

## Rapid Response Plan Following Detection of Dreissenid Mussels in Guernsey Reservoir, Wyoming

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### SUMMARY

Guernsey Reservoir is located on the North Platte River in Eastern Platte County, Wyoming. The Bureau of Reclamation owns and operates Guernsey Dam, and Wyoming State Parks and Historic Sites manages recreation on Bureau of Reclamation-owned lands as Guernsey State Park. At full pool (elevation 4,420 feet), the reservoir covers 2,382 surface acres and has 27 miles of shoreline. The boating season runs mid-May to mid-September. Most boating activity is recreational, because extreme fluctuations in water levels limits the fishery. In 2018 and 2019, most (71%) boaters were WY residents, and the rest came from CO (26%), NE (2%) and NM (1%). In 2018 and 2019, check stations around the state inspected 1,233 boaters that stated Guernsey Reservoir was their next destination; of those boaters, 6% were high risk inspections and 3% had come from a water known to be infested with dreissenid mussels.

If zebra or quagga mussels are detected in Guernsey Reservoir, the reservoir will enter suspect status. Initially, the goal will be preventing mussels from spreading to other waters until their presence is verified with additional sampling and testing (up to six weeks). Implemented closures will prohibit watercraft from launching September 15 – May 1 and during the July draw-down, prohibit motorized boats from using boat ramps from sunset to 8 AM, and prohibit all watercraft from exiting the park via the north entrance. It may be necessary to close Long Canyon boat ramp and prohibit shore launching along the eastern shore. One check station, located on Lake Shore Drive near the south entrance to Guernsey State Park, will be operated from 8 AM to ½ hour after sunset, May 1 thru September 15. Five inspectors will be required to fully man the check station. Data on boater use patterns at Guernsey Reservoir will be collected to refine long-term response and maximize efficiency. Closures implemented during the initial response will continue for one year and then be discontinued if not supported by boater use data. Eventually, the check station will be moved to a more permanent location on Lake Shore Drive (Highway 317) on State of Wyoming-owned land approximately 0.25 miles south of the southern entrance and will be operated May 1 thru September 15. For the first year, the check station will be manned from 8 AM to ½ hour after sunset. After year 1, boater use patterns will determine hours of operations, which will likely be from 8 AM to 6 PM or 8 PM. Depending on status level, four to 10 inspectors and one crew lead will be hired to fully man the check station.

Additional equipment to be purchased includes: one mobile office, two 2000-Watt generators with a parallel kit, up to four decontamination units, one ¾ ton pickup, one 16-foot utility trailer, twin 550 gal water tanks, one 2-inch trash pump, one camper trailer, and signage. Comfort stations and one state motor pool sedan will be rented. Necessary infrastructure will be built at the check station location. Drilling a well and installing electricity at the check station is recommended at Infested Status. Operating costs at Positive Status will be \$315,980 for the first year and then \$132,880 annually. Operating costs at Infested Status will be \$496,480 for the first year, and then \$209,580 annually.

## INTRODUCTION

Zebra (*Dreissena polymorpha*) and quagga (*Dreissena bugensis*) mussels are aquatic invasive species (AIS) that have far-reaching negative impacts on natural resources, water infrastructure, recreation, and can be attributed to significant economic loss. Zebra mussels are native to the Black and Caspian seas and were first discovered in the Great Lakes in 1988. Quagga mussels are native to the Dnieper River Drainage in Ukraine and were first found in the Great Lakes in 1989. Since their initial introductions, these species have spread across most of the United States, and have been detected in Wyoming's neighboring states of Nebraska, South Dakota, Montana, Colorado, and Utah. The close proximity of zebra and quagga mussels to Wyoming elevates the threat of introduction and increases the need for plans to contain them if detected.

Currently, Wyoming's AIS program is focused on outreach, watercraft inspection and monitoring, with the overall goal of keeping invasive species such as zebra and quagga mussels out of the state. Wyoming law requires inspection of all watercraft entering the state and the Wyoming Game and Fish Department (WGFD) currently maintains 14 inspection stations (primarily at Department of Transportation Ports of Entry) that intercept incoming watercraft and inspect them for the presence of AIS. The WGFD AIS program also conducts inspections at various waters by roving personnel and at regional offices. Annual monitoring for a variety of AIS, including zebra and quagga mussels, is conducted on priority waters throughout Wyoming and an outreach program is in place to educate the public about the threats of AIS and what they can do to prevent their spread.

If zebra or quagga mussels are detected in a Wyoming water, immediate action will be necessary to prevent their spread to other waters. This rapid response plan is a water-specific plan that outlines the steps needed to quickly mobilize personnel and equipment to provide exit inspections and, if necessary, decontaminations of all boats leaving the affected water. This plan will be initiated when zebra or quagga mussel veligers (larvae) or adults are detected in a sample from Guernsey Reservoir and are verified by independent experts and genetic analysis. At that point, the reservoir will enter Short-term Suspect Status. This coincides with the period of time necessary to conduct additional sampling and testing necessary to verify whether zebra or quagga mussels are present (up to six weeks). If follow-up sampling does not detect zebra or quagga mussels, the water will enter Long-term Suspect Status and monthly monitoring will be initiated. If zebra or quagga mussels are not detected for three years, the water will once again be considered negative. Conversely, if two sampling events within a 12-month period detect zebra or quagga mussels, the water will enter Positive Status and will not be considered negative again unless mussels are not detected in monthly monitoring for five years. Finally, a water will enter Infested Status when evidence shows a recruiting and reproducing population of zebra or quagga mussels is established. At this point, eradication of mussels is highly unlikely and containment efforts will be necessary for the foreseeable future.

This plan provides guidance for the initial response to detection of dreissenid mussels at each of these four status levels and is intended to be implemented quickly and act as the guiding document for initial decision making following detection. It is not intended as a long-term containment plan, but will outline the action necessary to provide short-term containment while a long-term containment and monitoring plan is developed.

## CONFIRMATION OF DREISSENIID MUSSELS

Sampling of Wyoming waters is conducted annually in accordance with the “Wyoming Game and Fish Department Aquatic Invasive Species Sampling and Monitoring Manual” (WGFD 2019). High priority waters are sampled twice per season (June or July, and September or October), and lower priority waters are sampled once per season in September or October. To determine whether Wyoming waters contain evidence of AIS, specimens of adult or juvenile crayfish, snails, mollusks, plants, etc. are collected during routine sampling and any specimen suspected of being AIS must be positively identified by at least two independent experts. Only samples collected by the WGFD may be used to change the classification of a water. Samples collected by a third party will be used as a notification of a possible detection which must be confirmed by a WGFD sample.

To meet the minimum criteria for detection of dreissenid mussels, an adult or juvenile specimen must be verified by two independent experts and confirmed by DNA, or a veliger (larval form) must be identified and verified using cross-polarized light microscopy by two independent experts and confirmed by DNA analysis (PCR and gene sequencing).

Based on sampling results, waters are given certain classifications related to their dreissenid mussel status:

A water body that has not been sampled for aquatic invasive species is classified as *Unknown/Not Tested*. A water body at which sampling is ongoing and nothing has been detected (or nothing has been detected within the time frames for de-listing) is classified as *Negative*. Currently, all waters in Wyoming are classified as either *Unknown/Not Tested*, or *Negative*.

A water body classified as *Inconclusive* has not met the minimum criteria for detection but evidence of dreissenids has been documented. For example, evidence of a mussel veliger is detected via microscopy but cannot be confirmed by DNA analysis. This is a temporary classification and additional sampling of this water will be conducted to determine whether the water body is classified as negative (no detections in subsequent sample) or suspect (verified detection in subsequent sample).

A water body classified as *Suspect* indicates a water at which one sample has been verified by visual confirmation (visual identification of adult or microscopy identification of veliger) and this sample was confirmed as dreissenid by DNA analysis (PCR and gene sequencing). In this scenario, additional sampling will be conducted to determine whether another sample taken within 12 months detects evidence of dreissenids. If a subsequent sample does detect dreissenids, this water will then be classified as *Positive*.

A water body classified as *Positive* indicates a water at which two or more sampling events within a 12-month period meet the minimum criteria for detection. For example, samples from two different sampling events are verified by both visual identification (including microscopy) and DNA confirmation (PCR and gene sequencing).

In many cases, a water classified as *Positive* will ultimately become *Infested* which is a water body with an established (recruiting and reproducing) population of dreissenid mussels. For example, lakes Mead and Powell are considered infested waters as they have large populations of reproducing dreissenids and mussels are readily evident on the shoreline and submerged materials such as docks, buoys, etc.

In some instances, the classification of a water body can be downgraded over time. The exact reasons why dreissenids are detected at a water once, then not again in subsequent

sampling, or are detected in a water classified as *Positive* but never establish a population, remains largely unknown.

