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

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SUMMARY

Pathfinder Reservoir is a 22,000 acre impoundment on the North Platte River approximately 40 miles southwest of Casper. The Reservoir is owned and operated by the United States Bureau of Reclamation. Lands around the reservoir are managed by the Natrona County Parks, United States Fish and Wildlife Service and Bureau of Reclamation. There are three boat ramps managed by Natrona County Parks, all on the north end of the reservoir. Shore launching is common on the south end of the reservoir as well as in the river upstream of the reservoir. Watercraft use is consistent from ice-out in March through Labor Day, with June and July being the busiest months. Boating use tapers off after Labor Day but persists until ice-up in late November. Use is predominantly Wyoming residents (96% of watercraft) and mostly by outboard fishing boats (80%). From 2018 and 2019 inspection data, 2% of boats destined for Pathfinder Reservoir had last been on an infested water.

If dreissenid mussels were detected in Pathfinder Reservoir, resources would be directed to minimize the risk of spreading mussels to other waters. During the first six weeks, containment efforts would be conducted with existing personnel and equipment. A check station would be established at an existing pullout on Pathfinder Road. No boat ramps would be closed, however shore launching would be prohibited in that part of the reservoir in Carbon County and the south and west shores in Natrona County, including the North Platte River upstream to Kortes Dam. Boats could be launched at any time, but retrieval of boats from the reservoir would be restricted to 8 AM though sunset. All personnel from the Regional Fisheries Management Crew would be detailed to Pathfinder Reservoir and requests for additional help would be levied to other personnel. The reservoir should be closed to watercraft between November 1 and April 1, due to low levels of boating use.

Following the initial six week period, a longer term plan will be put in place. The reservoir should remain closed to watercraft between November 1 and April 1 with the aforementioned prohibitions on shore launching. A local boater program should be instituted. One specialist and seven technicians would be hired to conduct inspections and decontaminations. Additional equipment would be needed, including decontamination units, office trailer, equipment to haul water, signs, and additional supplies. Costs for the first year response at Suspect or Positive status, which includes equipment purchase, is $392,000. Additional annual operating budgets would be approximately $150,000 per year, thereafter. If the reservoir proceeds to Infested Status right away, the cost of the response for the first year would be $583,000, which includes additional equipment and personnel due to the increased number of decontaminations. The cost to operate an Infested Status response at Pathfinder Reservoir beyond the initial investment in equipment and infrastructure is approximately $249,000 per year.

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 area 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 Pathfinder 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 DREISSENID 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

Pathfinder Reservoir is the third reservoir (from upstream) on the North Platte River and is located in North Central Carbon and South Central Natrona counties, Wyoming. The reservoir was one of the first Bureau of Reclamation projects in the country being completed in 1909. The dam is 214 feet high and constructed of granite blocks quarried locally which creates a reservoir of 22,000 surface acres impounding 1,016,000 acre-feet of water. The primary purposes of Pathfinder Reservoir are to store irrigation water for Eastern Wyoming and Western Nebraska along with hydroelectric generation.

Pathfinder Reservoir receives water from the North Platte River after passing through Seminoe and Kortes reservoirs. The Sweetwater River empties into Pathfinder Reservoir as well as several smaller perennial tributaries. The reservoir has a maximum depth of 192 feet at full pool elevation (5,852.5 feet). The reservoir has a mean depth of 46 feet and a shoreline length of approximately 120 miles. The reservoir has an atypical shape with the Sweetwater River entering from the North, the North Platte River entering from the South and a large, somewhat ovate main body.

Pathfinder Reservoir water levels do not typically fluctuate to a great degree within a given year. Since 2007, minimum yearly surface elevation has varied from a low of 5,780 feet (72 feet below full) to a high of 5,844 feet in 2017. Maximum surface elevation has ranged from a low of 5,797 feet in 2007, to spilling in 2010 and 2011. Average annual change in water surface elevation is 16 feet (SD = 6).

Most Lands around the reservoir are owned by the Bureau of Reclamation. Approximately 3,500 acres of BOR lands bordering Pathfinder Reservoir in Natrona County are managed by Natrona County Parks. The United States Fish and Wildlife Service manages 16,800 acres of the lands around the reservoir as Pathfinder National Wildlife Refuge which consists of units at the Sweetwater arm, Goose Bay and Deweese Creek. There are no private lands bordering the reservoir.

Administratively, Pathfinder Reservoir is the nexus of multiple Game and Fish Department regions. The entirety of the reservoir lies within the Casper Fish Management Region. However, three wildlife regions converge on the reservoir (Casper, Lander and Laramie). There are four game warden districts from three wildlife regions that border the reservoir.

There are three developed boat ramps that serve the reservoir; Bishop Point on the Sweetwater Arm, and the Marina and Weiss ramps, both near the dam. All ramps are accessed via the Pathfinder Road (Natrona County 409) which originates from Wyoming Highway 220

and terminates at the Marina Ramp. A second access road (Fremont Canyon Road, Natrona County 408) connects the Pathfinder Road at Pathfinder Dam with the Kortes Road (Natrona County 407) South of Alcova, WY. Most boats do not use the Fremont Canyon Road for egress from the reservoir as it adds mileage and is narrow and winding (Figure 1).

Developed campgrounds are found at Bishop Point and on both sides of the reservoir near the dam. The remainder of the reservoir is undeveloped and accessed on unimproved two-track roads. Consequently, the vast majority of use is at the developed areas. There is one concessionaire (Pathfinder Boat Club) located at the Marina Ramp. They have a convenience store, gas pumps and long-term trailer sites.

