

**TESTIMONY ON INVASIVE SPECIES MANAGEMENT AND ACTION**  
**U.S. Senate Committee on Environment and Public Works**

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**Submitted by:**

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Invasive species, whether they be aquatic, terrestrial, or microbial have the potential to negatively impact recreation, agriculture, human health, and infrastructure to a large degree if left unchecked. The first goal of managing for invasive species is prevention and a secondary goal is, once introduced into an area, to either eradicate or control the spread to prevent any damage, present or future.

Although I will be addressing both aquatic and terrestrial invasive species work in North Dakota, I am much more knowledgeable on the aquatic spectrum and, thus, the majority of this testimony will address how we manage aquatic invasive species.

**Aquatic Invasive Species**

North Dakota interchangeably uses the term ‘aquatic invasive’ and ‘aquatic nuisance species’ (ANS). The North Dakota Aquatic Nuisance Species (ANS) Program sets annual priorities based on available staff and resources. These priorities are directed by the North Dakota ANS Management Plan (Plan), which was last updated and signed by Governor Doug Burgum in December 2018. The Plan is comprised of four objectives: 1) Coordination and Communication, 2) Education and Outreach, 3) Prevention and Control, and 4) Sampling and Monitoring. Each objective has a set of corresponding strategies and actions associated to meet the overall goal of preventing the introduction and spread of ANS into and within North Dakota while mitigating ecological, economic, and social impacts of existing populations where feasible.

**COORDINATION AND COMMUNICATION PRIORITIES**

***Aquatic Invasive Species Committee***

The Aquatic Invasive Species Committee (AISC) is an advisory committee that guides ANS work throughout North Dakota state agencies. The AISC is comprised of representatives from state, tribal, and local agencies as well as public and private interest groups. Further, AISC meetings are open to the public, and additional federal, state, and local interests are often represented. The North Dakota Game and Fish Department (Department) chairs the AISC and is thus responsible for planning meetings and keeping the group apprised of any important updates.

The AISC is convened twice annually. The spring meeting is generally held between mid-March and the end of April prior to field activities, as this meeting is geared toward generating input on

proposed work plans for the year and presenting the final report from the previous year. The fall meeting is generally held between mid-October and the end of November to discuss work that was completed throughout the season and to review the ANS list. The ANS Coordinator is the only staff required to organize and run meetings, as well as distribute any needed updates in a timely manner. These activities address Actions 1.B.2, 1.D.1, 1.D.2, 1.D.3, and 3.B.1 in the Plan as shown in Appendix A of this testimony.

### ***In-state Coordination***

There is a clear need for consistent, coordinated efforts to address ANS issues. Within North Dakota, one of the primary focus areas is promoting consistency across statewide efforts to prevent the introduction and spread of ANS. As chair of the AISC, the Department provides an ANS Coordinator to facilitate coordination of ANS efforts within North Dakota and across jurisdictional boundaries. As such, the ANS Coordinator's role is to develop and implement a statewide management plan and to coordinate efforts within the state under advisement of the AISC. In 2018, the AISC updated the Plan, which is currently in the implementation phase.

A few needs were identified for the upcoming year for in-state coordination. The first includes supporting the State Water Commission as they begin to incorporate ANS into their classroom educational efforts. Another identified need is to work with the Corps of Engineers to provide ANS information to concessionaires around Lake Sakakawea, as well as supporting their adult zebra mussel sampling efforts as needed. Several agencies, including the Department of Transportation, the State Water Commission, and the Corps of Engineers include ANS requirements as part of their permitting processes. These permit requirements should be periodically reviewed and updated as necessary, and the ANS Coordinator should be available to support permit requirements such as inspections as needed. As other needs arise, the ANS Coordinator will support and guide any efforts as appropriate. This addresses Actions 1.A.1, 1.B.1, and 4.C.2 (permitted equipment inspections) in Attachment A.

