will review and may disapprove or amend any treatment proposal and will respond no later than the day before the proposed control measures are to begin. The person submitting the treatment proposal shall have the burden of demonstrating compliance with the local plan.

(c) Proposed local plans should be developed in cooperation with TPWD, TDA, and TNRCC*, and shall be submitted to TPWD on a form prepared by TPWD. TPWD will coordinate review of the plan by TNRCC* and TDA.

(d) Governing entities shall seek and encourage public participation in the creation and review of local plans. At a minimum, TPWD, TNRCC*, or TDA will hold at least one public meeting in the area affected by the local plan. Public comment will be received by TPWD, TNRCC*, and TDA for 30 days after the local plan is submitted for agency approval. TPWD, TNRCC*, and TDA will review and respond to local plan submittals within 60 days of receipt.

§57.936. Recordkeeping. Governing entities shall retain copies of the following documents generated under this subchapter for a minimum of five years from generation: all local plan submissions and approvals, all treatment proposals submitted to TPWD, all notices received and provided, all control measures taken by the governing entity (including records of date, place, location, type, and amount of all aquatic herbicide applications), and any other information relevant to a particular individual request for shoreline treatment.

***TNRCC is now Texas Commission for Environmental Quality (TCEQ)**

APPENDIX C

Aquatic Vegetation Treatment Proposal Form

Directions: Please fill the following fields. A **separate form** should be filled out for each plant species treated. A map of the waterbody with **marked or delineated proposed** treatment sites should be attached to the treatment proposal.

Water Body Name: _____ **Submission Date:** _____

Physical Site Address: _____

Date Surveyed: _____ **Proposed Treatment Date:** _____

Tier (Refer to guidance manual): _____

Aquatic Vegetation type (Please circle one): **Floating** **Emergent** **Submerged**

Target Aquatic Vegetation Species Name: _____

Estimated Aquatic Vegetation Coverage (acres) to be treated: _____

Proposed Treatment Type (Please circle all that apply): **Mechanical** **Biological** **Chemical**

Applicator Name: _____

Applicator License Number: _____

Treatment Name/Label (all that apply on separate rows)	Method/ Form of Treatment (granular, spray, cut, etc.)	Treatment Site Description (shoreline, cove, channel, etc.)	Percent Coverage Relative to Lake Area	Treatment Area (acres)	Treatment Rate (per acre treated)	Total Treatment Used (rate X area)	Mean Water Depth (ft)

Comments: _____

***Approved proposals authorize treatments (up to the maximum acreage proposed) for six months from the date of submission, unless application plans change.**

Appendix D. TPWD Contacts

Inland Fisheries Division Personnel Involved in Aquatic Vegetation Management

Austin Headquarters

4200 Smith School Road, Austin Texas 78744

Dr. Gary Saul, Director 512-389-4643
Timothy Birdsong, Chief, Habitat Conservation 512-389-4744
Dr. Earl Chilton, Aquatic Habitat Enhancement 512-413-5120

Regions – Inland Management

I	Spencer Dumont	3407-B S. Chadbourne, San Angelo 76903	325-651-4846
II	Brian Van Zee	1601 E. Crest Dr., Waco 76705	254-867-7974
III	Craig Bonds	11810 FM 848, Tyler 75707	903-566-1615

Districts – District Management Supervisors

1-A	Charles Munger	P. O. Box 835, Canyon 79015	806-655-4341
1-B	TBA	5325 N. 3 rd , Abilene 79603	325-692-0921
1-C	TBA	3407-A S. Chadbourne, San Angelo 76903	325-651-5556
1-D	Randy Myers	12861 Galm Rd. #7, San Antonio 78254	210-688-9460
1-E	John Findeisen	P. O. Box 116, Mathis 78368-0116	361-547-9712
2-A	Bruce Hysmith	P. O. Box 1446, Pottsboro 75076-1446	903-786-2389
2-B	John Tibbs	8684 LaVillage Ave, Waco 76712	254-666-5190
2-C	Marcos Dejesus	505 Staples Road, San Marcos 78666	512-353-0072
2-D	Rafe Brock	6200 Hatchery Rd., Ft. Worth 76114	817-732-0761
2-E	Tom Lang	409 Chester, Wichita Falls 76301	940-766-2383
3-A	Tim Bister	3802 East End Blvd. So., Marshall 75672	903-938-1007
3-B	Kevin Storey	2122 Old Henderson Hwy, Tyler 75702	903-593-5077
3-C	Rick Ott	11942 FM 848, Tyler 75707	903-566-2161
3-D	Todd Driscoll	900 CR 218, Brookeland 75931	409-698-9114
3-E	Mark Webb	P.O. Box 427, Snook 77878	979-272-1430

Aquatic Vegetation Control

Chris Moret 900 CR 218, Brookeland 75931 409-698-9121

Heart of the Hills Science Center

Dr. Robert Betsill, Supervisor 5103 Junction Hwy, Ingram 78025 830-866-3356

Appendix E. How to Develop a Local Management Plan

1. Consistency with State Plan

Local plans may take into account particular local needs and uses of the water bodies and/or systems for which they are written; needs which may not be addressed in the broader statewide plan. In order to address local issues individual lake management plans may be more restrictive than the statewide plan. However, all individual lake management plans must meet the minimum standards set by the statewide plan.