The Marina Ramp is the heaviest used of the ramps at Pathfinder Reservoir. The ramp is located at the end of Pathfinder Road (Natrona County 409), approximately 7.5 miles south of Wyoming Highway 220. All but the last 1.3 miles is paved. The ramp is two lanes wide with a central dock. Two courtesy docks are located immediately north of the ramp. Lack of parking space is a bottleneck at this ramp as the main gravel parking lot is only about 0.2 acres in size. There is overflow parking amounting to an additional 0.2 acres. On most weekends, cars are parked along the access road resulting in extreme congestion. The Marina Ramp is useable at all lake levels.

The Weiss Ramp is located approximately 0.5 miles east of the Marina Ramp. This particular ramp is not heavily used. The ramp does not have a dock or a parking area. Prevailing southwesterly winds often result in large waves crossing at a near perpendicular angle to the ramp. Lastly, wind and wave action tends to deposit large amounts of sand on the ramp which makes it difficult to find. Use at this ramp is limited to a few boats per day.

The Bishop Point Ramp is located on the Sweetwater Arm at the end of a 4 mile dirt access road which turns off of the Pathfinder Road 3.6 miles south of Wyoming 220. The ramp is not heavily used, with the typical condition of the access road serving to dissuade boaters from using the area. The road does not have a firm bed, and typically becomes heavily rutted and full of mud holes. Further, an ill-timed thunderstorm can render egress back to the paved county road tenuous, especially for vehicles pulling trailers. There are two ramps at this location, one for high water and one for low water conditions.

There is heavy shore launching at the southern end of the reservoir where the North Platte River flows in. First, this is a very popular Walleye fishing area in the spring. Due to the tailwater influence of the North Platte, this area (known as Walleye Bay) is typically ice-free well before the main lake. As such, many Walleye anglers pull boats into this area and shore launch from late February through April. Second, drift boat fishing of the stretch of the North Platte River known as the Miracle Mile has skyrocketed in recent years. They typically launch somewhere near Kortes Dam and float down to Pathfinder Reservoir where they pull off. This activity goes on nearly year-round with the highest use May through June.

The boating season begins with ice out, typically in March. Most of the boating use at Pathfinder Reservoir is by anglers, and the reservoir typically has good Walleye fishing at ice out, hence water temperatures and nice weather have less of an influence on boating use. Use is consistent from ice out through Labor Day, being significantly higher on weekends versus weekdays. In 2017, a creel census was conducted at Pathfinder Reservoir where a check station was established on Pathfinder Road 10 days per month from 10 AM through one hour after dark (Table 1). Based on that data (which only includes fishing boats) there are days where more than 100 boats will exit the reservoir.

