



# State Aquatic Nuisance Species (ANS) Program Summary for Colorado Legislators per SB 08-226



## Colorado Parks and Wildlife Due January 15, 2024

The Colorado Parks and Wildlife’s (CPW) Aquatic Nuisance Species (ANS) Program continues to meet the challenge of protecting the state’s water resources and infrastructure from the establishment of harmful ANS.

In 2023, CPW intercepted 119 watercraft infested with zebra or quagga mussels coming from out of state. In 2022, the state intercepted 148, in 2021, the state intercepted 181, in 2020 the state intercepted 100, in 2019 the state intercepted 86, in 2018, the state intercepted 51 and in 2017 the state intercepted 26 infested watercraft. The average prior to 2017 was 16 interceptions each year. This exponential growth in infested boat interceptions is directly related to the growing threat invasive mussels pose to Colorado’s water infrastructure, natural resources and outdoor recreation. CPW’s Invasive Species Program, along with partners, is critical to maintaining opportunities for recreation, preserving natural heritage and protecting water supply and delivery infrastructure for municipal, industrial and agricultural use.

Prior to the July 1, 2011 merger of the former Division of Wildlife (CDOW) and Colorado State Parks (Parks), the two ANS Programs operated independently per SB08-226. For the purpose of this report, the activities occurring from 2008-2011 are attributed to the former CDOW and Parks agencies independently. Activities from 2012-2023 are attributed to CPW.

CPW provides ANS support to all waters of the state, and to all inspection stations, regardless of jurisdiction. Services provided by CPW include site-specific planning, training/certification, some watercraft inspection and decontamination, quality control assessments, data collection development and support, law enforcement, educational materials, workshops and conferences, sampling and monitoring, laboratory analysis and species identification, and cost-share opportunities.



*Quagga mussels covering the shoreline at Lake Mead in Nevada*

### Program Goal

The goal of the ANS Program is to protect the state’s natural resources, outdoor recreation and water supply systems through preventing new introductions and reducing the spread of costly aquatic invasive species, such as zebra or quagga mussels, in Colorado.

### Legal Authority

**“The ANS Act” Senate Bill 08-226:** In the 2008 legislative session, the General Assembly recognized the devastating economic, environmental, and social impacts of aquatic nuisance species (ANS) on the aquatic resources and water infrastructure of the state. The General Assembly further recognized the potential of recreational vessels to be a significant source of the spread of ANS in Colorado. Therefore, the General Assembly enacted Senate Bill (SB) 08-226, effective May 29, 2008, to implement actions to detect, prevent,

contain, control, monitor, and, whenever possible, eradicate ANS from the waters of the state and to protect human health, safety, and welfare from ANS.

The Act defines ANS as exotic or nonnative aquatic wildlife or any plant species that have been determined to pose a significant threat to the aquatic resources or water infrastructure of the state. It makes it illegal to possess, import, export, ship, transport, release, plant, place, or cause an ANS to be released. The Act allocated funding to ANS programs in both the former CDOW and Parks. It provides authority for CPW to certify individuals as authorized agents and qualified peace officers to inspect, and if necessary, decontaminate or quarantine watercraft for ANS. It also provides authority for trained authorized agents to inspect and decontaminate watercraft for ANS.

***CPW Parks Chapter 8 Regulations on ANS:*** SB 08-226 specifically authorizes and requires the Board of Parks and Outdoor Recreation to promulgate rules needed for the administration and enforcement of the Act. The Parks Board adopted regulations in Chapter 8 for ANS, effective April 1, 2009. These regulations were jointly written and apply to both State Parks and Division of Wildlife, and address all waters of the state. In 2016, CPW updated the P-08 regulations to reflect the merger of Parks and Wildlife and to update regulations to meet current standards and protocols for watercraft inspection and decontamination (WID). In 2017 & 2020, the regulations were further updated due to citizen’s petition that altered the exempt watercraft list. In 2021, the regulations were once again updated to allow for enforcement upon individuals who were found to be defacing or altering their watercraft inspection & decontaminations seals and/or receipts.

***“Concerning the Funding for Aquatic Nuisance Species” House Joint Resolution 17-1004:*** In 2017, the Colorado General Assembly unanimously passed HJR 17-1004 which affirmed the State Legislature’s commitment to ANS management in Colorado, and the priority that the legislature places on the ANS Program within the state’s operations and encourages the federal government to assist the state with implementation of the ANS Program as outlined in the State ZQM Management Plan. There are no changes to statutory authority or operational procedures that would affect operations in HJR17-1004.

***“The Mussel Free Colorado Act” House Bill 18-1008:*** In 2018, the Colorado General Assembly passed the Mussel Free Colorado Act which created the ANS Stamp (a fee for motorized watercraft and sailboats using Colorado waters – residents and non-residents), increased fines for select ANS violations, and created a reimbursement process for CPW to get restitution for full decontaminations of quarantined or impounded watercraft.

