



Montana Invasive Species Council

Meeting Packet for January 23, 2019

Contents

- Meeting public notice
- Meeting agenda
- Meeting minutes from Oct. 3, 2018
- MISC budget update
- Science advisory panel, *Mogulones crucifer*, purpose and outcomes
- Draft all-taxa rapid response guidelines
- Invasive species awareness day exhibitor invitation

FOR IMMEDIATE RELEASE

CONTACT:

Stephanie Hester, Council Coordinator
Montana Dept. Natural Resources and Conservation
(406) 444-0547



January 10, 2019

Montana Invasive Species Council meets January 23

HELENA, Mont — The Montana Invasive Species Council (MISC) will hold its next meeting on January 23, 2019, from 10:00 am to 4:00 pm at the Department of Natural Resources and Conservation Montana Conference Room located at 1539 11th Avenue, Helena.

The meeting will focus on next steps for outcomes resulting from the 2018 Invasive Species Summit, which focused on the Council's invasive species law review. Other agenda items include a review and discussion regarding invasive species draft legislation, project updates, and committee reports. The Council will also be briefed on the results of the invasive mussel economic impact analysis that MISC undertook in 2018.

The MISC is a statewide partnership working to protect Montana's economy, natural resources and public health through a coordinated approach to combat invasive species. All MISC meetings are open to the public. For more information, contact Stephanie Hester, MISC Coordinator at 406-444-0547. Visit misc.mt.gov for more information.

A copy of the MISC meeting agenda for January 23 follows:

AGENDA

**Montana Invasive Species Council (MISC)
January 23, 2018: 10:00 a.m. – 4:00 p.m.
Department of Natural Resources and Conservation
Montana Room**

10:00 a.m. – 10:10 a.m. Welcome and introductions

10:10-10:40 a.m. –Administrative Business

- Roll call and confirm quorum
- Action Item: Oct. 3 meeting minutes
- Action: Adding ex-officio member positions to MISC membership
- Budget update
- Meeting schedule
- MISC coordinator updates

10:40 a.m. – 11:10 a.m. – MT Association of Conservation Districts (Dan McGowen)

11:10 a.m. – 12:00 a.m. – MISC Project Updates

- Law review, listening session, summit
 - Action item: Next steps
 - Law review and Summit final report
 - Launch coordinated “Squeal on Pigs” campaign with DOL
 - Determine next steps for aquatic invasive plants with FWP as lead
 - Develop species listing committee
 - Develop invasive species act committee

Break for lunch

1:00 p.m. – 1:45 p.m. – MISC Project Updates (continued)

- Missouri River Invasive Mussel Pilot Project
- Science Advisory Panel – Mogulones crucifers
 - Action: Appoint chair, co-chairs
- Interagency invasive species ICS training

- Action: adoption of all-taxa plan

1:45 p.m. – 2:15 p.m. – Committee Updates

- Data management (Jed Little)
- Tree pest (Stephanie)
 - Emerald Ash Borer Task Force
- Firewood (Amy)
- Invasive Woody Trees (Jasmine)

2:15 p.m. – 2:45 p.m. – Invasivespecies.mt.gov

- E&O Committee Report
- Windfall presentation

2:45-3:15 p.m. – Invasive Mussel Economic Impact Report briefing

3:15-3:30 p.m. – 2019 Legislative Session

- Invasive species rotunda day-March 1, 2019
- AIS program and funding update

3:30-4:00 p.m. - Wrap-up and Adjourn

- Agency and partner updates
- New business
- Public comment

Agenda is subject to change and item times are approximate. Actual times may vary by up to one hour. Visit <http://dnrc.mt.gov/public-interest/meetings-and-events> for the most updated meeting information. 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 Stephanie Hester at 406-444-0547 or shester@mt.gov as soon as possible before the meeting date.

MEETING MINUTES

Meeting/ Project Name:		Montana Invasive Species Council (MISC)	
Date of Meeting:	October 3, 2018	Time:	10:00 AM – 12:00 PM
Minutes Prepared By:	Kate Wilson	Location:	Phone and DNRC, CM Russell Room
1. Meeting Objective			
Routine business, action item for science advisory committee, and discussion on Missouri River Quarantine and Containment Plan (per HB 622)			
2. Attendees			
<p>Voting Council Members: Bryce Christiaens, Steve Wanderaas, Steve Tyrrel, Leigh Greenwood, Dave Burch (for Kim Mangold), Bob Cloninger (for Mike Miller), Alec Underwood, Dennis Longknife, David Brooks, Liz Lodman (for Tom Woolf), Gail Whiteman</p> <p>Other Participants: Gary Adams, Monica Pokorny, Camela Romerio, Stephanie Hester, Kim Antonick (FWP), Rachel Frost, Kate Wilson, Jessica Bushnell, Dan McGowen, Director John Tubbs, Jason Smith</p>			
3. Agenda and Notes, Decisions, Issues			
Topic	Discussion		
Welcome	<p>Bryce opened the meeting at 10:02. Attendee roll call</p> <ul style="list-style-type: none"> • Welcome and roll call (phone/person) • No quorum at first, but established by 10:44 AM 		
Administrative Business	<p>Minutes (August 21) – need amendments for filling in who made and seconded motions.</p> <ul style="list-style-type: none"> • Steve Wanderaas made motion to approve minutes • Mike Miller 2nd on motion to adopt revised budget • Steve Wanderaas 2nd on motion to approve partnership agreement for invasive mussels <p>Motion: Approve minutes as amended (Steve Wanderaas). 2nd (Dave Burch). Discussion: none Vote: unanimous approval</p> <p>MISC Updates</p> <ul style="list-style-type: none"> • Law Review/Listening Sessions (Bryce) <ul style="list-style-type: none"> ○ Draft compendium near completion ○ Summary of listening sessions & online survey ○ Participation at listening sessions was primarily managers and stakeholders in the invasive species world (not as much public) ○ Based listening sessions and survey on same topics as the law review/summit ○ Questions on deliverables of law review – just the compendium. The conversation at the summit and listening sessions will guide where the challenges – ○ Report/summary come out of summit • Summit (Kate, Stephanie) <ul style="list-style-type: none"> ○ Governor’s Office – welcome video from Gov. Bullock (conflict during same time) ○ Agenda overview – speaker update 		

	<ul style="list-style-type: none"> ○ Planning Committee call tomorrow (10/4) ○ Need volunteers – registration table, name tags, etc. ○ Still have room for some more vendors in the exhibitor/break room. Contact Kate if interested. ○ Gary Adams – APHIS staff can help with event. ○ Kate to send agenda to MISC when speakers confirmed. ○ Reminder to register and room block deadline – Stephanie to send this week. \$50 registration fee - ● Western Governors' Association Workshop (Stephanie) <ul style="list-style-type: none"> ○ Tom Woolf, Bryce Christiaens, Kate Wilson and Stephanie working with WGA staff on panel speakers, organization and planning ○ Invitations are going out to WY speakers on ventenata – case study ○ Panel on EDRR for new detections – ICS management, whitenose syndrome, ○ Science Advisory Panel – eDNA for mussel detections will be aquatic case study. Invite speakers from panel (that was held last spring in Montana), FWP, Western Regional Panel monitoring team, etc. ○ Limited event – handpicking people to attend at first, may open up registration as it gets closer. MISC invited to attend. ○ Discussing co-hosting a reception on the 14th with WGA (MISC) – reception 5:30 ● Invasivespecies.mt.gov (Kate, Stephanie) <ul style="list-style-type: none"> ○ Windfall – contractor designing website, summit materials, etc. Based in Missoula. ○ Overview – landing page for invasive species in Montana (not duplicating efforts or content but directing to partner sites/information and contacts). Will also be home to MISC and UC3 websites. ○ Site map, look/feel, etc. being developed currently. Launch of website will happen in the spring. ○ Will share draft for feedback when concept more finalized
Agency Updates	<p>Central & Eastern Invasive Species - Rachel Frost update</p> <ul style="list-style-type: none"> ● Musselshell Watershed – approached irrigator from Idaho to come ● Tuesday Oct 23 – Montana Watershed Resources Association meeting (Billings) ● Following presentation, visiting with stakeholders and traveling to the Great Falls area to meet with individual irrigators and watershed groups ● Stephanie to follow up with DNRC contacts on getting more MWRA meeting in Billings (agenda, time of presentation) ● Steve W: who attending on behalf of FWP? Liz: Zach Crete attending <p>Upper Columbia Conservation Commission (UC3) - Kate Wilson</p> <ul style="list-style-type: none"> ● Met Sept. 26, 2018 ● Planning to distribute series to assess AIS prevention efforts <p>Bill Sparklin – USFWS (via Stephanie)</p> <ul style="list-style-type: none"> ● Early planning stages for bison range (ventenata) ● Dave Burch: MDA – way to coordinate week of WGA/MISC summit. Had tried to plan survey and planning meeting, canceled due to lack of availability <ul style="list-style-type: none"> ○ No petitions received (for listing on noxious weed list) – nomination period now closed (Sept 30) ○ WY doing research plots on medusahead & ventenata