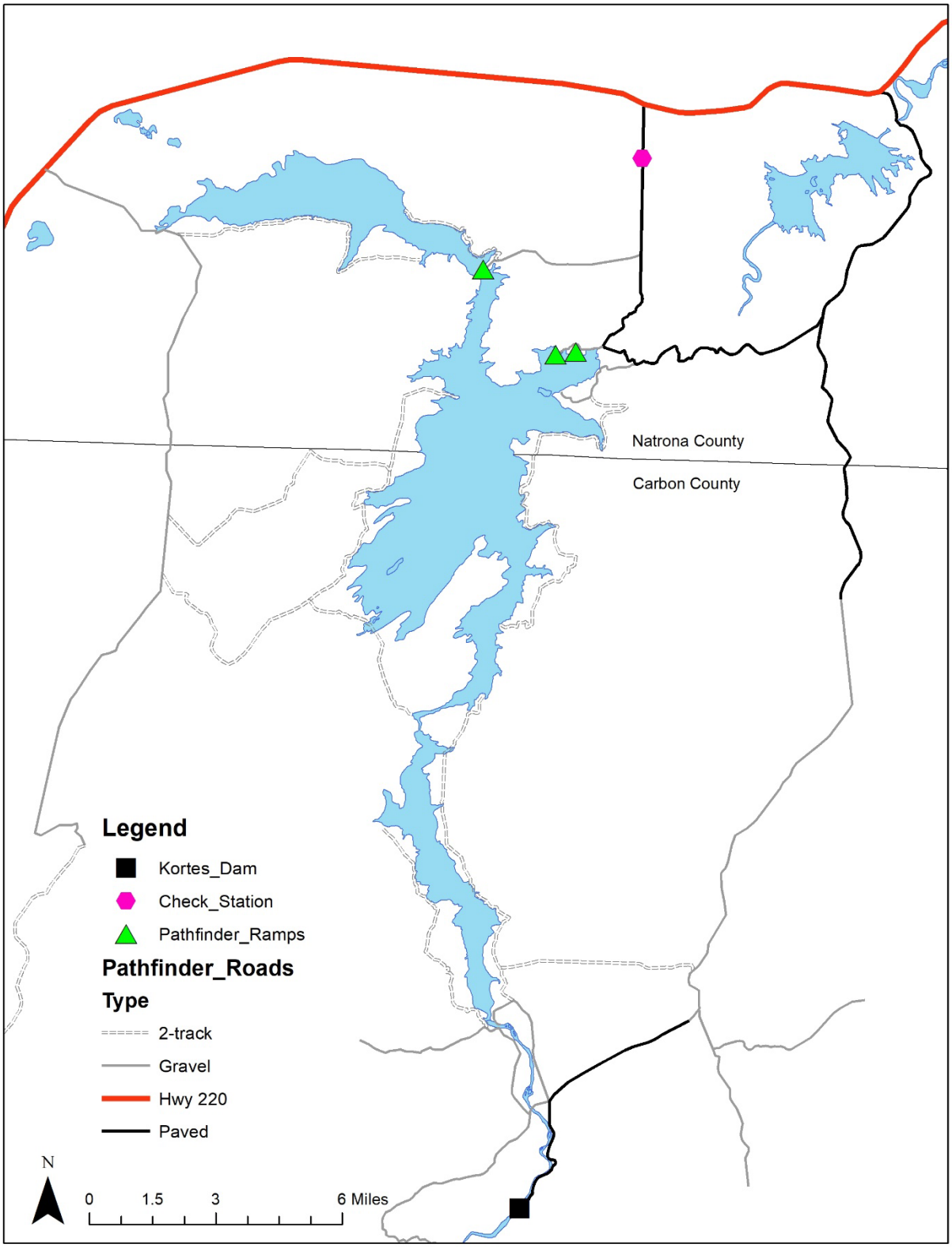

Figure 1. Map of Pathfinder Reservoir.

As previously stated, drift boat use at the southern end of the reservoir occurs year-round with peak use times being spring and fall. In the summer, daily use begins well before sunup with anglers hitting the water as early as 4 AM. This first diel round of angling boats is typically done fishing and off the water by 1-2 PM. On weekends in the summer, a fair number of recreational boats will launch, operating mid-morning through late afternoon. There is typically a second round of Walleye anglers that launch in mid-afternoon and pull off the water at or after dark.

Table 1. Mean number of fishing boats by month per weekend day (N=5) and weekday (N=5) with maximum daily number from creel surveys at Pathfinder Reservoir, January 1 – August 30, 2017.

Month	Average Weekend	Average Weekday	Maximum Daily
March*	4	2	4
April	33	7	73
May	36	13	64
June	71	18	122
July	59	16	71
August	46	16	67

*Ice out occurred around March 20, data included only 1 weekend day and 2 weekdays.

Roving AIS inspection data from Pathfinder Reservoir in 2018 and 2019 (N=975) indicates use is predominantly Wyoming residents (95.7%). Motorized watercraft represented 87.3% of all inspections of boats entering via Pathfinder Road. This figure does not account for the significant amount of non-motorized drift boats entering the upper end of the reservoir, hence total non-motorized usage is higher than the available data would indicate. From border check station data, most non-residents (66%) are from Colorado, followed by Nebraska (16%), South Dakota (6%), Montana (6%) and California (2%). Eighteen inspected boats that were bound for Pathfinder Reservoir had last been on an infested water with one requiring decontamination.

Most of the motorized watercraft on Pathfinder Reservoir are outboard fishing boats (80% of motorized use). Ten percent of motorized watercraft were inboard/outboard, and 2% were inboard. Personal watercraft account for 5% of motorized use with jet boats being around 1%.

RAPID RESPONSE – SHORT-TERM SUSPECT STATUS

In the event that a sample from Pathfinder 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 Pathfinder 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 Casper, Lander and Laramie Regional Wildlife Supervisors, the Regional Habitat and Access Supervisors and the Regional I&E Specialist. The Regional Wildlife Supervisors will then contact the East and West Casper, East Rawlins and Medicine Bow Game Wardens 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 Natrona County Parks Department, United States Bureau of Reclamation, Wyoming Area Office, Pathfinder Boat Club, North Platte Walleyes Unlimited and any fishing derby permit holders. They will also contact local business owners, Sloans General Store in Alcova and all area sporting goods stores and boat dealers. 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.