2. How a Local Plan Differs from a Treatment Proposal.

The purpose of a local plan is to transfer to a governing entity TPWD's authority to oversee nuisance aquatic vegetation control on the public bodies of surface water that the local plan covers. Local plans must be approved by TCEQ (Texas Commission on Environmental Quality, formerly TNRCC), TDA, and TPW, as provided in §57.934. Where a local plan governs, treatment proposals are not subject to TPW approval. Local plans may or may not address specific nuisance aquatic vegetation problems and treatment alternatives. The law requires that the local plan be at least as stringent as the state plan.

Treatment proposals, by contrast, describe specific actions planned to address one or more nuisance aquatic vegetation problems. Where no local plan is in place, treatment proposals are subject to review and approval by TPWD as provided in §57.932(a)(3). A treatment proposal may propose a one-time treatment event, or a series of treatment events over several months. Where a local plan is in place, treatment proposals are to be submitted to the governing entity for approval, and to TPWD for informational purposes.

3. Standards for governing entities preparing local plan

- i. Local plans shall be developed in cooperation with, and approved by, TPWD, TDA, and TCEQ. The plan should be submitted to TPWD, which will coordinate approval by the other agencies. Other requirements for the content of local plans are in § 57.934 of the rules.
- ii. Before final approval, there shall be a period of public review and comment for local vegetation management plans. The review period will include at least one public meeting sponsored by TPWD, TCEQ, or TDA.
- iii. The period of public review will be no less than one month in duration.

4. Format for local plans

- i. The rules do not prescribe in detail what local plans must look like. In developing the regulations, TPWD chose to allow governing entities maximum flexibility in designing local plans. One simple way of adopting a local plan is for a local governing entity to submit a document to TPWD stating that the local plan is the same as the state plan, with a list of exceptions where the local plan is more stringent. The governing entity should also describe how the local plan will be implemented, for example, through local ordinances or pesticide labeling. The local plan

need not describe specific management actions, such as details of where target plants are. Maps may be included with the local plan if they would be helpful.

Appendix F. Evaluation of Triploid Grass Carp Permit Applications for Public Water

The use of biological controls, such as grass carp, is often viewed as a very popular option to control nuisance aquatic vegetation since they are usually cheaper than herbicides or mechanical harvesting. Unfortunately, the introduction of exotic species, even to help control existing problems, has often led to other problems. Therefore, the Texas Parks and Wildlife Department issues permits for triploid (sterile) grass carp use only, so that unchecked reproduction and overpopulation should not occur. Each application for a permit to stock triploid grass carp in public water will be reviewed and evaluated following the procedure developed by Inland Fisheries Division to ensure compliance with Section §57.126 of the Parks and Wildlife Proclamations.

Procedure:

- Step 1.** Persons or entities that wish to use triploid grass carp in Texas' public waters must submit a completed "Application to Stock Triploid Grass Carp" to the Inland Fisheries Division. The application can be obtained by calling (512) 389-4444 or by visiting the TPWD website at:

http://www.tpwd.state.tx.us/landwater/water/habitats/private_water/gcarp.phtml#permit

- Step 2.** The District Biologist responsible for managing the public water body in question reviews a copy of the permit application. The biologist is responsible for making a recommendation of whether or not to grant the permit based on the following criteria:

- a. Is there is a valid vegetation problem? In general, triploid grass carp stockings in public water will be considered only if nuisance vegetation is beginning to detrimentally affect resident fish communities, and/or is a significant impediment to recreational access (including boating, fishing, swimming, hunting, etc.). Floating exotic vegetation species are usually not controlled very well by grass carp. Typically, vegetation is considered a problem only when it covers more than 20-40% of a water body. However, lesser amounts may be deemed a "problem" if infestations have spread to a large proportion of key access or use areas, and the potential for further spread is high. With exotic plant species it is often prudent to be proactive in order to avoid more serious problems in the future, which may require more drastic action. If there is no vegetation problem, the biologist may recommend against permit issuance.
- b. Will the fish escape if stocked? Grass carp will not be effective if they are allowed to move away from targeted use areas. If the probability of escape is high, the biologist will recommend against permit issuance. If escape potential is high, but the construction of a containment structure is deemed feasible, the biologist may recommend issuance conditionally (i.e., only after the containment structure is in place).