***“More Robust Check Station Aquatic Nuisance Species” House Bill 21-1226:*** In 2021, the Colorado General Assembly passed the More Robust Check Station Aquatic Nuisance Species Act. This act provided Colorado Parks & Wildlife the authority to implement a pilot roadside watercraft inspection and decontamination program during the 2022 and 2023 boating seasons. It also prohibits persons transporting a conveyance from failing to or refusing to stop at these check stations during the hours of operation.

## **History of Zebra and Quagga Mussels in Colorado**

Zebra mussels, and their close relative quagga mussels, are highly invasive aquatic species that negatively impact plankton communities, fisheries, and water based recreation; in addition to threatening our water storage and distribution systems for municipal, industrial and agricultural use. **In September of 2022, the Invasive Species Program identified adult zebra mussels in Highline Lake in Loma Colorado. This makes Highline the only**

**lake in Colorado that has adult mussels.** However, the larval stage of the mussels, known as veligers, have been detected in several waters in the past.

Colorado follows the western regional standards for listing and de-listing water bodies for zebra and quagga mussels, as documented in the *Western Regional Panel's Building Consensus in the West Workgroup*. Per this standard, a suspect reservoir requires three years of negative testing to be de-listed to negative.

*Previous Detections of Zebra and Quagga Mussels in Colorado:*

- Pueblo Reservoir tested positive for zebra and quagga mussel larvae (veligers) in 2007 and for quagga mussel veligers in 2007, 2008, 2009 and 2011.
- Grand Lake tested positive for one zebra mussel and one quagga mussel veliger in 2008. There have been no verified detections at Grand Lake since 2008.
- Granby Reservoir, Shadow Mountain Reservoir, Willow Creek Reservoir, Tarryall Reservoir and Jumbo Reservoir all tested positive for one quagga mussel veliger in 2008. There have been no verified detections at any of these waters since 2008.
- Blue Mesa Reservoir tested positive for quagga mussel eDNA in 2009, 2011 and 2012 by the Bureau of Reclamation.
- Green Mountain Reservoir tested positive for quagga mussel veligers in 2017. There have been no verified detections since 2017.
- Highline Lake tested positive for adult zebra mussels in 2022.

*De-Listing Positive Waters:*

- Pueblo Reservoir was de-listed for quagga mussels in January 2017 after five years of negative results.
- Pueblo Reservoir was de-listed for zebra mussels in January 2014, along with the de-listing of Granby, Grand Lake, Shadow Mountain, Willow Creek, Tarryall, Jumbo and Blue Mesa.
- Green Mountain was de-listed for quagga mussels in January 2021 after three years of negative results.

**Other Aquatic Nuisance Species in Colorado**

- ***Eurasian watermilfoil (EWM)*** – An invasive aquatic plant known to many Front Range locations, Navajo Reservoir, and the Rio Grande. The Colorado Dept. of Agriculture requires management per the State Weed Act and Rules.
- ***New Zealand Mudsnails (NZMS)*** – First detected in Colorado in 2004 in the South Platte and Boulder Creek. These invasive snails continue to be found in new locations annually. The most recent detections were made in the Eagle River, Poudre River and Bear Creek.
- ***Rusty Crayfish*** – There are four known locations statewide. Regulation prohibits the live transport from positive locations, in addition to all waters west of the Continental Divide where there are no native crayfish. Rusty crayfish were detected in Lake Granby in 2023.

# 2023 Program Activities:

## Sampling/Monitoring

CPW has sampled 584 “at-risk” waters for aquatic invasive species since inception. While CPW ANS staff has historically monitored the state’s public waters for numerous invasive plants and animal species, and cataloging native species along the way, the focus of sampling is on the early detection of zebra and quagga mussels.

The state follows a three-tier sampling protocol targeting the three life cycles of the zebra or quagga mussel: (1) conducting plankton tows to find the veligers, (2) deploy and check substrates to find the juvenile “settlers” or attached adult mussels and (3) conduct surveys along the shoreline and existing structures for settled juveniles or attached adults.



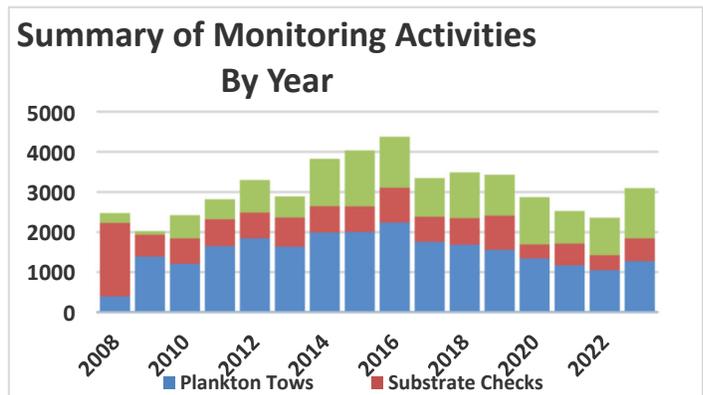
Partner Organization	Samples Contributed
Wyoming Game and Fish Department	98
Curecanti NRA (National Park Service)	64
Tahoe Regional Planning Agency	36
Aquatic Animal Health Lab	20
California Department of Fish and Wildlife	6
New Mexico Department of Game and Fish	1

