



Recommended Guidelines for Developing Commercial Harvest Policy for Aquatic Nuisance Species

An invasive species means an alien species whose introduction does or is likely to cause economic or environmental harm or harm to human health.¹ Aquatic invasive or nuisance species (ANS) that have invaded, or may yet invade, the Mississippi River Basin could have commercial or recreational value. Whereas this creates financial opportunities, it could result in serious problems if the potential value of the species provides a stimulus for people to expand the range or abundance of the species. This is also true if fishery policies inadvertently foster a more rapid or extensive distribution of ANS. However, there is interest in managing ANS populations by encouraging the harvest and/or consumption of ANS.

The Mississippi River Basin Panel (MRBP) is an advisory panel to the Aquatic Nuisance Species Task Force that consists of members representing 9 federal agencies, 26 states/provinces, 7 regional entities, 3 private/commercial groups, 3 university/research institutions and 3 at large stakeholders, for a total of 51 members from within the 31-state Mississippi River Basin. With such a diverse group, a common set of guidelines is essential for establishing a strategy to guide efforts to control the introduction and spread of ANS within the basin using commercial harvest. Development of a Mississippi River Basin ANS Council or Compact to synthesize data and regulations may be needed in the future if commercial harvest becomes widely accepted as a means to control ANS.

The MRBP believes that the primary objective of commercial harvesting of ANS should be to eliminate or control the target species, with a secondary objective of reducing the impact on native species. MRBP does not support commercial harvesting of ANS to sustain the population or to sustain an industry benefited from the harvesting, but believes that commercial harvest should be considered as part of an integrated pest management program to control ANS. Commercial harvest should only be implemented following careful consideration of the biological, ecological, and socioeconomic impacts of the targeted species and only if there are effective methods to ensure removal of the species. Commercial harvesting requires careful review, planning, and monitoring to ensure success and to prevent the additional spread of ANS.

A common set of guidelines is needed once it has been decided to initiate a commercial harvest program to control ANS. Below are a set of guidelines that are offered for developing policies for commercial harvest of ANS. Each jurisdiction must give careful consideration to how local regulations may help foster an effective basin-wide approach to managing commercial harvest for ANS.

1. **Kill ANS upon harvest.** Resource agencies should require that all harvested ANS be killed before transport to areas outside their jurisdiction to reduce the risk of introduction beyond their current range. Careful consideration is needed when deciding appropriate methods of kill, based on the intended market for the harvested species.
2. **Identify ANS appropriately.** All harvested ANS should be correctly identified (genus and species), and appropriate documentation should accompany each shipment. Misidentified organisms or incomplete documentation should trigger enforcement actions.
3. **Require data submission and monitoring.** Harvesters should be required to submit detailed reports using standardized data protocols agreed upon by resource agencies. Falsification of these reports should be dealt with by enforcement action. Resource agencies should monitor the effects of commercial harvest on target and non-target species, particularly in the early years of commercial harvest to document bycatch effects on native species.
4. **Regulate harvest locations and seasons.** The harvest of ANS may result in increased harvest effort, which may adversely affect native species. Resource agencies should use data collected as part of monitoring efforts to adjust harvest locations and open seasons to minimize negative impacts on native species.
5. **Require cleaning or disinfection.** Resource agencies should develop mandatory protocols for harvesters to ensure that transportation of harvested ANS and harvesting equipment does not result in further spread of ANS.
6. **Maintain flexibility.** Policies should be formulated that facilitate rapid adaptation through the use of tools such as experimental fisheries, temporary rules, and sunset provisions. Policies should be reviewed often and adjusted as new technologies or data become available.
7. **Communicate objectives.** Resource agencies should clearly state their goals and objectives for allowing harvest and/or use of a particular ANS (e.g., commercial harvest as part of an individual species control program). Resource agencies should be careful not to create expectations that are unachievable. Likewise, investors must not overcapitalize an industry in which depletion of the raw materials is a primary objective. To address this, resource agencies should be prepared to deal with increased demand for native commercially harvestable species in the event the targeted ANS population is depleted.
8. **Monitor for unintended consequences of commercialization.** Harvest of ANS may create perverse incentives that do not encourage long-term control or eradication of target species or that encourage movement of ANS to new waters to create new harvest opportunities. Resource agencies should identify these risks and create plans to address perverse incentives. The goal of every harvest program for ANS should be to encourage

a substantial long-term population density reduction and not to encourage a sustainable harvest for a long time frame. Therefore, exit strategies and alternate sources of commercially harvestable species should be included in harvest plans.

9. **Uphold legal authority.** Active enforcement of the conditions in a harvest plan is required for a successful harvest program. Resource agencies and legislatures also need to review and consider new authorities or regulations that may be needed to more effectively manage and control the target ANS.

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¹ Executive Order 13112, signed on February 3, 1999.