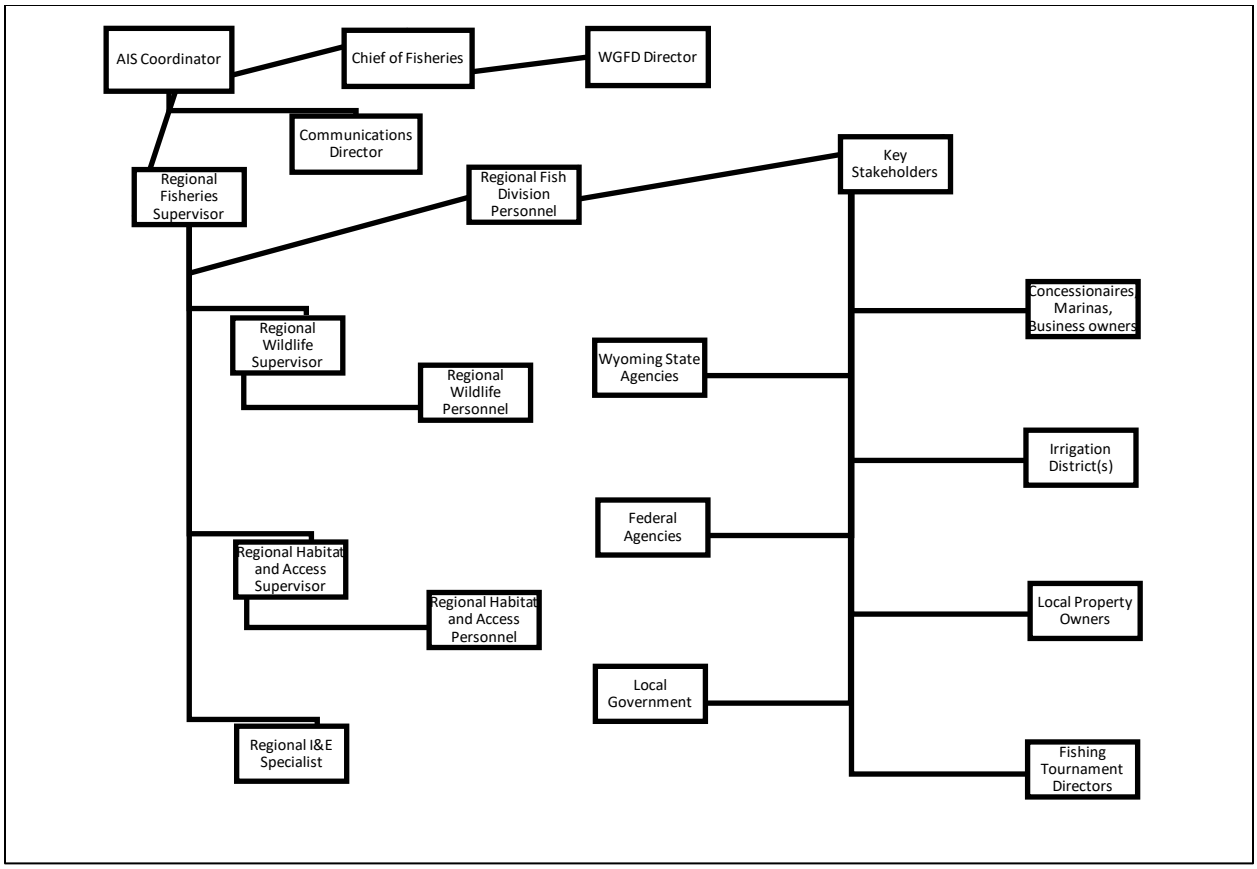

FIGURE 2. Communication chain for dissemination of information on the local and regional level following a dreissenid mussel detection in a Wyoming water.

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

In order to ensure all boats are inspected with the limited resources available during Short-term Suspect Status response, some closures will be needed. First, shore launching should be prohibited in that part of the reservoir in Carbon County and along the South and West shoreline in Natrona County from the Buzzard Road bridge (Natrona County Road 410) over the Sweetwater River to Carbon County. This closure should be extended upstream on the North Platte River to Kortes Dam. Since the upper end of the reservoir and the Miracle Mile reach of the North Platte River can be accessed from four different directions (Hanna, Sinclair, Alcova or Highway 77 in Shirley Basin), allowing shore launching would require at least a second check

station, for which sufficient man power and equipment will not exist. Limiting launching to that portion of the North and East shoreline lying in Natrona County aids in routing all watercraft through a single check station. In addition to the prohibition on shore launching, watercraft should be prohibited from exiting via Fremont Canyon Road (Natrona County 408). This road is quite narrow with poor sight distances and lacks a pullout of sufficient size to establish a check station. Given that only a small fraction of all boaters travel this route, disruption to the public would be minimal.

Boating should be restricted to April 1 – October 31. This will impact some anglers, however, given that use tapers off significantly in the fall and doesn't ramp up until April in most years, it would be hard to justify expending the resources necessary to keep the check station operating. Hours should be limited as well. Boats could be launched at any time, but retrieval of watercraft from the reservoir should be limited to 8 AM through sunset.

Check Station

A single check station will be established on the Pathfinder Road (Natrona County 409). The existing AIS check station located 1.2 miles south of the junction with Wyoming Highway 220 will be used (Figure 2). It is a gravel pullout constructed for the check station and measures 380 feet by 30 feet. Two lanes can be established which should accommodate around 12 vehicles at a time. The check station will operate from April 1 through October 31, from 8 AM through ½ hour after sunset.

Figure 2. Aerial view of existing Pathfinder check station.

Staffing Plan

In order to ensure adequate staffing, three inspectors should be assigned to work weekdays. One person to open the station at 0800, and two to work the last 8 hours of the day. This will result in having three inspectors mid-day when many of the boats are leaving. On weekend days, the number of inspectors should be doubled at the very least. Given approximately 45 minutes travel time from the Casper Regional Office, working 8 hours at the check station will result in a 10-hour day. The entire fisheries management crew, including the AIS specialist and roving inspector will be detailed to inspection duty. Working 10-hour shifts, one crew of three can cover Monday through Thursday resulting in a 40-hour work week. Assuming the crew is at full staff (one regional supervisor, two management biologists, one AIS specialist, two fisheries technicians, one AIS roving technician), an additional two people, at a minimum, will be needed from outside the crew each week. For weekends that are expected to be busy (holidays, forecasted nice weather in May through August), even more people will be necessary. The regional fisheries supervisor will develop a schedule and call on other regional personnel, and personnel from outside the region to ensure full staffing.

Regional personnel will operate out of the Casper Regional Office. Inspectors will report for duty at the Regional Office and travel to the Pathfinder check station each day. Inspectors from outside the region will be on per diem and stay in Casper or Alcova.