The state requires three steps to identify, verify and confirm a detection of zebra or quagga mussel veligers: (1) visual analysis of plankton tows using a cross-polarized light microscope (2) DNA verification utilizing polymerase chain reaction [PCR] and (3) DNA confirmation utilizing gene sequencing.

In 2023, crews sampled 178 standing, and 52 flowing waters statewide. 24 of these waters had never been sampled for ANS. In addition to CPW’s ANS crew, plankton samples were also received from partner organizations. Their contributions can be seen in the table to the left.

The sampling teams conduct early detection sampling for zebra and quagga mussels on public lakes and reservoirs. CPW has met western regional minimum standards for zebra and quagga mussel monitoring. The program has been unable in recent years to actively search for other ANS, sample flowing waters (rivers, streams, creeks), perform crayfish trapping, or conduct plant inventories.

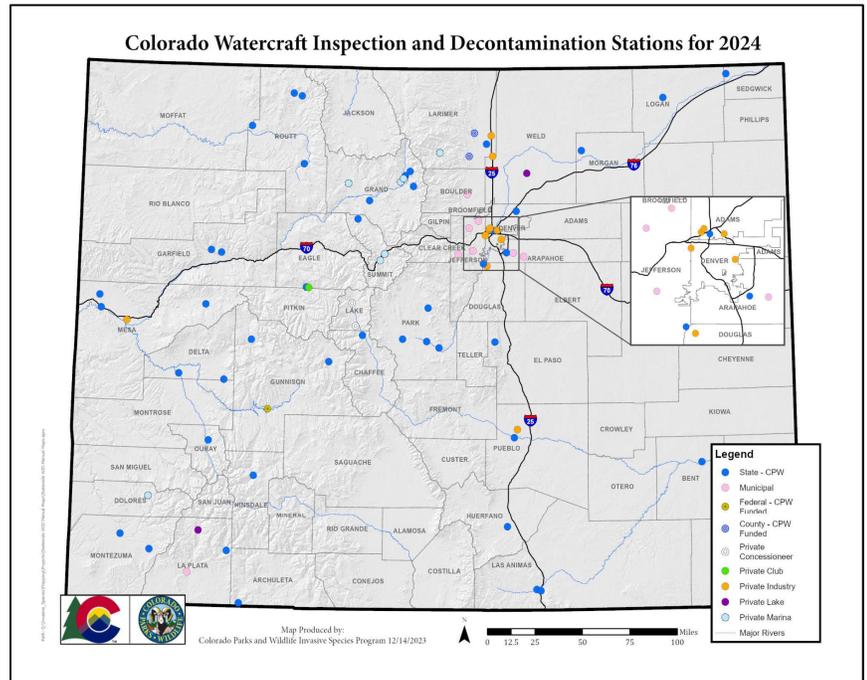
The graph on the right provides a summary of the annual sampling work performed.



## Watercraft Inspection and Decontamination (WID)

CPW coordinates a vast network of WID stations operated by CPW, the National Park Service, Larimer County, several municipalities, and numerous private industry locations including businesses, concessioners, marinas, clubs and private lakes. In total, the state has collectively performed over **7 million inspections** and **233,298 decontaminations** since 2008.

Per the state ANS Regulations, trailered watercraft must submit to an inspection, and decontamination if needed, prior to entrance in Colorado's waters following boating out of state or boating on a positive or suspect water. Boaters are also required to submit to an inspection prior to entering a water body where inspections are required by the managing agency. All persons performing inspections and/or decontaminations must be certified by CPW.



CPW taught 30 WID certification courses in 2023, in addition to maintaining an online recertification program for experienced inspectors and decontaminators. 28 of these 30 classes were taught virtually in 2023. There have been a total of 1,003 training sessions since the program's inception. In addition to the online course for experienced staff, the Invasive Species Program within CPW also provides two other specialized courses: (1) WID Trainer's certification and (2) Advanced Decontamination. CPW certified 756 individuals last year, for a total of 10,669 people certified or re-certified to perform WID since the implementation of statewide training and certification program in 2009.

In 2023, CPW authorized 75 locations to perform watercraft inspection and decontamination. Eleven locations operated as containment for other ANS. The focus of the containment program is to inspect watercraft leaving the lakes/reservoirs to prevent boats from moving ANS overland into currently uninfested areas, while maintaining prevention activities upon entrance to the reservoir.

