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### **MONTANA INVASIVE SPECIES COUNCIL**

### **AGENDA**

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

USDA Agriculture Research Service in Sidney, MT. Hybrid meeting.



### **TUESDAY, June 20, 2023**

, , .	
8:30 am - 9:00 am	INTRODUCTIONS Co-Chairs Steve Wanderaas & Tom Woolf Welcome and roll call
9:00 am – 9:30 am	*ACTION: April 12, 2023, meeting minutes Governor's Montana Board Resources Portal New Council Member Updates *ACTION: Open seat nominations
9:30 am – 10:00 am	LEGISLATIVE WRAP-UP SB 293: Invasive Species Posters at MDT Rest Areas - Jason Allen HB 821: Grants for Woody Invasives - Jasmine Chaffee Other Legislative Updates
10:00 am - 10:15 am	BREAK
10:15 am - 11:00 am	communications Workshop for Natural Resource Professionals Woody Invasive Best Practices Workshop/Seminar
11:00 am – 11:15 am	WOOODY INVASIVES WORKING GROUP UPDATES Kelsey Miller & Dan Rostad (invited)
11:15 am - 12:00 pm	FERAL SWINE UPDATES Squeal on Pigs! Campaign and Conference Update Northeast Montana Outreach Tour - Jared Beaver (invited) MOU Agreement Example - Michelle Cox *ACTION: PNWER Summit and NAISMA Conference Attendance
12:00 pm-1:00 pm	LUNCH
1:00 pm - 1:30pm	EASTERN HEATH SNAIL UPDATES Outreach Events - Brent Smith & Gary Adams (invited) Montana Reporting Authority for Snails
1:30 pm - 2:30 pm	PARTNER UPDATES
2:30 pm – 3:00 pm	ARS RESEARCH OVERVIEW Russian Olive, Saltcedar & Flowering Rush - Natalie West
3:00 pm – 3:15 pm	WRAP UP & ADJOURN Location of September meeting Final discussion *Public Comment
3:15 pm - 4:15 pm	Guided Tour of ARS Natalie West

#### **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 Name:	Montana Invasive Species Council			
Date of Meeting:	April 12, 2023	Time:	9:00 AM	
Minutes Prepared	Anna Connerton	Location:	Hauser Dam, Zoom	
By:				

#### **Attendees**

MISC (voting members underlined): Bryce Christiaens, Tom Woolf, Steve Wanderaas, Mike Bias, Jasmine Chaffee, Martin Charlo, Amy Gannon, Leigh Greenwood, Dennis Longknife, Jane Mangold, Sue Mills, Monica Pokorny, Paul Rossignol, Jan Stoddard, Steve Tyrrel, Andy Welch.

MISC staff: Liz Lodman, Anna Connerton

**Other Attendees:** Mark Bostrom, Kima Traynham, Casey Lewis, Arthur Potts, Brent Smith, Phil Matson, Sara Ricklefs, Molly Masters, Amber Burch, Jennifer Riddle.