A water body initially classified as *Inconclusive* can be de-listed to *Negative* status after one year of negative testing results including at least one sample taken in the same month of subsequent year as the initial positive sample (to account for seasonal environment variability). The time frame for de-listing a water body extends from there with a water body initially classified as *Suspect* requiring three years of negative testing to re-classify to *Negative*, a *Positive* water body requiring five years of negative testing to re-classify to *Negative*, and an *Infested* water body requiring a successful eradication or extirpation event and a minimum of five years of negative testing results post-eradication event to re-classify to *Negative*.

## WATER DESCRIPTION

Located 25 miles downstream of Glendo Dam in Eastern Platte County, Wyoming, Guernsey Dam impounds Guernsey Reservoir on the North Platte River (Figure 1). The Bureau of Reclamation owns and operates Guernsey Dam and the majority of lands bordering the reservoir. Wyoming State Parks and Historic Sites manages recreation on these lands for the Bureau of Reclamation as Guernsey State Park. Along the Western shoreline of the reservoir, the Department of Defense owns small portions of land that are part of the Camp Guernsey Joint Training Center. These lands are enrolled in the Wyoming Game and Fish Department Walk-in Fishing program. The two closest towns to Guernsey Reservoir are the towns of Guernsey and Hartville. Guernsey is located approximately 2 miles south of the reservoir, and Hartville is located approximately 3.5 miles west of the reservoir. Additional key stakeholders include the multiple locally owned businesses located in or near the town of Guernsey, as well as downstream water users. Small businesses like Johnston's Corner and Good to Go Stores #221 gas stations, Howshar Do it Best Hardware, Guernsey Market Place, and Peak View RV and A OK RV parks would be most impacted.

Guernsey Reservoir is approximately 14.6 miles long. The width of the lower half of the reservoir near the dam ranges 0.09 miles to 0.25 miles; the upper half of the reservoir is wider, ranging from 0.5 to 1 mile wide. Guernsey Reservoir has approximately 27 miles of shoreline. At full pool (elevation 4,420 feet), the reservoir covers approximately 2,382 surface acres. Silt deposits have greatly reduced the reservoir's water storage capacity, which originally was 73,810 acre-feet. To scour silt deposits, Guernsey Reservoir is rapidly drawn down shortly after the Fourth of July Holiday each year to elevation 4,390 feet. It is refilled in late July and August, and drawn down again in mid to late September to a minimum elevation of 4,387 feet (SD=11) most years. The main purpose of Guernsey Reservoir is to store and supply irrigation water for agricultural production, as well as generate hydro-electric power from agricultural water releases.

The topography surrounding Guernsey Reservoir is characterized as rugged. Conifer communities of Ponderosa Pine and Rocky Mountain Juniper dominate higher elevations, and transition to mountain shrub and sagebrush communities in the lower elevations. Cottonwoods and willows line some shorelines around the reservoir. Most development is concentrated in the lower half of the reservoir and includes campsites, cabins, boat ramps, picnic areas, and 12 miles of trails. Private boat docks exist on Guernsey Reservoir; however, all boaters must use public roads to enter and exit the park and use public boat ramps to launch motorized boats at Guernsey Reservoir.

The boating season and timing of peak use at Guernsey Reservoir appear to be associated with the major summer holidays. Minimal boating activity occurs in late April and early May. Use increases starting mid-May and remains high through the Fourth of July holiday. Use drops dramatically in July when the reservoir is drawn down to manage siltation and rebounds in August and September, peaking around the Labor Day holiday. After Labor Day, use tapers off rapidly, and the boating season is typically over by the middle of September. Use during the week (e.g., Monday – Thursday) is substantially lower than use during the weekends (e.g., Friday – Sunday). Use is highest during holiday weekends and extends into weekdays (e.g., Thursday – Monday). If the Fourth of July falls in the middle of the week, use is substantially higher all week (e.g., Monday-Sunday). Lastly, many visitors, including boaters, exit the park between 10 a.m. and 11 a.m., as the check-out time for campsites is 11 a.m. (Chris Delay, personal communication).

Extreme fluctuation in water levels each year limits the fishery at Guernsey Reservoir. As a result, most boating activity is recreational. Data from roving inspections ( $n=115$ ) conducted at Guernsey Reservoir in 2018 and 2019 has shown 71% of boaters are Wyoming residents, 26% of boaters come from CO, and the rest came from NE (2%) and NM (1%). A total of 1,233 boaters that stated Guernsey Reservoir was their next destination were inspected from January 1, 2018 to November 11, 2019 at check stations throughout the state. The majority of boats launching on Guernsey Reservoir were personal watercraft or jet skis (31%), followed by inboard/outboard boats (24%), inboard boats (19%), non-motorized watercraft (14%), outboard boats (10%), and jet boats (3%). Of those boaters that stated Guernsey Reservoir was their next destination, 6% ( $n=73$ ) were high risk inspections, 3% had come from a water known to be infested with dreissenid mussels, and 0.8% ( $n=10$ ) required decontaminations. The estimates for percent of boats that use Guernsey Reservoir that are high risk are likely inflated to some extent. Inspection data from check stations around the state tend to over-represent non-resident use and under-represent resident use, since most inspections are conducted at ports of entry to target non-resident boaters entering Wyoming. For example, the inspection data used to calculate these estimates also estimated non-resident use to be 71% and resident use to be 29%. These estimates are significantly different from estimates based on data from roving inspections conducted at the reservoir ( $\chi^2=84$ ;  $p<0.000$ ).

Boaters can launch motorized boats or personal watercraft from three boat ramps located within Guernsey State Park (Figure 1). Launching motorized boats or personal watercraft from shore violates state park rules and regulations. Non-motorized watercraft can be launched from boat ramps and developed campsites and access points near the water. Boaters must travel via Lakeshore Drive (WY-317) to enter Guernsey State Park and reach boat ramps and developed campsites and access points near the water. Boaters entering the park from the north take WY-270 to WY-317, and boaters entering the park from the south travel on US-26 to WY-317. A majority ( $\geq 80\%$ ) of visitors travel into the park via the southern entrance, and a small proportion of visitors use the northern entrance ( $\leq 20\%$ ; Chris Delay, personal communication). Sandy Beach Boat Ramp is accessed by taking WY-317 to Skyline Drive, heading northwest on Skyline Drive for approximately 2.1 miles, and then continuing down a gravel road to the boat ramp. Main Boat Ramp is located directly off WY-317/Lakeshore Drive approximately 0.5 miles north of Guernsey Dam. Long Canyon Boat Ramp is the northern-most boat ramp and is accessed by turning onto a gravel road near the northern park entrance and traveling along the north shoreline for approximately 0.7 miles. Use at Long Canyon Boat Ramp is lower than at the other boat ramps (Chris Delay, personal communication). The minimum elevation for launching at Sandy

Beach and Main boat ramps is 4,392 feet. The minimum elevation for launching at Long Canyon Boat Ramp is 4,396 feet. Most years, motorized boats are able to begin launching at all three boat ramps in the spring after ice-off. For about two weeks in July, water levels fall below the minimum launching elevation when the reservoir is drawn down to manage siltation. The reservoir is refilled, and motorized boats can launch at boat ramps in August and September. By mid to late September, Guernsey Reservoir is drawn down again and the ramps are out of water.

