



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



## Colorado Parks and Wildlife Due January 15, 2025

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 2024, CPW intercepted 110 watercraft infested with zebra or quagga mussels coming from out of state. In 2023, the state intercepted 119, 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 2012-2024 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 citizens’ petitions 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 & decontamination 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 roadside watercraft inspection and decontamination program. 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. In July of 2024, CPW identified the larval stage of the mussels, known as veligers in the Colorado River near Grand Junction and the Government Highline Canal.** This larval stage of mussels has 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.
- Colorado River & Government Highline Canal tested positive for zebra mussel veligers in 2024.

### *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. In 2024 Eurasian watermilfoil was detected in Fountain Lake and the Arkansas River in Pueblo.
- ***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. In 2024, New Zealand Mudsnails were detected in Redtail Lake, Turkey Creek and Antero Reservoir.
- ***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.

## 2024 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 cataloged 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) deploying and checking substrates to find the juvenile “settlers” or attached adult mussels and (3) conducting surveys along the shoreline and existing structures for settled juveniles or attached adults.

| Partner Organization                   | Samples Contributed |
|----------------------------------------|---------------------|
| Wyoming Game and Fish Department       | 105                 |
| Tahoe Regional Planning Agency         | 62                  |
| Curecanti NRA (National Park Service)  | 52                  |
| Aquatic Animal Health Lab              | 32                  |
| New Mexico Department of Game and Fish | 2                   |

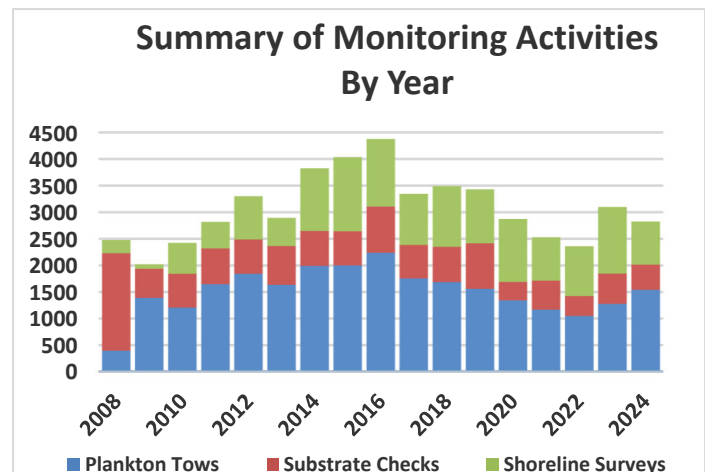


The state requires three steps to identify, verify and confirm a detection of zebra or quagga mussel veligers: (1) visual analysis of plankton tows using a cross-polarized light microscope (2) DNA verification utilizing polymerase chain reaction [PCR] and (3) DNA confirmation utilizing gene sequencing.

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.

In 2024, crews sampled 209 standing and 26 flowing waters statewide. 21 of these waters had never been sampled for ANS. These sampling efforts produced 1,544 plankton samples, all of which were processed by CPW’s own ANS Laboratory. In addition to CPW’s ANS crew, 253 plankton samples were also received from partner organizations. As one of the only dedicated ANS laboratories in the western United States, CPW processes these samples for our partners in effort to ensure CPW and our fellow state partners have the best information available to protect Colorado’s aquatic resources from aquatic nuisance species. Their contributions can be seen in the table above.