	<ul style="list-style-type: none"> ○ MDA would still like to get survey work done in those areas, so would like to meet with partners in SE Montana. Would be good to get some dialogue going on the topic. <p>Weed Managers Workshop (attended on behalf of Fort Belknap) - Dennis Longknife</p> <ul style="list-style-type: none"> • Well organized and informative. Kudos to organizers.
<p>Science Advisory Panel</p>	<p>Potential for hounds tongue biological control agent (Bryce)</p> <ul style="list-style-type: none"> • Looking at biocontrol of hounds tongue (<i>mogulones crucifer</i>) • Insect – pest status. Illegal to move around US. • Researcher tracking impacts of release of insect in Canada (has been released there for many years). • Long-term impacts, feeding damage, etc. • Populations showing up in WA, MT, ID (natural migration) • Conversations up to this point have revolved around pest status. Researcher concerned about petitioning technical advisory group (TAG) for release when the agent has a pest status associated with it. • Potential Section 7 consultation concerns (USFWS) • Bring panel together – what information exists, what concerns need to be addressed by TAG, threatened & endangered species impacts, how would pest status change (process), involving USFWS early on to see if we need additional information to satisfy section 7 consultation • US and Canadian researchers and partners interested in topic, would like to see the conversation move forward • Tubbs: Number one invasive that comes into MT and we don't have an answer for it – need to address. Very resistant to most treatments and often in forested areas difficult to apply. Not a good answer to this invasive with current technology, so if biocontrol an option, definitely a need. Demand on other side of equation. • Bryce: With the populations showing up in the state, need to determine where the legal status of the insect is going to lie. Not going to moving insect around on federal lands (even within the same state) until that pest status is cleared. • Kate: Why listed as pest initially? Gary: Organism known to damage plants not intended to target, listed as a pest. Research on non-native organism (when Canada released) on impacts to non-target plants led to listing (concern with spreading from Canada to US). • Bryce: To send info on pest alert and research on low impacts to non-target species (many concerns alleviated from original assessment over time). • Steve T: Herbicide most effective on this plant has impact on non-target/desirable species as well. Would limit these impacts. Unanimous support from terrestrial weed world to better address this threat. • Bryce: Meetings next week being held (Whitefish – in association with the W4-185). Montana Biocontrol Coordination Project holding meeting the day before – this item on that agenda. Have information for researchers on local populations and movement of insect. Bryce to send agenda for meetings (10th at Grouse Mountain Lodge). • Gary: APHIS Permit staff going to be at the meeting – probably have <p>Motion: Set up Science Advisory Panel focused on potential insect/organism for Hounds Tongue control (Steve W). 2nd (Dave Burch).</p> <p>Discussion: none. 'biocontrol agent' suggests already approved organism – avoid using until approved.</p> <p>Vote: unanimous approval</p>

<p>Quarantine & Control Plan (HB 622)</p>	<p>Updates (Bryce & Stephanie – for Tom Woolf)</p> <ul style="list-style-type: none"> • House Bill 622 (2017 Legislature) tasked FWP with developing a Missouri River Quarantine & Control Plan for MISC • No more detections of invasive mussels • Plan includes all preventative measures at CF and Tiber as a result of detections in 2016 – plan supposed to tighten up the preventive measures associated with both reservoirs. • Has been distributed publicly for comment – has been updated based on feedback from stakeholders and partners. • Not sure of next step – MISC can approve or take more time to approve • Bryce: HB 622 not a MISC product. Stephanie: Not a Council product, but task specifically noted in HB 622. Probably would want to provide to EQC once approved by MISC. • Bryce: Don't see action item at this point. FWP fulfilled that duty in HB 622. Idea/opinion on how to take an action on this? • Steve: Allow folks time to review. If we need to accept it, we can do that at a future meeting. • Dan M: Outsiders perspective – if HB 622 states that just a product to be delivered, my read is that something like that is once you get product, up to MISC to decide what to do with that product. Receive product as a resource – for future engagement. Can MISC use anything in that product to move forward their work as MISC? Look at minutes from HB 622 creation for intent. • Bryce: We can certainly promote items within the plan, but implementation falls to FWP. MISC serves coordinating and supporting role. Think just need to present it to EQC and acknowledge that deliverable has been completed. • Stephanie: HB 622 intent largely around ensuring that plan was developed and put in place. UC3 also weighed in on plan – limiting access to launches with no inspection stations present. • Bryce: Take the time to review and discuss with legislators involved in the process of HB 622 approvals. • Liz: Comments should be returned to Tom before December 31st (Comment Period ends). Probably by December 1st so that he has time to update it.
<p>Wrap up</p>	<p>New business/other updates</p> <ul style="list-style-type: none"> • Meeting packet link for upcoming meetings now posted on MISC website • Dan: Thanks for including MACD in efforts. Looking forward to working closer with MISC for soil and water conservation efforts. • Stephanie: In packets, see additional items: <ul style="list-style-type: none"> ○ Final 'white paper' on response ○ General Invasive Species Response Plan – first draft. Gaps for species that didn't have a specific response plan. Looking for input on how best to improve it. ACTION ITEM: Provide feedback. <p>Public comment: none</p> <p>Motion: Adjourn meeting (Dave Burch). 2nd (Leigh Greenwood).</p> <p>Discussion: none</p> <p>Vote: unanimous approval</p> <p>Bryce closed the meeting at 11:22 a.m.</p>

Montana Invasive Species Council Budget

	MISC Approved	MISC Expended	REMAINING
Appropriation/Award	\$95,000		
Council member travel	\$20,000	\$13,185.72	\$6,814.28
		0	0
Law Review, Summit, Listening Sessions*	\$32,000	\$25,128.08	\$6,871.92
Science Advisory Panel (2 panels)	\$20,000	\$7,691.84	\$12,308.16
E&O*	\$18,000	\$2,409.43	\$15,590.57
Regional tabletop exercise	\$5,000	0	\$5,000
Unallocated	\$0	0	0
	\$95,000.00		
Expended	\$48,415.07		
Balance	\$46,584.93		

*Windfall contract=\$18,000

NISC Missouri River Deliverables and Budget

DELIVERABLES	NISC	DNRC
Strategic Plan for Coordination	\$ 3,000	\$0
Coordination workshop	\$ 3,000	\$0
Coordinated EDRR Plan for the Missouri River Basin	\$33,500	\$0
White paper—pilot lessons learned	\$ 8,000	\$0
Economic Impact	\$12,500	\$12,500

NISC Expenditures

Personal	\$10,204
Contracted services	\$40,093
Supplies, Postage, Meeting Space	\$3,021
Indirect	\$6,682
TOTAL	\$60,000

Topic: Scoping the potential for approval of *Mogulones crucifer* for classical biological control of houndstongue in the U.S.

Draft Purpose: To evaluate the feasibility of gaining approval to release *Mogulones crucifer* for biological control of houndstongue in the U.S. by reviewing information available subsequent to its approval for release as a biological control agent in Canada; identify USDA APHIS and USFWS ecological criteria that will be used to determine the safety of releasing *M. crucifer* as a biological control agent in the U.S.; and provide input and guidance to managers if the organism is encountered in the field.

Draft Expected Panel Outcomes:

- Review results of studies assessing the host specificity and possible nontarget impacts of *Mogulones crucifer* conducted after the original petition for release was evaluated, to determine if new information has the potential to adequately address historic reservations regarding the safety of releasing *M. crucifer* in the U.S.
- Determine if information that became available subsequent to the review of the original petition to release is substantive enough to trigger changes to *Mogulones crucifer*'s current pest status.
- Identify relevant knowledge gaps and probable challenges associated with the approval for *Mogulones crucifer* as a biological control agent in the U.S., and identify information/efforts that would address those gaps and challenges.
- Provide next steps to be taken by researchers, regulators and managers regarding the status of *Mogulones crucifer*.
- Provide input and guidance to managers of private and governmental lands on interacting with *Mogulones crucifer* if it is encountered in the field.

Draft Panelists

- 1) **Robert S. Pfannenstiel**, Ph.D., - Entomologist, Biological Control Pests, Pathogens and Biocontrol Permitting Plant Health Programs, USDA APHIS PPQ
- 2) **Jeffrey J. Herod** - Branch of Environmental Review, US Fish and Wildlife Service Headquarters (probable replacement can be identified by Cindy Hall, cindy_hall@fws.gov)
- 3) **Mark Schwarzlander**, Ph.D., - Entomology, Plant Pathology and Nematology University of Idaho
- 4) **Rosemarie De Clerck-Floate**, Ph.D., - Lethbridge Research and Development Centre Agriculture and Agri-Food Canada
- 5) **Al Cofrancesco**, Ph.D., - Technical Director, Civil Works Environmental Engineering and Sciences, U.S. Army Engineer Research and Development Center, Vicksburg Mississippi
- 6) **Robert Nowierski**, National Program Leader, Division of Plant Systems-Protection, USDA NIFA
- 7) **Jennifer Andreas**, IWCP Director, Washington State University Extension

Montana's Invasive Species Rapid Response Guidelines

Suggested discussion items for the Montana Invasive Species Council.

What these guidelines do not do:

Detection: The guidelines begin with the report of a new invasive species. Getting to this point requires a functioning communication and reporting network, databases, trained observers, and many other elements that deserve attention as identified in the 2016 Framework but are not considered in the rapid response guidelines. A few include:

Assess and adopt a statewide list of existing and emerging invasive species priorities on an ongoing basis to inform policy, detection, management, and research.