### ***Regional Coordination***

Just as there is a need for consistent, coordinated efforts within North Dakota, regional efforts are needed to address ANS issues which transcend socio-political boundaries. Although specific jurisdictional approaches can vary, the overall goal of preventing ANS introductions, spread, and impacts to the greatest extent possible is the same. By collaborating with neighboring states, federal agencies, and other stakeholders, ANS issues can be addressed through pathways and on geographical scales that are biologically or ecologically relevant.

Two main priorities stand out. The first is the involvement and engagement in the late January Western Governors' Association Invasive Mussel Forum, an extension of their Invasive Species Initiative, which focuses on strategizing across leaderships to combat the spread of zebra and quagga mussels in the Western United States. The second is to provide leadership for the Missouri River Basin states to address ANS issues within the basin by hosting a meeting of ANS Coordinators. This group, the Missouri River Basin Team of the 100<sup>th</sup> Meridian Initiative, meets annually to discuss current and upcoming ANS threats to the basin, but did not meet in 2018 due to conflicts with an Asian carp management effort. To reinvigorate the group, North Dakota has agreed to host the 2019 meeting in August.

Other ongoing regional efforts include attending the May 2019 Mississippi River Basin Panel on ANS meeting and associated Asian carp sampling workshop; engagement in the March meeting

of the Missouri River Basin Asian carp technical committee; and working with the Western Regional Panel on ANS as needed. The ANS Coordinator will engage with regional activities and attend meetings as necessary and as time allows. These activities address Actions 1.C.1 and 1.C.3.

## **EDUCATION AND OUTREACH PRIORITIES**

### ***Statewide outreach campaign***

Outreach messaging often targets information about what ANS are, potential impacts, how to prevent their spread, and any relevant regulations. Effective messaging can inform users, change behaviors, and increase regulation compliance. Among other factors, repeated exposure is necessary for messages to be effective. In North Dakota, a statewide outreach campaign has been in effect for many years. In 2019, the Department contracted with Jason Mitchell Outdoors to supplement Department efforts of implementing a comprehensive statewide outreach campaign that provides ANS information to water users through a variety of media with repeated exposure. Ongoing Department work such as the Department website and educational efforts at the North Dakota State Fair serve as part of the outreach campaign. This campaign is evaluated somewhat through boater survey information and an annual contractor report.

The content of messages is critical to ensure effectiveness, and recognition of a message can be useful to remind the audience of repeated exposures. The Department utilizes the “Clean, Drain, Dry” message that is consistent with many other state, federal, and local agencies across the nation. This increases the understanding of audiences that have already been exposed to the message. Given recent concerns of increases in violations, the 2019 campaign will also focus on messaging that reinforces the regulation that prohibits the importation of live bait into North Dakota.

Messaging typically begins just before the boating season in mid-May and runs through the early part of waterfowl season before ice forms. The ANS Coordinator works with the Communications Section Leader and any contractors to develop and implement the statewide outreach campaign. This addresses Actions 2.A.1, 2.A.2, 2.B.1, 2.B.4, 2.B.5, and 2.D.1 as shown in Appendix A.

### ***Targeted campaigns***

Although the statewide outreach campaign is good for providing information to general audiences, there is also a need to develop materials specific to a pathway or user group. These targeted efforts can engage audiences that are less directly involved or less informed in general on aquatic or ANS issues. It can also be used for audiences that are not traditionally targeted by ANS messaging. Examples of priorities for North Dakota in 2019 include: classrooms, marinas, pet stores, and trappers.

This will be the first year of engaging classrooms and trappers on ANS issues related to their activities. Marinas and pet stores were first engaged on this issue in 2017. Pet stores are supplied with materials to hand out through their business. Marinas were not engaged in 2018, though there exists a good opportunity to work with the Corps of Engineers concessionaires to re-engage Lake Sakakawea marinas and develop additional materials for all North Dakota marinas.

Targeted campaigns can be year-round, such as supplying pet stores on demand or meeting with concessionaires in early spring with the Corps of Engineers. However, winter and late summer are targeted for outreach efforts generally to avoid conflicts with other ANS efforts. Staff needs include the ANS Coordinator, who works with any key partners on this project. This addresses Actions 2.B.1 and 2.B.2 (Appendix A).