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

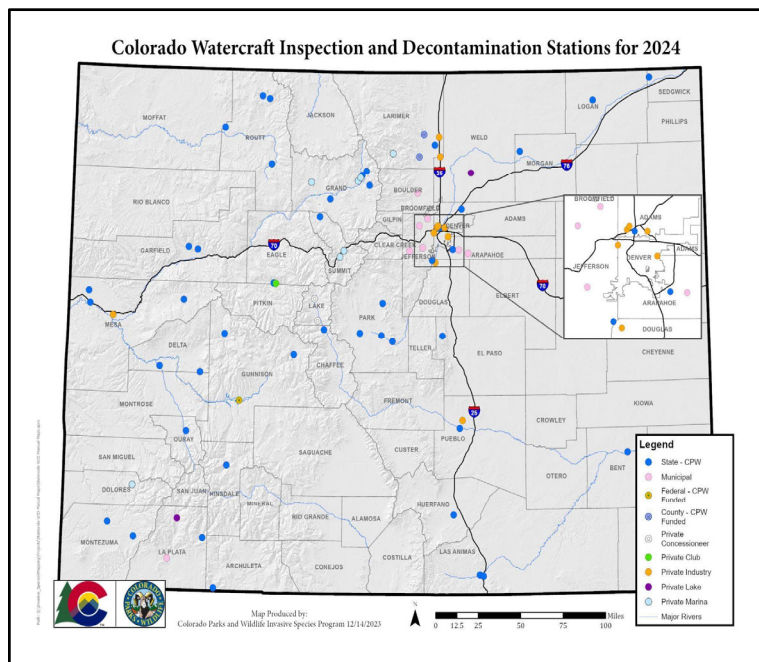


In 2024, CPW was able to hire an Early Detection and Rapid Response (EDRR) Specialist who will be overseeing the sampling and monitoring program moving forward. The EDRR Specialist will be responsible for managing the sampling teams as well as the ANS Laboratory. This individual will also be coordinating and responding to any ANS detections that will require rapid response efforts.

## 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 **7.4 million inspections** and **265,882 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 2024, in addition to maintaining an online recertification program for experienced inspectors and decontaminators. 25 of these 30 classes were taught virtually in 2024. There have been a total of 1,033 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 741 individuals last year, for a total of 11,410 people certified or re-certified to perform WID since the implementation of statewide training and certification program in 2009.

In 2024, CPW authorized 77 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 in order to prevent boats from moving ANS overland into currently uninfested areas, while maintaining prevention activities upon entrance to the reservoir.

Sixty-four 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).

Colorado conducted a total of **463,710 inspections** and **32,584 decontaminations** in 2024. Decontamination numbers have remained high in recent years 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, as well as new infestations in states to our east continue to increase the need for diligent prevention at home in Colorado.



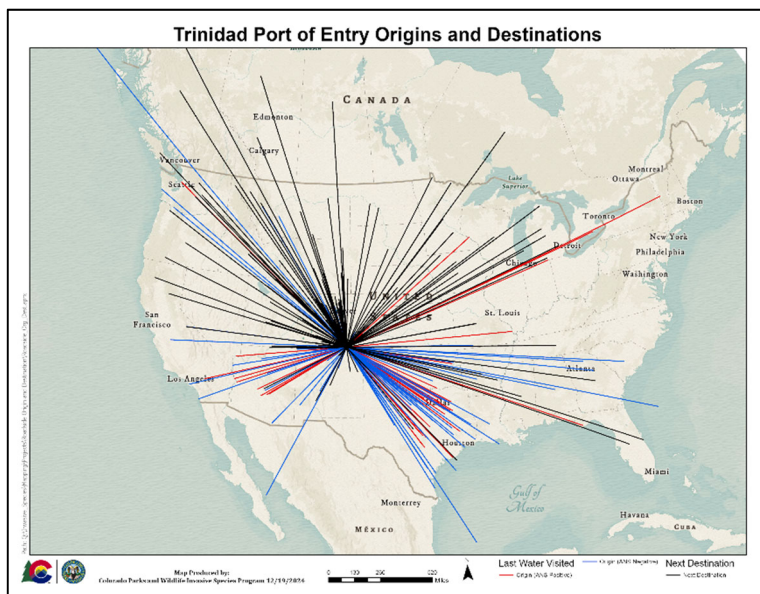
Similarly, there continues to be an increase in new infestations found in states surrounding Colorado. In the last year alone, Iowa, Indiana, Kansas, North Dakota, Oklahoma, South Dakota, and Texas detected new infestations of zebra or quagga mussels because of the lack of both mandatory WID and early 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). Recent 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 states' infested waters, and to reduce the spread of other invasive species.

## Implementing HB21-1226



HB21-1226, named the *More Robust Aquatic Nuisance Species Check Stations Act*, provided Colorado Parks and Wildlife the authority to inspect and decontaminate watercraft at roadside locations. It was initially implemented as a highly successful two-year pilot program in 2022 and 2023. The pilot phase of this program provided valuable insight into watercraft movement into the state.