Identify areas at risk of invasion by species that are established elsewhere, both within and beyond state borders.

Develop training and educational programs to improve our ability to identify species that are spreading from landscaping and gardens.

Establish dedicated early detection teams and funding to improve the likelihood of identifying newly establishing invasive species in Montana.

Training and practice: The goal of a rapid response plan is to increase preparedness. However, responses are carried out by people with other assignments, limited funding, remote locations, and their own knowledgebase. To increase Montana's capacity for invasive species rapid response, these guidelines and taxa specific plans should specifically identify rapid response funding and training needs. Table top response exercises and after action reports for these exercises will create a shared knowledge base and give Council members an overview of the strengths and gaps of the statewide capacity for rapid response.

Included Guideline elements that deserve more discussion:

Reporting: Will TipMONT 800-TIP-MONT (800)-847-6668 be promoted for all new invasive species and disease reports? Do the operators have the information they need to correctly route calls to the responsible agencies. How is the State of Montana system integrated with EDDMapSWest or other databases to share these reports with partners and track follow up?

Authorities: Are there taxonomic assignments correct? Are there gaps in the agency authorities that should be addressed by new legislation?

Plants	Aquatic Species	Agricultural Pests and Diseases	Natural areas Pests and Diseases	Vertebrates
Montana Department of Agriculture	Montana Fish, Wildlife & Parks (FWP)	Montana Department of Agriculture	Montana Department of Natural Resources Conservation	Montana Department of Agriculture

Assessment: Regional plans like the Columbia River Basin should be identified and reviewed for the utility in creating a Montana-specific plan. A full list of regional and state plans for previously assessed invasive species is a known gap.

The responding agency (as previously identified in the table) with the authority over a given taxa is the likely body to carry out assessments for new invasive species and make the decision as to whether or not to proceed with a species-led program like eradication or containment. What role will the Council have in this process?


Advisory - with either the full MISC or a science panel provide input on species specific assessments,

or


Participatory - as a coordinating body that will actively participate in assessing which species should be included in rapid response efforts and then overseeing that response?

Authorities: Determining whether or not the gaps in the authorities listed in Appendix A regarding establishing quarantines and accessing private land are an omission by the author or reflect regulatory gaps is worth comparing to the ongoing legislative review if this table is useful.

Appendices: What would you like these to include? After the experience from the 2016-2017 dresenid responses, the appendices for the mussel rapid response plan were about 80 pages and quite specific to aquatic regulations and mussel resources. I've included a few of the more relevant items like the general coordination contacts as well as authorities for key regulatory tools by taxa but have held off on adding other tools like risk assessments (an image of an operational risk management matrix was included on page 9). My suggestions include: training materials, phone trees, relevant rules, cooperative agreements, ICS examples...



**The State of Montana's
Invasive Species
Rapid
Response
Guidelines**



Contents

Introduction.....	2
Detection.....	3
Reporting.....	3
Identification.....	4
Data recording.....	4
Assessment	6
High Priority Species.....	6
Extent Delimitation.....	7
Risk Assessment.....	8
Risk Management.....	10
Notification	11
Leadership.....	11
Establish Incident Command.....	12
External Communications.....	13
Rapid Response.....	14
Funding and Authority	14
Scope.....	15
Treatment:.....	16
Transition to Management.....	18
References.....	20

Figures

Figure 1: New herbarium label demonstrating data elements.....	5
Figure 2. Assessment questions.....	8
Figure 3. Example risk management decision matrix	9
Figure 4. Funding mechanisms.....	15
Figure 5. ICS Planning	19

The State of Montana's Invasive Species Rapid Response Guidelines

Introduction

Rapid response to invasive species is a focused, resource intensive management effort intended to prevent the target species from establishing or spreading. It is carried out to avoid future management costs created by invasive species that harm Montana's communities, businesses, and environment. A successful rapid response resulting in eradication of a new population of invasive species requires adequate resources and authorities, and above all, cooperation by partners at regional, state, and local scales.

The Montana Invasive Species Council developed their Invasive Species Framework in 2016. In this document, the Council recommended developing a generalized rapid response plan for emerging invasive species as well as species specific plans as needed. These Rapid Response Guidelines build on the recommendations from that document and add operational details based on the experience gained from the 2016-2017 dreissenid mussel rapid response and plan. Where resources for rapid response are needed but require development (e.g. data coordination) the relevant element from the Framework is identified.

This document is intended to be used to practice rapid response. Through both future responses and table top exercises, this framework can be a tool to harmonize rapid response practices and increase communication between partners with authority over different taxa of invasive species and jurisdictions. The goals of these guidelines are to encourage:

- A well-coordinated rapid response
- Collection and sharing of data in an organized way for informed decision making
- That the extent of infestations is determined
- Consideration of all control options
- Preventing the further spread of invasive species
- Transparent decision making
- Coordinated and timely reporting, outreach and education to stakeholders and public
- Economic and ecological damage from incident are mitigated

Detection

Reports of invasive species may come from a wide variety of sources. Confirm the identification and location of a suspected invasive species with the designated state authority and record the report in a secure, interagency database after notification.

1. **Reporting:** Sightings of potential invasive species should be documented via TipMONT 800-TIP-MONT (800)-847-6668 or EDDMapSWest.
2. **Identification:** Send reports and suspect samples for identification with the designated state agency staff or delegated taxonomic expert. Collect and analyze additional samples to verify the identification and begin to determine the distribution of the suspected invasive species.
3. **Data recording:** Data from the confirmed sightings are recorded and shared securely with cooperating entities.

Reporting

All reports including all reports to phone calls to local agency offices should be sent to TipMONT 800-TIP-MONT (800)-847-6668 to be documented. Passing reports through a central reporting entity reduces the complexity of reporting for cooperators and the public. It also allows for a secure database to track reports of invasive species in Montana. EDDMapSWest receives reports directly and could be adapted to track reports received by partner agencies in a more open platform. Consistency and broad adoption will reduce the likelihood that reports are misdirected or delayed in reaching managers when using either reporting tool.

Reports to TipMONT should be routed as soon as possible to the responding agency for follow up. The operators taking these calls should receive training on a regular basis to maintain consistent routing of invasive species reports. The staff points of contact for each taxa should also be notified of new EDDMapSWest reports and trained in the use of the database. Contact the following agencies as soon as the reports are received based on the taxa reported:

Plants	Aquatic Species	Agricultural Pests and Diseases	Natural areas Pests and Diseases	Vertebrates
Department of Agriculture	Fish, Wildlife & Parks (FWP)	Department of Agriculture	Department of Natural Resources Conservation	Department of Agriculture
Title 4, Chapter 5, Part 2	Title 80, Chapter 7, Part 10	Title 7, Chapter 22, Part 23,	Title 76, Chapter 13, Part 3	Title 87, Chapter 5, Part 7
Designation of Noxious Weeds	Montana Aquatic Invasive Species Act	County Control of Insect Pests	Forest Diseases and Pest Control	Exotic Wildlife and Wildlife Protection

The agencies and authorities listed in this table are continued in Appendix A.

Identification

Authorized taxonomic experts will confirm the species' identify before further action is taken. Both listed invasive species and new or suspect invasive species will be identified by agency staff or qualified experts who have been approved in advance (Appendix B).

Using the protocol modeled in the State of Montana's Dreissenid Rapid Response Plan¹, the following definitions and standards are recommended:

Verification – the scientifically based process to confirm the presence of an Invasive Species as carried out by a Montana State agency with authority for the taxa under investigation or designated cooperating entity.

Detection, detect or detected – the verified presence of an invasive species.

Report – A sighting or collection which has not been verified.

Minimum to verify detection - 2 independent results from the same sample, using scientifically accepted techniques. A sample can include all or part of a plant suitable as a standard herbarium specimen, preserved adult or larval invertebrates, preserved water or soil samples, tissue specimens, & etc. for which chain of custody can be confirmed.

For many pests and diseases, reports based on symptoms or damage may be the first indication of the establishment of a new invasive species requiring further investigation. Remote or environmental data collection including eDNA, remote sensing, and other tools will be used for confirming the extent of a new invasive species but not for identification based on the recommendations of the Montana Invasive Species Council Science Panel.

Data recording

The use of a shared database that has been developed to national standards should be used and updated as soon as notification has taken place. Updates to the database prior to notification of leadership and partners can be disruptive. While this step is included here as part of the process of identification, publication should be delayed until after notification has taken place.

Framework Recommendation: Evaluate hiring a statewide data coordinator to address both sharing data about invasive species and protect the privacy of landowners.

To ensure that locally collected data matches the recommended national standard, formats, and protocols, the guidance in "Enabling Decisions that Make a Difference:

Guidance for Improving Access to and Analysis of Species Information" is recommended² This guidance document provides recommendations for data standardization in established formats, but also file formats and protocols, ensuring that data is broadly available. The general elements recommended were developed by the Mapping Standards Committee of the North American Weed Management Association (NAWMA)³ and include the minimum base information necessary to compare and combine invasive weed maps across tribal, county, state, national, and international borders. The following elements are useful across taxa:

1. What species was documented?
2. Where on the landscape was this species documented?
3. How large was the area infested by the species documented?
4. When was the information on this species infestation documented?
5. Who collected the documentation of this species infestation?