### ***Boater surveys***

The 100th Meridian Initiative has standard boater survey forms that gather information about the current knowledge about ANS, where information is obtained, and impacts to the boaters by ANS. They also ask about preventative measures taken by the boaters, willingness to take further action, and waters in which the boat in question has been used. The 100th Meridian Initiative surveys provide valuable information to managers and are simple enough that the information collected can be primarily obtained through a friendly conversation. Surveys are often coupled with inspections to increase efficiency of boater interactions.

Surveys are conducted Memorial Day weekend through August, dependent upon seasonal availability. Staff needs include four seasonal employees (contracted through Valley City State University) and the ANS Coordinator. This would meet Actions 2.B.1 and 2.B.4 (tournaments) as shown in Appendix A.

### ***Staff trainings***

In order to set an example through agency actions on preventing the spread of ANS, it is important that Department staff understand ANS issues, ways to prevent their spread, and any relevant internal policies or procedures. In addition, game wardens enforcing ANS regulations often receive questions about ANS issues, particularly laws in other jurisdictions. To provide the best available information to Department staff, trainings will be conducted with emphasis on fisheries and law enforcement staff, who receive the most inquiries and are most directly involved in preventing the spread of ANS.

Trainings should be conducted in an efficient manner, at the annual Fisheries Division meeting and the annual Law Enforcement in-service training. The ANS Coordinator will work with appropriate administration staff to schedule and conduct trainings. This addresses Action 2.C.1 and 2.C.2 (Appendix A).

## **PREVENTION AND CONTROL PRIORITIES**

### ***Boat inspections***

Recreational boaters pose a large threat of spreading ANS such as hydrilla, Eurasian watermilfoil, and curlyleaf pondweed. The goals of boat inspections are three-fold: 1) monitor for any ANS that may be present, 2) educate boaters about regulations and how to remain compliant (demonstrate how to inspect own boat), and 3) gather information about risk associated with recreational boaters (see boater surveys).

Boat inspections will take place at varying locations throughout the season based on boater use patterns as observed by fisheries and law enforcement staff. There will be two crews: one based out of Valley City and the other out of Devils Lake. The Valley City crew will focus on

southeast North Dakota and Lake Oahe. The Devils Lake crew will focus on Devils Lake complex, high-use waters across the northern half of North Dakota, and Lake Sakakawea.

Boat inspectors will work in crews of two and will be trained by the ANS Coordinator at the beginning of the season. Training will include proper inspection and decontamination procedures, ANS biological and regulation background information, techniques for successfully conducting surveys, and agency policies (such as proper uniform appearance, allowed and prohibited activities while working, etc.). Training materials will be provided to seasonal employees.

Boat inspections will take place concurrent with boater surveys. Staff needs include the same four seasonal employees (contracted through Valley City State University) as conduct the boater surveys, LE officers as needed, and the ANS Coordinator. Boat inspections address Actions 3.B.4. and 4.C.2 (Appendix A).

### ***Eurasian watermilfoil control***

The first report of Eurasian water milfoil was on the Sheyenne River near Valley City, North Dakota in 1999. Approximately two years later it was found in a small tributary impoundment which the Department had been monitoring due to surveys showing a larger than normal non-resident boating/fishing activity. The Department subsequently worked with the local water resource board to draw down the reservoir in an attempt to ‘freeze out’ the invasive vegetation since literature suggested this might be a control mechanism for the plant. Additionally, the following year, herbicide was applied to any remaining plants. It took approximately two years but the invasive plant no longer exists in that impoundment. Eurasian water milfoil is still present in its original location on the Sheyenne River, however.