Agenda and Note	s, Decisions, Issu	es					
Topic	Discussion						
Welcome &							
Roll Call	Chair Bryce Chi	Chair Bryce Christiaens opened the meeting at 9:15 am, conducted roll call and confirmed					
	quorum. Attendees introduced themselves.						
Administrative	Action Item: Ap	proval of De	ecember	13, 202	2, Me	eeting Minutes	
Business	Motion: to app	Motion: to approve the December 13, meeting minutes (Wanderaas). Seconded (Tyrrel).					
Bryce	Motion passed	unanimous	ly.				
Christiaens							
	The fiscal year ends June 30; the balance of accounts are as follows:  MISC Council Budget: about \$18,000 remaining. Reserving \$5,000 for travel expenses for April and June meetings.						
	Category	Standard Budget	Actuals	Pending	Bala	lance	
	Other Services	\$ 20,000		\$ 10,00		9,780 Windfall 629	
	Supplies & Materials Communications	\$ 1,000 \$ 1,000	\$ 5,060	\$ 3,00	\$	(7,060) swag and banners 1,000	
NAICC Durdent	Travel	\$ 5,000	\$ 7,000	\$ 5,00	,	(7,000) April 12 & June 20	
					-		
MISC Budget	Rent	\$ 1,000	\$ 700		\$	300	
_	Utilities	\$ 1,000	\$ -		\$	1,000	
Liz Lodman		· · · · ·	\$ - \$ 13		\$	1,000 987	
_	Utilities Repair & Maintenance	\$ 1,000 \$ 1,000	\$ - \$ 13 \$ 230	\$ 18,000	\$ \$	1,000	
_	Utilities Repair & Maintenance Other Expenses	\$ 1,000 \$ 1,000 \$ 20,000	\$ - \$ 13 \$ 230	\$ 18,00	\$ \$	1,000 987 19,770	
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	Invasive Species Budget: anticipate print, advertisement and travel expenses.				
	Category Standard Budget Actuals Pending Balance				
	Other Services         \$ 111,050         \$ 8,850         \$ 20,000         \$ 82,200         Windfall 629           Supplies & Materials         \$ 500         \$ 10,400         \$ 6,000         \$ (15,900)         ID guides, printing				
	Supplies & Materials         \$ 500         \$ 10,400         \$ 6,000         \$ (15,900)         ID guides, printing           Communications         \$ 500         \$ 9,300         \$ 10,000         \$ (18,800)         advertisements				
	Travel \$ 3,000 \$ 4,600 \$ 1,000 \$ (2,600)				
	Rent				
	Repair & Maintenance \$ 500 \$ 350 \$ 150				
	Other Expenses         \$         218         \$         21,400         \$         (21,182)           TOTALS         \$         116,768         \$         55,050         \$         24,718				
	Both budgets show Windfall contract that will carry over to next fiscal year.				
	Discussion: None.				
	Grant hearings were held February 24 with the applicants and Grant Review				
	Committee of Tom Woof, Andy Welch, Jasmine Chaffee, and Jason Allen.				
	Received 12 applicants, two did not get funded.				
	All grant agreements have been sent to applicants. We are waiting on two				
	applicants to review and sign their agreements.				
	<ul> <li>Flathead Lake Biological Station has issues with funds needed for their</li> </ul>				
	proposal.				
AIS Grant					
	<ul> <li>Clearwater Resource Council just needs to sign their agreement.</li> </ul>				
Applications	<ul> <li>New this year, the applicants had to choose the type of grant proposal: On the</li> </ul>				
Bryce	Ground, Education/Outreach, or Research. Some applicants do a combination of				
Christiaens	Education/Outreach and On the Ground, then choose where the majority their				
Liz Lodman	proposal falls.				
Liz Louinan					
	Discussion:				
	<ul> <li>Is there any money left over? Will we need to do a second round of these?</li> </ul>				
	<ul> <li>No funds are remaining.</li> </ul>				
	At the hearing, only the grant committee members attended. It would be helpful to				
	have more council members attend and add their input.				
	We have good process but could improve how applicants explain their expenses for				
	each task.				
	MISC is interested in assisting in the advancement of eDNA and metabarcoding				
	research.				
eDNA and					
Meta	MISC needs a better understanding of the different types of research, the groups				
Barcoding	conducting this research, and how they relate to each other. Also need to know				
Information	how things have advanced since the eDNA science advisory panel met.				
	The grant review committee discussed holding a workshop and inviting researchers				
Bryce	to share what they are working on.				
Christiaens	<ul> <li>The technology of environmental DNA for aquatic invasive species early detection is</li> </ul>				
T 144 16					
	being accepted more broadly, nationally. The challenge is how to respond to a				
	detection and communicate things appropriately.				

- USGS has received infrastructure funding to expand an early detection network nationwide, Early Detection Rapid Response Information System.
- One grant application asked for 20% of the AIS grant funds for this topic. The applicant proposed relevant questions about repeatability, sensitivity of sample collections, and comparing results with methods like qPCR. The challenge is defining what DNA results mean, how results are communicated, and how to respond. More information is needed on metabarcoding (using one sample to detect multiple species.) If there's not an understanding of what the results mean, then how can it be used as a detection tool.

#### **Discussion:**

- MISC could create a workgroup, invite the appropriate people, and moderate a discussion about this complex subject.
- Look into a fall meeting, after field season, and invite entities like Flathead Lake Biological Station, Rocky Mountain Research Station, and USGS to provide information and help MISC understand this science and where there are gaps.
- If this topic is of interest to others outside of Montana, information could be shared at the AIS Short Course (spring 2024) or NAISMA conference (fall 2024).
- A hybrid webinar could allow national experts to participate. Panelists from the first eDNA Science Advisory Panel should be invited to discuss.
- A work group should determine timing, format and questions for a meeting/workshop on this topic. Work group is Tom Woolf and Steve Wanderaas.

### Legislative Updates

Liz Lodman

**Casey Lewis** 

Jasmine Chaffee **SB 293:** Requires posters related to invasive species at MDT rest areas. MISC would create and print posters and provide MDT for display at 49 rest areas. Would like a couple MISC members to help with the message and design concept. Passed both houses.

**SB 83:** Creates the Western Montana Conservation Commission that combines the Upper Columbia Conservation Commission (UC3) and the Flathead Basin Commission. Passed Senate, passed House with amendments, back to Senate.

**HB 821:** Appropriate \$500,00 to Department of Agriculture for control of woody invasives in three counties. Passed House, now in Senate.

## MISC • Workplan

Documents Review

Bryce Christiaens

#### Review of MISC Workplan Documents

• <u>MISC Work Plan</u>: This one-page document provides a snapshot of the MISC projects for the next 4 years.



## MISC Workplan Documents Review

Bryce Christiaens • MISC <u>Work Plan for 2023-2026:</u> Multi-page document provides details about the development and process of the work plan projects.