FLORA OF AMISTAD NATIONAL RECREATION AREA	
County and State: Val Verde, TX	
Scientific Name: <u>Leucaina retusa Benth.</u>	
Family: <u>Fabaceae</u>	Park Code: AMIS
Common Name: <u>golden ball leadtree</u>	Cat. #: 60688
	Acc. #: 00312
Locality: Pecos River, Weir Dam off Hwy 90	
Elevation: UTM Z/E/N:14/264059/3299383	
Habitat :	Bank of Pecos River at base of limestone cliff, dense tree and shrub vegetation
Description:	Tree, leaflets elliptical, base asymmetrical, flower head globose to 2 cm diam, flowers yellow.
Collector & Collection Number: W. <u>Weckesser</u> 1682	
Collection Date: 4/22/2014	
National Park Service Form 10-512 (Herbarium Collection)	

Figure 1: New herbarium label in the Interior Collections Management System for NPS botany collections demonstrating some, but not all recommended data elements.

Assessment

Once the identification is confirmed, assessment determines the appropriate response to a particular invasion⁵. An assessment of the risk posed by the species in question, its distribution and population density, and the likely pathway(s) by which it was introduced should be considered for species that have not been previously identified as high priorities for response. Once the risk posed by a new species is assessed, the feasibility of control is considered.

1. **High Priority Species:** A small set of species that have already been assessed, pose a high risk, and which are likely to be introduced can be prepared for in advance through planning, exercises, and participation in regional partnerships.
2. **Extent delimitation:** Unless the new potential invasive species has been included in state or regional surveys and its distribution is known with reasonable confidence, the extent and population density should be determined before management begins.
3. **Risk Assessment:** If new to Montana, is the detected species likely to cause harm to natural and cultural resources, the economy, and or human health? The entity with the authority to make this assessemnt should be identified in advance for each taxa and a consistent framework for assessing each taxa group established.
4. **Risk Management:** Not all new species will be candidates for rapid response. The feasibility of eradication, containment, and the suitability for a species led as opposed to a site led management should be evaluated and the recommended actions and reasons clearly communicated to stakeholders.

High Priority Species

A small number of invasive species that are not known to occur in Montana are clear candidates for immediate action and have been documented as threats on a regional level. Response planning has been done in advance for some of the species that both pose a high risk to Montana and are likely to be introduced. For example, "The State of Montana's Dreissenid Rapid Response Plan"⁶ identifies the specific protocols and contacts for mussel detection in local waters and is tested using tabletop exercises.

Regional plans are an important component of planning and preparedness. The 2016-2017 mussel response actions were based local preparation and the on the protocols included in the Columbia River Basin Interagency Invasive Species Response Plan: Zebra Mussels and Other Dreissenid Species⁷. An important recommendation from the 2016-2017 dreissenid mussel rapid response was that regional plans are helpful in framing a response but lack the detail required for the local operations. Developing a catalogue of relevant regional plans and practicing

with collaborators is beneficial but does not replace the need for a local planning and training. If an invasive species has been identified as a regional threat, developing a state level plan should be considered. These plans can anticipate the issues that should be considered in a species-specific response and proactively include stakeholder input from tribal, Federal, local government, and residents.

State plans for high priority species:

Plants	Aquatic Species	Agricultural Pests and Diseases	Natural areas Pests and Diseases	Vertebrates
List and control requirements: County Weed Control Act ⁸	Zebra and Quagga Mussels Eurasian watermilfoil (Myriophyllum spicatum) ⁹	Statewide Animal Disease Response Plan ¹⁰ Emerald Ash Borer ¹¹	Chronic Wasting Disease ¹²	

For high priority species to Montana that do not have a regional plan or similar coordinating document in place, a preliminary risk assessment should be conducted. Identifying the priority for action, response options, and cooperators in advance will facilitate response.

Framework Recommendation: Assess and adopt a statewide list of existing and emerging invasive species priorities on an ongoing basis to inform policy, detection, management, and research.

Extent Delimitation

Active detection efforts for known invasive species include regular surveys for a known target by trained observers to record both presence and absence data. For a species that is new to Montana, unless it is one of a very small number of high risk species like dreissenid mussels or a Federal Noxious Weed that has been the target of State Cooperative Agricultural Pest Surveys (CAPS), it is unlikely that detailed, reliable data will exist for the species' distribution. Hopefully, the new invasive species has been detected early but unless active surveys are conducted for the species, additional populations may be found once control has begun which will influence management options.



Figure 2. Assessment questions to determine if a species is a good candidate for a species-led control effort. If any of the answers are “no”, rapid response is not recommended.

If the species is detected or reported after optimal detection conditions have passed for the year (e.g. swimming veligers for dreissenid mussels require water temperatures above 10C, flowers for identification on terrestrial plants, etc.) the decision on how to proceed should consider the risk of delay compared to the cost of aggressive management. Survey work should continue concurrently with verification and risk assessment.

Risk Assessment

For invasive species that are not already identified at a state or regional level, an evaluation of each species prior to notification and response provides critical background information informs management decisions. For some taxa an assessment process has been established and is associated with a regulatory listing mechanism. For example, the Montana Department of Agriculture has both the authority and a process in place to designate new noxious weeds. Listing authority is distributed across agencies and an additional consideration is the time lag between the discovery of a new species and whether or not control can be successful without the authorities granted by inclusion on an official prohibited or control list. The process of assessing new species can be generalized across taxa and is generally compatible with existing ranking metrics that consider impact, distribution, and feasibility of control.

The New Zealand Department of Conservation¹³ summarized the invasive species assessment process into six steps which can be adapted for local use as:

1. Is the new invasive species a good candidate for a species-led program? (Figure 2)
2. Is the species likely to establish and spread in Montana?
3. Does the species have a high impact on the natural and man-made systems likely to be invaded?
4. How invasive is it?
5. How practical is control?
6. What priority should this species have compared to others?

	A	B	C	D	E
1	Assumptions: Threat=high, range=incipient and landowner has granted access.				
2	Threat Description				
3	Fire adapted, forms monotypic swaths.	Serious invader on BI and undercontrol by NARS on BI. Impedes growth of native plant seedlings, esp. koa on Hawaii Island. Increases fuel loads for wildfire.	May increase fire threat, even though other fire adapted species are present because it is one of the only species that can grow on bare rock....Where there would be fire breaks without vegetation, with fountain grass there will be a continuous chain of fuel leading to summit or residences.	
4	Range Description				
5	Incipient in Waianae Kai FR.	Established populations in Diamond Head, Lanikai, Palolo, Ohikilolo Ridge.	No evidence of established populations in adjacent watersheds, only established Waianae population is along Ohikilolo Ridge.	Pops up on Schofield, MCBH and other random areas on the island. It is still occasionally seen as an ornamental planting.	
6	Decision Factors: Ideal answer to initiate control program:				
7	Control method available? = Yes	OISC has had good results and eradicated small populations with Round Up and Oust. A fairly large population at Bellows was also eradicated so it can be done.	During the last spray, the pilot thought the fountain grass that was growing on the sides of the box canyons was too dangerous to get with a line sprayer, may need HBT if available.	Another pilot thought it was doable with a long-line. Outreach necessary as people may object to herbicide use. If HBT is employed it will look like a mammal eradication. Would public notice be necessary?	Yes
8	Field and Outreach Costs= Affordable? (Not for OISC, but maybe for DOFAW)	2-3 days to aerially spray 1x a quarter for 2-3 years	At least one full day of aerial survey a year to map and monitor. 2-3 days to spray 1x a quarter for 2-3 years. And monitoring after that.		Yes
9	Seedbank longevity = Short	2-3 treatments of oust and Round Up can remove an infestation, so likely short. But MISC thinks 6 years.			Short
10	Likelihood of re-introduction = Medium	Established populations not known to be in the adjacent watersheds, although they haven't been thoroughly surveyed.	Species gets around and is dispersed by air and on clothing, established infestations at two trails (DH and Lanikai)		Low
11	If not island incipient, under control program by partner agencies = Yes	KMWP working on removing in Wailupe, KMWP, OANRP and OISC sprayed rogue patch in Aiea.	MCBH removes at Bellows and MCBH, ANRP controls on their land.		Yes

Figure 3. Example risk management decision matrix for a species led rapid response campaign demonstrating qualitative, structured decision making.

Risk Management

Management recommendations for newly identified invasive species begin with determining if the candidate is a good match for a species led response like eradication or containment, or a site led response that adds management for the new target species to ongoing actions that protect agricultural productivity, ecosystem services, rare species, access, or other site specific values. Generally, range expansions of established invasive species will not warrant a statewide response but local jurisdictions such as Weed Districts should be notified of new occurrences as local containment can provide benefits. Rapid response using a species led approach is beneficial if containment or eradication provide additional benefit above incorporating a new invasive species into existing management operations¹⁴. For all other species, a site led approach is indicated:

Draft management plans to support control of established invasive species where reducing their impact provides measurable benefit.