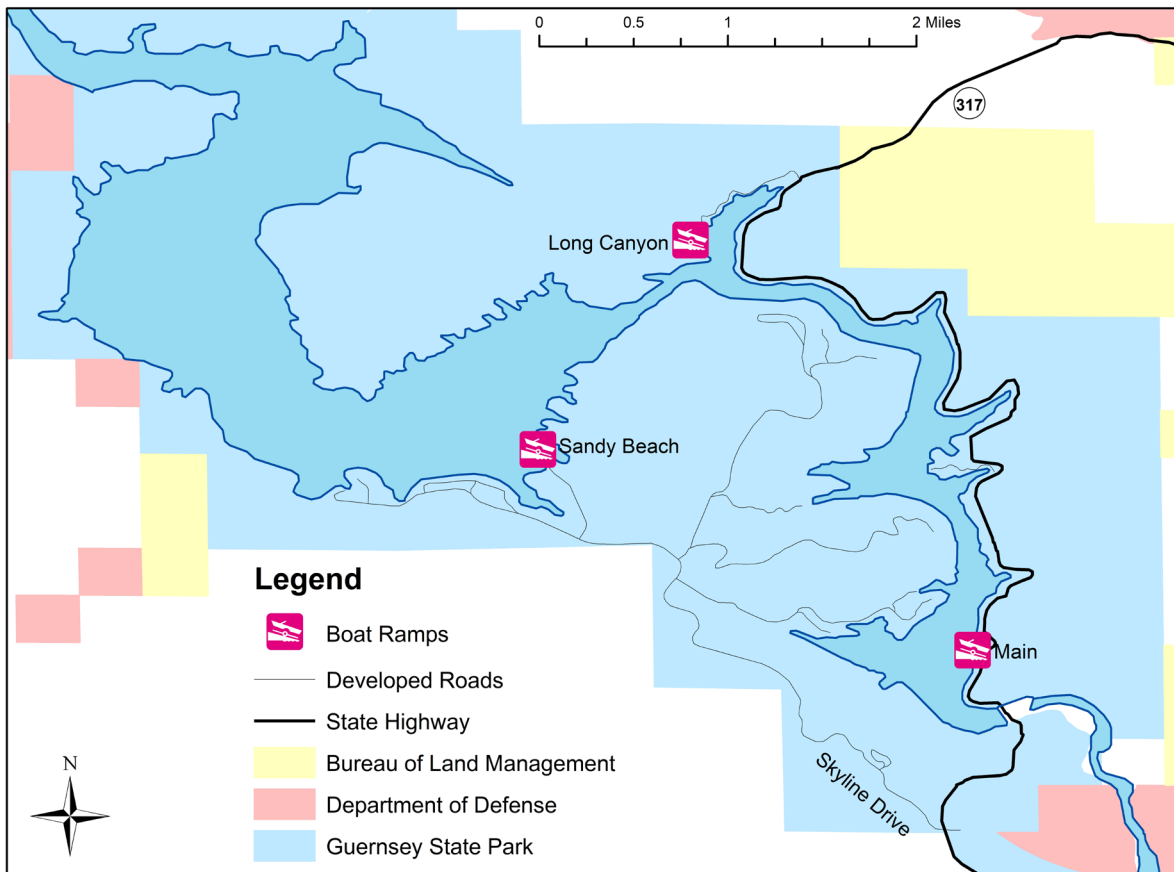


FIGURE 1. Map of Guernsey Reservoir access roads, boat ramps, and land ownership.

## RAPID RESPONSE – SHORT-TERM SUSPECT STATUS

In the event that a sample from Guernsey Reservoir is confirmed positive for dreissenid mussels, the reservoir will be considered Short-term Suspect (defined above). After the initial detection, follow-up sampling will occur and results will take approximately six weeks to be reported. During that time, it will be necessary to minimize the risk of spreading mussels to other waters. Within one week, resources will need to be in place to perform required clean, drain, dry exit inspections of all boats leaving the reservoir and decontamination of undrainable areas, such as ballast tanks and motors. All watercraft leaving Guernsey Reservoir will receive a red seal and seal receipt to verify the watercraft received an exit inspection. Red seals will designate use on a suspect, positive or infested water versus the brown seal currently used after a Wyoming AIS inspection.

At Short-term Suspect Status, there will not be time to hire personnel or purchase equipment. Therefore, the initial response will rely on existing personnel and equipment. Immediately after initial detection, job announcements and requisitions will be prepared so personnel can be hired and equipment can be purchased as quickly as possible once follow-up results are available.

### **Communication Plan**

Upon the initial detection of dreissenid mussels, WGFD's AIS Coordinator will begin the administrative communication chain outlined in the WGFD AIS Administrative Rapid Response Plan (WGFD 2020). Initial contacts in the administrative communication chain include the AIS Coordinator contacting the Communications Director, the Regional Fisheries Supervisor, and the Fish Division Chief, who contacts the WGFD Director. On the regional level, the Casper Regional Fisheries Supervisor will begin the regional communication chain to disseminate information about the detection to internal and external partners and stakeholders (Figure 2). Internal WGFD contacts include Regional Fish Division personnel, the Regional Wildlife Supervisor, the Regional Habitat and Access Supervisor and the Regional I&E Specialist. The Regional Wildlife Supervisor will then contact the Wheatland Game Warden as well as local Wildlife and Terrestrial Habitat biologists. The Regional Habitat and Access Supervisor will contact appropriate Habitat and Access biologists.

The Casper Regional Fisheries Supervisor or biologists will also contact key stakeholders, including the Guernsey State Park Superintendent, Bureau of Reclamation Wyoming Area Manager, Camp Guernsey Natural Resource Manager, the Mayor of Guernsey, the Town of Hartville, Platte County Commissioners, Goshen County Commissioners, Goshen Irrigation District, and Nebraska Game and Parks. They will also contact local business owners, including Johnston's Corner gas station, Good to Go Stores #221 gas station, Howshar Do it Best Hardware, and Guernsey Market Place. Boater contacts made through the Wyoming AIS inspection stations will be used as a primary notification and education outlet during this time period. The AIS Coordinator will also contact and coordinate with WGFD communication personnel, including Regional I&E (see Public Outreach, below), and regional stakeholders (Western Regional Panel, federal partners, etc.).

Key information to convey to internal and external partners and stakeholders should include the name of the affected water, which species was collected, who collected the sample, where the sample was collected, which agency/expert analyzed the sample, any relevant information about the sample, who to contact for more information, a brief description of containment protocols that will be put in place, and any critical changes for the public. Every effort should be made to quickly contact all partners and stakeholders prior to beginning public outreach efforts. The regional fisheries supervisor will attempt to make all contacts within 24 hours of detection and will contact the Communications Director once enough contacts have been made to initiate outreach efforts.

Contact information for key individuals can be found in Appendix A.

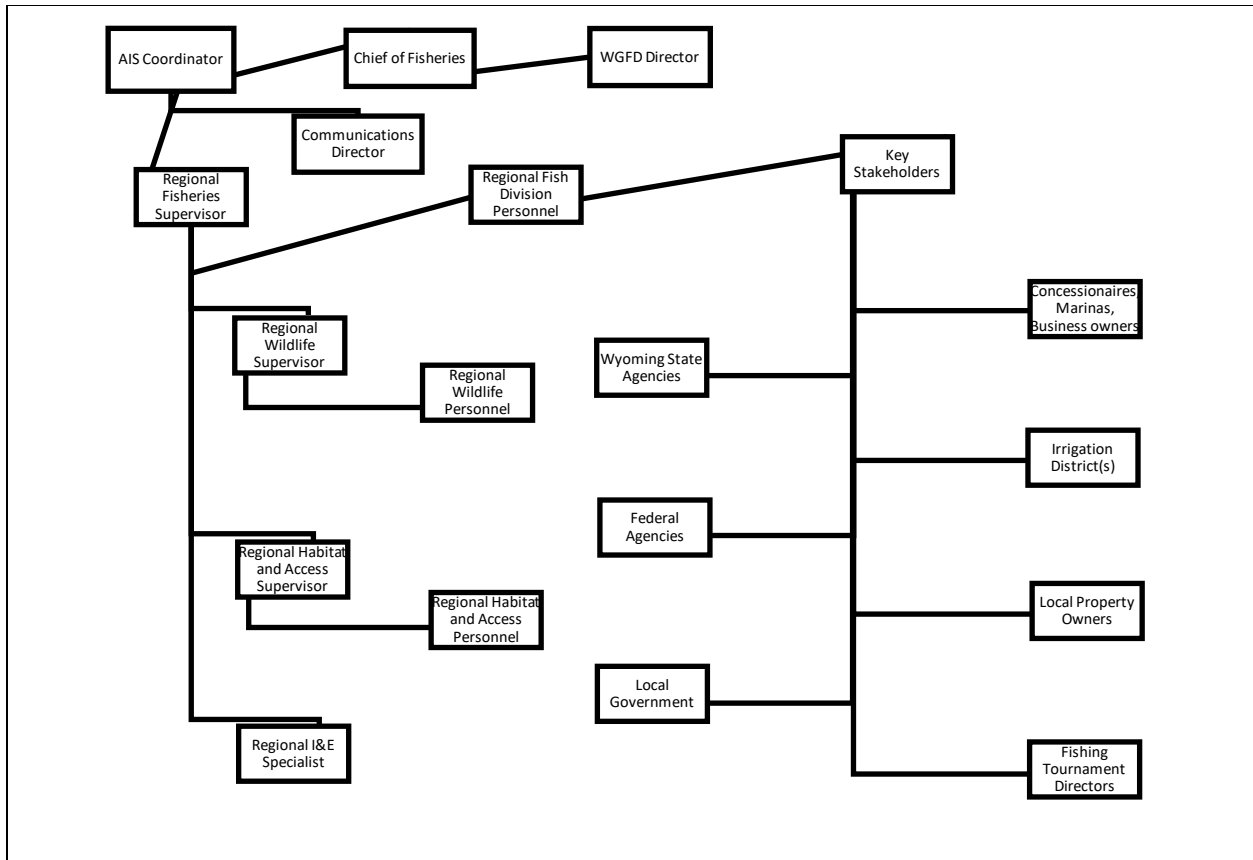


FIGURE 2. Communication chain for dissemination of information on the local and regional level following a dreissenid mussel detection in a Wyoming water.

The focus of this plan is on containing invasive mussels through inspection and decontamination of exiting watercraft. Consideration should be given to other potential vectors that could spread invasive mussels (e.g., aircraft used to combat wildfires, commercial water hauling equipment) and communication and coordination should occur with these entities to ensure containment. Current information on preventing the spread of aquatic invasive species in firefighting and water hauling equipment can be found on the WGFD website at <https://wgfd.wyo.gov/Fishing-and-Boating/Aquatic-Invasive-Species-Prevention/AIS-Construction-and-Fire>.

