



Montana Invasive Species Council

Meeting Materials Packet for December 9, 2021

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Invasive Species Team AIS Education &
Outreach and Monitoring

MONTANA INVASIVE SPECIES COUNCIL

AGENDA



Note: Agenda is subject to change and item times are approximate. Actual times may vary by up to one hour.

Great Northern Hotel, Billings, MT. Hybrid meeting.

WEDNESDAY, December 8, 2021

1:00 p.m. – 4:00 p.m.

LAKE ELMO TOUR

Montana Fish, Wildlife & Parks

Asian clam eradication and restoration project. Meet at FWP Region 5 office

THURSDAY, December 9, 2021

9:00 a.m. – 9:30 a.m.

INTRODUCTIONS

Chair Bryce Christiaens- Roll call and new staff introductions

9:30 a.m. – 10:30 a.m.

2021 INVASIVE SPECIES PROGRAM UPDATES

Tom Woolf–AIS program update

Dr. Tahnee Szymanski –Feral Hogs

Amy Gannon –Tree/ Forest Pests

10:30 a.m. – 10:40 a.m.

BREAK

10:40 a.m. – 11:30 a.m.

NOXIOUS WEED EDUCATION/OUTREACH CAMPAIGN

Montana Noxious Weed Education Campaign Project Coordinator- Shantell Frame-Martin

11:30 a.m. – 12:00 p.m.

SCIENCE ADVISORY PANEL UPDATES

Xerolenta obvia (Xo) deliverables

Firewood/tree pests

12:00 p.m. – 1:00 p.m.

LUNCH BREAK

1:00 p.m. – 1:30 p.m.

COUNTY WEED DISTRICT SURVEY

Chair Bryce Christiaens- Missoula County Weed/AIS District Manager

1:30 p.m. – 1:45 p.m.

FRAMEWORK DISCUSSION

MISC Program Manager- DNRC

1:45 p.m. – 2:00 p.m.

BUDGET UPDATE

MISC Program Coordinator

2:00 p.m. – 2:30 p.m.

AIS GRANT PROGRAM UPDATE

MISC Program Coordinator

2:30 p.m. – 2:45 p.m.

BREAK

2:45 p.m. – 3:15 p.m.

GRANT RECIPIENT PRESENTATIONS

Two project presentations from recent AIS grant recipients.

3:15 p.m. – 3:45 p.m.

SUBMITTABLE TRAINING

3:45 p.m. – 4:00 p.m.

WRAP UP AND ADJORN

Final discussion

*Public Comment

This meeting is open to the public. The most current meeting information including meeting materials are available on the MISC website at: <https://invasivespecies.mt.gov/misc/meetings-schedule>.

Members of the public who wish to participate via Zoom may do so by emailing a request with your name to emoran@mt.gov. Instructions for joining and participating will be sent by 5 p.m. the day before the meeting.

*Public comment will be available during times the Council acts on items as indicated on the agenda and during the end of the meeting. To provide public comment, participants may "raise their hand" and participate after being recognized by the presiding officer or Zoom manager. Comments will be taken in order. Written public comment may be sent via email in advance of the meeting to emoran@mt.gov and will be provided to council members.

Any oral or written public comment provided to the committee is a public record that is recorded and archived.

The Montana Department of Natural Resources and Conservation will make reasonable accommodations for persons with disabilities who wish to participate in this public meeting. For questions about accessibility or to request accommodations, please contact Emily Moran at 406-444-2613 or emoran@mt.gov as soon as possible before the meeting date.

MEETING MINUTES

These abbreviated summary minutes will become the official adopted minutes at the next Montana Invasive Species Council meeting when they will be approved. Until then, they are considered a draft.

Meeting/ Project Name: MISC	
Date of Meeting: June 2, 2021	Time: 8:30 AM
Minutes Prepared By: Emily Moran and Stephanie Criswell	Location: Virtual, Zoom, Recorded
Attendees	
<p>MISC Voting Members: Bryce Christiaens (Missoula County Weed District – Chair), Steve Wanderaas (Conservation Districts—Vice Chair), Amy Gannon (DNRC representative), Andy Welch (Hydropower), Bob Gilbert (Private Landowner representative), Leigh Greenwood (The Nature Conservancy), Jane Mangold (MSU-Ext.), Jan Stoddard (DOC representative), Jason Allen (DOT proxy for Bob Cloninger), Martin Charlo (Confederated Salish and Kootenai Tribes), Steve Tyrrel (Agriculture) Tom Woolf (FWP),</p> <p>MISC Federal Partners: Michelle Cox (USFS), Philip Holmes (CBP), Wendy Velman (BLM)</p> <p>Other Attendees: Eileen Ryce (FWP), Lauri Hanauska-Brown (FWP), Kristina Smucker (FWP), Liz Lodman (FWP), Dan Wilkins (Great Falls School District), Leah Elwell (Invasive Species Action Network), Bryan Wilson (Montana Conservation Corp.), Chris Howard (DNRC), Kate Wilson (DNRC- Upper Columbia Conservation Commission), Hope Stockwell (Legislative Services Division), Colin Threlkeld (CEMIST), Lori Witham (USDA), Stephen Philips (PSMFC), Sara Owen (MTNHP), Jennifer Riddle (BSWC)</p>	
Agenda and Notes, Decisions, Issues	
Topic	Discussion
Welcome & Roll call	<p>Bryce opened the meeting at 8:40 a.m. Stephanie conducted roll call. Quorum confirmed.</p> <p>Bryce announced that Bob Gilbert has been appointed to serve in the private landowner position. Bob has a long history of being involved with invasive species. Bob served as the president of the Montana Weed Control Association, served six years on the Noxious Weed Trust Fund Advisory Council, and served as the executive director for Walleyes Unlimited.</p>
Pull Your Share	<p>Dan Wilkins, Great Falls School District ‘Pull Your Share’ Coordinator</p> <p>Stephanie was invited to attend a Pull Your Share field day event and has been discussing with Dan the idea of expanding the program statewide. Dan was invited to present about the program.</p> <p>Presentation highlights:</p> <p>Dan was a Great Falls high school teacher for 29 years who taught noxious weed education. Throughout his teaching experience, he found a need to have a ‘hands on’ noxious weed course, which was the spark to create the Pull Your Share program. The purpose of the program is to educate students on how to identify, prevent the spread, and eliminate noxious weeds in the environment.</p> <p>Currently, the Pull Your Share program is only associated with Great Falls School District but has goals to incorporate the program into schools across the state.</p> <p>Goals of the program:</p> <ul style="list-style-type: none"> • Career exploration in land stewardship. • Noxious weed education. • Sustained year after year noxious weed reduction. • Motivate all recreationists to Pull Their Share (10-15 minutes per outing).