Dependent upon findings in aquatic vegetation sampling efforts of the Sheyenne River, the Department may decide to weigh control options for Eurasian watermilfoil in this system. The Sheyenne River contains the only known population of Eurasian watermilfoil in North Dakota, and in previous years’ surveys, only a few plants were present in a single location. Hand pulling this invasive aquatic plant may be the best option if surveys reveal a limited number of plants. However, care must be taken to prevent fragmentation, which is a means of reproduction for this species. Any control efforts would be weighed carefully after the vegetation sampling effort. Staff needs will likely require the ANS Coordinator, as well as the Jamestown Fisheries Biologist. This addresses Action 3.D.2 (Appendix A).

### ***Update internal policies***

State agencies have the responsibility of providing leadership on ANS issues within their jurisdictions. As such, it is important to periodically review and update internal actions and procedures as needed. As part of the preparation to train staff, policies and procedures internal to the Department will be reviewed and adjusted as necessary. This will be done by the ANS Coordinator, appropriate administrators, and Department staff. This addresses Actions 3.A.1 and 3.A.2 (Appendix A).

## **SAMPLING AND MONITORING PRIORITIES**

### ***Asian carp monitoring in the James River***

Although Asian carps are notoriously difficult to sample efficiently, electrofishing appears to be the most effective method at detecting the presence of silver carp in a system. The only current known population of silver carp in North Dakota is in the James River below Jamestown Reservoir and is believed to have moved up the James River from South Dakota during the flood of 2011. In response to that occurrence the Department has instituted a new regulation on the James River where it is illegal to gather any aquatic organisms as use for fishing bait.

The James River is electro-fished annually to assess the current population of silver carp. The river is also periodically seined by fisheries staff. Seining backwaters in August would mostly target juvenile silver carp, which have not been documented in North Dakota. Any evidence of juvenile silver carp should be immediately reported and followed up with additional sampling.

The ideal time for electrofishing silver carp is September through October, though sampling in this system is generally conducted in August. Sampling is generally conducted by Jamestown fisheries staff, though the ANS Coordinator will be available to assist as needed. This addresses Action 4.B.1 (Appendix A).

### ***Fish hatchery sampling***

The U.S. Fish and Wildlife Service operates three fish hatcheries in North Dakota: Garrison Dam, Valley City, and Baldhill Dam. Although these are federal facilities, the Department works closely with these facilities on production and provides some funding for operations. These fish production facilities are sampled annually for the presence of ANS through plankton tows and visual inspections. Sampling is conducted in July during peak zebra mussel reproduction, and when most ponds are dewatered and available to inspect. The ANS Coordinator conducts this sampling. This addresses Actions 4.C.1 and 4.C.2 (Appendix A).

### ***Fish import disease sampling***

Any fish imported into North Dakota, whether through a public or private entity, is required to have been tested for viral hemorrhagic septicemia (VHS) and other federally-reportable diseases and parasites prior to importation. When deemed necessary, fish in North Dakota are also sampled by the Department veterinarian for the presence of reportable diseases and parasites. Sampling is typically conducted in the spring, when water temperature fluctuations exacerbate diseases and make test results more reliable. Staff requirements include the Production Supervisor, Department Veterinarian, and fisheries biologists and technicians as needed. This addresses Actions 3.E.2, 4.C.1, and 4.C.2 (Appendix A).

### ***Statewide lake surveys***

Given the numbers of North Dakota waters sampled by fisheries staff throughout the season, it is prudent to include ANS observations within existing surveys. During regular fisheries population sampling efforts, fisheries staff make observations and report any newly observed populations of ANS, including plants, vertebrates, or invertebrates. These observations typically also extend into special population sampling events (i.e. research), and fisheries supervisors or biologists sometimes conduct ANS-specific sampling in their waters when time allows. ANS sampling is

generally concurrent with fisheries standard adult population surveys and fall reproduction assessments. Assessments are conducted by fisheries staff. This addresses Action 4.A.1 (Attachment A).

### ***Vegetation sampling***

Vegetation sampling specific for ANS is typically conducted by Department fisheries staff during statewide lake surveys. However, in 2017, an additional effort was conducted to sample non-fishing waters for ANS. While no ANS were detected, additional sampling locations have been identified for targeted vegetation sampling at non-fishing waters.