### Closures

Given the seasonal nature of use at Guernsey Reservoir, a seasonal closure prohibiting all watercraft from launching at the reservoir is recommended from September 15 – May 1. Additionally, a temporary closure prohibiting all watercraft from launching at the reservoir during the July draw down is recommended. No location with sufficient space to accommodate trailers exists along the northern route to operate a check station. Prohibiting boaters from exiting the park via the north entrance will negate the need for two check stations and allow for one check station to capture and inspect all boaters leaving the reservoir. It may be appropriate to consider closing Long Canyon boat ramp and prohibiting shore launching along the eastern



shore; these closures may help alleviate wait times, as well as deter boaters from leaving via the north entrance of the park without an exit inspection. In addition, night closures of boats ramps prohibiting launching and retrieving motorized boats from boat ramps between sunset and 8 AM will ensure all boats are inspected prior to leaving the reservoir. Guernsey State Park rules and regulations already prohibit launching motorized boats or personal water crafts from the shore. Non-motorized watercraft would be permitted to launch from shore, but would be required to obtain an exit inspection prior to leaving the reservoir.

### Check Station

As described above, only one check station will be needed to capture and inspect all boaters leaving Guernsey Reservoir by prohibiting watercraft from leaving via the northern park entrance (Figure 3). The check station will be located at a paved dump station on Lake Shore Drive (Highway 317) near the southern entrance to Guernsey State Park. AIS inspectors have used this location in the past to conduct boat inspections. In addition, the dump station has a large roundabout that will facilitate boaters entering and exiting the check station. The check station will be operated from 8 AM to ½ hour after sunset, May 1 thru September 15. Due to the extreme drop in use when the reservoir is draw-down in July, the check station should be temporarily closed for that time period (approximately 2 -3 weeks). In addition to inspecting boats, data needs to be collected to fill informational gaps regarding boater demographics and use patterns to refine the appropriate level of response at current and futures statuses.

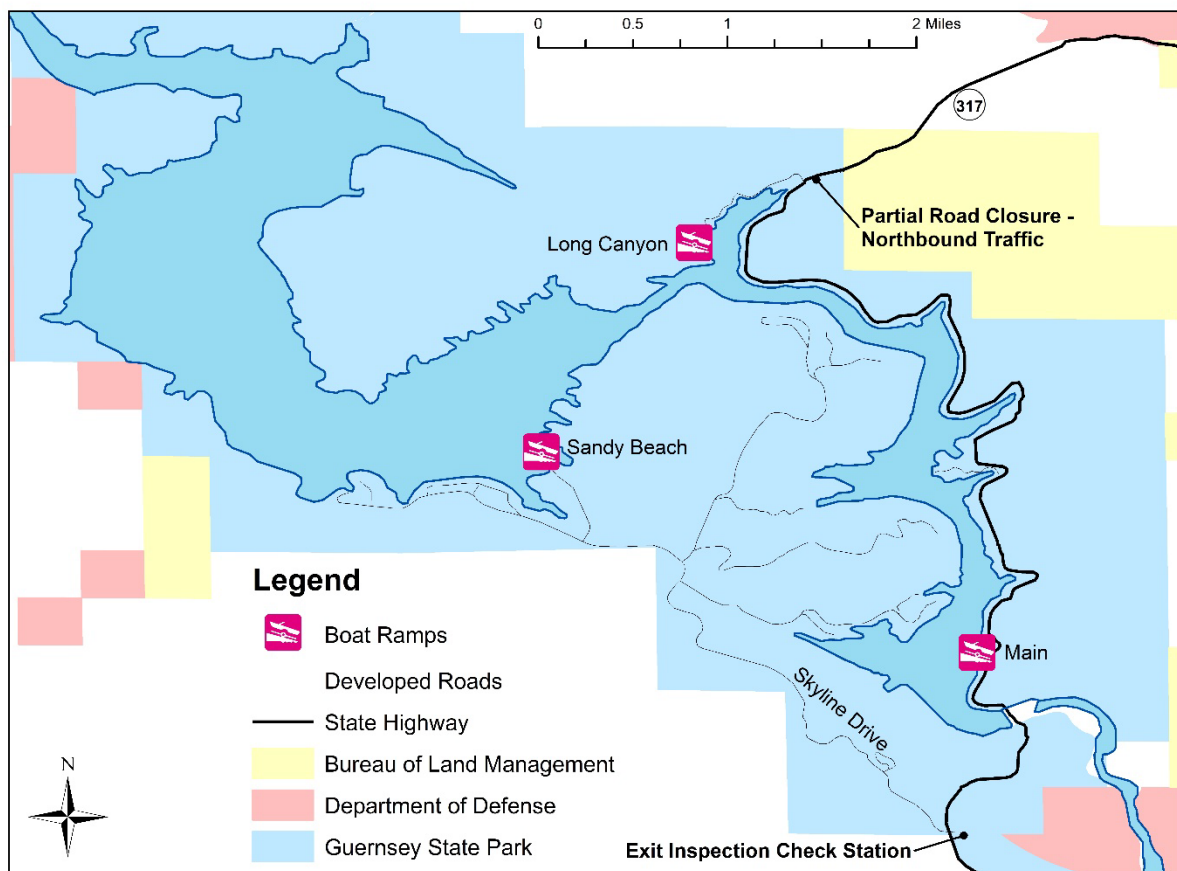


FIGURE 3. Map of locations of exit inspection check station and partial road closure to boaters exiting the park at Guernsey Reservoir. Also included are access roads, boat ramps, and land ownership.

### **Staffing Plan**

During non-holiday weeks, five inspectors working no more than 40 hours per week will be required to fully man the check station. Monday thru Thursday, two inspectors working partially overlapping 10-hour shifts will be present at the check station. Friday to Sunday, three inspectors will work partially overlapping shifts. The inspector working the first shift will open the check station and man it alone until mid-morning. The inspector working the second shift will maintain and close the check station in the late evening alone. A third inspector will work a 10-hour shift from 8 AM to 6 PM. The three inspectors' shifts will overlap to ensure that two inspectors are present when most boaters exit the park (10 AM to 11 AM) to minimize congestion and long wait times.

To fully man the check station during holiday weeks, five inspectors working no more than 40 hours per week will work shifts as described above. Additionally, a third inspector should work a 10-hour shift (8 AM to 6 PM) on the Monday of the actual or observed holiday. In the event the Fourth of July lands in the middle of the week (e.g., Tuesday – Wednesday), it will be assumed that increased holiday traffic will occur from the prior Saturday through the following Sunday. The check station will need to be manned with three inspectors with overlapping shifts the entire holiday period and will require a minimum of six inspectors working no more than 40 hours per week.

The Casper AIS rover will be stationed at Guernsey Reservoir and man the check station 40 hours per week. The Casper Region Fish Management crew will man the check station as needed. The Casper Regional Supervisor will develop a schedule and request help from all AIS-certified regional personnel to man shifts that the AIS rover and fish management crew are unable to.

### **Supplies and Equipment**

A minimum of two, but preferably three, decontamination units will be required for most of the boating season. This will provide 1-2 units to be in operation and an extra decontamination unit as a backup in the event a unit breaks down. The backup unit should be staged at the Guernsey State Park headquarters. The Casper Regional Office decontamination unit will be used at Guernsey Reservoir, and the remaining two decontamination units will need to be secured from outside the region. The Department can fill up decontamination units at water filling stations within Guernsey State Park, but a  $\frac{3}{4}$  ton pickup with water tank will be needed to haul water from the water filling station to replenish the tanks each day. Casper AIS has only  $\frac{1}{2}$  ton pickups at this time, and would need to trade those with other regions that have  $\frac{3}{4}$  ton pickups. A 325 gal water tank and a 2-inch trash pump will be purchased to haul water from water filling stations within Guernsey State Park to the check station. Because there are no restrooms at the check station, porta-potties will need to be rented for inspectors and boaters. A & A Porta Potties, based out of Scottsbluff, Nebraska, would be able to service the check station with one standard unit at an all-inclusive monthly fee of \$200 (includes delivery, pick-up, and weekly services to clean and restock the units with toilet paper and hand sanitizer).

The Casper Region Fish Management trailer, which sleeps up to three people, would be moved from Seminoe Reservoir to the maintenance compound at Guernsey State Park if space is available. The camper trailer would, at a minimum, have electrical hook-ups. Additionally, the Glendo Bunkhouse, which is a 1-hour drive from Guernsey Reservoir, could be used to house an additional four people. In the event the Glendo Bunkhouse is unavailable, one to two additional camper trailers would need to be borrowed from outside the region to accommodate additional personnel during holiday weekends. Potentially, the additional camper trailers can be staged at park headquarters, or if Guernsey State Park is notified early enough, sites with electrical and water hook-ups could be blocked out. If camper trailers cannot be staged at Guernsey State Park, then the nearest RV Parks, Peak View RV Park and A OK RV Park, are located approximately 9.5 miles and 16.7 miles from Guernsey State Park, respectively. Rental rates in 2020 at Peak View RV Park are \$350/month plus utilities. Camp groceries will be provided to inspectors working the Guernsey check stations. Signs will be installed at boat ramps and the two park entrances that inform watercraft users about exit inspection requirements and temporary closures (e.g., night closures and the partial road closure for watercraft). See Appendix B for the budget associated with the Short-term Suspect Status and a list of supplies to be purchased.