	<ul style="list-style-type: none"> • Instill in students the importance of community service. <p>Pull Your Share is a nonprofit based out of Great Falls High School is funded by the Noxious Weed Trust Fund Grant.</p> <p>KRTVs "Pull Your Share" News video was featured</p> <p>Discussion:</p> <p>Bryce complemented Dan on the program and is interested in further discussions on how MISC can support efforts to expand the program. Bryce suggested school programs that specialized in biocontrol would be interested in collaborating with the Pull Your Share program.</p>
<p>AIS Grant Project Spotlight</p>	<p>Leah Elwell, Don't Let It Loose Campaign, Invasive Species Action Network Executive Director Liz Lodman, Montana Fish, Wildlife & Parks AIS Information Officer</p> <p>Project: Don't Let it Loose Campaign Expansion, FY21 award</p> <p>Power Point: Addressing Responsible Pet Ownership and Pet Release in Montana</p> <p>Don't Let It Loose webpage: https://www.dontletitloose.com/</p> <p>The Invasive Species Action Network is a nonprofit based out of Livingston, MT specializing in the prevention of human caused spread of invasive species by promoting voluntary behavior change.</p> <p>Currently, the nonprofit has been focusing on the Don't Let It Loose campaign, which addresses responsible pet ownership and responsible rehoming/releasing of pets.</p> <p>Don't Let It Loose campaign was started in Montana but has spread to 16 other states and two provinces of Canada.</p> <p>The AIS grant supports the expansion of the Don't Let It Loose message to new audiences. The campaign message will extend to new concerning species sightings in Southwest Montana, i.e., snapping turtles and bullfrogs in partnership with Montana Fish, Wildlife & Parks.</p> <p>Goals for expanding the campaign message:</p> <ul style="list-style-type: none"> • Install signage with information on correct ways to rehome pets. Provide information to report unauthorized dumping of pets in urban waters, fishing access sites, and easily accessible 'dumping sites'. Work will primarily occur in Southwest Montana, but may change while working in partnership with Montana Fish, Wildlife & Parks • Create posters, pledges, and fun items to educate classrooms with pets on responsible pet ownership. • Social media campaign to target specific audiences, this will include high impact digital ads. <p>Discussion:</p> <p>Liz Lodman wanted to note that the classroom portion of this project is in pilot testing. The Southwest portion of Montana is being targeted due to increased sightings of bullfrogs and snapping turtles, but the hope is that the campaign expansion is successful, and more funding could be found to expand further.</p> <p>Bryan Wilson, Control to Prevent Further Spread of Non-native Frogs and Turtles, Montana Conservation Corp. Program Director Kristina Smucker, Montana Fish, Wildlife & Parks Non-game Bureau Chief</p> <p>Project: Control to Prevent Further Spread of Non-native Frogs and Turtles, FY21 award</p>

PowerPoint: Control to Prevent Further Spread of Non-Native Frogs and Turtles

Brief overview of the of the project:

- Controlling or eradicating infestations of American bullfrogs, snapping turtles, and pond sliders in their non-native range west of the Continental Divide. These species can be incredibly detrimental especially to pond dwelling native species (reptiles, amphibians, and fish).
- Rapid response to report of released or dispersed individuals and implementation of eradication effort at prioritized sites.
- Additional AIS identification and reporting will also occur.

Focus areas:

- Areas of known or suspected American bullfrog, snapping turtle and pond slider infestations in western Montana.
- Flathead, Bitterroot, Clark Fork, and Blackfoot valleys and the human population centers around Missoula and Kalispell.

Three primary goals:

- Collect and assess data on the extent of current invasive herp. infestations.
- Use control efforts to eliminate invasive herps from key wetland and dispersal pinch-points.
- Use outreach to educate the public about invasive herps and how citizens can help control their spread and impacts.

Project is being coordinated with FWP and ISAN's Don't Let it Loose program.

Discussion:

Species distribution is highly variable by site, Echo Lake has many bull frogs reported, others have only one reported; the strategy will have to adapt to each site.

Request for more information on distributions of bullfrogs, snapping turtles, and sliders along the Yellowstone River and its tributaries. As well as management options for bullfrogs.

No systematic surveys of bullfrogs have ever been completed in Montana; data is reliant of Montana Heritage Program database. This program was created to truly be the first of its kind, with potential to be used in many different situations. It is worth noting that snapping turtles are native east of the Continental Divide, they are a split-status species.

Bullfrog control/ management is variable. Where bullfrogs have completely infested the surrounding area, eradication will be highly unlikely. The project will be looking towards tributaries will small bullfrog populations to test if eradication is possible. Habitat modification may also be possible to deter bullfrogs from infesting.

<p>White-Nose Syndrome Presentation</p>	<p>Kristina Smucker, Non-game Bureau Chief, Montana Fish Wildlife & Parks</p> <p>PowerPoint: Status of White-nose Syndrome in Montana and disease monitoring strategy</p> <p>Background information: <i>(Pseudogymnoascus destructans) (Pd)</i> is a fungus that is naturally occurring in caves and causes White-nose Syndrome (WNS). <i>Pd</i> infects bats and damages their skin while they are hibernating. Bats will prematurely wake up during hibernation to tend to their fungus ridden skin, depleting their energy sources, and resulting in them starving to death. WNS was detected in 2006 in the eastern United States. <i>Pd</i> is a fungus and WNS is the disease. It is estimated WNS has killed 5.7 to 6.7 million bats in North America. 2020 was the first year <i>Pd</i> was detected in Montana, with no signs of WNS. Now, in 2021, bats are showing signs of WNS. Mortality of WNS is typically detected 1-2 years after <i>Pd</i> is detected in the environment, with <i>Pd</i> persisting in caves for years. Currently, there are no treatments for WNS and <i>Pd</i> cannot be removed from caves.</p> <p>Seven FWP non-game biologists across the state in tandem with many partner organizations are involved in survey efforts. Plan for 2021 is to survey 46 sites. Surveys will occur from early spring to late winter.</p> <p>Susceptibility to WNS varies by species. Montana has 15 different bat species:</p> <ul style="list-style-type: none"> • 7 species are susceptible and impacted by WNS. • 3 species can carry the fungus but do not develop WNS. • Bats may survive, but the observed mortality rates are 90-100%. <p>Preliminary <i>Pd</i>/WNS results from surveillance:</p> <ul style="list-style-type: none"> • Lick Cave, Lewis and Clark Caverns are negative • Azure Cave, <i>Pd</i> was detected in 2020. 2021 result show detections of <i>Pd</i> and 1/3 of bats were infected with WNS. Biologist was hopeful many bats would survive the winter. <p>2021, Arrival of WNS in Montana:</p> <ul style="list-style-type: none"> • <i>Pd</i> found in Phillips, Valley, Daniels, Sheridan, Roosevelt, Richmond, and Fallon Counties. • WNS found in Phillips, Fallon, and Carter Counties. <p>Discussion: Bats are thought to be the main vectors for <i>Pd</i>/WNS. Cavers have strict decontamination protocols in place.</p> <p>The movement of the disease is slowly moving east to west across the state. The predicted model from the National Wildlife Health Center has been proved very accurate thus far. It is very likely we will see a positive result in Western Montana very soon.</p>
<p>Administrative Business</p>	<p>Action Item: Approval of March 4th Meeting Minutes. Motion: Steve Wanderaas moved to approve March 4th meeting minutes Second: Jan Stoddard Discussion: None Public comment: None Action on motion: Motion passed unanimously.</p> <p>North American Invasive Species Management Association, 2021 Conference (NAISMA)</p> <ul style="list-style-type: none"> • MISC will co-host the 2021 conference the last week of September in Missoula. • Will be a hybrid conference, there will be opportunities to participate in person or via zoom. • Registration for the event will go live within a week. <ul style="list-style-type: none"> ○ Early registration deadline is end of June. • Conference theme will be Transboundary Cooperation. Kate and Stephanie are co-chairing the event. • Conference will take place of third quarter meeting. The council will meet again in December. <p>2021 Legislative Updates</p> <ul style="list-style-type: none"> • SB 40 introduced to add Dept. of Livestock and UC3 as voting members to the council.

- Bill failed due to changes made in the House. Dept. of Livestock and UC3 are still partners but are not voting members. The council can continue this conversation in the next biennium.
- UC3 did not exist when MISC was created, and Dept. of Livestock was an oversight. Feral Hogs were not as prevalent when membership was established.

- Several Aquatic Invasive Species bills

There was a bill introduced to reduce the amount of hydro contribution to the Aquatic Invasive Species program, which changed the funding structure for the program but did not decrease funding

Status of Aquatic Plants

- HB42 was introduced to provide FWP listing and management authority for aquatic invasive plants. This has been a long-term discussion with the Department of Agriculture and noxious weed lists. There is an interest to remove these species from weed districts who do not have the funding or expertise to manage. The bill did not pass

Discussion:

Discussion about whether the council should continue to pursue this issue, which was identified in law review. Having clarity of who has regulatory and management authority is a key piece in species management. Consensus that it is important the council still pursues clarity, and to reach out to MDA on a strategy.