Sixty-two locations operated as prevention locations. Prevention locations are those that are negative for all ANS or are not located at a waterbody (e.g. offices or marine dealers). Green Mountain reservoir joined the list of prevention locations after its de-listing to a negative waterbody in January 2021.



*CPW staff decontaminating an infested watercraft.*

Colorado conducted a total of **452,225 inspections and 33,833 decontaminations** in 2023. There continues to be a large increase in the number of decontaminations performed as a direct result of CPW adapting to mitigate new threats. Increased invasions in the Colorado River Basin, from Lake Powell in Utah and Arizona downstream, continue to increase the need for diligent prevention at home in Colorado.

Similarly, there continues to be an increase in new infestations found in states that do not conduct preventative watercraft inspection and decontamination work. In the last year alone, North Carolina, Idaho, South Dakota, Alabama, Indiana, Iowa, Michigan, Minnesota, Texas, North Carolina, and Nebraska detected new infestations of zebra or quagga mussels because of the lack of both mandatory WID and early detection monitoring programs. These new infestations in other states illustrate the importance of Colorado's ANS Program to protecting our waters and infrastructure from invasion.

Research publications indicate zebra or quagga mussel veligers can survive up to 27 days in standing water on watercraft, which increases the need to decontaminate parts of watercraft that hold water and cannot be drained (e.g. ballast tanks). New information from Utah Division of Wildlife, Minnesota Department of Natural Resources, and the U.S. Bureau of Reclamation have demonstrated that juvenile and even small adult mussels can survive being pumped through hoses into and out of ballast tanks, further increasing the risk to Colorado and the need for mandatory decontamination.

Lastly, waters in close proximity to, or positive for, other ANS such as New Zealand mudsnails or Eurasian watermilfoil, increase the need to perform more decontaminations to limit their spread within the state. CPW and their partners revised mandatory standing water decontamination triggers in 2012 to reduce the threat of invasion from viable zebra or quagga mussel veligers living in standing water, to protect against watercraft coming from other state's infested waters, and to reduce the spread of other invasive species.

## **Regional WID Data Sharing System**

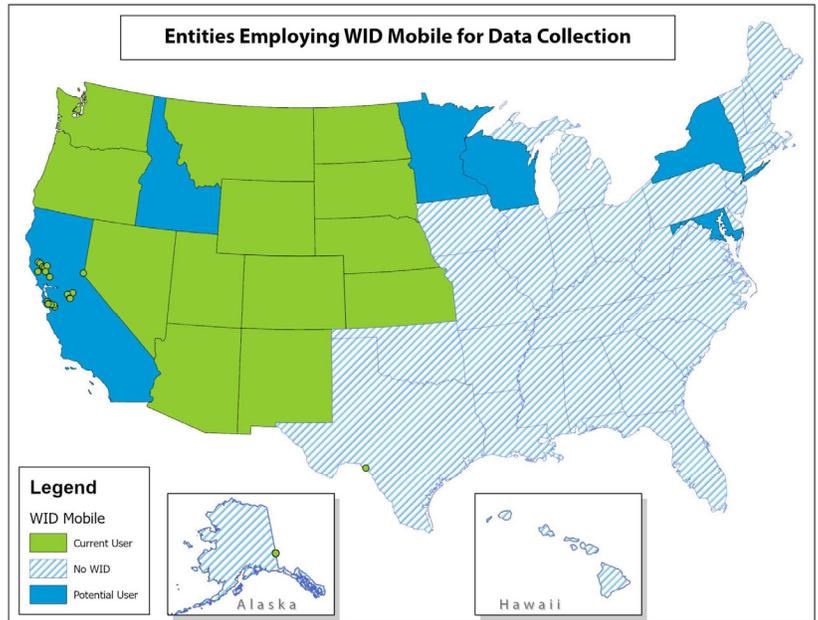
The Regional WID Data Sharing System (System) is in use at more than 200 locations across the west, including 54 in Colorado. CPW developed the System and maintains ownership and oversight. The states of Arizona, Kansas, Montana, Nebraska, Nevada, New Mexico, North Dakota, Oregon, South Dakota, Utah, Washington, and Wyoming as well as the National Park Service, Lake Tahoe Regional Planning Agency, Solano County Water Agency, County of Lake, Mussel Dogs, and TiGE are now employing the System as their primary form of data collection and management.

The purpose of the System is to record information related to WID electronically and to share information in a timely manner across jurisdictions to aid collaborative efforts to prevent the spread of zebra and quagga mussels and other ANS. The System consists of a mobile application, website, and shared database hosted on a private server. The mobile application is compatible on all iOS and Android devices. This reduces the operating costs for mobile data collection and data entry while increasing accuracy. It provides for improved reliability in data collected in the field at WID stations, in addition to rapid query capacity for on-demand reporting. Lead agencies are able to customize the user interface of the mobile application in alignment with both western regional standards and state or local laws, regulations and priorities.