Supplies and Equipment

At least four decontamination units will be needed to process weekend traffic during the summer. For holiday weekends and times where it is expected to be busy, six decontamination units could be needed. The AIS roving decontamination unit will be assigned to Pathfinder, which means at least three and preferably five additional decontamination units need to be borrowed from other regions. Water is not readily available at the exit inspection site. Pickup truck style water tanks (325 gallon) will be purchased and staged at the inspection location to have spare water on hand. A gasoline powered pump will be used to transfer water from spare tanks into decontamination units. Two ¾ ton pickups with water tanks will be needed to haul water from the Casper Regional Office to replenish the tanks each day. Water is also available at Alcova Reservoir, and if needed can be used to supplement the supply mid-day. Casper AIS has only ½ ton pickups at this time, and would need to trade those with other regions that have ¾ ton pickups. The Casper Region has only one office trailer which serves the Glendo check station. The Casper Fish Management camper would be placed at the Pathfinder check station to provide some shelter from the elements.

Several items will need to be purchased that will not be in the standard AIS or fish management budget. Seven pickup water tanks will need to be purchased to haul and store water. One, 2-inch gas powered water pump will be needed to transfer water from storage tanks to decontamination units. Check station signs, boat ramp signs and closure signs for the Miracle Mile and portions of the Reservoir in Carbon County will be needed. Inspectors from outside the region assigned to the rapid response will receive per diem. Local fish management and AIS budgets can likely absorb a significant amount of the cost, but at least some funds from outside crew budgets will be needed.

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 Communication 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 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 Pathfinder Reservoir through media outlets (newspapers, radio, etc.). Additionally, the Casper Fisheries Management Supervisor will notify the President of North Platte Walleyes Unlimited whose members frequent the reservoir. Given the shore launching prohibition, extensive public outreach will be needed. The Regional I&E specialist will coordinate news releases, while the Regional Fisheries Supervisor will contact flyfishing outfitters and flyshops to apprise them of the closure. 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, Pathfinder 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 Pathfinder 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 WGFD Casper, Laramie and Lander regions, and key stakeholders (Appendix A) of follow-up sampling results.

Closures

A seasonal closure from November 1 through March 31 will be maintained on Pathfinder Reservoir and the North Platte River between Kortes Dam and Pathfinder Reservoir for the entirety of the Suspect Status period. During the April through October open period, retrieval of boats from the water will be restricted to 8 AM through sunset. The prohibition on shore launching of watercraft in that portion of Pathfinder Reservoir in Carbon County, The South and West shorelines in Natrona County and in the North Platte River between Kortes Dam and Pathfinder Reservoir will remain due to the relatively low number of watercraft and logistical difficulties of operating a check station in that area. Shore launching reservoir wide and use between November 1 and March 31 will be allowed for watercraft registered in the local boater program.

Check Station

The check station location and hours of operation as described in Short-term Suspect Status will apply under Long-term Suspect Status.

A local boater program should be instituted for Pathfinder Reservoir. Boaters enrolled in the local boater program would be allowed to shore launch in the closed area and would not be subject to seasonal or nocturnal closures. Given the significant number of resident boats, many of which only or mostly boat on Pathfinder, this would alleviate some of the pressure at the decontamination station and allow for more expedient service for those needing inspection/decontamination while also reducing the amount of staffing needed. See the Administrative Rapid Response Plan (WGFD 2020) for more information on local boater programs.

Staffing Plan

An AIS Specialist should be hired to supervise inspectors and oversee day to day operation of the check station. That position will be stationed in Casper and work from March 1 through November 15. Seven AIS inspectors should be hired to conduct inspections and decontaminations. Four inspectors should work April 1 through October 31. An additional three inspectors should be hired from May 16 through August 15 to allow for increased staffing during the busiest time of year. All inspectors would be based in Casper and travel to and from the check station each day in WGFD or State Motor Pool vehicles. Inspectors would be scheduled to work four, ten-hour shifts per week. They would be on site at the check station for eight hours, the remaining two hours in each work day would account for travel to and from Casper.

The staffing plan during the period of highest use (May 16 through August 15) would be three technicians on duty Monday through Wednesday with overlapping coverage between noon and 4 PM with two technicians to close. This would consist of one inspector on duty from 8 AM to noon, three present from noon through 4 PM, and two on duty between 4 PM and dark. Thursday through Sunday, five inspectors would be on duty with two present from 8 AM to

noon, five present from noon through 4 PM, and three on duty between 4 PM and dark. During the shoulder seasons (prior to May 16 or after August 15) two inspectors would be on duty Monday through Wednesday with overlapping coverage mid-day. Three inspectors would be on duty Thursday through Sunday with one person to open and two to close.

This staffing plan will be enacted in year one of Long-term Suspect Status. Staffing levels beyond year one will be adaptive based on what is learned during year one. It will be determined after the first year whether six inspectors is inadequate or excessive and staffing levels will be adjusted accordingly for years two and three. For the purposes of this plan and estimated budget (Appendix B), it is assumed that the staffing levels described above will be maintained through years two and three.

Supplies and Equipment

The existing pullout is gravel. Given the large number boats that use Pathfinder in the busy season, the inspection/decontamination site should be lengthened and at least partially paved at this point. The existing pullout is approximately 380 ft x 30 ft. The pullout should be lengthened to 600 ft and widened to 45 ft. This would facilitate three lanes and should accommodate the volume of boat traffic typical of a thunderstorm driving all boats off the water on a summer weekend day. The entire pullout does not need to be paved, but a decontamination area measuring 120 feet by 45 feet should be so that decontaminations do not result in creating very muddy conditions.

Two ¾ ton pickups will be needed for hauling water to the inspection station. Each ¾ ton truck will be outfitted with a 14-foot utility trailer with 10,000 lb rating. Two 500 gallon tanks will be mounted to each trailer to haul 1,000 gallons of water for check station re-supply. Each trailer will have a 2-inch water pump to efficiently transfer water from trailer tanks to decontamination units and extra supply tanks.