There are both quantitative and qualitative approaches for evaluating the level of risk posed by an invasive species and the feasibility of control. When the suitability of an invasive species is assessed for rapid response a structured but qualitative approach best captures the questions that will impact management. Even with a careful framework for evaluation, some species will receive more support from stakeholders to either proceed with or suspend control efforts. To anticipate some of these influences, questions to consider include:

- Does the species directly affect human health?
- Is the species a quarantine or trade regulated taxa?
- Has the invasive species been found in an area with threatened and endangered species?
- Is the invasive species difficult to detect or is it easily confused with another species?
- Is it a vertebrate?
- Does it occur on private lands or other jurisdictions with different management goals?
- Does the species occur in or near an urban area?
- Does the species have commercial, recreational, religious, or cultural value?

Notification

Rapid response to high priority species that require the resources or authorities of an emergency declaration should notify leadership immediately after verification. For species that require assessment, a briefing and summary of the assessment and risk management options should be prepared prior to notification. Establishing clear lines of authority to act, sufficient resources to succeed, and broad, open external communications with affected parties are all necessary for successful rapid response operations.

1. **Leadership:** Within 24 hours of official State verification for high priority species, the lead responding agency will notify the Governor's office and the Montana Invasive Species Council member agencies via their respective Director's offices. All communications outside the agency will be at the direction of the responding agency. Other proposed rapid responses will proceed with a briefing once risk assessments and risk management options have been completed and approved by the responding agency.
2. **Establish Incident Command:** Incident Command is recommended during the rapid response phase of management. The scope of the operations can be determined and approved once a command team is in place.
3. **External Communications:** Following the initial leadership notifications, notification will be made to the public. The responding agency, and ideally the Joint Information Center, will notify the public using a press release and briefing. The press release should go out as soon as possible following the personal calls and emails to known stakeholders.

Leadership

Phase 1: Within 24 hours of official State verification of a high priority species, the responding agency will notify other parties as follows:

- Department of Natural Resource Conservation (DNRC)
- Fish Wildlife & Parks (FWP) Director
- Department of Agriculture (DOA)
- Montana Invasive Species Council (MISC) and Staff
- Governor's Office

All communications outside the responding agency will be at the direction of that agency's Director's Office.

Phase 2: Those entities that are directly impacted or with jurisdiction in the region (tribes, counties, State agencies, and federal agencies) will be notified immediately once outside communication is authorized by the responsible agencies Director's Office. State leaders including legislators (House and Senate Leadership) will be contacted at this time.

- Legislators (House and Senate Leadership)
- Tribes in the affected region
- Other state agencies
- Impacted counties, local government and sheriff's office
- Federal agencies including United States Fish and Wildlife Service (USFWS), Bureau of Reclamation (BOR), United States Army Corps of Engineers (USACE), US Forest Service and National Park Service (NPS).
- Impacted industry representatives and stakeholders

Establish Incident Command

The Montana Invasive Species Framework recommends using Incident Command System (ICS) for rapid response management. This can flexibly accommodate Unified Command in which multiple agencies share incident management responsibilities or a scaled back version led by a single agency assisted by cooperators. Incident Command is a standardized on-scene emergency management process designed to provide an integrated organizational structure that can address the complexity and demands of an emergency without being hindered by jurisdictional boundaries. Once a high priority species is found, the responding agency should begin with the assumption that ICS will be used to organize the rapid response. Not all invasive species response actions will require the use of ICS but the following elements indicate that the use of ICS is appropriate:

- The invasive species is found across multiple State, tribal, and Federal jurisdictions.
- Resources beyond those available within the responding agency are needed for a rapid response.
- Multiple stakeholders and interests are impacted by the response and the outcomes.

External Communications

Following the initial leadership notifications, the announcement of the invasive species detection will be made to the public. The first round of communications should be directly with impacted stakeholders and local officials. Then, the responding agency, or the Joint Information Center if established, will initially notify the public using a press release and briefing (Appendix C). The press release should go out as soon as possible following personal calls and emails to known stakeholders by agency staff.

The response team is responsible for communicating early and often with the public and stakeholders during the rapid response. The external communications plan is the responsibility of the response team or Public Information Officer designated by the responding agency and the communications plan should be commensurate with the scope and scale of the incident. For responses that are likely to take place over a longer span of time, establishing general lines for communication (like an incident specific 1-800 number) can be useful. If ICS is established, the Incident Commander will provide instruction on approval process for communications, and all communications will be coordinated with the Governor's Office.

The following are key activities should be considered by the response team once the initial notification has taken place:

1. Issue press release using pre-approved template.
2. Coordinate with interagency public information officers ("PIOs").
Establish Joint Information Center if ICS is established.
3. Establish ONE public information officer as the main point of contact for all incoming and outgoing communications.
4. Prepare response daily briefings to facilitate information sharing.
5. Prepare response communication plan, talking points, incident timeline, and FAQs.
6. Establish online communication resources and inform stakeholders:
 - gov delivery,
 - response specific website
 - Facebook and Twitter accounts specific to the response
7. Establish dedicated response phone line.
8. Consider weekly teleconferences for stakeholder briefings.
9. Issue press releases for major milestones and response activities.

Rapid Response

Rapid response is more disruptive and resource intensive than other forms of invasive species management. The decision to proceed should be made only after careful evaluation of the benefits and evaluation of available resources needed to successfully complete the goals of the response. If eradication is the goal for a rapid response effort, the likelihood of reintroduction should be estimated and creation of reinvasion response programs should be included in planning.

1. **Funding and Authority:** The use of an emergency declaration will provide a limited amount and duration of funding. Rapid responses conducted without the use of an emergency declaration will draw on existing resources which will constrain the extent and duration of the response.
2. **Scope:** The scale and duration of the response should be assessed by the responding agency.
3. **Treatment:** The responding agency will establish a containment plan then evaluate the species and site specific treatment options and seek permitting advice from other agencies.

Funding and Authority

If the goal of the rapid response is eradication, the authority and resources to complete the management action through the period when viable propagules will be present should be identified prior to taking action. For plants, this may be many years. Gaps in resources during an eradication attempt will result in failure.¹⁵ The 2016-2017 dreissenid rapid response was funded via an emergency declaration that provided an initial \$750,000 then an additional \$200,000 to support the rapid response from the Governor's emergency fund. The availability of these funds for future responses is not guaranteed.

State agencies in Montana fund invasive species management differently. Sections of the Invasive Species Act detail monetary options for controlling invasive species, including the Invasive Species Trust Fund, the Noxious Weed Trust Fund, and the Noxious Weed Management Trust Fund. Aquatic invasive species management is funded separately. The Environmental Quality Council (EQC) will be proposing a new funding structure for Montana's AIS programs for the 2019 legislative session. Currently, the EQC is proposing to use a combination of general fund, watercraft fees (motorized and non-motorized), angler fees and migratory game bird fees to provide future funding; hydroelectric fees would not be collected.

Funding Sources Proposed by EQC, July 2018	Annual estimated revenue
General Fund	\$3,274,339
Anglers/Aquatic Invasive Species Prevention Pass* (Resident=\$2/year, Nonresident=\$7.50/year)	\$1,707,420
Motorized watercraft fee (Resident=\$10/year, Nonresident=\$60)	\$1,090,780
Nonmotorized watercraft fee (Resident=\$5, Nonresident=\$10)	\$375,235
Migratory game bird hunter/Aquatic Invasive Species Prevention Pass (\$2/resident and nonresident)	\$52,226
Total estimated annual revenue	\$6,500,000

Figure 4. Funding mechanisms and potential revenue currently under development by the Environmental Quality Council for 2019.

Even with adequate funding, managers must be able to access the populations targeted for control. The authorities required for access may include the authority to enter private property for survey and control work, and manage the likely pathways for introduction (Appendix A). Temporary emergency declarations for closure may augment standing authorities if quarantine or closure is necessary.

Scope

The partners participating will vary both by the taxa of organism and the location where the response is taking place. This interaction of participants and jurisdictions will include regional partnerships, state agencies, tribes, and Federal agencies further divided over management units. Coordinating across these entities and the local stakeholders including local governments, landowners, industries, and technical experts benefits from structured command and communication and Incident Command is recommended for setting up a successful initial response.

The scale of the response is a policy issue. Decision makers are aware that they are more likely to be criticized for not making a robust initial response. A response which can later be scaled back is less likely than a “wait and see” approach to be seen as ineffective and as ICS is flexible, it can be scaled accordingly.

For some species, national programs or regional partnerships may be available to support operations. For example, the 100th Meridian Initiative’s Columbia River Basin Team is responsible for activating and implementing the management structures

necessary to respond to and support efforts to contain and control an infestation of dreissenid mussels. Because Columbia River Basin member agencies do not share a standard organizational structure on a day-to-day basis, the Team has adopted the ICS organizational structure as its emergency response structure. The organizational elements are divided into two groups: coordination (policy and communication) and incident management (tactical). The structure is designed to be flexible. Only those elements needed to respond to and support a given infestation will be activated for this group. Support may be available for pest and disease outbreaks through United States Department of Agriculture Animal and Plant Health Inspection Service (USDA APHIS) Plant Protection and Quarantine's (PPQ) Emergency and Domestic Programs unit which provides staff and resources for plant health emergencies. Similarly Veterinary Services Surveillance, Preparedness and Response Services (SPRS) mission includes preparing and practicing animal health and all-hazard response plans.