### **Public Outreach**

The AIS Administrative Rapid Response Plan outlines the general public outreach plan for suspect, positive or infested determinations for Wyoming waters (WGFD 2020). Following an initial sample testing positive for dreissenid mussels, the AIS Coordinator will contact the Communications Director at WGFD Cheyenne Headquarters. Prior to initiating the public outreach plan, key partners and stakeholders should be contacted according to the Communication Plan (above). The regional fisheries supervisor will attempt to make all contacts within 24 hours of detection and will contact the Communications Director once enough contacts have been made. The Communications Director will then initiate the Communications Plan. A statewide press release will be sent out and information will be posted on the AIS website and any necessary social media. The Casper Regional Fisheries Supervisor will coordinate a public meeting with the Mayor of Guernsey to explain the Department's response and answer questions. In addition, local businesses will be informed of the details of the Departments plan and asked to display informational signage and provide informational brochures to the public as to what to expect next. The AIS Coordinator, Regional Fisheries Supervisor and Regional AIS Specialist will collaborate with the Casper Regional I&E Specialist to relay information about Short-term Suspect Status at Guernsey Reservoir through media outlets (newspapers, radio, etc.), targeting Natrona, Converse, Platte, Goshen, and Laramie counties, as well as the front range of Colorado. Regional Information and Education personnel will coordinate all communications efforts with the Communications Director.

## **RAPID RESPONSE – LONG-TERM SUSPECT STATUS**

If initial follow-up sampling does not yield a positive result, Guernsey Reservoir would enter Long-term Suspect Status (defined above) and remain at this level for up to three years if no additional positive samples are found. The goal during this period is still to minimize the risk of spreading mussels to other waters. During the first year (from initial detection through the following boating season), we will need to provide capacity for all boaters coming off the water

to efficiently obtain a required clean, drain, dry exit inspection, motor flush, and decontamination of ballast tanks and other undrainable areas. All watercraft leaving Guernsey Reservoir will receive a red seal and seal receipt to verify the watercraft received an exit inspection. Red seals will designate use on a suspect, positive or infested water versus the brown seal currently used after a Wyoming AIS inspection.

If there is no confirmation of dreissenid mussel presence after the first full boating season, efforts will switch in years two and three to a lower level response, with a goal of contacting a significant number of boaters, but placing more responsibility on boaters to obtain an exit inspection. Inspectors will still conduct clean, drain, dry exit inspections on boats leaving the water and decontaminate ballast tanks and other undrainable areas. If feasible, they will continue to flush all motors. If not, they will drain outboards motors and only flush inboard/outboard and inboard motors as these motor types are difficult to drain completely. Public outreach will increase via multiple outlets to highlight the potential threat at the suspect water.

### ***Communication Plan***

The administrative communication chain will continue to be utilized to inform all parties on follow-up sampling results and water status (see WGFD AIS Administrative Rapid Response Plan; WGFD 2020). In addition, the Casper Region internal communication chain outlined in the Short-term Suspect Status section (above) will continue to be utilized to inform the Casper Region and key stakeholders (Appendix A) of follow-up sampling results.

### ***Closures***

Closures implemented during Short-term Suspect Status will remain in effect through year 1 of Long-term Suspect Status, with one exception. The reservoir can remain open during the July draw-down. During year 1, data should be collected to determine if all closures are necessary. In years 2 through 3, it is likely that the only closure that should remain in effect at Long-term Suspect Status will be the seasonal closure. As closures are lifted, more responsibility will be placed on boaters to ensure all watercraft obtain an exit inspection prior to leaving the reservoir.

### ***Check Station***

Because there is no location along the northern route to operate a check station that will have sufficient space to accommodate vehicles with trailers, only one check station will be operated at Guernsey Reservoir. The check station will be located on Lake Shore Drive (Highway 317) on State of Wyoming owned land (Figure 4). The location of the new check station would be approximately 0.25 miles south of the southern entrance to Guernsey State Park. The site lacks any infrastructure, but there is level ground upon which a gravel pad could be built. Approval from State Parks, which is anticipated to take 1-2 months, will be required prior to any construction being completed. Moving the check station to this new location is warranted if the reservoir enters into the Long-term Suspect Status. The location of the check station during Short-term Suspect Status is not ideal. It is less than 100 yards north of the entrance fee booth, and boaters have to cross oncoming traffic to enter and exit the check station. Moving the location of the check station should alleviate congestion, but boaters will still have to

cross oncoming traffic to enter and exit the check station. This should be taken into account when designing the new check station.

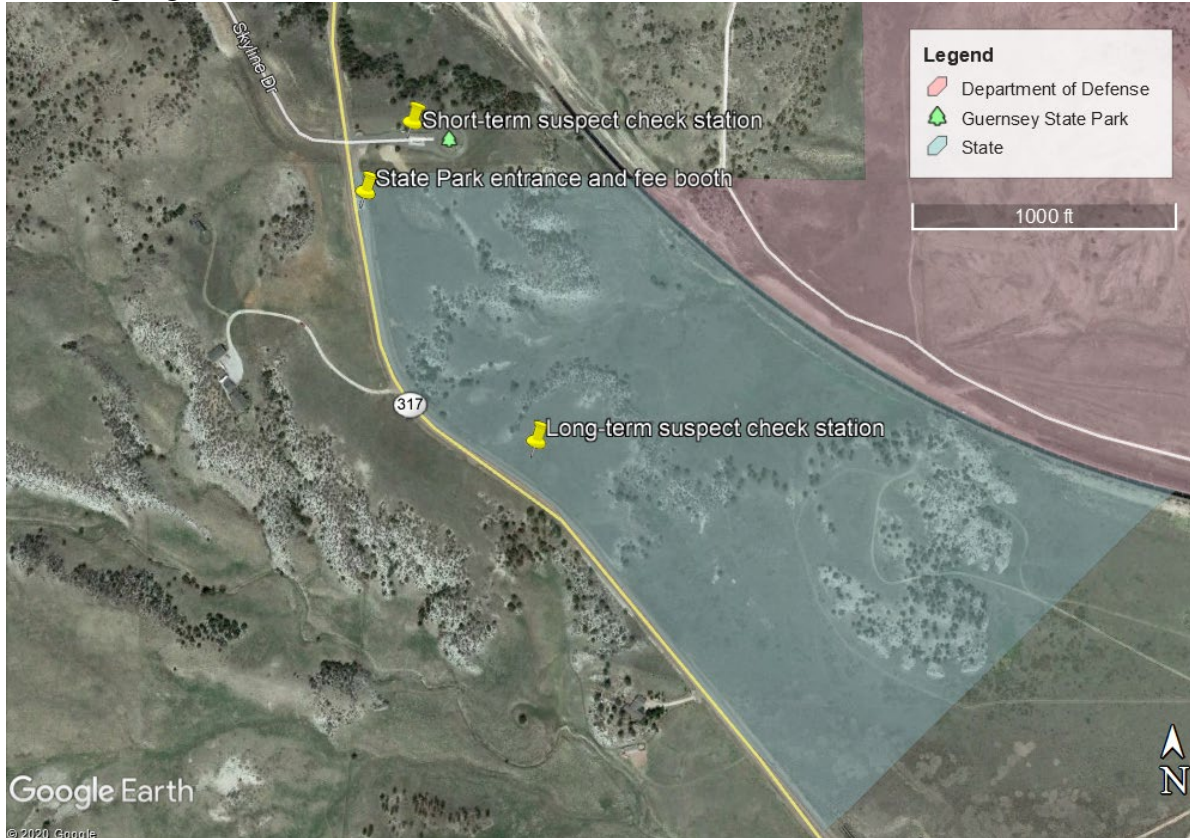


FIGURE 4. Map of location of exit inspection check station at Guernsey Reservoir during Long-term suspect status. Also included are roads and land ownership.

The check station will be operated May 1 thru September 15. Due to the extreme drop in use when the reservoir is draw-down in July, the check station should be minimally staffed in for that time period (approximately 2 -3 weeks). During year 1, the check station will be manned 8 AM to ½ hour after sunset. By year 2 at Long-term Suspect Status, enough data at Guernsey Reservoir should be available to adjust the check station hours of operation to match boater use. Given that the check-out time for camp sites and cabins is 11 AM and most visitor leave the park between 10 AM and 11 AM, it is possible keeping the check station open until ½ hour after sunset will be unnecessary. Depending on when the last boat leaves the reservoir each day, the check station will likely need to be manned from 8 AM to 6 PM or 8 PM.