Review and Revision of Montana Invasive Species Bylaws

Current version of the bylaws was revised in September of 2017. Will be an action item to approve any revisions in the December meeting. Current revisions include:

- Adding language pertaining how council members can represent the council in other events if they are appointed to other memberships.
- Create a procedure outlining how, when, and why the council would nominate an individual to serve on other memberships.
- Adding reference to AIS grant program guidelines or add process

Please send any edits/revisions, and comments you have to Stephanie by October and November.

Education and Outreach Updates:

- Meetings the council typically attends (Stockgrowers and Farm Bureau) will be going forward and meeting in person. Stephanie has been working with FWP's Liz Lodman, Montana Noxious Weed Ed. Campaign, and CEMIST on funding and staffing for events.
- All Taxa video was released. Receiving positive feedback. The Feral Swine video is in production. Video contractor, Stories for Action is conducting interviews with Saskatchewan's Feral Swine Eradication Team Bob Brickly, private landowner/rancher Maggie Nutter, a hunting education representative, and researcher Ryan Booky. Video is customized for Montana but have been approached to make video country-wide.
- Stories for Action contract includes three videos, the council should start thinking about a topic for third video--possibly Emerald Ash Borer?
- No new feral swine sightings have been reported since last meeting.
- All-taxa outreach and education forum created an all-taxa campaign for National Invasive Species Awareness Week (NISAW). Ads were printed in Billings Gazette, Helena IR, Missoulian MT Standard, Bozeman Chronical, Great Falls Tribune. Also included, six digital campaign that utilized targeted displays. Intended audience are people with outdoor interests.
- Governor's proclamation was featured in Helena Independent Record on Thursday, May 20, 2021
 - Published three ads in newspapers featuring noxious weed information for Noxious Weed Awareness Week (June 7-13, 2021), which was established in the 2021 session. MISC is working with MDA on a weed pull in Helena. Jane Mangold will also be hosting an event in Bozeman.

	<p>AIS Grant Program Updates</p> <p>AIS grant program allocated all, but about \$3200 to projects that are under contract, remaining funds will be reverted into the AIS Trust fund.</p> <p>Two more awarded projects will be highlighted in December's MISC meeting.</p> <p style="padding-left: 40px;">FY 22 grant cycle should be announced soon after the funds are available, i.e., July 1, 2021. Executive committee will establish dates for application deadline and hearing dates that will be the same year-to-year.</p> <p>DNRC will be changing grant applications from WebGrants to Submittable.</p> <p>Budget Update</p> <p>Handout: MISC Budget- FY 22 Budget Worksheet</p> <ul style="list-style-type: none"> • The current biennium and fiscal year end June 30, 2021. Depleted most of Allocation • Remaining FY21 is \$4,436. Recommendation to obligate remaining funds for the Eastern Heath Snail economic impact analysis. <p>Action Item: Remaining FY21 funds, \$4,436 will be dedicated to the MOU with University of Montana, Eastern Heath Snail economic impact study, with the remaining cost to be covered with FY22 money.</p> <p>Motion: Steve Tyrrel moved Remaining FY21 funds, \$4,436 will be dedicated to the MOU with University of Montana, Eastern Heath Snail economic impact study, with the remaining cost to be covered with FY22 money.</p> <p>Second: Steve Wanderaas</p> <p>Discussion: Economic impact analysis MOA will be distributed. The purpose of the study is to focus on the impacts on the agriculture industry.</p> <p>Public comment: None</p> <p>Action on motion: Motion passed unanimously.</p>
<p>Hatcheries Presentation and Discussion</p>	<p>Eileen Ryce, Montana Fish, Wildlife & Parks Fisheries Administrator</p> <p>Eileen presented on hatcheries in Montana including FWP's and private hatcheries. FWP provides live fish to private ponds, state facilities cannot provide fish unless public access is available. There are over 2,000 private ponds permitted in the state of Montana. Any pond permitted stocking fish is considered a private pond. 500 of these ponds are found in Region 3 (Bozeman area), over 500 are found in Region 4 (Great Falls area).</p> <p>Currently, there are only four private hatcheries stocking in the state. Commercial pond permit is required for the sale and transport of live fish.</p> <p>With the demand for stocked fish remaining high and hatcheries decreasing, FWP receives many applications for import permits. Import permits are required for any live fish to travel into the state of Montana. In order to receive an import permit, the facility must pass a fish health and AIS inspection. It is not unheard of for permits to be denied due to a failed inspection. The fish health inspection has been standardized by the USFWS and AFS, the same cannot be said about AIS inspections.</p> <p>The difference between a public hatchery and private hatchery.</p> <ul style="list-style-type: none"> • Public hatcheries are supplied by a closed, secure water supply, i.e., well or covered spring

	<p>water, to prevent the spread of diseases.</p> <ul style="list-style-type: none"> • Currently, all four private hatcheries are supplied by an open water source. • Public hatchery staff are well trained on fish health and AIS indications. • Private hatcheries have tested positive for AIS and have been operating under limited quarantine conditions. <p>FWP always prefers stocking fish that were sourced within the state, this decreases the price and the chance of an AIS introduction.</p> <p>Discussion:</p> <ul style="list-style-type: none"> • Pond permitting requirements and water right restrictions determine the structure and approved species for stocking the pond. FWP does have the ability to inspect any pond that is permitted. • Illegal introductions of permitted fish come from Idaho, Wyoming, Nebraska, and South Dakota. FWP encourages those that apply for a permit to work with out-of-state hatcheries that allow Montana FWP staff the ability to inspect their facility. If an inspection is denied, an import permit is not issued. • There has been regional agreement on working drafted AIS inspection guidelines. The guidelines are going to be presented to the Western Regional Panel for broader acceptance.
<p>Science Advisory Panel</p>	<p>Eastern Heath Snail Updates:</p> <ul style="list-style-type: none"> • Eastern Health Snail economic impact study is underway • Education and outreach needs to be coordinated with Department of Ag and APHIS. Surveying is being set up in the Highwood area, where residents are reporting sighting of the snails. • John Gaskin is doing genetic analysis of snail populations in Montana, Michigan, and Ontario to determine if they are genetically the same. Testing will happen in the Fall. • Dr. Jeffrey Littlefield continues his research in Belt. <p>Next Science Advisory Panel Topic Discussion:</p> <p>After Eileen Ryce’s presentation, it seems the council may not need to be involved in standardizing AIS protocols or private hatcheries, which was a proposed for the next panel.</p> <p>Other topics include:</p> <ul style="list-style-type: none"> • Emerald Ash Borer. • The idea of how the council approaches the idea of species that are both native and invasive in Montana. • Giant Asian Hornets. Whether there is sustainable habitat within Montana and what is the feasibility of Giant Asian Hornets establishing in Montana. <p>Discussion:</p> <p>The council is required to continue the science advisory panel to inform state programs of the best way to improve invasive species practices.</p> <p>Suggestion to focus on emerald ash borer (EAB). EAB is an issue close to home. It is impending, actionable, and can be packaged with our other efforts, e.g. 3rd video.</p> <p>Ash trees in Montana are split into two categories, riparian, native occurring, and planted residential trees. One question to look for is what the priority for preservation, replanting, and restoration of these two categories and the council could make recommendations regarding this. Consensus for EAB to be next panel.</p> <p>Action Item: Approve FY22 Science Advisory Panel Topic</p> <p>Motion: Steve Tyrrel moved to select emerald ash borer as the next science advisory panel topic, with the focus, scope, and details to be chosen by appointed chair. Economic</p>