The four tanks purchased under the Short-term Suspect Status will be used at the check stations, four additional 500-gallon tanks will be purchased and staged at the inspection station to ensure adequate water supply on busy days.

The check station should have a mobile office trailer on-site. This will allow secure storage of check station materials and shelter during poor weather. There is no electricity at the check station, so the mobile unit will be outfitted with two 2,000 watt generators with parallel kit to run lights, air conditioning units, heater, etc.

Four decontamination units should be purchased to perform decontaminations. This would allow four units to be run simultaneously during busy times and would allow for a backup decontamination unit in case of breakdown of one machine.

Other miscellaneous supplies needed such as signs, fuel cans, decontamination unit repair parts and fittings, sunscreen, water coolers, etc. are listed as miscellaneous 200 series in the attached budget. There are no bathroom facilities at the check station, so contracting with a portable toilet company will be needed to provide two units from April 1 through October 31.

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 Pathfinder Reservoir.

RAPID RESPONSE – POSITIVE STATUS

Pathfinder 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). Pathfinder 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 Pathfinder Reservoir to Infested Status. All watercraft leaving Pathfinder 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 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 be used to inform the WGFD Casper, Laramie and Lander regions, and key stakeholders of changes in status level.

Closures

The seasonal, nocturnal and shore launching closures described in Short-term Suspect Status will continue throughout the entirety of Positive Status. Watercraft enrolled in the local boater program will be exempt from all closures.

Check Station

The check station location, hours and season of operation as described under Long-term Suspect Status year 1 will be continued through Positive Status. If transitioning directly from Short-term Suspect Status, the upgrades described in year 1 of Long-term Suspect Status would need to be completed.

Staffing Plan

The staffing plan described under year 1 of Long-term Suspect Status would be implemented under Positive Status, to include one specialist, four long-term inspectors and three short-term inspectors.

Supplies and Equipment

Supplies and equipment needed under Positive Status would be as described under year 1 of Long-term Suspect Status. No additional supplies are anticipated.

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 Pathfinder Reservoir.

RAPID RESPONSE – INFESTED STATUS

Pathfinder Reservoir will be considered Infested if an established (recruiting or reproducing) population of dreissenid mussels is identified. Pathfinder 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 Pathfinder 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 Pathfinder 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 WGFD Casper, Laramie and Lander WGFD regions, and key stakeholders of changes in status level.

Closures

In the event that Pathfinder Reservoir transitions directly to Infested Status from either Negative or Short-term Suspect Status, a reservoir-wide watercraft closure would be necessary in order to prevent the spread of dreissenid mussels to other water bodies. The personnel and equipment that is necessary to perform full decontaminations on all watercraft exiting the reservoir would not exist in this instance. The closure would pertain to the entire reservoir and the North Platte River upstream to Kortes Dam and would need to be in place for at least six weeks to allow time to purchase equipment and hire inspectors. If the Infested Status determination happens after July 31, the reservoir should be closed for the remainder of the year. In all other scenarios, the closures described under Long-term Suspect and Positive status would continue under Infested Status.

Check Station

The single check station on Pathfinder Road (Natrona County 409) would continue to be the sole inspection and decontamination site. The check station would be operated April 1 through October 31 from 8 AM until ½ hour after sunset, seven days per week. Upgrades to the existing gravel pullout as described under year one of Long-term Suspect Status would need to be implemented if transitioning from negative or Short-term Suspect Status to Infested Status. Otherwise, the necessary improvements will have been previously made. Given the expected permanency under Infested Status, a comfort station should be constructed adjacent to the pullout in lieu of monthly rental of a portable unit. Given the expected permanency of Infested Status, electrical service to the check station and drilling a water well should be pursued.

Staffing Plan

Similar to other status levels, an AIS Specialist should be hired to supervise inspectors and oversee day to day operation of the check station. That position will be stationed in Casper and will be hired from March 1 through November 15. Given the need to fully decontaminate all exiting watercraft, Infested Status will necessitate an increase in staffing due to the extra time required to decontaminate vessels.

Eleven AIS inspectors should be hired to conduct inspections and decontaminations. Eight inspectors should work April 1 through October 31. An additional three inspectors should be hired from May 16 through August 15 to allow for increased staffing during the busiest time of year. All inspectors would be based in Casper and travel to and from the check station each day in WGFD or State Motor Pool vehicles. Inspectors would be scheduled to work four, ten-hour shifts per week. They would be on site at the check station for eight hours, the remaining two hours in each work day would account for travel to and from Casper.

The staffing plan during the period of highest use (May 16 through August 15) would be four technicians on duty Monday through Wednesday with overlapping coverage between noon and 4 PM with three technicians to close. This would consist of one inspector on duty from 8 AM to noon, four present from noon through 4 PM, and three on duty between 4 PM and dark. Thursday through Sunday, eight inspectors would be on duty with two present from 8 AM to noon, eight present from noon through 4 PM, and six on duty between 4 PM and dark. During the shoulder seasons (prior to May 16 or after August 15) three inspectors would be on duty Monday through Wednesday with overlapping coverage mid-day. Five inspectors would be on duty Thursday through Sunday with two people to open and three to close. Staffing levels beyond the first year will be adaptive based on what is learned during year one and will be adjusted accordingly going forward.