#### Work Plan for 2023-2026

### Montana Invasive Species Council - MISC

1.	Top 10 Invasive Species to Watch
2.	Quantify the Impacts of Invasive Species
3.	Science Advisory Panels
<b>4</b> .	Focused Efforts to Improve Programs and Increase Capacity

#### Discussion: Full Work Plan for 2023–2026

- o MISC staff will modify the document to make it look nicer.
- Question about Woody Invasive Task Force noted on page 10, who is leading this effort and what is the plan moving forward?
  - MWCA applied for a Noxious Weed Trust Fund Grant to support this effort, Kelsey Miller is currently the contact. They expect to contract with ISAN.
  - Need clarification on the group's structure, participants, and goals, so there is a common understanding of the group and the purposed work.
  - Should it be a "Working Group" rather than a "Task Force"?
  - MT Dept of Agriculture will work closely with this group.
  - Will this group ultimately seek additional funding from Montana Legislature?
  - The Yellowstone Conservation District Council thru Custer County CD received the Noxious Weed Trust Fund Grant. They are meeting in Billings on May 11<sup>th</sup>.
- <u>Invasive Species to Watch</u>: This is a list of plant and animal species from different habitats that MISC can use to raise awareness and for educational purposes.



## MISC Workplan Documents Review

Bryce Christiaens

#### **Discussion:** Invasive Species to Watch

- Note that to avoid misunderstanding this document is no longer called "Top 10 Invasive Species" because the species aren't ranked or in any priority.
- MISC chose 10 species to highlight but only 9 are on the document. MISC is still in discussion with FWP about the invasive fish to highlight.
- There needs to be a discussion about bucket biology and the movement of game fish (both warm water and cold water); and include the fish advocacy groups.
- Not listing a fish species is conspicuous in its absence.
- Bryce will communicate with FWP Director's office after the legislative session is over for a plan to continue this discussion.
- Was there a discussion about a fish species that is not here but is known to be a problem elsewhere, like Asian Carp?
  - Species on the list were suggested by stakeholders at the listening sessions or Summit; Asian carp wasn't mentioned but Northern pike and walleye were. The reality is -- people move fish they value and want to fish.
- Should regulated game fish be considered an invasive species when there are rules and regulations about game fish?
- Should we add a statement at the top of this sheet to indicate how the list was developed such as "this list is a result of input from a stakeholders during 2022 listening session and summit"?
- Could the invasion curve be moved from bottom of second page to top of first page?
  - The invasion curve graphic is in the place where the invasive fish was supposed to be located.
- <u>Fact sheets</u>: These will provide more details on each species including distribution, economic/environmental impacts, authorities, pathways (use symbols developed by Oregon), action the public should take, where to report, etc. For "associated species" list related species only when appropriate, i.e. for Saltcedar, list common buckthorn and Russian olive. Feral swine is the example fact sheet.

#### **Discussion:** Fact Sheets

- Can the species experts fill in the fact sheet information.
  - Suggested that MISC do the first draft then provide fact sheets to species experts to review and edit. Could make them more consistent. Aim to provide in June.
  - Check the section that has a quote.

- Add information about diseases if the species is a vector for disease (feral swine).
- o The species experts who will review the fact sheets are as follows:

**Bullfrogs:** Torrey Ritter and Bryce Maxell

**Eastern Heath Snail:** Gary Adams and Jeff Littlefield **Emerald Ash Borer:** Leigh Greenwood and Amy Gannon

Feral Swine: Jared Beaver and Marty Zaluski

Flowering Rush: Virgil Dupuis and Jane Mangold/grad student

Rush Skeletonweed: Jasmine Chaffee and Jane Mangold

**Saltcedar:** David Weaver **Zebra Mussels:** Tom Woolf

**Ventenata:** Jane Mangold and Jasmine Chaffee **Fish Species:** Tom Woolf suggests Eileen Ryce

## MISC Workplan Documents Review

Bryce Christiaens • <u>Storymap</u>: This provides more information about the species in a visual format. Staff at the Natural Heritage Program drafted this version to be reviewed by the species experts. The story map will go beyond what is provided in the fact sheets. Probably will be finished next winter.

#### **Discussion:** Diseases

- O What is MISCs role in diseases threats?
  - When MISC was created it was determined that human health diseases are not in MISC's purview, MISC members don't have that type of expertise.
  - Need further discussion about diseases/pathogens where MISC might play a role like diseases that arrive on plants (karnal bunt, Dutch elm disease, root rot). Need more information about diseases that cross taxonomic groups into humans (equine encephalitis, west Nile virus, avian malaria, HP avian influenza). How do we define this jurisdiction before it becomes a problem?
  - Suggest a future tabletop exercise or webinar series on zoonotic diseases. Need information from experts in this field (MT Dept of Health or CDC) and define what MISC's role should be.
- Science Advisory Panel (pages 7-9 of Work Plan for 2023-2026): Develop a process
  to assess the potential invasiveness of a species by effectively quantifying its impact
  to Montana's economy and environment?
  - There are experts outside of Montana that could provide models to adopt rather than create something new. (Horizon scanning done by USFWS and USGS, <u>Deah Lieurance webinar</u>, mid-west states aquatic risk assessment, APHIS-PPQ modeling).