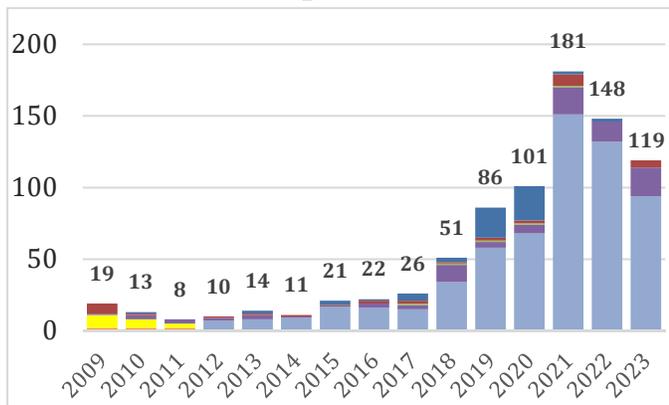
The System is used for data entry, viewing, editing, querying, and reporting. An included risk assessment tool shows where boats are moving after launching in mussel infested waters and sends an alert to the next known destination. With the benefits of data sharing proving to be abundant, the states of Arizona, Nevada and Utah have been using the System to send out timely electronic alerts of watercraft leaving infested waters. This increased timely communication has directly increased the number of infested watercraft being intercepted within the western region before launching in uninfested waters.

CPW manages and operates the System through a private industry contract utilizing federal grant dollars. The data itself is the property of the state agency that input the information. CPW leads a Governance Committee, consisting of user organizations that is charged with evaluating and prioritizing requests, changes and enhancements. The Governance Committee works collaboratively to determine the viability and usefulness of new technologies.

This system has become industry standard for entities performing WID. As users increase, this system will continue to improve communications among jurisdictions to enable field staff and managers to accurately focus resources towards effective risk mitigation related to the prevention and containment of zebra and quagga mussels and other harmful ANS.



### Mussel Boat Interceptions



This year, 119 mussel fouled watercraft were intercepted in the state. All of these watercraft were fully decontaminated prior to being allowed into Colorado’s waters. Since 2009, a total of 830 boats with adult zebra or quagga mussels were intercepted coming into Colorado.

The majority of the intercepted vessels were coming from Arizona, Lake Powell, the Great Lakes, or Mississippi River states. All boats were fully decontaminated to ensure all mussels were dead, and no mussels were visibly attached to the vessel.

### WID Quality Control

The CPW Quality Control and Field Support Team perform quality control evaluations at state certified watercraft inspection and decontamination stations to ensure that standard procedures are being followed, per regulatory requirements. The team also ensures that stations are stocked with educational materials and provide on the job training to inspectors, decontaminators, and supervisors.

The quality control program was temporarily paused in 2017 due to budget shortfalls from the lack of severance tax and was implemented at minimal levels in 2018 & 2019. In 2020, 2021, 2022, and 2023 CPW implemented a comprehensive quality control program utilizing existing program staff.

## Protocol Development for Watercraft Inspection and Decontamination

To ensure the protection of the state's waters and the validity of the state certification program, CPW has had strict field protocols and training regiments since the program's inception. All watercraft inspection and decontamination staff in Colorado attends the same training and adheres to the same protocols. Development and implementation of effective standardized protocols is a priority. Many other states base their procedures and training programs off CPW's numerous publications.



In 2014, the Western Regional Panel on ANS and the 100<sup>th</sup> Meridian Initiative adopted the CPW WID training and certification program as the western regional standard for certification of boat inspectors and decontaminators (taught by Pacific States Marine Fisheries Commission). The CPW student and trainer's curriculum, as well as field procedures, have been adapted for other states. They are updated annually to reflect the most current information. CPW WID training program is proven to protect waters and is being taught nationally.

In 2020, the Western Regional Panel watercraft inspection & decontamination committee, which is chaired by CPW, revised the existing watercraft inspection & decontamination protocols. The Western Regional Panel has approved these revised protocols as the regional standard for watercraft inspection. In 2021, 2022 & 2023 CPW adopted these protocols in an effort to increase consistency across the western region.

## Information and Outreach

CPW and partner agencies have implemented a comprehensive, multi-faceted, public education campaign focused on boaters and anglers to prevent the spread of ANS utilizing a variety of mediums. The invasive species program within CPW has been conducting information, education and outreach efforts for terrestrial and aquatic plants (noxious weeds), animals, insects, and diseases. Accomplishments include distribution of tens of thousands of printed rack cards, brochures, handouts, DVDs, posters and signs at offices, boat ramps and water-access points. In addition, staff have implemented an aggressive media relations campaign, using press releases and conducting web-based, radio, print and television interviews. CPW staff hosted numerous outreach seminars to boating and angling groups, marine dealers, HOAs, watershed groups, basin roundtables, ditch companies, municipal water managers and providers, schools and youth educational opportunities.