	<p>and environmental impacts to urban and natural areas of Montana will be included. Second: Jane Mangold Discussion: None. Public comment: None Action on motion: Motion passed unanimously.</p>
<p>Agency and Partner Updates</p>	<p>Tom Woolf, Montana Fish, Wildlife & Parks AIS Coordinator</p> <ul style="list-style-type: none"> • Over 19,000 boats have been inspected in 2021, which is an increase from this time last year. • 25 mussel fouled boats have been intercepted. A large increase from last year. • Traffic has increased at all stations. • Having challenges hiring and retaining inspectors, will be meeting with the Parks division to discuss strategies. • Early detection monitoring has started. First of samples of Tiber Reservoir have been complete. No mussels have been detected. If no further detections are seen throughout the year, Tiber will be petitioned to remove the positive status designation. • Education and outreach include newspaper, and online content for Invasive Species Awareness Week. • UC3 and Big Sky Watershed are working on outreach to businesses across the state to promote AIS awareness. • The moss ball incident has highlighted the pathway of pet stores, currently working with Department of Ag to spread the message. • Teacher reported that a fellow teacher was raising and giving away tadpoles in classrooms. The principal was contacted and made aware of the prohibited species list and the Don't Let It Loose Message. <p>Lori Witham, USDA</p> <ul style="list-style-type: none"> • Snail update: Dept of Ag received a tip that a Big Sandy resident was selling snails via the internet, the snails were advertised as pets to minors. A trace was done, and the snails were confiscated. Snails were identified as brown garden snail, which are a quarantined species. • Suspect abandoned snails to USDA. The trace found 34 Etsy and 5 Ebay transactions in over 20 states; minors were the primary purchasers. • USDA agents in other states are working on recovering snails in respected states. • Article can be found here: https://www.havredailynews.com/story/2021/03/19/local/snail-selling-side-business-in-big-sandy-a-success/533207.html <p>Jan Stoddard, Commerce</p> <ul style="list-style-type: none"> • 2021 will be a record year for Montana visitation and new residents, getting the message out to recreate responsibly will be imperative. • There are labor, rental car, and port-a-potty shortages. <p>Steve Wanderaas, Missouri River Council</p> <ul style="list-style-type: none"> • Missouri River Council will be welcoming new Coordinator in June; Molly Masters is from Big Horn County. • In July, Laura Keel from Petroleum County, will become the new Chair. Bruce Anderson will be stepping down.

Wrap-upAdjourn	Motion: Jane Mangold moved to adjourn the meeting. Second: Bob Gilbert Discussion: None Public comment: None Action on motion: Motion passed unanimously Meeting adjourned: 12:00 pm
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XO
FOR DNRC USE ONLY

Maximum amount under this agreement: \$ 19,500

Source of Funds

Fund Name
MISC

Fund No.
02284

Subclass
540IF

Org. No.
3448

Percent
100%

Approved

No. RD-UM646

Amendment No. _____

Division _____

FSO _____

Legal _____

MEMORANDUM OF UNDERSTANDING (MOU)

THIS MOU IS BETWEEN THE DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION (HEREAFTER "DNRC") AND THE UNIVERSITY OF MONTANA, BUREAU OF BUSINESS AND ECONOMIC RESEARCH (HEREAFTER "UM-BBER") FOR THE PERIOD OF JUNE 1, 2021-FEBRUARY 28, 2022.

Purpose:

The purpose of this Agreement is to design and conduct an analysis that will produce a detailed and organized report on the potential impacts of *Xerolenta obvia* (Eastern heath snail) on Montana's agriculture sector and the broader economy, which is an invasive terrestrial snail established in parts of Cascade and Choteau counties. This agreement:

1. provides a means for DNRC to financially support the project through funding from the Montana Invasive Species Council; and
2. define DNRC and UM-BBER roles and responsibilities for implement the Project.

Project background:

The Montana Invasive Species Council (MISC), an administrative attachment of DNRC, in partnership with the Montana Department of Agriculture (MDA), United States Department of Agriculture-Animal and Plant Health Inspection Service, and the Montana State University formed a science advisory panel to examine the existing body of knowledge about the eastern heath snail (*Xerolenta obvia*) in order to better understand the risks and impacts associated with the species, and to identify the best containment and management strategy recommended by the expert panelists.

MDA first discovered a population of the Eastern heath snail, an invasive terrestrial snail, in July 2012 near Belt, MT. Since that time, MDA has worked with landowners and stakeholders in and around Belt to monitor and suppress the population and search and respond to new populations. Since their initial introduction, satellite populations have been discovered in Monarch, Great Falls, and in the Highwood areas. Invasive terrestrial snails have invaded a variety of habitats around the world and have the ability to damage native plants, agricultural crops, contaminate agricultural exports, and potentially transmit parasites to livestock, wildlife, and people.

The Eastern Heath Snail is native to Eastern Europe and isolated populations in Montana are one of three locations where it exists in North America. While the snail's range in Belt has not expanded significantly and has not caused substantial impacts yet, MISC became concerned about the potential for severe environmental and economic impacts when they learned about the economic impacts of similar invasive snails in South Australia to its agriculture and trade.

Through a series of virtual workshops, a global panel of experts met with MISC and agency staff in December 2020 to develop a set of recommendations for a containment and management strategy to prevent further introductions and manage the ones that exist. One of the panel recommendations considering the potential risks detailed by the panel was to conduct an analysis to assess the potential economic impacts to the agricultural sector and its export market, as well to Montana's broader economy.

Sector-specific estimates of the potential costs can motivate societal response and allow policymakers, managers, and the effected communities to evaluate trade-offs among different management strategies. An economic analysis is needed to meet requirements for the development of a cost-benefits analysis and to provide Montana's and policy makers with important economic information about the potential costs of further invasion.

DNRC Agrees to:

1. Coordinate with UM-BBER to assemble and direct a steering committee that will contribute data and expertise to the design and content of the study and report.
2. Review and comment on draft versions of the final report to allow for timely completion of the project.
3. Provide payment of \$18,000 plus reimbursement for travel expenses (if any) not to exceed \$1,500 to UM-BBER as detailed below.

UM-BBER Agrees to:

1. Direct and conduct all aspects of the research process, including data gathering, analysis and report writing, in coordination with DNRC and MISC's project steering committee.
2. Layout and design a print-ready report in a manner suitable and acceptable to MISC to accomplish the objectives of the project.
3. Perform the scope of work as described in Appendix A and provide DRNC with a final report and presentation to MISC once the report has been finalized.
4. Notify DNRC project contact at the earliest possible time of any foreseeable changes to the status of the project.

Both DNRC and UM-BBER agree that:

1. Either party may cancel this agreement with advance notice.
2. The maximum payable amount of this agreement is **\$19,500**.
3. Each party is responsible for their employees insurance & Workers Compensation coverage.

Applicant Name: Montana Conservation Corps-Greater Yellowstone Region
Project Name: Control to Prevent Further Spread of Non-native Frogs and Turtles

Amount Requested: \$ 50,000
Other Funding Sources: \$ 43,400 Applicant (in-kind)
 \$ 8,000 FWP (cash for equipment)
 \$ 12,800 FWP (in-kind and cash for equipment)
 \$ 1,600 MNHP (in-kind)
\$107,800

Amount Recommended: \$ 50,000

Project Summary: The increasing presence of American bullfrogs, snapping turtles and pond sliders in new areas outside of their native range is likely due to releases by humans but also natural reproduction. Emphasis in this proposal is on early detection and rapid response to new infestations when possible and large-scale control where feasible. Infested areas will be prioritized for eradication effort based on their ecological connection to other areas that are not yet infested; the complexity of eradication logistics; and the likelihood of eradication efforts being successful in eliminating the species. Monitoring and control techniques will include trapping, electro-fishing, visual surveys of basking sites, spotlighting, and netting.

In partnership with MFWP, MCC will recruit and hire 5 qualified AmeriCorps members to be trained in the detection of AIS in order to assist ongoing efforts of early detection, preventing spread and control with a focus on turtles and frogs. MFWP will host members in the Kalispell and Missoula Field Offices. MCC members will implement monitoring and eradication activities via a plan developed by MFWP that will include a list of priority sites for eradication and a description of methods to be employed. MFWP Fisheries, Wildlife, and AIS biologists will provide AIS identification training, follow up on observations by the public, survey new sites when possible, and map infestations.