O Quantifying impacts (economic/environment) is different from risk assessment (horizon scanning).  O Looking at pathways (mechanisms for arrival) and prevention; could invasive species be prevented if efforts were doubled.  Is this a 2-tired process — model/access potential invasiveness to Montana, if it reaches a certain threshold then quantify impacts.  Co-chairs: Bryce Christiaens, Tom Woolf, Gary Adams. Bryce will organize meeting and identify panelists.  Focused Efforts (page 10 of Work Plan for 2023-2026): These topics were identified to improve programs and increase capacity.  • Education and communication training for natural resource professionals to (1) help managers improve their communication with the public on topics that are technical or confusing, (2) learn how to work with the media (advertisements, social media, interviews), (3) use community-based social marketing.  Do either MSU or UM have experts we could tap for help?  Can we survey managers about what they want to learn.  Check if other states have done this type of training.  Can participants leave with a communication plan. Check with Tom Dickson's POM-T method.  Co-chairs: Liz Lodman, Jane Mangold, possibly Jan Stoddard.  Workplan  Activities  Liz Lodman  Support woody invasive species management and research coordination. Develop 'best practices' for woody invasives mitigation. Support the Woody Invasive Task Force plan.  When, where, how to control; use of biocontrol; how to remove/dispose; prevent secondary invasions; population dynamics.  Russian olive is not listed as a noxious weed and complicates this issue.  Southwest Us has been dealing with this issue for 40+ years, look at their resources to assist.  Look at the Center for Invasive Species Management at MSU, Scott Bockness has information.  Russian olive work at Ft. Keogh near Miles City. (Natalie West – ARS)  The planning stage and ecological assessment at the landscape level is important to have everyone on the same page.  What states that have done this work: South Dakota		
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- They hosted sessions at the <u>Pacific NorthWest Economic Region</u> Summit last year in Calgary; Liz and Steve W attended.
- Feral swine sessions will be offered at <u>2023 PNWER Summit</u> this year in Boise on July 18-19. In addition, a full day of feral swine surveillance, detection, and trapping equipment and methods is being added.
- DNRC has applied for a USDA-APHIS grant to support the PNWER conference and pay for Liz's travel to attend.
  - The USDA-APHIS grant will also support the creation of an international Squeal on Pigs! website. This provides a single location for people to learn about feral swine, how to report, provide links to state/provincial agency websites, find updated logo files, etc. University of Georgia will be the contactor.
- Does MISC want to send someone to PNWER?

#### **USDA-Wildlife Services**

- Update on Feral Swine -- Kraig Glazier, Western District Supervisor
  - October: report near Havre that looked like a trail in a field. Investigation found someone had dragged an antelope from the field to the road.
  - More recently: report near Dodson. Investigated for 2 days on ground and aerial surveillance but didn't detect anything.
  - In the winter during normal operations to reduce predation of coyotes on calves and lambs, they also do aerial surveillance (fixed wing and helicopter) along border, mostly near Saskatchewan. No detection of swine or sign.
  - Plan to do surveillance in Sweetgrass Hills area in May or June this year.
- Update on Starlings -- Doug Ekberg, Eastern District Supervisor
  - Was contacted by Billings business (agriculture and urban) about starling impacts and damage (crop damage, consuming feed, feces clean up, human health risks).
  - o Their survey estimated 40,000 to 50,000 birds in Yellowstone County area.
  - Used a pesticide that only starlings eat where they ingest, metabolize and excrete within 2 hours. Can take 24 to 48 hours to expire.
  - One treatment removed 10,000-12,000 starlings.
  - Mostly positive comments very few negative comments once they explain the project.

#### **Discussion:**

- Are there corrective actions that can be taken to prevent this from being cyclical?
  - Yellowstone county has several feed lots and people creating habitat so it could be difficult to control. That would be a big picture issue for the local authorities.

	<ul> <li>Do we know about the fidelity of starlings for their range? Did this action</li> </ul>
	clear the way for new starlings or did it affect birds more resident to the
	area?
	<ul><li>The control work is done in the winter with over-wintering</li></ul>
	populations and not migrant populations. Startling have detrimental
	effect on cavity nesters like blue birds, woodpeckers, and martins. So
	this should create more habitat for those species.
	<ul> <li>Sharing the beneficial effects would be helpful with messaging.</li> </ul>
	Nine MISC representative have terms ending as of 5/1/2023. To reapply or apply for a
	MISC position go to: <a href="https://governor.mt.gov/boards">https://governor.mt.gov/boards</a> appointments/ and search 'Invasive
	Species Council.'
	Jasmine Chaffee – Department of Ag DESIGNEE (will reapply)
	Bryce Christiaens – County Weed Districts
	Bob Cloninger – Department of Transportation DESIGNEE
	Gerald Cobbell – Blackfeet Nation
	Amy Gannon – DNRC DESIGNEE
24100	Leigh Greenwood – Conservation Organization
MISC	Jane Mangold – MSU Extension
Appointment	Steve Tyrrel – Agriculture Representative (will reapply)
Terms	Steve Wanderaas – Conservation Districts (will reapply)
Liz Lodman	
	Discussion:
	<ul> <li>Please share these opportunities with groups that make sense.</li> </ul>
	Is there correspondence or a letter from MISC or the Governor's office that could
	be shared about these vacancies? Will we be able to fill positions by the June 20 <sup>th</sup>
	meeting? Can you send a news release about this?
	<ul> <li>Liz will follow-up on these questions.</li> </ul>
	The Chair is appointed by the Governor. Will the council have input on who the
	chair will be?
	The MISC co-vice chairs will run the meetings until the chair is appointed.
	Final Discussion:
	Location for the next meeting will be in Sidney on June 20 <sup>th</sup> at the Agriculture Research
	Service. The MISC meeting precedes the River Rendezvous, MRCDC meeting, and CMR
	Working Group meeting in Jordan.
Wrap-up	
Adjourn	<ul> <li>Woolf/FWP: Three mussels fouled vessels have been intercepted, 2 boats and 1</li> </ul>
	barge. Stations are opening and hiring is going better than last year.
	Wannderaas/CEMIST: April 25 hosting an Eastern Heath Snail meeting in Stanford.
	April 27 Steve will attend the invasive grasses forum in Bell Fouche.
	Mangold/MSU: April 19 Jane is the speaker for a Ventenata webinar.
L	pg. 9