One particular outreach effort the ANS Program has expanded in 2023 is Don't Let It Loose. Don't Let It Loose (DLIL) is an initiative founded by the Invasive Species Action Network (ISAN) to promote responsible pet ownership and discourage the release of exotic animals and plants into North American environments. ISAN has spread the initiative across the United States but partners with local or state organizations to provide support for their region. The Colorado Parks and Wildlife Invasive Species Program acts as the liaison for the state of Colorado. The Don't Let It Loose initiative is three-pronged: exotic pet store partners, signage for water bodies, and direct educational materials.

In 2022, ISAN partnered with CPW to connect with 16 exotic pet stores in the Denver Metro area and supplied these partners with DLIL branded plastic bags for fish or live feeders so customers can receive the message with their purchase. In 2023, CPW expanded the effort to 27 partner exotic pet stores from the Denver Metro area to the West Slope and southwest corner of the state. CPW also began a new initiative of distributing signage discouraging aquarium dumping to municipalities to post at neighborhood ponds or creeks that are likely candidates for the behavior. To date, more than 50 posted around the state. The third branch of DLIL also began this year with the production of a video intended for children grades 3-5, to provide an introduction to invasive species and tell them how they can help by being responsible pet owners and not releasing their pets.

## Zebra Mussels

Zebra mussels were detected in Highline Lake in September of 2022 through routine early detection monitoring. This is the first finding of adult mussels in the state of Colorado. After exhaustive upstream sampling to ensure that Highline Lake was the origin of the infestation, an eradication plan was executed in March of 2023. Highline Lake was lowered until only 20% of its volume remained with the goal of exposing as many mussels as possible to freezing and drying conditions for several months. The remaining water was treated with a copper based EPA registered molluscicide, Earthtec QZ. This treatment was intended to target mussels with minimal damage to non-target organisms like fish. Target concentrations of the chemical were met and weekly ANS sampling was conducted throughout the summer to monitor for presence of zebra mussels. No findings that met the minimum criteria for detection were made throughout the summer.



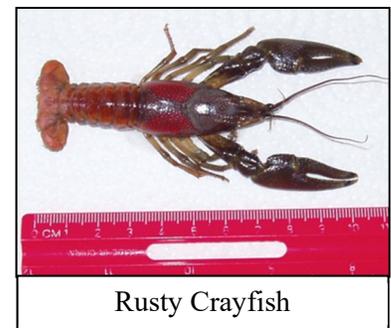
In October of 2023, at the conclusion of Highline’s boating season, buoys, work boats, and docks were removed from the water. Inspection of this equipment led to the finding of additional adult zebra mussels. Although the original eradication attempt was not a total success, it was not without merit. If no action had been taken, the amount of zebra mussels in Highline may have exceeded the hundreds of thousands. In November of 2023, another Earthtec QZ treatment was conducted, not with the intent of eradication, but to limit zebra mussel reproduction and the potential of viable veligers moving downstream of Highline Lake into the Colorado River. Water quality parameters are monitored regularly after the treatment and when the water is safe to discharge downstream, Highline Lake will be lowered and held at this level throughout the summer.

Highline Lake will be closed to all motorized boating for the 2024 boating season. In the fall of 2024, when irrigation water no longer needs to flow through the lake, CPW will initiate the process of completely draining Highline Lake. This eradication attempt will allow the least amount of variables influencing its success. Highline Lake is expected to be completely dry for several months over the winter of 2024/2025 before refilling in April of 2025. All eradication efforts are performed with respect for the irrigation needs of the Grand Valley as these are the systems that the ANS program strives to protect from harmful aquatic nuisance species.

## Other ANS

### Rusty Crayfish

Rusty crayfish were detected in Lake Granby in 2023. This is the first new detection of the species within Colorado since 2011. Rusty crayfish is an invasive species that was first discovered in 2009 in a main-stem impoundment of the Yampa River and at two river locations between Stagecoach Reservoir and Steamboat Springs. The ANS Program conducted extensive surveys statewide and detected a population in Sanchez Reservoir State Wildlife Area in 2010 and Stagecoach State Park in 2011. There are no current efforts ongoing to map crustaceans or control rusty crayfish in Colorado.



Rusty Crayfish

Populations have been managed through manual removal of adult rusty crayfish from 2010-2015 to reduce the reproducing population in the reservoirs and limit impacts to native communities and users. In 2016, CPW staff monitored the Yampa River’s population and determined the manual removal was

successful, as very few rusty crayfish were found in the river. Since they are still abundant in these reservoirs, trapping and monitoring efforts will be evaluated and potentially implemented, for future years.

CPW implemented regulations passed by the Wildlife Commission in November 2010 in which all crayfish caught west of the Continental Divide must be immediately killed and taken into possession, or immediately returned to the water from which they were taken. There are no crayfish native to the Western Slope. The same restriction applies to Sanchez Reservoir in Costilla County due to the invasive rusty crayfish.