The goal of a 2021 pilot project is to test the efficacy of a targeted eradication effort and inform future efforts. MCC members will have room to be innovative in order to maximize efficiency and to provide a quality learning experience.

The proposed work fits within the priorities of the MFWP State Wildlife Action Plan to remove non-native species that threaten native species. It also fits within the scope of 87-5-701-725 that regulates wildlife importation, introduction and transplanted and within the priorities of the 2016 Montana Invasive Species Framework.

Project Tasks, Deliverables and Objectives:

Row	Task Name & Description	Task Deliverables	Task Objectives
Task 1	Task 1: Mapping: Report all AIS observations for inclusion in MFWP AIS databases and to allow for rapid response by MFWP AIS crews. Confirm information on new or suspected infestation sites of target species in order to prioritize sites for control.	Tally of all AIS observations reported by MCC. A database and GIS layers with current knowledge of target species presence.	Ensure MCC members are reporting all AIS observations. Identify and confirm target species presence at new or suspected infestation sites.

Task 2	Task 2: Control: Implement control actions to rapidly remove animals at sites with new infestations, limit growth and expansion at infested sites, and eradicate infestations at sites where re-infestation is unlikely.	Report on personnel and volunteers trained in species identification and control efforts. Report on eradication efforts to include methods used, locations of control, number of animals removed, and list of priority sites for continued or new work.	Rapid control of released pets or dispersing individuals to prevent population establishment. Control of infestations that leads to successful site eradication. Control of infestations that leads to limiting growth and expansion.
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Project Budget:

Item	Task Name and Description	AIS Grant Funds	Match Funds	Total
Task 1	Mapping & Control: 5 MCC Conservation Fellows at \$9,000 cost share per Fellow.	\$45,000.00	\$0.00	\$45,000.00
Task 2	Mapping & Control: Mileage reimbursement for MCC Conservation Fellows: 3,000 miles times \$0.575/mile	\$1,725.00	\$0.00	\$1,725.00
Task 3	Mapping & Control: Lodging and Per Diem for 5 MCC Conservation Fellows: 13 days times \$30.50 per day times 5 members plus 13 nights at \$99.5/night (shared rooms)	\$3,275.00	\$0.00	\$3,275.00
Task 4	Mapping & Control: MT Independent Sector Volunteer Rate minus AmeriCorps living stipend in-kind: 500 hours times 5 members times \$17.36/hr	\$0.00	\$43,400.00	\$43,400.00
Task 5	Mapping & Control: MFWP in-kind equipment (\$8,000) and staff time of 2 staff members at 60 hours training and supervision times \$40/hr	\$0.00	\$12,800.00	\$12,800.00
Task 6	Mapping & Training: MNHP staff in-kind time: 20 hours mapping and training times \$40/hr	\$0.00	\$800.00	\$800.00
Task 7	Mapping & Training: Local herpetologist in-kind time: 20 hours training and assistance times \$40/hr	\$0.00	\$800.00	\$800.00
Totals		\$50,000.00	\$57,800.00	\$107,800.00

Recommendation Key Points and Justification:

- New applicant
- Complement to Don't Let it Loose campaign expansion project
- Letters of support
 - FWP, MNHP
- Addresses multiple AIS
- Broad partnership
- Hands-on training for incoming workforce
- AIS grant funds for 5 MCC conservation fellows @ \$9,000. Remaining is for travel per diem
- Has merit as a pilot project. If successful, MCC would develop a program to further monitoring and control of AIS
- If pilot successful, interest in seeing if/how it could be applied to other invasive species management efforts
- Consensus to fund in full

Constraints and Stipulations:

- Training on all-taxa, so that monitoring can include other AIS, e.g. aquatic weeds
- Workplan to be provided when available—include painting CDD message at access points



Montana Invasive Species Council

Key Findings of the *Xerolenta obvia* (Eastern Heath Snail) Science Advisory Panel: A discussion on the biology, monitoring, and best management practices for control.

A nine-person panel of researchers, management specialists, and pest program coordinators, met via video conferencing in December 2020. The panel was organized by the Montana Invasive Species Council (MISC) to review the status of *Xerolenta obvia* (Eastern Heath Snail) in Belt, Montana and discuss gaps in our current understanding of the biology of this species, review risks posed by this species, and determine the resources needed to initiate best management practices. Key challenges, recommendations and next steps identified by panelists follow.

Challenges

- *Xerolenta obvia* (Eastern Heath Snail) is established in Belt, Montana
 - Introduced as early as 1910, possibly with mining operations
 - At least one producer currently impacted (hay)
 - Residents resistant to control efforts as risk of chemical treatments seen as higher risk than the snail
 - Population density reaches high levels within the Belt Valley
 - Resources are limited to mitigate existing snail populations and potential spread
 - There are currently no local cooperative agreements to manage this species or rules prohibiting their transport
- *Xerolenta obvia* is spreading in Montana, Michigan and Ontario, Canada
 - Climate does not appear to be a barrier to the spread of *Xerolenta obvia*
 - Millions of acres of are located in production areas within the likely range of this species
 - The species is regulated at the international border; not all states regulate interstate movement
 - Populations in Michigan expanded once control efforts discontinued and snails spread along rail lines and through intermodal transport
 - Transport of materials (gravel) and vehicles have established at least three additional Montana populations 18-28 miles from Belt
 - Construction (electrical, internet cables) and road work can potentially spread snails
 - Vehicles, garbage cans, propane tanks, bee hives, and any structures left in the field can amass snails providing the potential to move them to other sites
- *Xerolenta obvia* is not currently identified as a high-risk species due to the following:
 - The Canadian Food Inspection Agency's 2004 Pest Risk Assessment
 - It is considered a generalist feeder with low direct impacts
 - Lower densities in native range do not have the impacts observed in the introduced range
 - Very high densities have not significantly impacted producers by contaminating equipment or crops
- Research on the biology of *Xerolenta obvia* and gastropods in general is limited and underfunded
- Management requires substantial time, consistent access to funds, staffing, effective molluscicides, and community support for long-term control efforts.
- The most effective molluscicide (e.g. metaldehyde) is not being used due to cost and mitigation requirements
- Sustainable long-term funding for outreach and management for mollusk pests is limited and a low priority

Recommendations

- Initiate a robust research program to investigate and better understand the biology of *Xerolenta obvia* to improve management decisions and options in the future
 - Identify if *Xerolenta obvia* is capable of transmitting vertebrate parasites in North America or the spores of plant diseases
 - Identify where the North American populations of *Xerolenta obvia* originated from to improve efforts to predict their spread and introduction
 - Identify and prioritize other research needs
 - Redevelop and modify the 2012 Environmental Review for *Xerolenta obvia* based on the larger area now occupied, including different treatments recommended for landowners, roadsides and different cropping systems, and the impact of integrated pest management (IPM) measures that include increased till and burning to reduce populations in hay fields
 - Update liquid metaldehyde formulation review
 - Develop a cooperative management plan for *Xerolenta obvia* in Montana based on the recommendations in the USDA New Pest Guidelines – Temperate Terrestrial Gastropods, other local response plans for gastropod species, and local priorities to include the following recommendations:
 - Boost survey efforts to identify locations of established populations
 - Develop tools to manage pathways and reduce the movement of snails
 - Utilize metaldehyde products, wherever possible, and reduce the use of iron phosphate for control. Incorporate vegetation management into control work
 - Use the full suite of management tools to keep snails from reaching densities that make harvesting impossible and to ensure that there is uniform use to eliminate refugia populations
 - Conduct an economic impact analysis of the spread of this and related species in Montana
 - Develop targeted outreach materials for the public and those that recreate near infested areas; the public; residents; producers; and industry to build awareness of invasive gastropods
 - Develop identification and reporting tools
 - Raise awareness about the need to check for and remove hitchhiking snails, e.g. install signage at access points to local recreation areas in infested areas indicating the presence of *Xerolenta obvia*
 - Identify impacted industries, processors, and growers and improve understanding of the impacts of expanding snail populations on operations and exports
 - Create a liaison officer position modeled after the South Australia Grains Biosecurity Officer to support impacted industries in adopting the control practices and equipment modifications needed to continue producing crops on heavily infested sites
 - Include snails to the gravel section being developed for the Montana weed seed free forage program (MDA bill 2021 leg. Session)
 - Secure long-term and sustainable funding and capacity for management efforts
 - Support the continued availability of chemical control tools to contain spreading invasive species
 - Address non-insect pests at a national level
-