### *Local Boater Program*

Guernsey Reservoir would be good candidate for a local boater program, given its relatively high proportion of resident watercraft users. A local boater program would allow resident boaters who only visit Guernsey Reservoir to launch and retrieve watercraft without undergoing mandatory exit inspections. Watercraft users enrolled in the local boater program would still need to stop at inspection stations if encountered on their route of travel, but would be “fast-tracked” through the station. A local boater program would benefit watercraft users by

decreasing the amount of time they spend in inspection lines and would benefit inspectors by decreasing the volume of boats requiring inspection. For more information on the local boater program, see the Administrative Rapid Response Plan (WGFD 2020).

### **Staffing Plan**

For year 1, five inspectors (approximately 5-month term technicians) should be hired to adequately staff the check station from May 1 to September 15. In addition, a crew lead (10-month term Biologist I) should be hired to oversee day-to-day operations and assist with inspections. For years 2 and 3, the dates during which the check station is operational will likely require the same number of inspectors as in year 1. Reducing the number of inspectors manning the check station could result in significant increases in wait times, especially during busy holiday weekends. That being said, current WGFD employees would be available to assist with inspections during busy holiday periods and the potential reduction in check station hours of operation should reduce the number of inspectors needed to be hired. For years 2 and 3, four inspectors (approximately 5-month term technicians) should be hired to adequately staff the check station, in addition to a crew lead (10-month term Biologist I) hired to oversee day-to-day operations and assist with inspections.

#### *Year 1*

Short-term Suspect Status should be referenced to determine day-to-day check station staffing details, with a couple exceptions. First, during the two to three weeks that the reservoir is drawn down in July, the check station should remain open but will likely require minimal staffing on weekends. At least two inspectors working overlapping 10-hour shifts should be present at the check station on those days. Second, additional personnel other than the five inspectors and crew lead will be needed to fully staff the check station should July Fourth fall in the middle of the week. In this scenario, the Casper Regional Supervisor will develop a schedule and request help from all AIS-certified personnel to man shifts that exceed Guernsey AIS crew capacity.

#### *Years 2 and 3*

Please reference Short-term Suspect Status to determine day-to-day check station staffing details for holiday and non-holiday weeks. As in year 1 at Long-term Suspect Status, the check station should be minimally staffed during the July drawn down, and additional personnel will be required to fully staff the check station should the July Fourth land in the middle of the week. Note, check station hours of operation will likely differ in accordance to updated boater use information. As in year 1, the Casper Regional Supervisor will develop a schedule and request help from all AIS certified personnel to man shifts that exceed Guernsey AIS crew capacity.

### **Supplies and Equipment**

As mentioned above, the new location of the check station lacks infrastructure. The Casper Regional Supervisor and Casper AIS Specialist will work with the Casper Habitat and Access Crew and Guernsey State Park to build the necessary infrastructure for the check station. A pull-out large enough to facilitate two lanes and at minimum four vehicles with trailers will be built. Road base will be used to cover the area encompassing the check station. For the actual

locations where decontaminations will take place, crushed gravel over an impermeable membrane with drainage away from the pullout will be used to minimize the creation of mud. In addition, a mobile office will be purchased to provide work space and shelter from the elements for inspectors manning the check station, and two 2000-watt generators with a parallel kit will be purchased to power the mobile office. Three decontamination units will be purchased. This will allow for two units to be in operation, with one backup unit staged at Guernsey State Park Headquarters. A ¾ ton pickup and a 16-foot utility trailer outfitted with twin 550 gal water tanks and a 2-inch trash pump will be purchased to haul water from water filling stations within Guernsey State Park to the check station. Comfort stations will be rented from A&A Porta Potties for use by inspectors and boaters.

The duty station of the AIS Specialist and technicians will be Guernsey, and it will be their responsibility to obtain housing in Guernsey or a nearby town for the duration of their contracts. If we are unable to recruit individuals who are willing or able to live in Guernsey or a nearby town, we should consider providing campers for lodging. One camper trailer will be purchased to house additional personnel needed to cover the check station during busy holiday times, and they will receive camp groceries. Similar to Short-term Suspect Status, the camper trailer can be staged within the park either at headquarters or at sites designated by Guernsey State Park. If there is no room at park headquarters and a camp site cannot be blocked out in time, then the camper can be staged at one of the nearby RV Parks or the Glendo Bunkhouse. See Short-term Suspect Status for RV park rental rates. In addition, one sedan should be rented from state motor pool to be used by the AIS Specialist and technicians when they are assisting at check stations other than Guernsey.

Permanent signs at the three boat ramps and heavily used campgrounds with lakeshore access will direct boaters to the Lake Shore Drive check station. Two dynamic messaging signs will be purchased and placed along WY-317 outside of the park to inform watercraft traffic of inspection requirements before they reach lake shore access points.

See Appendix B for the budget associated with the Long-term Suspect Status and a list of supplies needing to be purchased in year 1 and years 2 and 3.

## **Public Outreach**

At Long-term Suspect Status, statewide public outreach efforts will continue to follow the process outlined in the Administrative Rapid Response Plan (WGFD 2020). The Regional Fisheries Supervisor and Regional AIS Specialist will continue to collaborate with the Casper Regional I&E Specialist to keep the local boating public aware of the threats and responsibilities associated with a Long-term Suspect Status on Guernsey Reservoir.

## **RAPID RESPONSE – POSITIVE STATUS**

Guernsey Reservoir will be considered positive for dreissenid mussels if two or more sampling events within a 12-month period meet the minimum criteria for detection (defined above). Guernsey Reservoir will remain at Positive Status for five consecutive years of negative sample results, at which time it will be downgraded to Negative Status. Alternatively, if an established population of mussels is detected during that five years, it will be upgraded to Infested Status.

The goal during Positive Status is still to minimize the risk of spreading mussels to other waters. We will need to provide capacity for all boaters coming off the water to efficiently obtain a required clean, drain, dry inspection, motor flush, and decontamination of ballast tanks and other undrainable areas. If live mussels are found on any boats during exit inspections, they will be fully decontaminated and consideration will be given to upgrading Guernsey Reservoir to Infested Status. All watercraft leaving Guernsey Reservoir will receive a seal and seal receipt to verify the watercraft received an exit inspection. Seals will be red in color to designate use on a suspect, positive or infested water versus the brown seal currently used after a Wyoming AIS inspection.

### ***Communication Plan***

The administrative communication chain will continue to be utilized to inform all parties on follow-up sampling results and reservoir status (see WGFD AIS Administrative Rapid Response Plan; WGFD 2020). In addition, the Casper Region internal communication chain outlined in the Short-term Suspect Status section (above) will be used to inform the Casper Region and key stakeholders of changes in status level.

### ***Closures***

Closures implemented during year 1 of Long-term Suspect Status will stay in effect during Positive Status. These include the seasonal closure, night closure, closure of the north gate to vehicles transporting watercraft, Long Canyon boat ramp closure, and closure of shore launching along the eastern shore. If data on boat use patterns collected during Short-term or Long-term Suspect statuses deems certain closures unnecessary, then they should be abandoned at Positive Status.

### ***Check Station***

Only one check station will be operated at Guernsey Reservoir at Positive Status. Refer to Long-term Suspect Status for the location, dates, and hours of operation of the check station (Figure 4). It is important to note that hours of operation may be adjusted as data on boater use patterns is gathered. As suggested in Long-term Suspect Status, a local boater program should be implemented at Guernsey Reservoir to decrease the amount of time local boaters spend in inspection lines and the volume of boats requiring inspection. For more information on the local boater program, see the Administrative Rapid Response Plan (WGFD 2020).

### ***Staffing Plan***

As in year 1 Long-term Suspect Status, five inspectors (approximately 5-month term technicians) should be hired to adequately staff the check station from May 1 to September 15. In addition, a crew lead (10-month term Biologist I) should be hired to oversee day-to-day operations and assist with inspections. Year 1 of Long-term Suspect Status should be referenced to determine day-to-day check station staffing details. See Appendix B for the personnel budget associated with Positive Status.



## ***Supplies and Equipment***

Assuming Guernsey Reservoir enters Positive Status directly from Short-term Suspect Status, the check station location will require the necessary infrastructure to be built at Positive Status. Refer to Long-term Suspect Status for check station construction details. However, at Positive Status, concrete slabs should be poured at the locations where decontaminations will take place instead of crushed gravel over a permeable membrane. Equipment and supplies purchased or rented at Positive Status will be the same as at year 1 Long-term Suspect Status. Refer to Long-term Suspect Status for locations of permanent and dynamic messaging signs. The duty station of the AIS Specialist and technicians will be Guernsey, and lodging will be the same as in Long-term Suspect Status. See Appendix B for the budget associated with Positive Status and a list of supplies to be purchased.