- Gary Adams, Jeff Littlefield and Liz will speak at the Greater Yellowstone
   Coordinating Council-- Terrestrial Invasive group meeting about feral swine and EHS on April 18.
- Welch/Hydropower: Andy will share the North Western Quarterly Magazine with Liz for possible collaboration.
- Longknife/Ft Belknap: Tribe will have an Earth Day celebration, needs donations.
- Stoddard/Commerce: April 23-25 is Governor's Conference on Tourism in Helena,
   MISC has a booth. Rolling out new marketing program and will be working with
   Leave No Trace program.

**Public Comment: None** 

Motion: to adjourn (Mangold). Seconded (Woolf)

Motion passed unanimously. Meeting adjourned: 2:10 pm

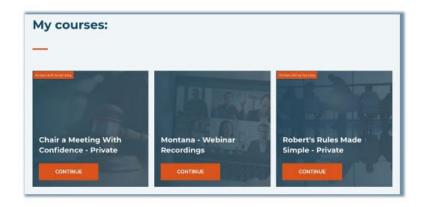
## **Governor's Montana Board Resources Portal**

https://robertsrulesmadesimple.com/montana



MONTANA BOARD MEMBERS:

## Welcome to the: Montana Board Resources Portal



#### WHAT YOU WILL LEARN:

- · The basics of Robert's Rules of Order
- The "7 Fundamental Motions"
- · How to chair meetings
- How to make your meetings more efficient
- · And much more!

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68th Legislature 2023 SB 293



AN ACT REQUIRING THE PLACEMENT OF POSTERS RELATED TO PREVENTING THE SPREAD OF INVASIVE SPECIES AT PUBLIC REST AREAS; AND AMENDING SECTIONS 60-2-244 AND 80-7-1203, MCA.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF MONTANA:

**Section 1.** Section 60-2-244, MCA, is amended to read:

"60-2-244. Human trafficking hotline -- posted notice required at rest areas. Posted notice required at rest areas -- human trafficking hotline -- invasive species prevention. The department of transportation shall display at each rest area within the limits of the right-of-way of interstate highways and other state highways:

- (1) a poster created by the department of justice pursuant to 44-4-1501 that provides information regarding the national human trafficking resource center hotline-; and
- (2) a poster created by the invasive species council pursuant to 80-7-1203 that provides information related to preventing the spread of invasive species."

Section 2. Section 80-7-1203, MCA, is amended to read:

"80-7-1203. Duties -- reporting -- definition. (1) The invasive species council shall:

- (a) provide policy level recommendations, direction, and planning assistance for combating infestations of invasive species throughout the state and preventing the introduction of other invasive species;
- (b) foster cooperation, communication, and coordinated approaches that support federal, state, provincial, regional, tribal, and local initiatives for the prevention, early detection, and control of invasive species;
  - (c) identify, coordinate, and maintain an independent science advisory panel that informs



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68th Legislature 2023 SB 293

Montana's efforts based on the current status, trends, and emerging technology as they relate to invasive species management in Montana;

- (d) in coordination with stakeholders, identify and implement priorities for coordination, prevention, early detection, rapid response, and control of invasive species in Montana;
  - (e) champion priority invasive species issues identified by stakeholders to best protect the state;
- (f) advise and coordinate with agency personnel, local efforts, and the scientific community to implement program priorities;
  - (g) implement an invasive species education and outreach strategy;
- (h) create a poster that provides information related to preventing the spread of invasive species and provide copies of the poster to the department of transportation for display at rest areas;
  - (h)(i) work with regional groups to coordinate regional defense and response strategies; and
  - (i)(j) work toward establishing and maintaining permanent funding for invasive species priorities.
- (2) The council may receive and, subject to appropriation by the legislature, expend donations, gifts, grants, and other money necessary to fulfill its duties.
- (3) The council shall report on its activities to the governor, the director of the department of natural resources and conservation, and the environmental quality council in accordance with 5-11-210 annually.
- (4) For the purposes of this part, "invasive species" means plants, animals, and pathogens that are nonnative to Montana's ecosystem and cause harm to natural and cultural resources, the economy, and human health."