Conclusion

The MISC *Xerolenta obvia* Science Advisory Panel provided a platform to review the efforts taken since the official discovery of this species in Montana in 2012 and discuss the best globally practiced management practices for pest gastropods. An advantage in managing this newly expanding threat is the ability of U.S. managers and producers to build on decades of experience developed in Australia. A complex of terrestrial snails similar to the Eastern heath snail [i.e. the Mediterranean snails: *Certhia virgata*, *Cochlicella acuta*,

Cochlicella (Prietocella) barbara (Geomitridae), and *Theba pisana* (Helicidae)] have impacted grain and pulse growers in South Australia and surrounding regions.

The economic impact in areas with these high-density aggregating snails has led to the development of a suite of management tools and practices that can be adapted to U.S. grain, pulse, and canola production. The estimated cost to producers to manage the four established Mediterranean snail species is an additional \$50/hectare (\$20.23/acre/year). Costs include reducing snail presence in fields of grain, pulses, and hay in addition to costs due to crop losses. For Montana, the 2019 State Agricultural Review for Montana (USDA) indications predict productions to be:

- 5,450,000 acres wheat
- 3,000,000 acres hay
- 950,000 acres barley
- 1,024,000 acres pulses (lentils, peas, chickpeas)
- 244,800 acres brassica (canola, sugar beets)

Applying Australian estimates, additional costs to Montana growers using the predicted total acreage of crop production could exceed \$215 million per year in additional costs to producers to manage snails. Australia's experience provides information that Montana can use to mitigate the impacts of *Xerolenta obvia* and also amplifies a sense of urgency regarding the importance to develop a local and regional approach for containment and management of *Xerolenta obvia* to avoid potential economic impacts.

Next Steps

MISC has identified the following steps to utilize the information from the panel:

- Distribute information generated from the scientific advisory panel to all interested parties including outreach networks, neighboring states, and impacted industries
- Engage regional coordinating bodies for both impacted industries and invasive species coordinating bodies to assist in the promotion/implementation of the next steps identified by the panelists
- Support research on both the biology of this pest and possible control strategies
- Conduct an economic impact analysis and develop education and outreach materials
- Encourage and support the development of funding and regulations for invasive gastropods (slugs and snails)

MISC Budget – 2022 Biennium – FY21

	Proposed FY 22 Budget	Expended (as of 11/21/21)	Approved 12/21	Amt. Remaining	Expense
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MISC Appropriation

\$50,000

Council member travel, registrations

\$10,000

\$220

\$ 9,778

NAISMA Registration

2022 Summit

\$15,000

\$15,000

Science Advisory Panel (2 panels)

\$10,000

\$10,000

E&O

\$15,000

\$1,965.53

\$13,034.47

Exhibit Fees: Farm Bureau,
Stockgrowers, booth/outreach
materials & supplies
Pull Your Share mtg/ field visit

TOTAL

\$50,000

\$2,185.53

Expenditures:

DNRC AIS Grant Program Appropriation

Funds to award

\$250,722

DNRC 10% admin.

\$27,858

TOTAL

\$278,580

USDA Feral Swine Proposed Budget

Summary Budget							
Budget Element and Description	Total Cost	Total USDA Requested Funds	RCO USDA Request	DNRC USDA Request	RCO Matching Funds	DNRC Matching Funds	Total Requested and Matching Funds
Salaries and Benefits	47,818.70	16,343.10	6,658.30	9,684.80	15,737.80	15,737.80	47,818.70
Travel	13,441.12	13,441.12	6,781.04	6,660.08	-	-	13,441.12
Contractual	100,300.00	100,300.00	71,500.00	28,800.00	-	-	100,300.00
Supplies	6,000.00	6,000.00	1,500.00	4,500.00	-	-	6,000.00
Total Cost	167,559.82	136,084.22	84,939.34	49,644.88	15,737.80	15,737.80	167,559.82
%	100%	81%	51%	30%	9%	9%	100%

Attachment A - Scope of Work

Mapping and Control of Non-native Frogs and Turtles

In addition to the scope of work described below, supporting documents and attachments submitted with the grant application are incorporated herein by this reference.

Project Scope of Work

The increasing presence of American bullfrogs, snapping turtles and pond sliders in new areas outside of their native range is likely due to releases by humans but also natural reproduction. This project focuses on early detection and rapid response to new infestations when possible and large-scale control where feasible. Infested areas will be prioritized for eradication effort based on their ecological connection to other areas that are not yet infested; the complexity of eradication logistics; and the likelihood of eradication efforts being successful in eliminating the species. Monitoring and control techniques will include trapping, electro-fishing, visual surveys of basking sites, spotlighting, and netting. The goal of this work is early detection and response, a removal rate exceeding replacement rate and prevention of re-invasion.

This project fits within the priorities of the Montana Fish, Wildlife and Parks (MFWP) State Wildlife Action Plan to remove non-native species that threaten native species. It also fits within the scope of 87-5-701-725 that regulates wildlife importation, introduction and translocation and within the priorities of the 2016 Montana Invasive Species Framework. The necessary resources for this work are currently unavailable with existing budgets of the state wildlife management agency.

The goal of this pilot project is to test the efficacy of a targeted eradication effort and inform future efforts. MCC members will have room to be innovative in order to maximize efficiency and to provide a quality learning experience.

In partnership with MFWP, Montana Conservation Corps (MCC) will recruit and hire five qualified AmeriCorps members to be trained in the detection of all AIS in order to assist ongoing efforts of early detection, preventing spread, and control with a focus on turtles and frogs. MCC members will implement monitoring and eradication activities via a plan developed by MFWP that will include a list of priority sites for eradication and a description of methods to be employed.

Funding from this project will focus on the control objectives of this project. Local herpetologists and staff from MFWP and MNHP will train MCC members and partners in AIS identification, and capture and lethal removal techniques specifically for the target species. Removal techniques may include the use of turtle traps, frog gigs and nets. Daytime basking site surveys or evening spotlight surveys may be required for confirming species presence and planning control efforts. MCC members will also recruit and train volunteers (anglers, local residents and other stakeholders) with the assistance of MFWP and MNHP staff in order to increase the number of eyes and ears on the landscape looking for AIS.

Trained local partners and volunteers will be tasked with responding to reports of recently released pets and dispersing individuals. MCC members will be tasked with implementing monitoring and control at identified high priority sites. MFWP and MNHP will work with MCC members throughout the season to track successes and failures, adjust methods to address issues and ensure safe work habits are being followed.

Deliverables include:

- 1) Presence/absence databases and GIS layers of suspected or known infestations. (Task funded through other source(s).)
- 2) A project report summarizing control efforts. The report will include: 1) number of personnel and volunteers trained; 2) number of AIS detections for all species by MCC members, 3) evaluation of the success of different control techniques implemented for the target species; 4) site list where control efforts were implemented and suspected or confirmed success of eradication at those sites; 5) site list where control was prioritized but not implemented with an explanation of why; 6) number of animals removed per site; 7) number of non-target animals removed per site; and 8) expense report. The report will include a plan for future monitoring to be conducted by MFWP, MNHP and partners to track any change at control sites.