Rusty crayfish are native to the Ohio River Basin and have expanded their native range to include several U.S. states and Ontario, Canada. They colonize lakes, rivers, and streams throughout North America. They are more aggressive than native crayfish, better able to avoid fish predation, and can harm native fish populations by eating their eggs and young. They can displace native crayfish and hybridize with them. They graze on and eliminate aquatic plant populations that provide necessary habitat and food source for native fish and waterfowl.

### **New Zealand Mudsnail (NZMS)**

NZMS was confirmed in three new locations in 2023 – The Eagle River, Poudre River near Greeley and Bear Creek near Idledale. Additional detections in the last several years included Colorado River, Government Highline Canal, Trout Creek, South Boulder Creek, the South Platte River in Downtown Denver, Lake Capote in Pagosa Springs, Elmer's Twomile Park in the City of Boulder, the South Platte River between Eleven Mile Reservoir and Strontia Springs Reservoir, Jimmy Camp Creek, Monument Reservoir, Trinidad Reservoir State Park, Badger Creek, The Arkansas River and the Sutherland Ditch in Pueblo.

Previously, the NZMS was detected in Chatfield Reservoir, during an aquatic noxious weed survey for Eurasian watermilfoil, in 2015. There were detections from 2010-2013 in Fountain Creek in Colorado Springs, Spinney Mountain Reservoir, Eleven Mile Reservoir, Delaney Buttes Lakes, College Lake at CSU in Fort Collins, and Dry Creek within the City of Boulder.

The tiny invasive snail was first found in Colorado in 2004 in Boulder Creek, the South Platte River below Eleven Mile dam and the Green River in Dinosaur National Monument. There were no detections from 2005-2009.

These animals are accidentally transported and moved primarily by anglers. They hide in the mud on the bottom of boots and equipment. There is no viable method for control of these very small, asexual animals. CPW places a strong emphasis on angler education providing wader brushes and instructional rack cards to anglers. The only way to stop the spread of these tiny invaders is through educating anglers to clean their waders and gear in between each and every use.

### **Eurasian watermilfoil (EWM)**

The Invasive Species Program has coordinated EWM management statewide since 2005. A detailed Geographic Information System (GIS) database of EWM locations and control efforts was developed and is maintained and updated annually by CPW.

The Colorado Department of Agriculture lists EWM as a List B Noxious Weed and has a statewide management plan documented in rule.



CPW is concerned about the fisheries and ecological impacts from this noxious weed. Public safety is also a serious concern when this plant invades because it poses a significant hazard to swimmers and recreationists due to the dense structure that can cause people to be tangled and even result in drownings. It also creates dense mats

that provide ideal habitat for mosquitoes that may carry West Nile Virus. EWM stops and slows the flow of water for agricultural and industrial use and clogs hydroelectric facilities. Finally, EWM changes the water chemistry causing taste and odor problems for drinking water.

In 2022, a new population of Eurasian watermilfoil was identified at Boulder Reservoir.

### **Colorado Aquatic Nuisance Species Management Plan**

The State of Colorado Aquatic Nuisance Species Management Plan was approved by the National Aquatic Nuisance Species Task Force in 2020. This plan, which was originally conceptualized in 2006, has been collaboratively developed by CPW, the Colorado ANS Task Force, and the ANS program's diverse group of stakeholders. The approval of this plan makes Colorado eligible to receive federal funding to support the implementation of the plan and sets a clear path forward for preventing & managing ANS in Colorado.

### **Operating and Financial Statement**

Senate Bill 08-226 created the Division of Wildlife Aquatic Nuisance Species fund within the state treasury and authorized a funding of \$3,917,244 in FY 08-09 towards the prevention, containment and eradication of aquatic nuisance species in state waters. This funding came from \$1,250,000 wildlife cash combined with \$2,667,244 from the operational account of the severance tax (Tier II). SB 08-226 appropriated \$1,304,544 of severance tax funding for the state fiscal year commencing July 1, 2009 and for every state fiscal year thereafter.

Senate Bill 08-226 also created the State Parks Aquatic Nuisance Species fund within the state treasury and authorized funding from Severance Tax (Tier II) in FY 08-09 of \$3,289,392. For FY 09 and beyond the Parks were initially funded at \$2,701,461. The two ANS Funds are now combined into one CPW ANS Fund.

The Colorado Supreme Court decision related to severance taxes in 2016 significantly reduced funding available for the ANS program. CPW began hosting stakeholder meetings in July 2016 seeking funding from partner agencies to provide dollars for upcoming boating seasons and the long term implementation of the ANS Program. The stakeholder's group has grown to 134 individuals from 74 entities, including U.S. Senator Michael Bennet and U.S. Senator Cory Gardner's offices.