- END -

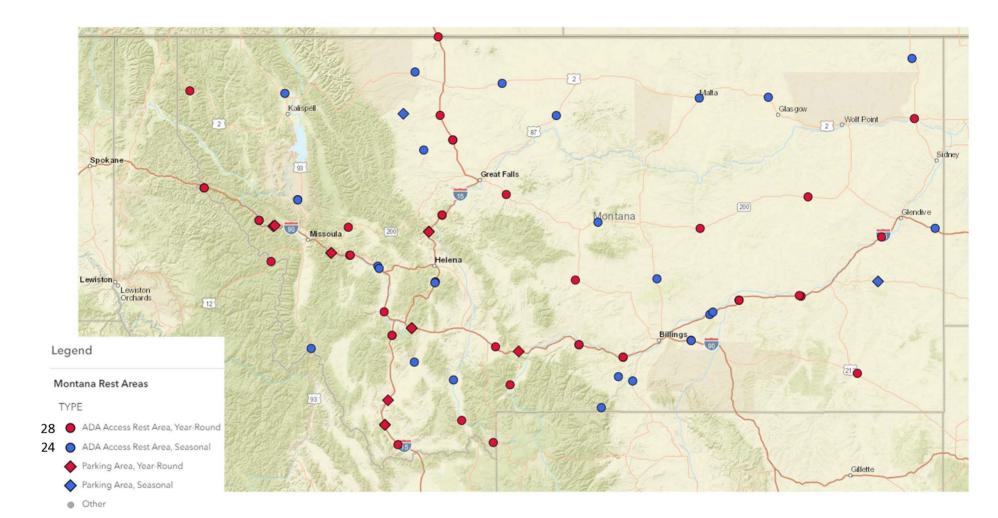


I hereby certify that the within bill,	
SB 293, originated in the Senate.	
Secretary of the Senate	
President of the Senate	
Signed this	day
of	, 2023
Speaker of the House	
Signed this	
of	, 2023

#### SENATE BILL NO. 293

INTRODUCED BY M. NOLAND, M. CUFFE, J. COHENOUR, C. GLIMM, G. HERTZ, W. CURDY, J. ELLIS, S. GUNDERSON, D. FERN, D. LOGE, S. VINTON, N. DURAM, M. MARLER, T. VERMEIRE

AN ACT REQUIRING THE PLACEMENT OF POSTERS RELATED TO PREVENTING THE SPREAD OF INVASIVE SPECIES AT PUBLIC REST AREAS; AND AMENDING SECTIONS 60-2-244 AND 80-7-1203, MCA.





AN ACT APPROPRIATING MONEY TO THE DEPARTMENT OF AGRICULTURE FOR GRANTS TO ASSIST YELLOWSTONE, MUSSELSHELL, AND STILLWATER COUNTIES TO COMBAT SALTCEDAR, RUSSIAN OLIVE, AND COMMON BUCKTHORN SPECIES; AND PROVIDING AN EFFECTIVE DATE.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF MONTANA:

**Section 1.** Appropriation. (1) There is appropriated \$250,000 from the general fund to the department of agriculture for one time only for the biennium beginning July 1, 2023, for the purpose of providing grants as outlined in subsection (2).

(2) By August 1, 2023, the department of agriculture shall provide grants to the appropriate local entities of Yellowstone, Musselshell, and Stillwater Counties for the purpose of managing and controlling existing infestations of saltcedar, Russian olive, and common buckthorn species within these three counties. An application for the grant must be submitted to the department and grants must be awarded to applicants with the best opportunity for successfully controlling the identified woody invasive species. The department shall use the same standards set forth in Title 4, chapter 5, subchapter 1, ARM, for these grants.

**Section 2.** Effective date. [This act] is effective July 1, 2023.

- END -



I hereby certify that the within bill,	
HB 821, originated in the House.	
Chief Clerk of the House	
Speaker of the House	
Signed this	day
of	_
President of the Senate	
Signed this	-
of	, 2023.

#### HOUSE BILL NO. 821

#### INTRODUCED BY M. MALONE

AN ACT APPROPRIATING MONEY TO THE DEPARTMENT OF AGRICULTURE FOR GRANTS TO ASSIST YELLOWSTONE, MUSSELSHELL, AND STILLWATER COUNTIES TO COMBAT SALTCEDAR, RUSSIAN OLIVE, AND COMMON BUCKTHORN SPECIES; AND PROVIDING AN EFFECTIVE DATE.

#### eDNA & Meta Barcoding Information Needs

Committee: Tom, Steve W.

- Need to learn more about these research/detection methods for a better understanding of how they would apply in Montana. What are Montana's gaps and needs. Need more information on the process, application, and how to interpret results.
- What are other tools that can be used (qPCR).
- Here from the 3 entities who currently use these methods in Montana.
  - o Flathead Lake Bio Station Gordon Luikart, Leif Howard
  - USGS Adam Sepulveda, John Amberg
  - Rocky Mountain Research Station-National Genomics Center Taylor Wilcox
- Ask mussel eDNA Science Advisory panelists to participate.
- Ask NAISMA to do a webinar on this topic.