This first year of monitoring and control is a pilot to test methods at a small scale. Implementation and partnerships that result in at least some infestation control will lead to planning for a statewide effort driven by a management plan approved by appropriate wildlife management entities.

MCC will provide a workplan once Fellows are selected and high-priority sites have been identified. As time allows, MCC Fellows will coordinate with FWP to paint CleanDrainDry graphics at access sites visited.

Project Schedule

Mapping and Training: May 15, 2021-May 30, 2021
Control: June 1, 2021-October 8, 2021
Quarterly reports: June 30, 2021, September 30, 2021, December 30, 2021
Final report and project close: March 30, 2022

Project Management and Coordination

MCC will manage the project, place and manage MCC Fellows, and coordinate with partners. Working closely with local staff and stakeholders, the MCC Fellows will receive the necessary training and support to meet project objectives while contributing innovative ideas in how to continuously improve on the pilot project. Two full-time staff members will be directly responsible for managing the Conservation Fellows in partnership with local and state MFWP staff.

MFWP Fisheries, Wildlife, and AIS biologists will provide AIS identification training, follow up on observations by the public, survey new sites when possible, and map infestations.

The Montana Natural Heritage Program (MNHP) will assist with AIS identification training and infestation mapping. Missoula based herpetologist, Matthew Schertz will assist in AIS identification and eradication techniques training.

MCC will also coordinate with partners such as the MPG Ranch, University of Montana, Clark Fork Coalition, Conservation Districts, Trout Unlimited, Confederated Salish and Kootenai Tribe, lake associations, and other local community organizations in areas prone to infestation by the target species. These partners and MCC AmeriCorps members will be provided outreach materials developed outside the scope of this project to share with the public when conducting monitoring and control that will highlight the threat non-native species are to healthy ecosystems.

Monitoring Reporting

All survey data will be submitted through MT FWP's Mobile data collection app Survey123. Work with MT FWP to obtain access to that application prior to beginning survey efforts.

ANY positive survey results WILL BE REPORTED WITHIN THREE DAYS to Craig McLane, MTFWP (CMcLane@mt.gov, 406-444-1224) and Stephanie Criswell, DNRC (Scriswell@mt.gov, 406-444-0547). Reporting survey results to the press will be a joint effort between FWP and the contractor, which will typically be accomplished via a joint press release.

Grantee agrees to follow FWP's monitoring protocols located at:

<http://cleandraindry.mt.gov/Resources>

For plankton sampling, grantees are required to obtain a scientific collector's permit from FWP at:

<http://fwp.mt.gov/fishing/license/applications.html>

Contact FWP's fisheries office for information at 406-444-2449.

Branding Coordination Clause

To ensure effectiveness, consistency, and accuracy in messaging, Sponsor agrees to coordinate with Fish, Wildlife & Parks on the narratives and graphic identity of education and outreach materials produced through this grant. Branding resources are located at: <http://cleandraindry.mt.gov/Resources>.

DNRC GRANT MANAGER

**Attachment B – Budget
Mapping and Control of Non-native Frogs and Turtles**

Task	AIS Grant Funds	Match Funds	Total
Task 1: Control work. Stipend for 5 MCC Fellows @ \$9,000/fellow	\$45,000	\$57,800	\$102,800
Task 2: Mileage reimbursement, 3,000 miles @ \$.0575/mile	\$1,725	\$0	\$1,725
Task 3: Lodging and per diem at federal rate	\$3,275	\$0	\$3,275
Total	\$50,000.00	\$57,800	\$107,800

Note: Actual task costs may vary dependent upon conditions encountered in the field. A transfer of funds between tasks in an amount greater than 20% of the task amount is not authorized without written approval of DNRC. All AIS grant funds will be used for personnel and travel.

See the grant application for budget detail.

Match funding:

Match funding will be included in project reporting. It is estimated that the \$50,000 in project funding will be matched by \$57,800 in partner contributions and in-kind match.

MFWP will provide monitoring and capture equipment along with associated costs and a vehicle if needed with funds secured from the Nongame Wildlife Management Bureau and Aquatic Invasive Species program. These funds may be a mix of State Wildlife Grant dollars, Pittman-Robertson, Dingell Johnson and license revenues (Total=\$8,000).

MFWP, MNHP, and local herpetologist will provide biological expertise, AIS identification training, and capture/lethal removal training to MCC members, agency personnel and qualified volunteers. These contributions will be in-kind (Total=\$6,400). MFWP and MNHP will also create maps for use by the MCC monitoring and control members.

Additional match from MCC has also been included based on the AmeriCorps member living stipend when subtracted from the Independent Sector Volunteer Rate. AmeriCorps members are not employees of the AmeriCorps program or of the federal government. The definition of "participant" in the National and Community Service Act of 1990 as amended applies to AmeriCorps members. As such, "a participant (member) shall not be considered to be an employee of the organization receiving assistance under the national service laws through which the participant (member) is engaged in service" (42 U.S.C. 12511(30) (B)). Moreover, members are not allowed to perform an employee's duties or otherwise displace employees. As AmeriCorps members, MCC Conservation Fellows receive a biweekly living stipend of \$504/biweekly or \$6.30/hr. In determining match, this stipend can be subtracted from the Independent Volunteer Sector Rate for Montana (\$23.66/hr) and match can then be determined. For this project, match was conservatively estimated for 500 hours of service per member (Total=\$43,400).

DNRC GRANT MANAGER

Attachment A - Scope of Work
Central and Eastern Montana Invasive Species Team AIS Education & Outreach and Monitoring

In addition to the scope of work described below, supporting documents and attachments submitted with the grant application are incorporated herein by this reference.

Project Scope of Work

The purpose of this project is to execute education & outreach and monitoring activities to prevent the spread of aquatic invasive species to Montana with a focus in central and eastern Montana. The Lower Musselshell Conservation District coordinator will work collaboratively with the Central Eastern Montana Invasive Species Team (CEMIST), which is a grassroots effort to provide a coordinated network for AIS prevention in central and eastern Montana to augment state efforts. CEMIST was established to be a conduit of information between stakeholders in central and eastern Montana and the Aquatic Invasive Species Bureau to further the effectiveness of AIS education and prevention in MT. CEMIST's goals for this project are to:

- Educate local emergency crews and county municipalities on equipment as an AIS vector and how to decontaminate it to provide introduction
- Conduct monitoring at waterbodies in central and eastern Montana
- Collaborate on the development and distribution of AIS educational and outreach materials. Distribute materials at targeted events and through face-to-face industry outreach.

All water users will need to change habits and follow new protocols to ensure the rest of the state's water remains free of any further aquatic invasive species. A continued local presence and source of education is required to reach the diversity of stakeholders in central and eastern Montana. CEMIST is in a unique position to provide this educational resource and information dissemination. By working in concert with state and local partners, CEMIST will coordinate local education to reach stakeholders and to avoid duplication of effort with limited funds..

The project consists of the following three tasks:

Task 1: CEMIST will host a series of workshops to local emergency crews and county municipalities on the Missouri, Sun, Yellowstone, and Musselshell Rivers regarding above ground water transport and the importance of decontaminating transport and emergency equipment. LMCD will organize the training content in conjunction with FWP and DNRC. FWP will provide the necessary training, and CEMIST will try to coordinate that training with its monitoring training.

Workshops will be held at a minimum of two locations in Central and Eastern Montana, likely Lewistown and Jordan. If funding permits, CEMIST will add other training events. All information and training development will be shared and coordinated with FWP. Evaluation will be the number of people in attendance. The workshop will be designed to have broad application for use statewide.