Treatment:

PERMITTING:

The responding agency and their legal council will prepare and submit the appropriate permits. For some actions, this could include a delay that will substantially impact the timeline of the response. Anticipating control options for high priority species and obtaining necessary reviews and approvals may reduce regulatory delays.

TECHNICAL ADVISORY PANEL:

The use of a Technical Advisory Group to inform the Operations of an incident can be beneficial for complex situations and can be drawn from experts in the discipline on an ad hoc basis. Formation of the Technical Advisory Group also strengthens ties to key stakeholders. The 2017 legislature directed the Montana Invasive Species Council to identify and form an independent scientific advisory panel which can inform specific questions relevant to the response. Through MISC, this panel is available for technical consultation and has considered the use of eDNA on behalf of the dreissenid mussel response team.

QUARANTINE AND EMERGENCY CONTAINMENT:

Once a new invasive species has been identified as a rapid response target, containment is the top priority. The risk of spread should be weighted with the impact of restricting access. If alternatives to closing or restricting access are available and effective, these should be considered and the overall cost and impacts of each option are weighed.

1. Initiate mandatory inspections, decontaminations or closures.
2. Utilizing existing GIS layers if available, inventory or survey access points in affected area and coordinate with neighboring jurisdictions.

3. Identify government or private entities with management authority over potential pathways.
4. Contact management authorities and advise of potential mandatory inspections or closures.

Ensure that an emergency declaration is forwarded to impacted County Emergency Manager(s) and Federal partners. Consider:

- Current priorities
- Impact on commercial and recreational activities.
- Existing user movement patterns to determine areas at risk for spread
- Inventory impacted infrastructure and resources

The duration of the closure will last until a prevention or containment plan is implemented. If closure is untenable, inspection teams must be on hand for inspection and, if necessary and possible, decontamination.

Transition to Management

Most invasive species rapid response efforts will not result in eradication which requires the removal of all propagules of the target invasive species from the area. Inaccessibility of some areas, a seed bank (including dormant eggs), or difficulty in detecting remaining individuals will require either a longer term “mop up” or more likely, ongoing management. To successfully establish continuity with local managers and transition from a response scenario to ongoing monitoring and management requires planning and communication.

Response team transition tasks:

1. Plans Chief prepares a transition plan to step down from ICS.
2. Incident Commander and leadership team meet with the responding agency leadership to review the transition plan.
3. A transition date, revised schedule of activities and press release are drafted.
4. The Incident Commander requests and establishes a review team for an after action report.

The transition from rapid response to management will require defining new clear goals and working with the local managers or groups tasked with ongoing management if the target invasive species is not eradicated. Communicating the new longer term goals and setting new expectations in line with management should proceed through stakeholder meetings, regional working groups, and updates from the agencies via mailing lists.

One of the inherent frustrations in establishing an incident command-led response is that relationships and trust are built with command staff who rotate through their positions. This can leave stakeholders and partners feeling like they are in the position to start over well before the transition to local management. The command staff themselves should be aware that from initiation of the response, they should be thinking of the demobilization or transition plan and not become irreplaceable. The decision to transition back to local managers from an ICS structured rapid response will depend on many factors based on the scale of the response, whether or not the population has been contained, whether or not the response has stabilized, if the objectives for control have been met, and local factors. The final duties of the Incident Commander include reviewing the incident with the Planning Section Chief to determine if objectives for the response have been met. When this is the case, a transition plan should be developed and final report on the status of the response prepared.

The Incident Commander will meet with local managers and agency leadership to review the final report on the incident status and transition plan. Outcomes of this meeting should include a transition date for operations and communications functions. Once these tasks have been agreed to, a final press release should be

prepared and released by the Public Information Officer assigned to the response as the final press communication by the ISC team.

The task list for the final phase of the response for the Incident Commander includes:

- Assess incident plan objectives and prepare to transition to ongoing management as objectives are met and include all longer term goals in a set of management recommendations.
- Determine the need for long-term funding for the on-going management effort and seek this funding as warranted.
- Document all significant actions, information on Unit Log ([ICS214](#)). Forward copies of all documentation to the Planning Coordinator and the administrator from the responding agency and request and establish a team to conduct an after action review.
- Ensure post action review is conducted, and lessons learned are captured and incorporated into training and guidelines revisions and updates. (After action report.)
- Disseminate “lessons learned” to other interested organizations (e.g., regional partnerships).
- As resources allow, develop and implement a research plan that evaluates the associated ecological and economic impacts of the invasion, the effectiveness of management interventions, and negative consequences of management interventions (beyond that required by permits).



Figure 5. Incident Command System planning continues through the transition to ongoing management.

References

- ¹ Montana Fish, Wildlife & Parks. 2018. The State of Montana's Dreissenid Mussel Rapid Response Guidelines Updated 6/28/2018. <https://www.google.com/url?q=http://dnrc.mt.gov/divisions/cadd/docs/misac-docs/misac-resources-docs/mt-rapid-response-guidelines.pdf>. Accessed 15 September 2018.
- ² National Invasive Species Council Secretariat. 2018. Enabling Decisions that Make a Difference: Guidance for Improving Access to and Analysis of Invasive Species Information. https://www.doi.gov/sites/doi.gov/files/uploads/isim_guidance.pdf. Accessed 13 September 2018.
- ³ North American Invasive Species Management Association. 2014. North American Invasive Species Mapping Standards. http://www.naisma.org/images/NAISMA_Mapping_Standards2014_1.pdf
- ⁴ Weckesser, W. 2018. New herbarium label in the Interior Collections Management System for NPS botany collections. *Park Science* 34(1):6.
- ⁵ The U.S. Department of the Interior. 2016. Safeguarding America's lands and waters from invasive species: A national framework for early detection and rapid response, Washington D.C., 55p.
- ⁶ Montana Fish, Wildlife & Parks. 2018. The State of Montana's Dreissenid Mussel Rapid Response Guidelines Updated: 6/28/2018. <http://fwp.mt.gov/fwpDoc.html?id=86844>.
- ⁷ Columbia River Basin Team, 100th Meridian Initiative. 2014. Columbia River Basin Interagency Invasive Species Response Plan: Zebra Mussels and Other Dreissenid Species. https://wdfw.wa.gov/ais/html/dreissena_polymorpha/documents/crb-dreissenid-rapid-response-plan-february-22--2014_amendednov3_2016.pdf
- ⁸ State of Montana Department of Agriculture. 2015. Montana County Weed Act and Administrative Rules. <https://agr.mt.gov/Portals/168/Documents/Weeds/County%20Weed%20Act.pdf?ver=2017-07-24-082331-400×tamp=1503640096122>
- ⁹ Montana Fish, Wildlife & Parks. 2018. The State of Montana's Dreissenid Mussel Rapid Response Guidelines Updated: 6/28/2018. <http://fwp.mt.gov/fwpDoc.html?id=86844>.
- ¹⁰ Montana Department of Livestock. 2018. Statewide Animal Disease Response Plan (referenced via press release). <https://liv.mt.gov/Portals/146/news/FMD%20exercise%20pr.pdf>
- ¹¹ Montana Department of Natural Resources and Conservation. 2015. Emerald Ash Borer Readiness and Response Plan. http://dnrc.mt.gov/divisions/forestry/docs/assistance/urban/final_eab-response-and-readiness-plan-for-the-dnrc.pdf
- ¹² Montana Fish, Wildlife & Parks. 2017. Montana CWD Management Action Plan. <https://leg.mt.gov/content/Committees/Interim/2017-2018/EQC/Meetings/Sept-2017/cwd-management-plan-draft.pdf>
- ¹³ New Zealand Department of Conservation. 1999. Eradicate this weed or not? Science Poster 21.

¹⁴ National Invasive Species Council. 2003. General Guidelines for the Establishment and Evaluation of Invasive Species Early Detection and Rapid Response Systems. Version 1. 16pp.

¹⁵ Glen, Al & Atkinson, Rachel & Campbell, Karl & Hagen, Erin & Holmes, Nick & Keitt, Bradford & Parkes, John & Saunders, Alan & Sawyer, John & Torres, Hernán. 2013. Eradicating multiple invasive species on inhabited islands: The next big step in island restoration?. *Biological Invasions*. 15. 10.1007/s10530-013-0495-y

State of Montana's Invasive Species Rapid Response Guidelines: Appendices

The purpose of these documents is to provide detailed information to assist those carrying out a rapid response effort for invasive species in Montana.