In addition, only a few Eurasian watermilfoil plants have been documented in North Dakota, all in the Sheyenne River below Lake Ashtabula. There is potential to sample this population more thoroughly in 2019, depending upon water conditions, that involves kayaking the river and mapping any Eurasian watermilfoil plants to determine the extent of the population. Such an undertaking may result in control or eradication attempts, depending upon findings.

Vegetation sampling should be conducted in mid-June through mid-July to allow for vegetative growth prior to the senescence of curlyleaf pondweed in late summer. Given the life history of Eurasian watermilfoil, this sampling can be conducted anytime between mid-June through mid-September. The ANS Coordinator will likely be available for vegetation sampling, and the Jamestown Fisheries Biologist has offered to assist with Eurasian watermilfoil sampling. This addresses Action 4.A.2 (Attachment A).

### ***Zebra mussel early detection***

It is important to detect newly established populations of zebra mussels as soon as possible. Early detections of newly established ANS populations allow for potential management or control options at the time of discovery. Increased outreach efforts during initial discovery also aid in containment of the newly discovered population. Given concerns of potential findings in 2016 in the Missouri River system in Montana and in Dickinson Reservoir by the Bureau of Reclamation, dedicated and frequent sampling of these systems is warranted. It's important for reports of invasive species that a network of information across socio-political lines is maintained to allow for response in the form of monitoring and potential management actions.

Oblique plankton tows from shore have been documented to be more efficient at capturing zebra mussel veligers than have vertical plankton tows from a boat. Oblique tows are also less time consuming and require less equipment that may increase the potential of spreading aquatic nuisance species during sampling efforts. Oblique plankton tows will be used to sample high-risk waters. Sampling will be focused in areas with higher recreational use, especially from non-residents. Each waterbody is generally sampled once annually in the peak zebra mussel spawn window.

General early detection sampling will begin when water temperatures reach 65°F for at least a week and end when water temperatures exceed 85°F for at least a week or drop below 60°F for at least a week, with the majority conducted between late June through mid-August. For the Missouri River System and Dickinson Reservoir, monthly samples will be collected from May through September for three consecutive years (2017-2019). If all samples collected from these systems during this time are negative for the presence of veligers (larval zebra mussel) and no new potential detections arise from external sources, sampling will resume as an annual event.

Sampling will be conducted by Valley City State University personnel (through a contract with Andre DeLorme) and the ANS Coordinator. This addresses Action 4.A.2 (Attachment A).

### ***Zebra mussel monitoring on Red River***

Given that the Red River contains the first known established population of zebra mussels in North Dakota, it is beneficial to document establishment rates. Veliger density data from the first five years of establishment (2016-2020) would provide information for managers about timing of zebra mussel reproduction in North Dakota that would be useful for focusing sampling efforts across other parts of the state. Five years seems appropriate given the high variability in river systems.

Zebra mussel veliger densities will be estimated at three sites along the Red River in North Dakota from April through October. Oblique plankton tows will be conducted once a month at Drayton Dam, Grand Forks north landing, and Fargo Midtown Dam using a plankton net fitted with a flowmeter. Samples will be subsampled to estimate veliger densities at each location for each month, then a weighted average (using volume of water sampled) will be used to generate a general index of veliger density for the Red River for the month.

Monthly samples will be collected mid-month from April through October. Samples will be collected and analyzed by the ANS Coordinator. This addresses Action 4.B.1 (Attachment A).

### **Terrestrial Invasive Species**

The North Dakota Game and Fish Department does not have authority on terrestrial invasive species across the state but, as with ANS, collaborates heavily with other agencies to combat the introduction or spread across the state. As a Department, we work regularly with local weed boards to either spray or use biological controls (e.g., flea beetles on leafy spurge) to control those invasives. An internal policy is also in place that new vegetation plantings and food plot seeds must come from a reputable, certified weed free source.