#### <u>Invasive Species to Watch – Fish Species</u>

Committee: Bryce, Tom

- Bryce talk to FWP-Dustin about next steps to determine fish species that is listed. Elevate the topic of "bucket biology" to invasive species.
- People move fish around that they want to catch (northern pike, walleye, smallmouth bass), not junk fish like carp.

#### Science Advisory Panel – Process to Access Potential Invasiveness of a Species

Committee: Bryce, Gary, Tom, Michelle

- Look at pathways, vectors and climate.
- Access impacts
- How do these topics fit together for horizon scanning?
- Create a risk assessment template.
  - o Check examples from USFWS and Mid-West
- Potential contract for facilitating SAP.

#### Communications Workshop for Natural Resource Professionals

Committee: Liz, Jan, Jane

- See if a university can help plan this workshop potential contract with university.
  - o Jane MSU
  - o Bryce UM
- Work plan item to help natural resource professionals communicate with public, using media/social media, and create a communication plan.
- Ask MWCA Kelsey about non-profit that helps with this?
- Ask FWP Tom Dickson to lead POAM-T planning.

#### Woody Invasives Best Practices Workshop/Seminar

Committee: Jasmine, Liz, Sarah (ISAN)

- Topics: factors at play with infestation, removal methods, 2<sup>nd</sup> invasion of plants after disturbance, bio-control, Natalie West Russian Olive removal at Fort Keogh.
- Check with other states who do this type of work.
- Work with Woody Invasives Task Force Work Group to help plan.
- Potential contract with conservation district to host workshop and pay for panelist expenses.



The sessions are a partnership with the Transboundary Feral Swine; the PNWER Invasive Species; the Cross-Border Livestock Health Working Groups and USDA APHIS. The sessions will explore the challenges and risks to the region. Feral Swine [wild pigs] can transmit dangerous diseases to humans and livestock, as well as damage the economy and environment in both the U.S. and Canada. The Transboundary Feral Swine and Technical Assistance sessions will showcase the challenges and important work the region is doing to respond as well as mitigate the risk from Wild Pigs.

**July 18-19, 2023** 

## **AGENDA**

Subject matter expert presentations and moderated panel discussions will explore

- Economic Impacts and Risk
- Mitigation and Response
- Action Management Planning

#### **Technical Assistance**

- Trapping
- Drones and Thermal Imaging
- Dog Detection
- Survelliance & eDNA

The Pacific NorthWest Economic Region's Annual Summit July 16-20 will bring together over 500 key government and business leaders from the U.S. and Canada to address the key policy issues facing the region.

RegisterHere: https://bit.ly/PNWER-Invasive-Species











# MEMORANDUM OF UNDERSTANDING AMONG:

UNITED STATES DEPARTMENT OF AGRICULTURE, ANIMAL AND PLANT HEALTH INSPECTION SERVICE, WILDLIFE SERVICES (APHIS-WS); MISSOURI DEPARTMENT OF HEALTH AND SENIOR SERVICES (DHSS); MISSOURI DEPARTMENT OF AGRICULTURE (MDA); USDA, APHIS, VETERINARY SERVICES (USDA-APHIS-VS); MISSOURI DEPARTMENT OF CONSERVATION (MDC); MISSOURI DEPARTMENT OF NATURAL RESOURCES (DNR); U.S. ARMY CORPS OF ENGINEERS (USACE) (Includes: St. Louis, Little Rock, and Kansas City Districts); USDA FOREST SERVICE, MARK TWAIN NATIONAL FOREST (FS); UNITED STATES FISH AND WILDLIFE SERVICE (USFWS); OZARK NATIONAL SCENIC RIVERWAYS (ONSR) of the NATIONAL PARK SERVICE (NPS); and

TO ELIMINATE FERAL SWINE FROM MISSOURI

This MEMORANDUM OF UNDERSTANDING (MOU) is hereby made and entered into by and between the partners listed above, hereinafter referred to as "Missouri Feral Hog Partnership,"

#### I. BACKGROUND

At one time, Missouri had a large population of feral swine. These animals originated from domestic stock released onto open range, especially during years of heavy acorn production in the Ozarks. In the early 1960's feral swine populations were believed to exist in only three small areas in Southeastern Missouri. An estimate of the feral swine population at that time did not exceed 1000 animals. (McKnight 1964; Lewis 1965) On January 01, 1969, the Missouri state legislature put into effect a closed range law outlawing unconfined livestock. As a result, feral swine were virtually eliminated in Missouri by the mid-1970s. (Mayer et.al. 1991) Then with the domestic swine market crash of the late 70's and early 80's, some domestic pigs were released into the wild. The intentional and illegal release of swine beginning in the late 1980s on public land spread feral swine populations to new areas.

By the 1990s the feral swine population in Missouri was growing rapidly. Interest in feral swine hunting and the importation and illegal release of feral swine from other states made the problem worse. Raising European wild boar as a form of alternative agriculture and for hunting on licensed shooting areas gained popularity. With lax fencing standards, escapes from these facilities were common. Since feral swine are very adaptable and prolific, it didn't take long until their numbers expanded across a large portion of southern Missouri.

