

Frequently Asked Questions Regulation of Exotic Aquatic Plants with a Focus on Microalgae

1. Why is TPWD regulating exotic aquatic plants and algae?

The Texas Legislature has given TPWD regulatory authority over the importation, possession, sale or placement into water of the state of exotic aquatic plants in Texas. (See, Texas Parks and Wildlife Code §66.007 and Texas Agriculture Code Chapter 134). In 2009 the Texas Legislature enacted House Bill 3391 (HB 3391) which directed TPWD to make changes regarding how exotic aquatic plants are regulated. An aquatic plant is defined as any member of the Kingdom Plantae, any member of the Kingdom Monera within the Phylum Cyanophycota, or any photosynthetic member of the Kingdom Protista, as documented using the most recent posting of the Integrated Taxonomic Information System, and is often found in either aquatic or riparian habitats. Both macroalgae and microalgae are included in the definition of an aquatic plant.

2. How are exotic plants regulated now?

TPWD rules at Title 31, Part II, Texas Administrative Code, Chapter 57 now govern exotic aquatic plants. Currently, exotic aquatic plants that have been identified as harmful or potentially harmful are prohibited. These plants are identified in a "prohibited list" (see "<http://www.tpwd.state.tx.us/huntwild/wild/species/exotic/>"). Some plants that are on the prohibited list can be possessed with a permit.

3. What will change as a result of the new legislation?

TPWD will revise its exotic aquatic plant rules. Currently, all exotic aquatic plants are approved for use in Texas unless they are on the prohibited list. As a result of HB 3391, this will change. As of January 1, 2011, importing or possessing exotic plants that are not on the approved list will be illegal without a permit. In other words, TPWD is moving from a "prohibited list" to an "approved list" approach to regulating exotic aquatic plants. The Texas Parks and Wildlife Commission (Commission) is required to adopt rules implementing the "approved list" approach to regulation.

4. How can I participate in the process?

TPWD staff is currently seeking informal input regarding regulation of algae. TPWD will hold a public meeting at 2:00 p.m. on September 1, 2010 at its headquarters at 4200 Smith School Road, Austin, Texas 78744. At the Commission's Regulation Committee meeting on August 25, TPWD staff will seek permission to publish the proposed new rules in the *Texas Register* for public comment. TPWD seeks informal comment prior to publication of the rules in the *Texas Register*. This does not limit the opportunity for formal comment prior to Commission adoption. TPWD staff will then request that the Commission adopt these rules at the November 4, 2010 Commission meeting.

5. How will regulation of algae change under the new rules?

Currently, there are no algae on the prohibited list. Therefore, at present, any strain of exotic algae may be imported or possessed in Texas. Under the new rules, the importation or possession of any exotic algae not on the approved list would be illegal or would require a permit from TPWD.

6. How will exotic algae be regulated?

In regulating algae, TPWD is separately addressing microalgae and macroalgae. Macroalgae will be treated like vascular plants and species may be considered for the approved list. For some macroalgae species whose characteristics preclude inclusion on an approved list, an exotic species permit may be available. Exotic microalgae species will not be considered for the approved list. TPWD will address importation, possession, or sale of exotic microalgae species through an exotic species permit process.

7. How do I know if an algae species is exotic?

TPWD has not been able to identify a list of native algae and recognizes that it can be hard to determine whether certain algae are native to Texas. The statute defines an exotic aquatic plant as a nonindigenous aquatic plant that is not normally found in aquatic or riparian areas of this state. All genetically modified organisms (GMOs) are exotic, including those that are originally sourced from native or naturalized species.

8. How can I comply with the new rules?

In January 2011, persons can comply with the new rules by obtaining an exotic species permit for exotic microalgae. The new rules apply to everyone, including biofuel, cosmetic, pharmaceutical, and nutraceutical production, industrial and academic research, zoos, schools and universities, and the aquarium trade.

9. How do I submit species for the approved list?

TPWD is not proposing and will not consider exotic microalgae species for the approved list. Exotic macroalgae species will be considered for the approved list. Individuals or businesses who believe that a species of exotic macroalgae should be on the approved list are urged to immediately provide a list of those species (common and

scientific names, if known) to Dr. Earl Chilton (see contact information below). Please contact Dr. Chilton for additional directions on providing supporting information that can be used by TPWD staff to evaluate eligibility of the submitted macroalgae species for the approved list.

10. How do I apply for an exotic species permit?

Individuals or businesses that need an exotic species permit may apply in 2011 after the new rules are effective. Forms and instructions will be available on the TPWD website <http://www.tpwd.state.tx.us/publications/fishboat/forms/>.

11. How long does it take to get an exotic species permit?

TPWD anticipates that it may receive a significant number of permit applications in the initial months of 2011. It is difficult to estimate application review times. TPWD staff is considering recommending to the TPWD Commission that the rules provide for a phased-in approach to enable individuals and businesses sufficient time to seek any required permit(s) and that entities be deemed in compliance if they have submitted an application within the required time frame. Following the initial phase, exotic species permit processing is expected to take 1 to 3 months depending on the complexity of the application and the adequacy of supporting materials.

12. I grow native algae. What should I consider?

It is currently legal and it will continue to be legal to possess and use native algae. However, if you discharge or release algae into public water it is a violation of TPWD statutes and regulations. Additionally, if you discharge wastewater from algae production, the Texas Commission on Environmental Quality may require a wastewater discharge permit. Furthermore, if you possess or use a toxic strain of native algae or any strain of native algae that could cause environmental harm, you may be responsible for any environmental damage caused by release of the algae or its toxins.

13. I grow algae in open ponds. What should I consider?

Algae can be transported from open ponds to waters of Texas by direct discharge, airborne propagules and transport by animals. TPWD scientists believe that algae cultured in open ponds will inevitably be introduced to waters in the state. A prudent first step in choosing an algal species for culture in open ponds would be to find information to determine if it is native to Texas, or a species introduced to Texas that has become naturalized. There are several options for pond culture of algae that are not native or naturalized. Ponds could be covered with an enclosed greenhouse structure, which would minimize the risk of airborne or animal transport. Alternatively, one may culture algae that are incapable of surviving in Texas' waters (due to salinity, temperature, pH, etc.).

14. I grow algae in closed systems. What should I consider?

Closed systems afford more protection to Texas' waters than open ponds and are generally a better choice for culture of exotic algae not on the approved list. TPWD will have more flexibility in exotic species permitting for closed systems than for open ponds and will be most concerned about safeguards in place to minimize escape.

15. I have a collection of hundreds of algal strains. What should I consider?

A large collection of exotic algae would generally be required to be kept in a closed system. An exotic species permit with specific controls to prevent escape will likely be required.

16. I am an aquarium hobbyist. What should I consider?

TPWD recognizes that algae may arrive incidentally on rock, sand, and on or in fish. However, possession of algal species not on the approved list will be prohibited. Should unapproved species of algae appear as a result of these vectors, the algae should immediately be disposed of in a manner that kills the algae and ensures the algae will not enter public waters.

17. What factors will TPWD consider in reviewing applications for the approved list and exotic species permits?

Since the TPWD Commission has not yet approved rules, staff has not yet developed application materials. Factors that are likely to be important are whether an algal species is native or naturalized in Texas waters, including the length of time the species has been in Texas, its environmental tolerances, history of invasiveness, reproductive methods and toxicity. TPWD will also likely need information about safeguards in place to minimize escape potential.

For more information contact Dr. Earl Chilton (512-389-4652; earl.chilton@tpwd.state.tx.us) or Dr. Patricia Radloff (512-389-8730; patricia.radloff@tpwd.state.tx.us).