CPW utilized ANS fund reserve dollars to pay for the 2016 boating season. In 2017, CPW provided agency dollars, redirected USFWS motorboat access grant dollars, and over \$1M in partnership grants, contracts and donations. Similarly, in 2018, ANS was funded with agency dollars, partner funding, grants and donations.

In FY2017-18, there was a general fund transfer from SB17-259 of \$3,636,634 into the ANS Funds, and in FY2018-19, there was a general fund transfer from HB18-1338 of \$3,636,634 into the ANS Funds. The State Parks ANS Fund and Wildlife ANS Fund are now combined into a single CPW ANS Fund per HB18-1008. CPW appreciates the support of the General Assembly in providing these allocations.

In FY22-23, CPW utilized ANS stamp revenue, severance tax, along with partner funding, grants and donations to fund ANS operations.

CPW intends to fund the 2024 boating season with revenue received from Mussel Free Colorado Act, combined with ANS Fund dollars and incoming partner contributions. Below is a summary of CPW's ANS Fund and cash expenditures on ANS for the last five fiscal years.

<b>Funding Source</b>	<b>FY18-19</b>	<b>FY 19-20</b>	<b>FY 20-21</b>	<b>FY21-22</b>	<b>FY22-23</b>
Parks ANS Fund	\$5,095,653.29	\$5,241,938.17	\$5,859,757.87	\$6,051,143.31	\$5,653,162.58
Wildlife ANS Fund					
Other CPW Funds	\$207,641.69	\$77,244.53	\$199,138.28	\$83,114.56	\$168,454.79
<b>Total:</b>	<b>\$5,303,294.98</b>	<b>\$5,319,182.70</b>	<b>\$6,058,896.15</b>	<b>\$6,134,257.87</b>	<b>\$5,821,617.37</b>

CPW has always leveraged ANS funds with partners in order to operate the ANS Program and provide the services Coloradans have come to expect. CPW recognizes the partners that have provided direct financial contribution to the ANS Program in the last year:

- Aurora Water
- Colorado Springs Utilities
- Colorado River Water Conservancy District
- Denver Water
- Dolores Water Conservancy District
- Impact CBS
- Larimer County
- Northern Colorado Water Conservancy District
- Pueblo Board of Water Works
- Ruedi Water and Power Board Members and Partners
  - City of Aspen
  - City of Glenwood Springs
  - Eagle County
  - Pitkin County
  - Roaring Fork Conservancy
  - Town of Basalt
  - Town of Carbondale
  - Town of Snowmass Village
  - Ute Water District
- U.S. Bureau of Reclamation
- U.S. Forest Service
- U.S. Fish and Wildlife Service
- U.S. National Park Service

It is important to recognize that while CPW provides sampling, monitoring, and laboratory analysis for all waters of the state; and provides training, quality control, signs, education, outreach, and many other support services for all WID stations in Colorado, the following municipal reservoirs' WID stations are funded by the municipalities themselves: Arvada, Aurora, Bear Creek, Boulder, Quincy, and Standley Lake. Denver Water provides funding to the Dillon and Frisco marinas for the WID station at Dillon Reservoir. The Colorado River Water Conservancy District provides funding to the Wolford Marina and Campgrounds to operate the WID station at Wolford Reservoir. Ruedi Water and Power is the main funding source, along with partners listed above, for Ruedi Reservoir. Finally, the WID stations at Twin and Turquoise Reservoirs are funded by a partnership effort between Colorado Spring Utilities, Aurora Water, Pueblo Board of Water Works and the Pike National Forest.

CPW is working with the Army Corps of Engineers (Corps) on the implementation of the Water Resources Development Act of 2018 (S. 3021), which was passed by the 115th Congress and signed into law October 2018. Section 1170 includes a provision which directs the Corps to establish, operate, and maintain new or existing watercraft inspection stations to prevent the spread of aquatic invasive species in the Columbia, Upper Missouri,

Upper Colorado, South Platte and Arizona (should be Arkansas) River Basins. The provision also authorizes the Corps to assist states with early detection monitoring and rapid response efforts in the case of an infestation of quagga or zebra mussels. CPW intends to utilize its resources as the required 50% match, if Congress appropriates funds for implementation of Section 1170 in Colorado.

On June 22<sup>nd</sup> 2023, U.S. Senator Michael Bennet from Colorado, along with U.S. Senator Steve Daines from Montana, introduced the “Stop the Spread of Invasive Mussels Act of 2023” into Congress. The bill strengthens prevention WID programs by providing the U.S. Bureau of Reclamation explicit authority by providing authority for cost share to fund watercraft inspection and decontamination stations, provides all federal agencies who participate in the Aquatic Nuisance Species Task Force the same authorities to limit the movement of invasive species into and out of U.S. waters (eliminating barriers to mandatory exit inspections at infested water bodies such as Lake Powell and Lake Mead). CPW intends to utilize its resources as the required 25% match, if Congress passes the bill and appropriates funds for implementation in Colorado.