Supplies and Equipment

Supplies and equipment needed will be the same as under Long-term Suspect and Positive status with the addition of two more decontamination units. If transitioning from Suspect or Positive status, most of the needed equipment will have been purchased. If moving straight to Infested Status from Negative or Short-term Suspect status, the equipment detailed in Appendix B will need to be purchased prior to allowing boating on Pathfinder Reservoir. While a well should be drilled under infested status, it would be prudent to have the equipment

necessary to haul and store water on site in case well flow rates are not sufficient to cover high use periods, or in the event of power failure or other unforeseen circumstances.

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 an Infested Status on Pathfinder 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
Wyoming Game & Fish Department			
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	307-473-3423	Brian.olsen1@wyo.gov
Jason Hunter	Lander Region Wildlife Supervisor	307-332-2688	Jason.hunter@wyo.gov
Matt Withroder	Laramie Region Wildlife Supervisor	307-721-1384	Matt.withroder@wyo.gov
Eric Hansen	Casper Region AIS Specialist	307-473-3414	eric.hansen@wyo.gov
Jeff Glaid	Casper Region Fisheries Biologist	307-473-3405	jeff.glaid1@wyo.gov
Jessica Dugan	Casper Region Fisheries Biologist	307-473-3418	jessica.dugan@wyo.gov
Jake Kettley	East Casper Game Warden	307-473-3419	Jacob.kettley@wyo.gov
Austin Swingholm	West Casper Game Warden	307-473-3420	Austin.swingholm@wyo.gov
Linnea Sailor	East Rawlins Game Warden	307-324-2973	Linnea.sailor@wyo.gov
Rob Shipe	Medicine Bow Game Warden	307-379-2337	Rob.shipe@wyo.gov
Janet Milek	Information & Education Specialist	307-233-6404	janet.milek@wyo.gov
Natrona County Parks			
Mike Haigler	Director	307-235-9311	mhaigler@notronacounty-wy.gov
Natrona County Commission			
Rob Hendry	Chairman	307-259-6203	
Paul Bertoglio	Vice Chairman	307-262-2395	
Forrest Chadwick	Commissioner	307-259-0286	
Brook Kaufman	Commissioner	307-315-4403	
Jim Milne	Commissioner	307-267-3188	
U.S. Fish and Wildlife Service Pathfinder NWR			
Tara Wertz	Project Leader	970-723-8202	Tara_wertz@fws.gov
U.S. Bureau of Land Management			
Lonny Bagley	Casper Field Manager	307-261-7587	
U.S. Bureau of Reclamation			
Cordell Perkins	Land Management Branch	307-261-5675	cperkins@usbr.gov
Concessionaires			
Pathfinder Boat Club		307-259-1792	
Stakeholders			
North Platte Walleyes Unlimited	Kenny Mayer – president	307-277-0149	Kjack1@outlook.com
Sloans General Store	Brian Black	307-234-2066	
Wyoming Walleye Stampede	Brian Woodward	307-258-8898	walleyestampede@aol.com
North Platte Lodge	Trent Tatum	307-277-0093	Tatum_flyfish@hotmail.com
Wyoming Flyfishing	Ryan Anderson	307-277-6282	wyotroutbum@hotmail.com
Crazy Rainbow Flyfishing	Blake Jackson	307-315-0204	bjackson@crazyrainbow.net
Gray Reef Anglers	Jason Ostrander		greyreefanglers@gmail.com

APPENDIX B: ANNUAL BUDGETS ASSOCIATED WITH EACH STATUS LEVEL

SHORT-TERM SUSPECT STATUS

Travel	**Description**	**# of Days**	**Cost/Day**	**Total Cost**
	Per Diem (person days)	30	$157	$4,710
	Subtotal			**$4,710**
Supplies	**Description**	**# of units**	**Cost/unit**	**Total Cost**
	Pickup bed water tanks	5	$349	$1,745
	2-inch gas powered water pump	2	$300	$600
	signs	10	$600	$6,000
	Subtotal			**$8,345**
	Total			**$13,055**

LONG-TERM SUSPECT STATUS YEAR 1

Personnel	Description	# of Months	Cost/Month	Total Cost
	Biologist I, 8.5 months	8.5	$4,543	$38,616
	Technician 1, 7 months	7	$2,863	$20,041
	Technician 2, 7 months	7	$2,863	$20,041
	Technician 3, 7 months	7	$2,863	$20,041
	Technician 4, 7 months	7	$2,863	$20,041
	Technician 5, 3 months	3	$2,863	$8,589
	Technician 6, 3 months	3	$2,863	$8,589
	Technician 7, 3 months	3	$2,863	$8,589
	Subtotal			**$144,547**
Vehicle	**Description**	**# of Months**	**Cost/Month**	**Total Cost**
	Purchase 3/4 ton single cab pickup	1	$33,000	$33,000
	Purchase 3/4 ton single cab pickup	1	$33,000	$33,000
	State Motor Pool Sedan 1	7	$500	$3,500
	Subtotal			**$69,500**
Supplies	**Description**	**# of Units**	**Cost/Unit**	**Total Cost**
	Gravel to extend/widen pullout	1	$15,000	$15,000
	Paving of decontamination area	1	$68,000	$68,000
	16-foot utility trailer, 10,000lb rating	2	$4,000	$8,000
	550 gal plastic ag tank	8	$450	$3,600
	2-inch trash pump	2	$300	$600
	Office Trailer	1	$20,000	$20,000
	Generator 2-pack with parallel	1	$1,900	$1,900
	Decon Unit with attachments	4	$12,500	$50,000
	Portable Bathroom (2 x 7 mo)	14	$150	$2,100
	Misc supplies 231 - 239 series			$5,000
	Check Station signs	6	$650	$3,900
	Subtotal			**$178,100**
	Total			**$392,147**