Utilizing the information gathered in the pilot phase of the program, in collaboration with the Colorado Department of

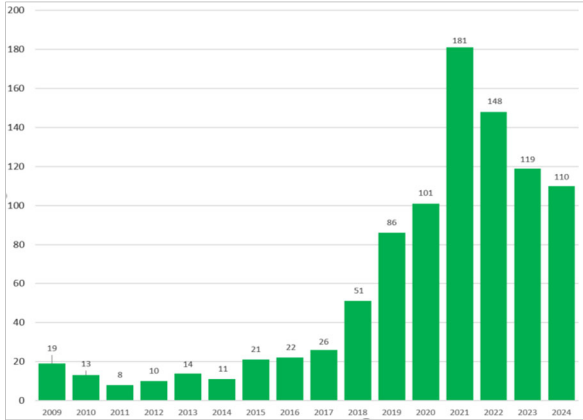
Transportation and Colorado State Patrol Port of Entry staff, two semi-permanent roadside check stations were established at the Trinidad and Loma Ports of Entry in 2024.

In addition to these check stations, a roving team was established to gather more information on boater movement on the borders of the state. The roving roadside team would operate out of a different Port of Entry each week, and these locations included: Fort Morgan, Fort Collins, Limon, Lamar, and Cortez. These operated from mid-March to the end of October, Thursday-Mondays, and while open all motorized vessels were required to stop for inspection.

Due to the high volume of boating traffic from the nearby quagga mussel infested Lake Powell, Loma had the highest number of mussel infested watercraft intercepted. Mussel infested vessels were also intercepted at Fort Morgan, Trinidad, and Cortez. At Loma, these mussel infested watercraft were all coming from Lake Powell, Lake Mead, and Lake Havasu. At Cortez and Trinidad, mussel infested watercraft were traveling from various Texas lakes. Lastly, the mussel infested watercraft intercepted at Fort Morgan was traveling from the mussel infested Illinois River, in Illinois.

| Roadside Inspection Effort Summary |           |                |                   |          |           |
|------------------------------------|-----------|----------------|-------------------|----------|-----------|
|                                    | Inspected | Decontaminated | Total Encountered | Bypassed | ANS Found |
| 2022                               | 95        | 60             | 108               | 13       | 26        |
| 2023                               | 21        | 10             | 63                | 42       | 2         |
| 2024                               | 3370      | 859            | 4326              | 1719     | 39        |
| Total                              | 3486      | 929            | 4,497             | 1,774    | 67        |

Mussel Boat Interceptions



This year, 110 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 940 boats with adult zebra or quagga mussels have been 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 and 2019. In 2020, 2021, 2022, 2023, and 2024 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 regimens since the program's inception. All watercraft inspection and decontamination staff in Colorado attend the same training and adhere 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.



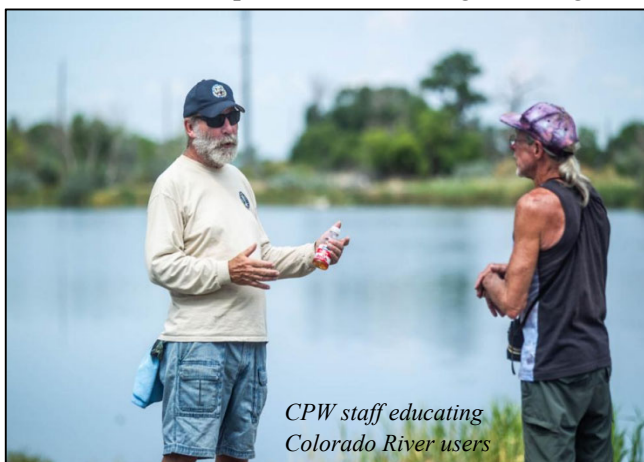
In 2014, the Western Regional Panel on ANS and the 100<sup>th</sup> Meridian Initiative adopted the CPW WID training and certification program as the western regional standard for certification of boat inspectors and decontaminators (taught by Pacific States Marine Fisheries Commission). The CPW student 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. The 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 and decontamination protocols. The Western Regional Panel has approved these revised protocols as the regional standard for watercraft inspection. In 2021, 2022, 2023, and 2024, 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, multifaceted 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.