- c. Will the stocking detrimentally affect threatened or endangered species populations in the area? Unless the probability of negatively impacting T+E species is very low, the biologist will recommend against permit issuance.
- d. Will the stocking detrimentally affect coastal wetland or estuarine areas? Public waters south and east of the freshwater/coastal water boundary line are defined as coastal waters. If stocked in this area the risk of grass carp moving into wetlands or estuaries is considered high. Biologists usually recommend against permit issuance and permits are rarely issued in the area.
- e. Will the stocking, and its consequences, conflict with TPWD management objectives, or environmental policy? If so, the biologist may recommend against permit issuance.

Additionally, biologists may contact and obtain input from nearby field personnel in other resource divisions where appropriate. Much time can be saved if comments from the Wildlife and Coastal Fisheries Divisions (where applicable) are received early in the process, and come from field personnel who are familiar with local circumstances.

District Biologists will include an evaluation of economic and recreational considerations, as well as a Checklist for Triploid Grass Carp Stocking in Public Water (completed in cooperation with headquarters staff), on the attached forms in the recommendation report.

Step 3. In order to provide a forum for public input, when the Department receives a request to use grass carp for the first time in a public water body greater than 75 acres in size, a public meeting or hearing will be arranged by the parties requesting stocking and held by the Department near the water body involved. For public water bodies less than 75 acres in size a public meeting or hearing may be arranged by the requesting party and held by the Department if the District Biologist thinks it is necessary. Supplemental stockings do not require a public hearing, but may still be held by the Department if it is deemed necessary.

Step 4. The biologist's report, a copy of the permit application, a copy of permitting criteria, a report from public hearings or meetings held, and any other pertinent information are then routed through designated staff in Inland Fisheries.

Step 5. Inland Fisheries staff will collate comments, and if appropriate meet with representatives of other affected resource divisions and draft a recommendation for approval or disapproval of the permit. If appropriate, special conditions (including mitigation for loss of desirable aquatic plant species) may be negotiated with applicants and set as terms of permit issuance in order to ensure minimal escape potential, and compliance with Section §57.126 of the Parks and Wildlife Proclamations.

Step 6. Upon review and approval of the final recommendation and supporting materials by the Director of Inland Fisheries (or a designated staff member), applicants will be notified of the status of their applications. The Director of Inland Fisheries (or a designated staff member) may approve or deny permits, or forward them to the Executive Director for

review before a final decision is made.

Step 7.

Permitted triploid grass carp may only be stocked if a Treatment Proposal for the stocking has been approved by TPWD. Regardless of the number permitted, only the number indicated in the approved Treatment Proposal may be stocked.

Biologists Report

Triploid Grass Carp Public Water Stocking

Lake Name: _____ County: _____

Location: _____ Size (Acres): _____

Problem Plant(s): _____ Area Covered: _____

Percent of Shoreline Developed: _____

Recommendation: Stock _____ (Number) Deny Permit
(Check)

Biological Considerations:

Economic/Recreational Considerations:

Checklist for Triploid Grass Carp Stocking in Public Water

Water Body Name: _____

1. Applicant has **completed** and **submitted** to the Department a **triploid grass carp permit application**.
 - Date Accomplished _____
 - Comments _____

2. Applicant has **remitted** to the Department all **pertinent fees**.
 - Date Accomplished _____ Fee _____
 - Number of Fish in initial stocking _____
 - Comments _____

3. **All information provided** in the triploid grass carp permit application **is true and correct**.
 - Date of inspection or inquiries _____
 - Person conducting inspection or inquiries _____
 - Comments _____

4. Applicant has **not been finally convicted**, within the last year, for violation of the Parks and Wildlife Code, 66.007, 66.015, or these rules.
 - Date of criminal background check _____
 - Person requesting background check _____
 - Comments _____

5. Issuance of a triploid grass carp permit is **consistent with department fisheries or wildlife management activities**.
 - Date of discussions and considerations _____
 - Persons involved _____
 - Comments _____

6. Issuance of a triploid grass carp permit is **consistent with the Parks & Wildlife Commission's environmental policy**.
 - Date of discussions and considerations _____
 - Persons involved _____
 - Comments _____

7. Issuance of a triploid grass carp permit and subsequent stocking **does not conflict with specific management objectives of the department**.
 - Date of discussions and considerations _____
 - Persons involved _____
 - Comments _____