LONG TERM SUSPECT STATUS YEARS 2-3

Personnel	Description	# of Months	Cost/Month	Total Cost
	Biologist I, 8.5 months	8.5	$4,543	$38,616
	Technician 1, 7 months	7	$2,863	$20,041
	Technician 2, 7 months	7	$2,863	$20,041
	Technician 3, 7 months	7	$2,863	$20,041
	Technician 4, 7 months	7	$2,863	$20,041
	Technician 5, 3 months	3	$2,863	$8,589
	Technician 6, 3 months	3	$2,863	$8,589
	Technician 7, 3 months	3	$2,863	$8,589
	Subtotal			**$144,547**
Vehicle	**Description**	**# of Months**	**Cost/Month**	**Total Cost**
	State Motor Pool Sedan	7	$500	$3,500
	Subtotal			**$3,500**
Supplies	**Description**	**# of units**	**Cost/unit**	**Total Cost**
	Portable Bathroom (2 x 7 mo)	14	$150	$2,100
	misc supplies 231-239			$2,500
	Subtotal			**$4,600**
	TOTAL			**$152,647**

POSITIVE STATUS

Personnel	Description	# of Months	Cost/Month	Total Cost
	Biologist I, 8.5 months	8.5	$4,543	$38,616
	Technician 1, 7 months	7	$2,863	$20,041
	Technician 2, 7 months	7	$2,863	$20,041
	Technician 3, 7 months	7	$2,863	$20,041
	Technician 4, 7 months	7	$2,863	$20,041
	Technician 5, 3 months	3	$2,863	$8,589
	Technician 6, 3 months	3	$2,863	$8,589
	Technician 7, 3 months	3	$2,863	$8,589
	Subtotal			**$144,547**
Vehicle	**Description**	**# of Months**	**Cost/Month**	**Total Cost**
	Purchase 3/4 ton single cab pickup[a]	1	$33,000	$33,000
	Purchase 3/4 ton single cab pickup[a]	1	$33,000	$33,000
	State Motor Pool Sedan 1	7	$500	$3,500
	Subtotal			**$69,500**
Supplies	**Description**	**# of Units**	**Cost/Unit**	**Total Cost**
	Gravel to extend/widen pullout[a]	1	$15,000	$15,000
	Paving of decontamination area[a]	1	$68,000	$68,000
	16-foot utility trailer, 10,000lb rating[a]	2	$4,000	$8,000
	550 gal plastic ag tank[a]	8	$450	$3,600
	2-inch trash pump[a]	2	$300	$600
	Office Trailer[a]	1	$20,000	$20,000
	Generator 2-pack with parallel[a]	1	$1,900	$1,900
	Decon unit with attachments[a]	4	$12,500	$50,000
	Portable Bathroom (2x7 mo)	14	$150	$2,100
	Misc supplies 231 - 239 series			$5,000
	Check Station signs[a]	6	$650	$3,900
	Subtotal			**$178,100**
	Total			**$392,147**

[a] 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, 8.5 months	8.5	$4,543	$38,616
	Technician, 7 months x 8	56	$2,863	$160,328
	Technician, 3 months x 3	9	$2,863	$25,767
	Subtotal			**$224,711**
Vehicle	**Description**	**# of Months**	**Cost/Month**	**Total Cost**
	Purchase 3/4 ton single cab pickup[a]	1	$33,000	$33,000
	Purchase 3/4 ton single cab pickup[a]	1	$33,000	$33,000
	State Motor Pool Sedan 1	7	$500	$3,500
	State Motor Pool Sedan 2	7	$500	$3,500
	State Motor Pool Sedan 3	3	$500	$1,500
	Subtotal			**$74,500**
Travel	**Description**	**# of Days**	**Cost/Day**	**Total Cost**
	Per Diem for outside help	60	$157	$9,420
	Subtotal			**$9,420**
Supplies	**Description**	**# of Units**	**Cost/Unit**	**Total Cost**
	Gravel for pullout[a]	1	$15,000	$15,000
	Paving of pullout[a]	1	$68,000	$68,000
	Water Well[c]	1	$50,000	$50,000
	16-foot utility trailer, 10,000lb rating[a]	2	$4,000	$8,000
	550 gallon plastic ag tank[a]	8	$450	$3,600
	2-inch trash pump[a]	2	$300	$600
	Office Trailer[a]	1	$20,000	$20,000
	generator 2-pack with parallel[a]	1	$1,900	$1,900
	Decon Unit with attachments[b]	6	$12,500	$75,000
	Misc supplies 231 - 239 series			$5,000
	Check Station signs[a]	6	$650	$3,900
	Single stall comfort station[c]	1	$12,000	$12,000
	Subtotal			**$263,000**
Utilities	**Description**	**# of Units**	**Cost/Unit**	**Total Cost**
	Power Hookup[c]	1	$10,000	$10,000
	Monthly service	8	$200	$1,600
	Subtotal			**$11,600**
	Total			**$583,231**

[a] Will not need to be purchased if transitioning from Long-term Suspect or Positive status.
[b] Only two units will need to be purchased if transitioning from Long-term Suspect or Positive status.
[c] 1st year of Infested Status only.