There are other species that have become synonymous with lawns in the northern plains and other areas of the country and that is Kentucky bluegrass. While a popular choice for lawns it has become invasive in many native grasslands in North Dakota. It can be an adequate forage for livestock production but its value as wildlife habitat is very low. Once established, bluegrass can out compete native grass and forbs, reducing the value as wildlife habitat and replacing pollinator habitat for bees, butterflies and other pollinating insects. If a bluegrass infestation is reported at early infestation it can be mostly restricted with managed grazing activity but once infestations reach 30% or more of the area in which it has invaded, it becomes very difficult to control further expansion. Herbicide application is not necessarily a viable control technique since the herbicide will also devastate the native vegetation.

Another species that creates challenges is smooth brome grass. Again, it can be a popular forage supply for cattle but it's characteristic of 'clumping' has less than desirable wildlife habitat value. As with bluegrass, early grazing can control it's spread to some extent but eradication is very difficult and herbicide application is again not a viable alternative.



The North Dakota Department of Agriculture is the primary entity charged with addressing invasive terrestrial species. There are currently 12 species listed as 'noxious weeds' by the Department of Agriculture and, once reported, it is the mandated responsibility of the landowner or appropriate entity charged with management of that land to eradicate the vegetation on the land for which they are responsible. The county or city weed boards do the majority of the work and monitoring, but the ND Department of Agriculture regularly assists with financial help. North Dakota State University Extension Service provides assistance with public outreach and education. As with ANS, collaboration is necessary, if not a prerequisite, to adequately address issues associated with terrestrial invasives. An example occurred in August, 2019 when palmer amaranth was first reported in North Dakota. This is a tremendously harmful invasive that can significantly impact agriculture production as well as wildlife habitat. There are speculations as to how it came to enter North Dakota; a combine bought in Ohio and came into the state uncleaned, out of state hay sources entered the state in 2017 when vast amounts of hay forage were brought into North Dakota to address a forage shortage due to a drought, and potential pathway via waterfowl. Upon notification of palmer amaranth the Game and Fish Department and Agriculture Department met to determine what both could do to help with the situation. Given that hunting seasons were near, Game and Fish offered to help disseminate information via our website and other education media and to ask help from hunters to report a possible sighting while they were out hunting, which meant thousands of individuals could be observing numerous areas during a relatively short period of time.

In conclusion, invasive species can cause great harm to the economy, human health, and infrastructure if left unchecked. The first priority should always be to prevent the introduction of the species but if it does occur, immediate response with a predetermined plan to control the spread of the invasive species and finally, if possible, eradicate the infestation with minimal or no impact to the public.