Contents

Appendix A: Rapid response authorities and responding agencies by taxa	2
Responding Agency	2
Emergency Listing or Designation Authority	3
Quarantine and Closure Authority	4
Authority to Access Private Land.	5
Appendix B: Contacts for identification & verification	6
Appendix C: Communication tools	7
Initial Notification Script.....	7
Sample Initial Press Release	8
Sample Follow Up Press Release	8
Media Policy for Responders.....	9
Appendix D: Response Coordination and Cooperative Agreements.....	10
Interagency Coordination.....	10
Coordination planning:.....	10
Protocol for Including Rapid Response Partners:.....	11
Partners in rapid response:	11
Cooperative Agreements	16

Appendix A: Rapid response authorities and responding agencies by taxa

	Plants	Aquatic Species	Agricultural Pests and Diseases	Natural areas Pests and Diseases	Vertebrates
Responding Agency	Montana Department of Agriculture	Montana Fish, Wildlife & Parks (FWP)	Montana Department of Agriculture	Montana Department of Natural Resources Conservation	Montana Department of Agriculture, FWP
Primary Authority	Title 4, Chapter 5, Part 2	Title 80, Chapter 7, Part 10	Title 7, Chapter 22, Part 23	Title 76, Chapter 13, Part 3	Title 87, Chapter 5, Part 7
	Designation of Noxious Weeds	Montana Aquatic Invasive Species Act	County Control of Insect Pests	Forest Diseases and Pest Control	Exotic Wildlife and Wildlife Protection

	Plants	Aquatic Species	Agricultural Pests and Diseases	Natural areas Pests and Diseases	Vertebrates
Emergency Listing or Designation Authority	<p>§80-7-815 Noxious weed emergency: (1) The governor may declare a noxious weed emergency if: (a) a new and potentially harmful noxious weed is discovered growing in the state and is verified by the department; or (b) the state is facing a potential influx of noxious weeds as the result of a natural disaster.</p>	<p>§80-7-1003 (3) "Invasive species" means, upon the mutual agreement of the directors of the departments, a nonnative, aquatic species that has caused, is causing, or is likely to cause harm to the economy, environment, recreational opportunities, or human health.</p>	<p>§7-22-2302 Definition of term insect pest: The term "insect pest" as used in this part shall include grasshopper, cutworm, pale western cutworm, armyworm, chinch bug, and any other insect or arthropod generally recognized as a destroyer of grain, hay, range, and horticultural crops.</p>	<p>§76-13-302 (2) "Forest land" means any land that has enough forest growth, standing or down, to constitute in the judgment of the department an insect or disease infestation breeding ground of a nature to constitute a menace, injurious and dangerous to the forest resources in the district or zone of infestation.</p>	<p>§12.6.2225 Determining exotic wildlife classification: Based on recommendations made by the classification review committee, the commission may classify exotic wildlife to either a non-controlled, controlled, or prohibited list.</p>

	Plants	Aquatic Species	Agricultural Pests and Diseases	Natural areas Pests and Diseases	Vertebrates
Quarantine and Closure Authority		FWP has the authority to adopt an emergency rule closing the waterbody to all surface occupation or use. Emergency rulemaking authority is to be used carefully and must involve the FWP Legal Unit at the beginning of the process.	§4.12.1302 - Establishing a quarantine: (1) The director of the Department of Agriculture or his/her designated representative may establish or modify a quarantine by signing an order.	§76-13-304 Suppression and eradication of infestation: (1) The department may enter upon the land within the zone and cause the forest insect pest infestation or forest tree disease to be suppressed, eradicated, and destroyed in the manner approved by it.	

Plants	Aquatic Species	Agricultural Pests and Diseases	Natural areas Pests and Diseases	Vertebrates
<p>Authority to Access Private Land.</p>		<p>Any person appointed pursuant to §7-22-2301 to control insect pests may fly over or enter upon any farm, railroad right-of-way, grounds, or premises infested with such insect pests and poison, kill, catch, and exterminate the insect pests therein.</p>	<p>§76-13-304 - Suppression and eradication of infestation: (1) The department may enter upon the land within the zone and cause the forest insect pest infestation or forest tree disease to be suppressed, eradicated, and destroyed in the manner approved by it.</p>	

Appendix B: Contacts for identification & verification

Plants	Aquatic Species	Agricultural Pests and Diseases	Natural areas Pests and Diseases	Vertebrates
Position & contact:	Position & contact:	Position & contact:	Position & contact:	Position & contact:

Appendix C: Communication tools

Initial Notification Script

Prior to the first press release, key stakeholders should be notified.

Responsible agencies in cooperation with local partners may consider the value in developing phone trees for stakeholders. This contact list should be updated when the list of Incident Command leadership staff is updated or twice per year, whichever is more frequent.

The following is a guide for a call or voicemail to those on the notification lists:

Voice Message:

[Personalize greeting] I have some information that is going public later today, and as a key stakeholder I wanted to make sure you were aware of it beforehand.

1. *[Responsible agency]* in coordination with the *[other agency partners]* has found evidence of *[invasive species]* in *[location]*.
2. As a result, agencies have begun working together to develop a collaborative strategy to address further detection, containment and control.
3. I'm calling you in advance of the public announcement because you are engaged in the issue and we need your help in the solution.
4. Later today, a press release will go out and more detailed information will be posted on the Montana Invasive Species Advisory Council website at <http://dnrc.mt.gov/divisions/cardd/montana-invasive-species-program/misc>

Please call me back at XXXX for further details or check the MISC website, which will be updated with the latest information as the situation evolves.”

Invasive Species Facts (Send fact sheet to caller, use as needed based on callers familiarity of issue):

- *[Describe threat from the species found.]*
- *[Describe work underway to delimit the population and conduct risk assessments.]*
- With coordination through *[list agencies: FWP, BOR, DNRC, etc.]* and the Governor's office are working collaboratively on the response
- A stakeholder meeting and rapid response exercise is being planned for *[Month]*

[JIC or Lead] will serve as the main coordinating body and the latest information will be posted *[location or website]*

Sample Initial Press Release

Contact: [*Incident PIO/JIC*]

Montana [*responding agency*] has declared [*area of infestation*] a “suspect location” for infestation of invasive [*species name*]. This report has been initially verified by [*agency/recognized expert*], and efforts are underway to [*describe what’s next, if anything, to confirm identification*].

This discovery is a serious environmental and economic concern for the state. [*Describe the threat posed by the invasive species.*]

[*Describe mode of introduction and prevention efforts.*]

In preparation for an introduction of invasive species in Montana, officials developed rapid response guidelines outlining a set of actions to address the initial finding and monitor the situation long term.

Until additional surveys are conducted, the extent of the infestation is unknown. During this phase of rapid response, the [*responding agency*], has [*actions taken e.g. restricted access*] to [*infected location*] to help prevent further potential dispersal of the invasive species. The public can help by avoiding the [*access points to the infected area*] and following some good general guidelines including [*describe prevention actions*].

For more information, visit MISC’s website at

<http://dnrc.mt.gov/divisions/cardd/montana-invasive-species-program/misc>

Sample Follow Up Press Release

We are currently investigating reports of [*name of invasive species*] in the vicinity of [*general location*]. Experts from [*responding agency*] and local agencies are responding, and we will have additional information available as we are able to confirm it. We will hold a briefing at [*location*] and will notify the press at least ½ hour prior to the briefing. At this time, the briefing is the only place where officials are authorized to speak about the incident and confirmed information will be available. Thank you for your assistance.

Media Policy for Responders

Refer absolutely all media requests to the PIO with the following statement:

"I have been directed to forward all media requests to my Public Information Officer [Name:_____] and their cell number is [Cell:_____]. You may get their voice mail but your questions are important to them so please leave a message."

- **DO NOT:** Talk to a reporter at the scene of an accident or during your personal time.
- **DO NOT:** Run away if you are approached by a reporter while working.
- **ALWAYS:** Ask the reporter for their business card and/or write down all of their information (name, station, phone with voice mail) **BEFORE ANSWERING ANY QUESTIONS**. Pass this information on to your team leader or PIO as appropriate.
- **REMEMBER:** You are a representative of the incident and your agency

Appendix D: Response Coordination and Cooperative Agreements

This section is intended as a general guide for developing the partnerships and coordination necessary to a successful rapid response in Montana.

Interagency Coordination

Interagency partners in both early detection and rapid response in Montana include Federal, State, Tribal, and local partners. These EDRR Partners will participate jointly and integrate their authorities and resources using Incident Command System (ICS) during invasive species responses with overlapping management jurisdictions. This approach of treating new high priority detections as new emergencies (with specific authorities and direction provided by agency directors and the Governor's Office) is anticipated to bring local, state, and regional partners together with little to no advance planning.

When possible, including federal, state, regional, and local partners in advance by establishing and exercising lines of communication, building partnerships across shared resources and interests, and developing training opportunities to build shared rapid response skills will reduce friction in establishing future rapid response actions. The National Invasive Species Council's 2016 document "A National Framework for Early Detection and Rapid Response" provides suggestions for planning to include partners in this effort and the following planning actions and contacts for Montana are in alignment with the national framework.

Coordination planning:

- To prepare for the use of ICS in a response, the following actions should be taken to improve readiness:
- Establish lines of communication with statewide agency representatives of partners listed in this section.
- Invite and include partners in annual invasive species stakeholder events or meetings.
- Include communication with regional partners and stakeholders in the communications duties of the Montana Invasive Species Counsel (MISC) Outreach position and include updates from regional partners in MISC communications.
- Create regional, multi-agency training opportunities to practice ICS skills and reach out to local partners.
- Plan table-top and field exercises based on existing invasive species response plans and relevant local management plans that include all likely response partners including local and non-governmental participants.

Protocol for Including Rapid Response Partners:

The location of the next rapid response event will determine the suite of partners contacted. As this will be different depending on the region and ecosystem, this section creates a protocol for identifying and including local partners in a response.