In 2024, CPW placed a high priority on and implemented a multifaceted approach to educating non-motorized recreators on the importance of cleaning, draining, and drying their gear. One method by which CPW undertook this effort was to hire dedicated technicians to attend and provide education at events and provide face-to-face education at launch sites frequented by non-motorized users.



In total, these technicians along with other ANS staff participated in 37 different outreach events. These events spanned a wide array of settings, from large-scale expos and festivals to focused educational sessions. Each event provided an opportunity to interact directly with a diverse audience, educating them on the risks posed by ANS and encouraging preventative action. The wide range of these events helped to elevate awareness across multiple communities.

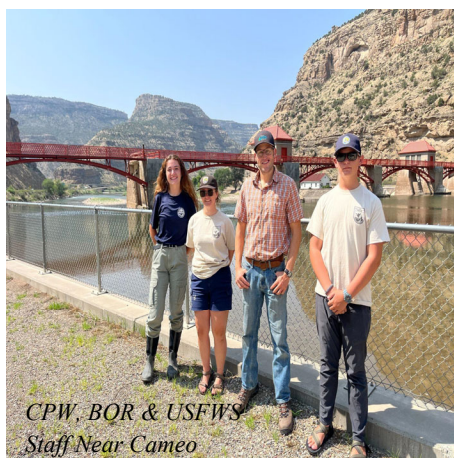


When not attending events, these outreach-focused technicians set up educational displays at popular launch sites, educated and assisted non-motorized users on the importance of cleaning, draining, and drying their gear, and assisted with the process. While this effort was initially intended to be a broad statewide effort, much emphasis was placed upon the Colorado River in Grand Junction following the detection of zebra mussel veligers. These technicians made more than 6,000 face-to-face contacts at launch sites during the 2024 season. The information gathered by these technicians will be utilized to inform broader educational efforts to these user groups moving forward.

Beyond these efforts, CPW has identified and prioritized the development of educational materials specific to these non-motorized user groups. In collaboration with CPW's education section, 8 focused instructional videos were produced that show different non-motorized user groups how to clean, drain, and dry their gear. A complementary series of rack cards was also produced and all of this information is now available on CPW's newly launched website. CPW aims to widely disseminate these resources beginning with the 2025 boating season.

## **Zebra Mussels**

Zebra mussels were initially detected in Highline Lake in September of 2022 through routine early detection monitoring. This was the first finding of adult mussels in the state of Colorado. After exhaustive sampling in the surrounding area and a successful application of Earthtec QZ, an EPA registered copper based molluscicide, in March of 2023, ongoing monitoring continued throughout the summer. In October of 2023, at the conclusion of Highline's boating season, inspection of operational equipment like buoys and boat docks led to the finding of additional adult zebra mussels. 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.



Highline Lake was closed to all motorized boating for the 2024 boating season in part due to the partial lowering of the reservoir to expedite its complete draining in the fall of 2024, and in part to limit the risk of the spread of zebra mussels to surrounding waters. Routine early detection monitoring within Highline Lake, as well as locations upstream and downstream, continued beginning in March of 2024. As a result of this monitoring, zebra mussel veligers were detected at two locations within the Government Highline Canal on July 1st, 2024. Follow-up sampling revealed veligers detected at another location within the canal on July 8th, and at several locations on the Colorado River from DeBeque to the city of Grand Junction between July 8th and July 15th. Sampling frequency on the Colorado River was increased in partnership with the BOR and USFWS to increase river access and collect more representative samples. An autonomous sampler was deployed with support from USGS to detect the presence of eDNA and inform ongoing monitoring strategy. Sampling

was also conducted at both publicly and privately owned bodies of water with connectivity to the Colorado River in an attempt to discover the source of these veligers and understand the extent of the infestation. To date, no adult zebra mussels have been detected in the Colorado River or the Government Highline Canal. No additional veligers were detected within the river, canal, or connected bodies of water after July 15th. As an additional containment measure, outreach technicians were hired to educate non-motorized boaters about the presence of veligers in the river and give guidance on best practices to minimize the risk of the accidental transportation of zebra mussel veligers.

Before the conclusion of the irrigation season, and in light of the discovery of zebra mussel veligers in the Colorado River and the Government Highline Canal, the Grand Valley Water Users Association elected to perform a proactive molluscicide treatment using EarthTec QZ within the Government Highline Canal. The residual water containing copper was released into and held within Highline Lake until the copper levels measured below the acute and chronic aquatic life standards and was safe to release downstream in order to complete the draining of the lake.