## ATTACHMENT A

### TABLE OF ANS PLAN OBJECTIVES, STRATEGIES, AND ACTIONS.

| <b>OBJECTIVE 1. COORDINATION AND COMMUNICATION</b>   |
|--|
| <b>Strategy 1.A. Maintain dedicated ANS staff</b>  |
| <i>Action 1.A.1. Hire, train, and maintain appropriate staff levels for overseeing and implementing a statewide ANS program.</i> |
| <b>Strategy 1.B. Coordinate North Dakota efforts</b>   |
| <i>Action 1.B.1. Implement an adaptive statewide management plan.</i>  |
| <i>Action 1.B.2. Host regular meetings of the North Dakota Aquatic Invasive Species Committee.</i>                               |
| <i>Action 1.B.3. Guide research within North Dakota.</i>   |
| <b>Strategy 1.C. Actively participate in large-scale ANS efforts</b>   |
| <i>Action 1.C.1. Actively participate in regional coordination groups.</i>   |
| <i>Action 1.C.2. Participate in national and international coordination efforts.</i>   |
| <i>Action 1.C.3. Attend meetings and conferences aimed at addressing ANS issues.</i>   |
| <b>Strategy 1.D. Communicate ANS activities</b>  |
| <i>Action 1.D.1. Develop a publicly-accessible annual report.</i>  |
| <i>Action 1.D.2. Develop and distribute informational updates.</i>   |
| <i>Action 1.D.3. Solicit public input on ANS activities as appropriate.</i>  |
| <b>OBJECTIVE 2. EDUCATION AND OUTREACH</b>   |
| <b>Strategy 2.A. Implement a statewide ANS outreach campaign</b>   |
| <i>Action 2.A.1. Develop and implement statewide ANS communications strategy.</i>  |
| <i>Action 2.A.2. Utilize a recognizable outreach campaign for general audiences.</i>   |
| <b>Strategy 2.B. Educate stakeholders on ANS</b>   |
| <i>Action 2.B.1. Provide information to high-risk individuals.</i>   |
| <i>Action 2.B.2. Focus educational efforts on entities that provide ANS pathways.</i>  |
| <i>Action 2.B.3. Educate decision-makers on ANS issues.</i>  |
| <i>Action 2.B.4. Include ANS education in public events.</i>   |
| <i>Action 2.B.5. Maintain an updated public information platform.</i>  |
| <b>Strategy 2.C. Provide training to key staff and partners</b>  |
| <i>Action 2.C.1. Provide ANS staff opportunities to attend trainings.</i>  |
| <i>Action 2.C.2. Develop and employ a North Dakota-specific ANS training program.</i>  |
| <b>Strategy 2.D. Identify and address educational gaps</b>   |
| <i>Action 2.D.1. Evaluate and adjust educational efforts.</i>  |
| <i>Action 2.D.2. Use research to guide educational developments.</i>   |

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| <b>OBJECTIVE 3. PREVENTION AND CONTROL</b>  |
| <b>Strategy 3.A. Establish internal ANS prevention policies</b>                                   |
| <i>Action 3.A.1. Establish internal ANS policies and procedures.</i>                              |
| <i>Action 3.A.2. Review agency activities for potential ANS impacts.</i>                          |
| <b>Strategy 3.B. Institute and enforce comprehensive regulations</b>                              |
| <i>Action 3.B.1. Maintain a list of prohibited ANS.</i>   |
| <i>Action 3.B.2. Craft comprehensive statewide regulations.</i>                                   |
| <i>Action 3.B.3. Provide staff to fully enforce regulations.</i>                                  |
| <i>Action 3.B.4. Facilitate regulation compliance.</i>  |
| <b>Strategy 3.C. Incorporate ANS preventative actions into permitting processes</b>               |
| <i>Action 3.C.1. Include ANS regulatory information in permit language.</i>                       |
| <i>Action 3.C.2. Require preventative actions for high-risk permitted activities.</i>             |
| <i>Action 3.C.3. Enforce permit ANS requirements.</i>   |
| <b>Strategy 3.D. Eradicate or reduce ANS populations where feasible</b>                           |
| <i>Action 3.D.1. Develop a rapid response plan for new ANS populations.</i>                       |
| <i>Action 3.D.2. Conduct efforts to reduce or eradicate ANS populations as feasible.</i>          |
| <b>Strategy 3.E. Identify and incorporate scientifically sound prevention and control methods</b> |
| <i>Action 3.E.1. Research new methods of preventing and controlling ANS.</i>                      |
| <i>Action 3.E.2. Develop and integrate best management practices.</i>                             |
| <b>OBJECTIVE 4: SAMPLING AND MONITORING</b>   |
| <b>Strategy 4.A. Conduct statewide early detection sampling for ANS</b>                           |
| <i>Action 4.A.1. Incorporate early detection sampling into existing activities.</i>               |
| <i>Action 4.A.2. Conduct targeted high-risk early detection sampling.</i>                         |
| <b>Strategy 4.B. Monitor existing ANS populations</b>   |
| <i>Action 4.B.1. Monitor existing ANS populations and document any changes.</i>                   |
| <b>Strategy 4.C. Monitor high-risk pathways for signs of ANS</b>                                  |
| <i>Action 4.C.1. Identify and monitor internal high-risk pathways.</i>                            |
| <i>Action 4.C.2. Identify and monitor external high-risk pathways.</i>                            |