## ***Public Outreach***

At Positive Status, statewide public outreach efforts will continue to follow the process outlined in the Administrative Rapid Response Plan (WGFD 2020). The Regional Fisheries Supervisor and Regional AIS Specialist will continue to collaborate with the Casper Regional I&E Specialist to keep the local boating public aware of the threats and responsibilities associated with a Positive Status on Guernsey Reservoir.

## **RAPID RESPONSE – INFESTED STATUS**

Guernsey Reservoir will be considered Infested if an established (recruiting or reproducing) population of dreissenid mussels is identified. Guernsey Reservoir will remain at Infested Status until methods for complete eradication are discovered and implemented. Based on the best available technology and science at the time of this publication, it is expected that Guernsey Reservoir would remain in Infested Status in perpetuity.

The goal during Infested Status is still to minimize the risk of spreading mussels to other waters. We will need to provide the capacity to contact all boaters coming off the water, conduct exit inspections, and ensure all boats leaving have undergone a full decontamination. All watercraft leaving Guernsey Reservoir will receive a red seal and seal receipt to verify the watercraft received an exit inspection. Red seals will designate use on a suspect, positive or infested water versus the brown seal currently used after a Wyoming AIS inspection.

## ***Communication Plan***

The administrative communication chain will continue to be utilized to inform all parties on follow-up sampling results and water status (see WGFD AIS Administrative Rapid Response Plan; WGFD 2020). In addition, the Casper Region internal communication chain outlined in the Short-term Suspect Status section (above) will continue to be utilized to inform the Casper Region and key stakeholders of changes in status level.

## ***Closures***

If Guernsey Reservoir begins at Infested Status (e.g., does not elevate to this status level from a lower status level), it is recommended that the reservoir is temporarily closed to all

watercraft until the necessary personnel and resources can be acquired to properly respond to the threat. Once the necessary resources have been gathered, the temporary closure to all watercraft can be lifted. At that time, certain closures will need to be implemented to ensure that all watercraft can be inspected and decontaminated before leaving the reservoir. Refer to year 1 of Long-term Suspect Status for closure details. Given the lack of data on boater use patterns at Guernsey Reservoir, data should be collected to help refine necessary closures at this status level.

### **Check Station**

Only one check station will be operated at Guernsey Reservoir at Infested Status. Refer to Long-term Suspect Status for the location, dates, and hours of operation of the check station (Figure 4). It is important to note that hours of operation may be adjusted as data on boater use patterns is gathered. As suggested in Long-term Suspect Status, a local boater program should be implemented at Guernsey Reservoir to decrease the amount of time local boaters spend in inspection lines and the volume of boats requiring inspection. For more information on the local boater program, see the Administrative Rapid Response Plan (WGFD 2020).

### **Staffing Plan**

Because every boat will require a full decontamination prior to leaving Guernsey Reservoir, 10 inspectors (approximately 5-month term technicians) should be hired to adequately staff the check station from May 1 to September 15. In addition, a crew lead (10-month term Biologist I) should be hired to oversee day-to-day operations and assist with inspections.

During non-holiday weeks, 10 inspectors working no more than 40 hours per week will be required to fully man the check station. Monday thru Thursday, four inspectors working partially overlapping 10-hour shifts will be present at the check station. Friday to Sunday, six inspectors will work partially overlapping shifts. Two inspectors will work 10-hour shifts from 8 AM to 6 PM and will be responsible for opening the check station. A second pair of inspectors will work 10-hour shifts from 9 AM to 7 PM. A third pair of inspectors will work 10-hour shifts from 10 AM to 8 PM and will be responsible for closing the check station.

During holiday weeks, check station staffing will be the same as described above with one exception. A third pair of inspectors will work a 10-hour shift (8 AM to 6 PM) on the Monday of the actual or observed holiday. In the event the Fourth of July lands in the middle of the week (e.g., Tuesday – Wednesday), it will be assumed that increased holiday traffic will occur from the prior Saturday through the following Sunday. The check station will need to be manned with six inspectors with overlapping shifts the entire holiday period and will require a minimum of 12 inspectors working no more than 40 hours per week. In this scenario, the Casper Regional Supervisor will develop a schedule and request help from all AIS-certified personnel to man shifts that exceed Guernsey AIS crew capacity.

### **Supplies and Equipment**

If Guernsey Reservoir begins at Infested Status or enters Infested Status directly from Short-term Suspect Status, the check station location will require the necessary infrastructure to be built. Refer to Long-term Suspect Status for check station construction details; however, the entire inspection station should be paved. Equipment and supplies needed to be purchased or rented at Infested Status will be the same as at Long-term Suspect Status with a few exceptions.

Four decontamination units will be purchased. This will allow for three units to be in operation, with one backup unit staged at Guernsey State Park Headquarters. Given the permanency of this status level, drilling a well and installing electricity at the check station is recommended for supplying water and power directly to equipment. Refer to Long-term Suspect Status for locations of permanent and dynamic messaging signs. The duty station of the AIS specialist and technicians will be Guernsey, and lodging will be the same as in Long-term Suspect Status. See Appendix B for the budget associated with Infested Status and a list of supplies to be purchased.

### ***Public Outreach***

At Infested Status, statewide public outreach efforts will continue to follow the process outlined in the Administrative Rapid Response Plan (WGFD 2020). The Regional Fisheries Supervisor and Regional AIS Specialist will continue to collaborate with the Casper Regional I&E Specialist to keep the local boating public aware of the threats and responsibilities associated with Infested Status on Guernsey Reservoir.

## **REFERENCES**

- WGFD. 2019. Wyoming Game and Fish Department Aquatic Invasive Species Sampling and Monitoring Manual. Wyoming Game and Fish Department, Cheyenne, WY.
- WGFD. 2020. Wyoming Game and Fish Department Administrative Dreissenid Mussel Rapid Response Plan. Wyoming Game and Fish Department, Cheyenne, WY.

## APPENDIX A: KEY CONTACTS

		Phone	Email
<b><u>Wyoming Game &amp; Fish Department</u></b>			
Josh Leonard	Aquatic Invasive Species Coord.	307-721-1374	joshua.leonard@wyo.gov
Matt Hahn	Casper Region Fisheries Supervisor	307-473-3415	matt.hahn@wyo.gov
Brian Olsen	Casper Region Wildlife Supervisor	307-473-3400	brain.olsen1@wyo.gov
Eric Hansen	Casper Region AIS Specialist	307-473-3414	eric.hansen@wyo.gov
Jessica Dugan	Casper Region Fisheries Biologist	307-473-3418	jessica.dugan@wyo.gov
Jeff Glaid	Casper Region Fisheries Biologist	307-473-3405	jeff.glaid1@wyo.gov
Vacant	Wheatland Game Warden		
Janet Milek	Information & Education Specialist	307-233-6404	janet.milek@wyo.gov
<b><u>Nebraska Game and Parks</u></b>			
Allison Zach	Invasive Species Program Specialist	402-472-3133	azach3@unl.edu
<b><u>Guernsey State Park</u></b>			
Chris Delay	Superintendent	307-836-2334	
<b><u>Platte County Commission</u></b>			
Steve Shockley	Commissioner		sshockley@plattecountywyoming.com
Sandy Kontour	Commissioner		skontour@plattecountywyoming.com
Ian Jolovich	Commissioner		ijolovich@plattecountywyoming.com
<b><u>Goshen County</u></b>			
John Ellis	Goshen County Commission Chair.	307-532-4623	jellis@goshencounty.org
<b><u>Goshen Irrigation District</u></b>			
Rob Posten	Manager	307-534-6660	
<b><u>U.S. Bureau of Reclamation</u></b>			
Cordell Perkins	Land Management Branch	307-261-5675	cperkins@usbr.gov
<b><u>Camp Guernsey Joint Training Center</u></b>			
Amanda Thimmayya	Natural Resources Manager	307-772-5036	amanda.c.thimmayya.nfg@mail.mil
<b><u>Town of Guernsey</u></b>			
Nicholas Paustian	Mayor	307-836-2335	
<b><u>Town of Hartville</u></b>			
City Hall		307-836-2288	
<b><u>Stakeholders</u></b>			
Platte Chamber of Commerce	Shawna Reichert, Executive Director		director@plattechamber.com
Johnston's Corner		307-836-3155	
Good To Go Stores #221		307-836-2933	
Guernsey Market Place		307-836-2266	
Howshar Do it Best Hardware		307-836-2611	
Peak View RV Park		307-921-1452	
A OK RV Park		307-322-8109	
Private Residences within Guernsey State Park			

## APPENDIX B: ANNUAL BUDGETS ASSOCIATED WITH EACH STATUS LEVEL

### SHORT-TERM SUSPECT STATUS

Travel	Description	# of Days	Cost/Day	Total Cost
	Camp Groceries (person days)	135	\$24	\$3,240
	<b>Subtotal</b>			<b>\$3,240</b>
Supplies	Description	# of units	Cost/unit	Total Cost
	Check station/ Informational signs	5	\$600	\$3,000
	2-inch gas powered water pump	1	\$300	\$300
	325 gallon pickup truck water tank	1	\$325	\$325
	RV spot rental (2 months)	2	\$700	\$1,400
	Porta-potty rental (2 months)	1	\$400	\$400
	<b>Subtotal</b>			<b>\$5,425</b>
	<b>Total</b>			<b>\$8,665</b>