Task 2: AIS volunteer monitoring at 6 site locations identified in coordination with FWP. Monitoring efforts will expand the state's early detection monitoring of AIS. CEMIST will conduct plankton tow-net samples at 5 sites. Monitoring kits are currently located at McCone Conservation District, Garfield Conservation District, Lower Musselshell Conservation District, Powder River Conservation District, and Big Horn River Alliance. Two sampling events will occur at optimal times in the 2021 season for a total of 10 samples. Specific waterbodies to be coordinated with Craig McLane FWP and will be included in project reporting.

CEMIST will also work with volunteer network to place substrates at 5-10 strategic locations to monitor invasive mussels. Substrates will be checked at the beginning and at the end of season and volunteers will report results (presence/absence) to the LMCD administrator. A report will also be provided to FWP.

CEMIST and volunteers will be trained by FWP and use the state's AIS monitoring protocols and report results through Suvey123.

Task 3: Education and Outreach materials and events, industry outreach

In coordination with Montana Fish, Wildlife & Parks (FWP), CEMIST will develop E&O materials and distribute them at eight events and through targeted outreach to retailers in the water-based recreation, sporting goods, equipment, and agricultural industries. The objective of this task is to provide materials and educate retailers about AIS issues and prevention methods and pathways, so they can educate their customers.

CEMIST will develop some materials and also distribute existing materials from the Clean.Drain.Dry/Protect Our Waters campaigns.

CEMIST plans to staff and distribute materials at the following events:

- Montana State Fair-July 30-August 7, 2021
- Craig Caddisfly Festival-August 28, 2021
- North American Invasive Species Conference-September
- Montana Association of Conservation Districts 2021 Convention- Fall 2021 (exact date TBD)
- Montana Stockgrowers Association-Fall 2021 (exact date TBD)
- Wool Growers Convention-Fall 2021 (exact date TBD)
- Glendive Agricultural and Trade Expo (GATE), ~early Feb. 2022 (exact date TBD)
- Montana Agri-trade Expo (MATE)-February 17-19,2022 (reserve before September 1)

Targeted outreach plan:

A) Irrigators

CEMIST will conduct industry outreach site visits with suppliers of irrigation equipment and attend meetings with local Irrigation Districts and Watershed Groups to foster relationships. We will explore opportunities to place ads and/or articles in publications such as Irrigation Leader, to increase awareness in the agricultural community of the threats posed by AIS, as well as how water users can be vectors of spread for AIS. The goal for 2021 is to reach 20 distributors of irrigation equipment through industry outreach site visits and produce 1 ag-focused AIS publication.

B) Water-based recreation industries

Boaters and anglers will receive education on AIS prevention practices through industry outreach site visits with marinas, watercraft dealers, and nature-based recreation outfitters. CEMIST plans to conduct AIS industry outreach site visits with 3 marinas, 3 watercraft dealers, and 20 nature-based recreation outfitters. Boat ramp focused outreach will also be conducted in order to promote 'Clean.Drain.Dry' practices. These outreach efforts will consist of visiting 10 targeted boat ramps and offering to teach boaters & anglers how to 'Clean.Drain.Dry' their gear and watercraft. CEMIST will work with the Sun River Watershed Group to host a volunteer event for painting boat ramps with the 'Clean.Drain.Dry' logo.

C) Nature-based recreation industries

When visiting with nature-based recreation retailers and sporting goods stores, CEMIST will begin the outreach site visit discussing the negative impacts of AIS and why AIS prevention practices are important. This will increase awareness that retailers can share with customers in order to promote AIS prevention practices. CEMIST plans to conduct 20 industry outreach site visits with nature-based recreation retailers during the 2021 field season.

D) Equipment Retailers

CEMIST outreach efforts will also include meeting with RV retailers and campgrounds to promote AIS prevention messaging as RV owners are known to own kayaks and participate in water-based recreational activities during their travels. CEMIST plans to conduct 10 industry outreach visits with RV retailers and campgrounds during the 2021 field season.

E) Chamber of Commerce

When feasible, CEMIST will meet with the local Chambers of Commerce in the communities where outreach is conducted in 2021.

	Task Name & Description	Activities to Accomplish Task	Task Deliverables
Task 1	Decontamination workshops	<ol style="list-style-type: none"> 1) Personnel—plan and coordinate events 2) Develop training program content 3) Contracted services 4) Develop and print materials 5) Travel 	<ol style="list-style-type: none"> 1) Host a minimum of 2 workshops 2) Workshop attendance lists (~ x # attendees) 3) Distribute informational handouts 4) presentation in electronic format to share online
Task 2	Monitoring	<ol style="list-style-type: none"> 1) Personnel—coordination of volunteers, kit assembly, reporting 2) Purchase materials 3) Shipping 4) Travel 	<ol style="list-style-type: none"> 1) Procurement of monitoring supplies and substrate kits 2) Volunteer coordination 3) Train 5-8 volunteers (coor. with FWP) 4) Collect 10 samples for analysis at FWP lab (5 locations, 2 events) 5) Place 5-10 substrates 6) List of volunteers
Task 3	E&O materials, events, industry outreach	<ol style="list-style-type: none"> 1) Personnel—coordination of events and material production 2) Purchase materials 3) Development and printing of materials 4) Staffing and travel to events 5) Event registration fees 6) Travel 	<ol style="list-style-type: none"> 1) Distribution of E&O materials 2) Attend ~8 events 3) Visit ~80 retailers 4) Contact lists

Project Schedule

September 2021-March 2022	Task 1: Workshops
Contract start-October 2021	Task 2: Monitoring
Contract start-May 2022	Task 3: E&O
September 2021	Quarterly Report
December 2021	Quarterly Report
March 2022	Quarterly Report
October 2022	Final Report

Project Management and Coordination

The project manager is Wendy Jones, Administrator for the Lower Musselshell Conservation District, and coordinator for CEMIST. Additional outreach will be conducted by CEMIST's Big Sky Watershed Corp. member and by the coordinators for the 5 participating watershed groups, the Milk River Watershed Alliance, the Musselshell Watershed Coalition, the Missouri River Conservation Districts Council, Bighorn River Alliance, and the Yellowstone River Conservation District Council. Volunteers will also be recruited to help with outreach and monitoring.

Colin Threlkeld is serving an 11-month service term as a Big Sky Watershed Corps (BSWC) member with the Central & Eastern Montana Invasive Species Team (CEMIST), to provide AIS education and outreach through targeted in-person visits to retailers in the agriculture & nature-based recreation industries to communicate and provide awareness about the issues and impacts of AIS.

Wendy Jones will coordinate with Colin, other CEMIST partners, and volunteers to staff events and conduct monitoring efforts. Wendy will also procure all supplies, materials, as well as plan for and register for events. She will also provide all reporting and fiscal management for the project.

Project tasks help implement the state's AIS and mussel implementation plans, and all activities will be coordinated with MT FWP and DNRC using approved messaging, signage, and protocols.

Monitoring Reporting

All survey data will be submitted through MT FWP's Mobile data collection app Survey123. Work with MT FWP to obtain access to that application prior to beginning survey efforts.

ANY positive survey results WILL BE REPORTED WITHIN THREE DAYS to Craig McLane, MTFWP (CMcLane@mt.gov, 406-444-1224) and Stephanie Criswell, DNRC (Scriswell@mt.gov, 406-444-0547). Reporting survey results to the press will be a joint effort between FWP and the contractor, which will typically be accomplished via a joint press release.

Grantee agrees to follow FWP's monitoring protocols located at:

<http://cleandraindry.mt.gov/Resources>

For plankton sampling, grantees are required to obtain a scientific collector's permit from FWP at:

<http://fwp.mt.gov/fishing/license/applications.html>

Contact FWP's fisheries office for information at 406-444-2449.

Branding Coordination Clause

To ensure effectiveness, consistency, and accuracy in messaging, Sponsor agrees to coordinate with Fish, Wildlife & Parks on the narratives and graphic identity of education and outreach materials produced through this grant. Branding resources are located at: <http://cleandraindry.mt.gov/Resources>.

DNRC GRANT MANAGER