Planning: As the incident is established, the incident commander identifies a command team position tasked specifically with identifying affected entities and stakeholders in addition to those agencies and contacts identified under the initial notification list.

Area affected: The planning position assigned will determine the affected watershed and surrounding economic area. In cases where these do not perfectly overlap or there is ambiguity, erring on the side of inclusion is recommended for communications.

Local Partners: Within the identified affected zone, local municipalities, land and water management entities, local colleges or research stations, and other governmental partners (regional offices, tribal officials) should be contacted. As part of the notification process, these entities should be asked for existing regional or local partnerships that have been established and the names and contacts of key local partners especially those who are non-governmental and industry. Counties, municipalities, water management and irrigation districts, private citizens, corporations, land trusts, and other non-governmental organizations own and manage lands and waters. Academic, industry, and non-governmental organizations provide access to significant expertise on species, pathways, and detection and response methods and tools.

Working relationships: Once the contact list for the area affected has been created and broadened to include established regional partnerships and local non-governmental bodies the process of including their expertise and resources should be incorporated into the incident plan. Local municipalities may have more flexibility in incorporating non-governmental resources and otherwise, the planning position assigned should be tasked with drafting operational documents with the guidance of agency contacts responsible for the execution of Memoranda of Understanding and funding or resource agreements or Memoranda of Agreements.

Partners in rapid response:***Federal Agencies***

Federal agencies have a number of key roles in EDRR including responsibilities for managing Federal lands and waters, enforcing Federal laws, exercising regulatory authorities, and providing technical expertise in management, research, and information systems. The Federal government manages approximately 635 million acres in the United States, the majority of which are administered by the Bureau of Land Management, U.S.

Fish and Wildlife Service (USFWS), National Park Service (NPS), U.S. Forest Service (USFS), and Department of Defense (CRS 2012). The U.S. Coast Guard enforces laws protecting waters from non-native species. The Bureau of Indian Affairs (BIA) plays an important role as trustee and advisor for tribally owned lands.

Some relevant Federal regulatory authorities include the ability to prohibit the import into the United States and the interstate transport of listed invasive injurious species, approve specific pesticides and their applications, engage in emergency response actions, and manage risks associated with certain major pathways of invasive species introduction. Many Federal agencies are active in the development and application of tools for invasive species assessment, detection, reporting, species monitoring and surveillance, management, and identification. Such agencies are a key resource for the collection of data regarding invasive species ecology, impacts, and geographic distribution.

The National Invasive Species Council will establish the Early Detection and Rapid Response Task Force as a standing body to facilitate nationwide coordination among Federal agencies and non-Federal partners. Engaging this Taskforce to assist in coordination and planning should be coordinated through the Council staff. Local Federal contacts listed below should be included in response communications directly unless an alternative contact via the task force is established.

National Invasive Species Council	Jamie K. Reaser , Executive Director of the Council, Jamie.Reaser@ios.doi.gov , (202) 208-3100
Bureau of Land Management	Floyd Thompson , Montana State Office, Rangeland Management Specialist and Invasive Species Coordinator, ftompson@blm.gov , (406) 896-5025
USDA Animal, Plant Health Inspection Service	Gary Adams , State Plant Health Director, Gary.D.Adams@aphis.usda.gov , (406) 657-6282
US Bureau of Reclamation	Jeffrey Baumberger , Resource Management Division Manager, jbaumberger@usbr.gov , (406)247-7314
Natural Resources Conservation Service	Monica Pokorny , Plant Materials Specialist, monica.pokorny@mt.usda.gov , (406) 587-6708
US Fish and Wildlife Service	Lindy Garner , Invasive Species Strike Team, Regional Invasive Species Coordinator, Lindy_Garner@fws.gov , (406) 727-7400, ext. 213
US Army Corps of Engineers	Patricia Gilbert , Fort Peck Project, Natural Resource Specialist, patricia.l.gilbert@usace.army.mil , (406) 526-3411, ext. 4278
US National Park Service	Steve Bekedam , Northern Rocky Mountains Exotic Plant Management Team, Program Liaison, steven_bekedam@pns.gov , (307) 344-2185

Tribal contacts:

The Montana **Governor's Office of Indian Affairs** maintains contact information for the 7 Indian reservations and the state-recognized Little Shell Tribe of Chippewa Indians.

Blackfeet Nation	(406) 338-7521
Chippewa Cree Tribe	(406) 395-5705
Crow Nation	(406) 638-3708
Confederated Salish & Kootenai Tribes	(406) 675-2700
Fort Belknap Assiniboine & Gros Ventre Tribes	(406) 353-2205
Fort Peck Assiniboine & Sioux Tribes	(406) 768-2300
Little Shell Chippewa Tribe	(406) 315-2400
Northern Cheyenne Tribe	(406) 477-6284

State Agencies:

The following agencies have been identified as high priority contacts.

- Montana Governor's Office
- Montana Fish Wildlife and Parks
- Montana Department of Natural Resource Conservation
- Montana Invasive Species Council (MISC)
- Columbia River Basin (CRB) Team
- Upper Columbia conservation commission
- Missouri River Basin groups
- Montana Department of Agriculture

Local Agencies:

Directory of county offices: The **Montana Association of Counties** includes a map of Montana counties with a link from the map to information on elected officials, county seat, and other relevant information. The **Montana Association of Conservation Districts** provides contacts with landowners through their soil, water, and natural resource conservation work through 58 conservation districts in all counties and over 70 municipalities. The Conservation Districts are also implement the Streambed and Land

Preservation Act or the 310 law that requires a permit from the local Conservation District before work can be done in Montana's waterways.

Montana Association of Counties	(406) 449-4360
--	----------------

Montana Association of Conservation Districts	(406) 443-5711
--	----------------

Directory of Municipalities: The **Montana League of Cities and Towns** maintains contact information for 129 Montana municipalities. While most local municipal offices will be readily identified by local staff, all those within the economic interest area of a new invasive species detection should be considered.

Montana League of Cities and Towns	(406) 442-8768
---	----------------

Neighboring states:

Idaho	[Update]
--------------	----------

Wyoming	Beth Bear , Aquatic Invasive Species Coordinator, Wyoming Game & Fish Department, beth.bear@wyo.gov , 307-745-5180 Ext. 256
----------------	---

North Dakota	Jessica Howell , Aquatic Nuisance Species Coordinator, North Dakota Game & Fish Department, jmhowell@nd.gov , 701-368-8368
---------------------	--

South Dakota	Mike Smith , Aquatic Invasive Species Statewide Coordinator, South Dakota Department of Game, Fish & Parks, mikejo.smith@state.sd.us , 605-223-7706
---------------------	--

Canadian provinces:

Saskatchewan	Jamie Bilash , Aquatic Invasive Species Ecologist, Ministry of Environment, (306) 933-6544
---------------------	---

Alberta	Kate Wilson , Aquatic Invasive Species Program Coordinator, Alberta Environment & Sustainable Resource Development, (780) 427-7791
----------------	---

British Columbia	Martina Beck , Invasive Mussel Program Coordinator, Conservation Science Section, (778) 698-4364
-------------------------	---

Regional partners

100th Meridian Initiative	Several "Basin Teams" operate within Montana. Contact via website is britton@uta.edu
Pacific NorthWest Economic Region (PNWER)	The Invasive Species Working Group, Matt Morrison, (206) 443-7723
Regional Invasive Species Councils (Idaho, Oregon, Washington, Idaho, Alberta, British Columbia).	See state and provincial contacts.

Technical partners

Who will be involved will vary by location. The following groups were identified during the fall 2016 mussel responses are intended to provide an example of the scope and type of partners to include in response planning and operations.

Montana Invasive Species Council, Science Advisory Panel	Stephanie Hester , Council Liaison, Montana Fish Wildlife and Parks, shester@mt.gov , (406) 444-0547
eDDMaps	Center for Invasive Species & Ecosystem Health, University of Georgia, (229) 386-3298
Indian National Conservation Alliance	Dick Gooby
Northwestern Energy	
Anglers Forum	
Whitefish Lake Insititue	
Flathead Bio Station	
MT Assoc. of Dam and Canal Systems	Vernon Stokes , (406) 279-3315
Montana Water Resource Association	Michael Murphy , (406) 235-4555
Montana Watershed Coordination Council	Erin Farris-Olsen , Executive Director, erin@mtwatersheds.org , (406) 475-1420

Protocol for Non-governmental Partners

When regional or statewide partnerships are already working together under cooperative agreements or Memoranda of Understanding those contacted to participate in a response or who volunteer their resources or services should be asked if they are currently parties to an existing agreement that would determine the terms and responsibilities for participation in a response. If there is no existing agreement, a working agreement appropriate to the scope of the partnership should be drafted to clearly define the terms, especially if financial considerations are anticipated.

Cooperative Agreements

A list of MOUs that are a high priority for development should be developed along with a list of current agreements that are relevant to facilitating joint rapid response actions.

Example: Aquatic Invasive Species Act Cooperative Agreement (Agreement DO: 083-16)

The Montana Invasive Species Council Presents...

Montana

Invasive Species Awareness Day

You are cordially invited to participate as an exhibitor:

March 1, 2019 - 10 AM—2 PM

Montana State Capitol Building Rotunda

225 North Roberts Street