8. Issuance of a triploid grass carp permit and subsequent **stocking will not detrimentally affect threatened or endangered species** populations or their habitat.
- Date of discussions and considerations _____
 - Persons involved _____
 - Comments _____
- _____
9. Issuance of a triploid grass carp permit and subsequent stocking **will not detrimentally affect coastal wetland** and estuarine ecosystems.
- Date of discussions and considerations _____
 - Persons involved _____
 - Comments _____
- _____
10. Determination of the number of triploid grass carp authorized for possession under a triploid grass carp permit will include the **consideration of the surface area of the pond or lake** named in the permit application and, as appropriate, the **percentage of the surface area infested** by aquatic vegetation.
- Date of discussions and considerations _____
 - Persons involved _____
 - Comments _____
- _____
11. A hearing or meeting was conducted to provide the TPWD with public input relative to the proposed triploid grass carp stocking.
- Date of meeting or hearing _____
 - Persons involved _____
 - Comments _____
- _____
12. Biologists Report submitted to Austin headquarters staff.
- Date of report _____
 - Comments _____
- _____

Appendix G. Aquatic Herbicides.

Aquatic Plant		Herbicides					
		2,4-D	Bispyribac	Diquat	Endothall	Flumioxazin	Fluridone
Emergent Species	Alligatorweed	-	Yes	-	-	Yes	G
	American Lotus	-		-	-		G
	Parrot feather		Yes				
	Pickeralweed	G		-	-		-
	Smartweed	-		-	-		G
	Waterlily	E		-	-		G
	Water pennywort	-	Yes	E	-	Yes	-
	Water primrose	-		-	-		G
	Waterwillow	E		-	-		-
	Yellow cow-lily	G		-	-		G
Submerged Species	Bladderwort	E		E	-		E
	Brazilian elodea	-		-	E		E
	Bushy Pondweed	-		E	E		E
	Coontail	G		E	E		E
	Elodea	-		E	-		E
	Fanwort	-		-	-		E
	Hydrilla	-	Yes	G	E		E
	Parrot feather	-	Yes	E	E		E
	Pondweed	-	Yes	E	E		E
	Watermilfoil	E	Yes	E	E		E
	Water stargrass	E		G	E		E
			E		E		
Floating Species	Duckweed	-	Yes	E	-		E
	Salvinia	-	Yes	E	-	Yes	E
	Water hyacinth	E	Yes	E	-		-
	Waterlettuce	-	Yes	E	-	Yes	-
Marginal Species	Black willow	-		-	-		-
	Bulrush	-		-	-		-
	Cattail	-		G	-		G
	Giant reed	-		-	-		-
	Torpedograss	-		-	-		G
Algae	Chara	-		-	E		-
	Nitella	-		-	E		-
	Pithophora						
	Filamentous	-		F	E		-

Appendix G. Aquatic Herbicides [Continued].

Aquatic Plant		Herbicides						
		Glyphosate	Imazamox	Imazapyr	Penoxsulam	Triclopyr	Copper Sulfate	Chelated Copper
Emergent Species	Alligatorweed	G	Yes	E	Partial Control	E	-	-
	American Lotus	G	Yes	-		G	-	-
	Parrot feather		Yes	G	Partial Control	E	-	-
	Pickeralweed	-	Yes	G	Partial Control	G	-	-
	Smartweed	E	Yes	G	Partial Control	G	-	-
	Waterlily	E	Yes	G		E	-	-
	Water pennywort	-		E	Yes	E	-	-
	Water primrose	E	Yes	F		E	-	-
	Waterwillow	-		F		G	-	-
	Yellow cow-lily	E	Yes	F		E	-	-
Submerged Species	Bladderwort	-	Yes	-		-	-	-
	Brazilian elodea	-		-	Yes	-	-	-
	Bushy Pondweed	-		-		-	-	-
	Coontail	-		-		-	-	-
	Elodea	-		-		-	-	-
	Fanwort	-		-		-	-	-
	Hydrilla	-	Yes	-	Yes	-	G	G
	Parrot feather	-		-		E	-	-
	Pondweed	-		-	Some species	-	-	-
	Watermilfoil	-	Yes	-	Yes	E	-	-
	Water stargrass	-	Yes	-		E	-	G
Floating Species	Duckweed	-		F	Yes	-	-	-
	Salvinia	E		-	Yes	-	-	-
	Water hyacinth	E	Yes	E	Yes	E	-	-
	Waterlettuce	E		E	Yes	-	-	-
Marginal Species	Black willow	G		G		E	-	-
	Bulrush	E		G	Partial Control	G	-	-
	Cattail	E	Yes	E		-	-	-
	Giant reed	G	Yes	G		-	-	-
	Torpedograss	G		G		-	-	-
Algae	Chara	-		-		-	E	E
	Nitella	-		-		-	E	E
	Pithophora							
	Filamentous	-		-		-	E	E



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