## LONG-TERM SUSPECT STATUS YEAR 1

Personnel	Description	# of Months	Cost/Month	Total Cost
	Biologist I, 10 months	10	\$4,543	\$45,430
	Technician 1, 5 months	5	\$2,863	\$14,315
	Technician 2, 5 months	5	\$2,863	\$14,315
	Technician 3, 5 months	5	\$2,863	\$14,315
	Technician 4, 5 months	5	\$2,863	\$14,315
	Technician 5, 5 months	5	\$2,863	\$14,315
	Outside help for busy times	1	\$4,553	\$4,553
	<b>Subtotal</b>			<b>\$121,558</b>
Vehicle	Description	# of Months	Cost/Month	Total Cost
	Purchase 3/4 ton truck	1	\$33,000	\$33,000
	State Motor Pool Sedan 1	5	\$500	\$2,500
	<b>Subtotal</b>			<b>\$35,500</b>
Travel	Description	# of Days	Cost/Day	Total Cost
	Camp Groceries (person days)	3	\$24	\$72
	<b>Subtotal</b>			<b>\$72</b>
Supplies	Description	# of Units	Cost/Unit	Total Cost
	Gravel for pullouts	1	\$15,000	\$15,000
	Office Trailer	1	\$20,000	\$20,000
	Camper Trailer	1	\$20,000	\$20,000
	16 ft. 10,000 lb. cap. Utility trailer	1	\$4,000	\$4,000
	2 550 gallon water tanks	1	\$500	\$500
	2-inch trash pump <sup>a</sup>	1	\$300	\$300
	Generator 2-pack with parallel	2	\$1,900	\$3,800
	Gasoline for generators	1	\$1,000	\$1,000
	Decon Unit with attachments	3	\$12,500	\$37,500
	RV Spot Rentals (5 months)	1	\$1,750	\$1,750
	Porta-potty rental (5 months)	1	\$1,000	\$1,000
	Misc supplies 231 - 239 series	1	\$5,000	\$5,000
	Dynamic Messaging sign	2	\$12,500	\$25,000
	Regulation / Informational signs	6	\$650	\$3,900
	<b>Subtotal</b>			<b>\$138,750</b>
	<b>Total</b>			<b>\$295,880</b>

<sup>a</sup> These items were already purchased in Short-term Suspect Status.

**LONG TERM SUSPECT STATUS YEARS 2-3**

<b>Personnel</b>	<b>Description</b>	<b># of Months</b>	<b>Cost/Month</b>	<b>Total Cost</b>
	Biologist I, 10 months	10	\$4,543	\$45,430
	Technician 1, 5 months	5	\$2,863	\$14,315
	Technician 2, 5 months	5	\$2,863	\$14,315
	Technician 3, 5 months	5	\$2,863	\$14,315
	Technician 4, 5 months	5	\$2,863	\$14,315
	Outside help for busy times	1	\$4,553	\$4,553
	<b>Subtotal</b>			<b>\$107,243</b>
<b>Vehicle</b>	<b>Description</b>	<b># of Months</b>	<b>Cost/Month</b>	<b>Total Cost</b>
	State Motor Pool Sedan 1	10	\$500	\$5,000
	<b>Subtotal</b>			<b>\$5,000</b>
<b>Travel</b>	<b>Description</b>	<b># of Days</b>	<b>Cost/Day</b>	<b>Total Cost</b>
	Camp Groceries (person days)	9	\$24	\$216
	<b>Subtotal</b>			<b>\$216</b>
<b>Supplies</b>	<b>Description</b>	<b># of units</b>	<b>Cost/unit</b>	<b>Total Cost</b>
	RV Spot Rentals (5 months)	1	\$1,750	\$1,750
	Porta-potty rental (5 months)	1	\$1,000	\$1,000
	Gasoline for generators	1	\$1,000	\$1,000
	misc supplies 231-239	1	\$2,500	\$2,500
	<b>Subtotal</b>			<b>\$6,250</b>
	<b>TOTAL</b>			<b>\$118,709</b>

## POSITIVE STATUS

Personnel	Description	# of Months	Cost/Month	Total Cost
	Biologist I, 10 months	10	\$4,543	\$45,430
	Technician 1, 5 months	5	\$2,863	\$14,315
	Technician 2, 5 months	5	\$2,863	\$14,315
	Technician 3, 5 months	5	\$2,863	\$14,315
	Technician 4, 5 months	5	\$2,863	\$14,315
	Technician 5, 5 months	5	\$2,863	\$14,315
	Outside help for busy times	1	\$4,553	\$4,553
	<b>Subtotal</b>			<b>\$121,558</b>
Vehicle	Description	# of Months	Cost/Month	Total Cost
	Purchase 3/4 ton Truck <sup>a</sup>	1	\$33,000	\$33,000
	State Motor Pool Sedan 1	5	\$500	\$2,500
	<b>Subtotal</b>			<b>\$35,500</b>
Travel	Description	# of Days	Cost/Day	Total Cost
	Camp Groceries (person day)	3	\$24	\$72
	<b>Subtotal</b>			<b>\$72</b>
Supplies	Description	# of Units	Cost/Unit	Total Cost
	Gravel for pullouts <sup>a</sup>	1	\$15,000	\$15,000
	Concrete decon pads (25'x25')	2	\$10,000	\$20,000
	Camp Trailer <sup>a</sup>	1	\$20,000	\$20,000
	Office Trailer <sup>a</sup>	1	\$20,000	\$20,000
	16-foot utility trailer, 10,000lb rating <sup>a</sup>	1	\$4,000	\$4,000
	550 gal plastic ag tank <sup>a</sup>	2	\$450	\$900
	Generator 2-pack with parallel <sup>a</sup>	2	\$1,900	\$3,800
	Gasoline for Generators	1	\$1,000	\$1,000
	Decon unit with attachments <sup>a</sup>	3	\$12,500	\$37,500
	RV Spot Rentals (5 months)	1	\$1,750	\$1,750
	Porta-Pottie Rental (5 months)	1	\$1,000	\$1,000
	Misc supplies 231 - 239 series	1	\$5,000	\$5,000
	Dynamic Messaging signs <sup>a</sup>	2	\$12,500	\$25,000
	Regulation/Informational signs <sup>a</sup>	6	\$650	\$3,900
	<b>Subtotal</b>			<b>\$158,850</b>
	<b>Total</b>			<b>\$315,980</b>

<sup>a</sup> These items will not need to be purchased if transitioning from Long-term Suspect Status.



## INFESTED STATUS

Personnel	Description	# of Months	Cost/Month	Total Cost
	Biologist I, 10 months	10	\$4,543	\$45,430
	Technician, 5 months x 10	50	\$2,863	\$143,150
	Outside help for busy times	2	\$4,553	\$9,106
	<b>Subtotal</b>			<b>\$197,686</b>
Vehicle	Description	# of Months	Cost/Month	Total Cost
	Purchase 3/4 ton Truck <sup>a</sup>	1	\$33,000	\$33,000
	State Motor Pool Sedan 1	5	\$500	\$2,500
	<b>Subtotal</b>			<b>\$35,500</b>
Travel	Description	# of Days	Cost/Day	Total Cost
	Camp Groceries (person day)	6	\$24	\$144
	<b>Subtotal</b>			<b>\$144</b>
Supplies	Description	# of Units	Cost/Unit	Total Cost
	Gravel for pullout <sup>a</sup>	1	\$15,000	\$15,000
	Paving for pullout	1	\$68,000	\$68,000
	Camp Trailer <sup>a</sup>	1	\$20,000	\$20,000
	Office Trailer <sup>a</sup>	1	\$20,000	\$20,000
	Decon unit with attachments <sup>b</sup>	4	\$12,500	\$50,000
	RV Spot Rentals (5 months)	1	\$1,750	\$1,750
	Porta-Pottie Rental (5 months)	1	\$1,000	\$1,000
	Dynamic Messaging signs <sup>a</sup>	2	\$12,500	\$25,000
	Regulation/Informational signs <sup>a</sup>	6	\$650	\$3,900
	Misc supplies 231 - 239 series	1	\$5,000	\$5,000
	Water Well	1	\$50,000	\$50,000
	<b>Subtotal</b>			<b>\$259,650</b>
Utilities	Description	# of Units	Cost/Unit	Total Cost
	Power Hookup	1	\$2,000	\$2,000
	Monthly electric bill (5 months)	1	\$1,500	\$1,500
	<b>Subtotal</b>			<b>\$3,500</b>
	<b>Total</b>			<b>\$496,480</b>

<sup>a</sup> Will not need to be purchased if transitioning from Suspect or Positive status.

<sup>b</sup> Only one unit will need to be purchased if transitioning from Suspect or Positive status.