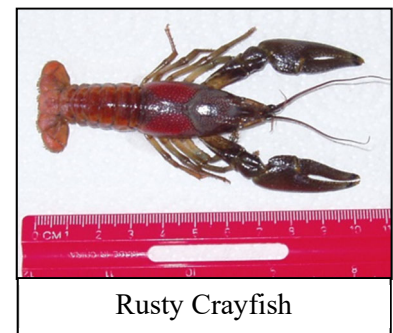
At the end of October of 2024, when the treatment of the canal was complete and irrigation water no longer needed to flow through the lake, CPW initiated the process of completely draining Highline Lake. This eradication attempt will allow the least amount of variables influencing its success. Highline 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. During the draining process, five adult mussels were found on infrastructure within the lake. All mussels were dead at the time of detection.

## **Other ANS**

### **Rusty Crayfish**

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.

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.

Rusty crayfish were detected in Lake Granby in 2023. CPW implemented an extensive crayfish survey of Lake Granby in 2024 which determined that Rusty crayfish populations within the reservoir had grown in both quantity and size. CPW intends to continue surveying this population on an annual basis.

### **New Zealand Mudsail (NZMS)**

This 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.

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 invaders is through educating anglers to clean their waders and gear in between

each and every use. NZMS were confirmed in three new locations in 2024 – Antero Reservoir, Redtail Lake in South Platte Park, and Turkey in Bear Creek Lake Park.

### **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 its dense structure that can cause people to be tangled and even result in drownings. It 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 2024, CPW implemented an extensive Eurasian watermilfoil survey of the Arkansas River from Cañon City through Pueblo. This survey identified a new population of Eurasian watermilfoil in Fountain Lake and its outlet into the Arkansas River in Pueblo.

### **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 and managing ANS in Colorado.

### **Operating and Financial Statement**

Senate Bill 08-226 created the Division of Wildlife Aquatic Nuisance Species fund and the State Parks Aquatic Nuisance Species fund within the state treasury for the prevention, containment and eradication of aquatic nuisance species in state waters. The two ANS Funds are now combined into one CPW ANS Fund.

In FY23-24, CPW utilized ANS Stamp revenue, severance tax, along with partner funding, grants and donations to fund ANS operations. State and local partner funds are utilized as match for federal grant programs. One significant change to CPW's funding is that CPW worked with the Army Corps of Engineers (ACOE) to secure funding authorized by the Water Resources Development Act of 2018 (S. 3021), which was passed by the 115th Congress and signed into law on October 2018. This 50% cost share with the ACOE is a significant step forward in providing a stable federal funding source for the ANS Program.

CPW intends to fund the 2025 boating season with revenue received from Mussel Free Colorado Act, combined with ANS Fund dollars and incoming partner contributions. On the following page is a summary of CPW's ANS Fund and cash expenditures on ANS for the last five fiscal years.

| <b>Funding Source</b> | <b>FY 19-20</b>       | <b>FY 20-21</b>       | <b>FY21-22</b>        | <b>FY22-23</b>        | <b>FY23-24</b>        |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Parks ANS Fund        | \$5,241,938.17        | \$5,859,757.87        | \$6,051,143.31        | \$5,653,162.58        | \$8,230,897.88        |
| Wildlife ANS Fund     |                       |                       |                       |                       |                       |
| Other CPW Funds       | \$77,244.53           | \$199,138.28          | \$83,114.56           | \$168,454.79          | \$58,292.20           |
| <b>Total:</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> | <b>\$8,289,190.08</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. Army Corps of Engineers
- 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 Lakes are funded by a partnership effort between Colorado Spring Utilities, Aurora Water, Pueblo Board of Water Works, Southeastern Colorado Water Conservancy District and the Pike National Forest.



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” and on November 11<sup>th</sup>, 2024 U.S. Representative Joe Neguse introduced the “Stop the Spread of Invasive Mussels Act of 2024” into congress. These companion bills strengthen prevention WID programs by providing the U.S. Bureau of Reclamation explicit authority to cost share watercraft inspection and decontamination stations, and provided 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.