By the end of the 1990s multiple agencies were receiving damage complaints from private landowners as swine hunting interest continued to grow. Intentional illegal releases were the number one way that feral swine expanded their range into new areas.

To address this growing problem the first cooperative working group for feral swine in Missouri was established in 1998 as the Missouri Feral Hog Task Force. The first MOU was signed and implemented shortly thereafter.

On August 30, 2007, Governor Matt Blunt signed Executive Order 07-26, thus creating the Governor's Feral Hog Task Force, in recognition of the danger and destruction caused by the feral swine population in Missouri.

These previous task forces were created to elevate the response to the seriousness of feral swine in Missouri by bringing together administrators and decision makers from selected agencies and organizations.

#### I. TITLE: Missouri Feral Hog Partnership

#### II. PURPOSE:

The purpose of this (MOU) is to establish a working relationship among the signatories who agree to eliminate feral swine from Missouri and to support the concepts and goals set out in this MOU. The signatories to this MOU desire a unified response to the serious threat of feral swine in Missouri, and agree that the danger, damage, and destruction caused by the feral swine population in Missouri must be stopped.

#### III. STATEMENT OF MUTUAL BENEFIT AND INTERESTS:

For the purposes of statewide consistency, a "feral hog or feral swine" shall be defined as "any hog or swine, not conspicuously marked with an ear tag or other identifying mark and roaming freely on public or private land without the landowner's permission."

Feral swine must be eliminated for the following reasons:

- Feral swine are not native to Missouri.
- Feral swine are known to occur in approximately 40 counties in Missouri, with established populations in 28 counties on public and private land from a variety of sources including illegal releases by individuals desiring to establish swine populations to hunt.
- Feral swine threaten the forest, fish, and wildlife resources, and these resources generate over \$10.5 billion dollars annually in economic benefit to Missouri.
- Feral swine have been known to carry or transmit over 30 diseases and 40 parasites that can be transmitted to livestock, people, pets, and wildlife.
- Risks and threats associated with known feral swine diseases have been steadily increasing in recent years. Diseases such as pseudorabies and swine brucellosis have been eliminated from the U.S. domestic swine industry, but circulate in feral swine. Risk assessments and models have shown the importance of addressing foreign animal diseases such as classical swine fever and foot-and-mouth disease in feral swine due to the ability of these viruses to remain unchecked and spread throughout the U.S.
- Some estimates value the domestic swine industry at over \$22 billion, and a single incursion of classical swine fever or foot-and-mouth disease would devastate the industry and U.S. economy. In Missouri, agriculture generates over \$88 billion dollars of income to the state's economy.

- If a foreign animal disease, such as foot-and-mouth disease or classical swine fever, were to enter the United States, feral swine could spread the disease to domestic swine or other susceptible animals.
- Missouri ranks 7<sup>th</sup> nationally in the production of swine (hogs and pigs), with annual sales estimated to be approximately 1 billion dollars. Thousands of swine move into and out of Missouri on a weekly basis. Maintaining the health status of Missouri swine is crucial to prevent additional cost of testing, and loss of domestic and international markets to our swine producers.
- In 2015 Missouri ranked 4<sup>th</sup> nationally in cow/calf operations and 9<sup>th</sup> in gross income derived from cattle sales.
- Missouri made 179.8 million from exported beef and veal in 2014.
- Missouri made 311.5 million from exported pork in 2014.
- Feral swine can carry several diseases that affect domestic swine, such as pseudorabies, brucellosis, porcine reproductive and respiratory syndrome (PRRS), swine influenza and Trichinellosis.
- The World Conservation Union, Invasive Species Specialist Group has labeled feral swine as one of the "World's Worst Invasive Alien Species."
- Feral swine directly and indirectly damage natural communities, destroy
  agricultural crops, compete with native wildlife, and serve as reservoirs of
  disease.
- Recent population models in Missouri estimate an annual population growth rate of 166% if no actions are taken to eliminate feral swine.
- Based on these models, an estimated 62% of the population would need to be removed annually to stabilize population growth and 71% percent of the population would have to be removed annually to cause decline.

#### IV. PRINCIPLES OF AGREEMENT:

In consideration of the above premises, the parties agree as follows:

- Combine their respective skills, experience, and expertise to develop a collaborative effort and strategy to eliminate feral swine in Missouri.
- Work together, within their respective statutory mandates to cooperate in the elimination
  of feral swine on private and public land by utilizing, to the extent possible, funds, staff,
  and equipment.
- Continue seeking and targeting funds, commensurate with statutory authority, to eliminate feral swine, and utilize those funds, as allowed, assisting private landowners and federal and state land management agencies to that end.
- Review their current policies and consider amendments through proper agency channels that will expedite the elimination of feral swine on private and public land.
- Provide a representative or contact person to a Missouri Feral Hog Partnership
  established to eliminate feral swine from Missouri and to receive and provide feedback,
  suggestions, and information as long as feral swine continue to exist in Missouri.
- Communicate relevant information concerning feral swine populations and elimination efforts to appropriate personnel when necessary to fulfill the obligations of this agreement.
- Collect reports and general information on feral swine populations and share such information with APHIS-WS and MDC for entry into a database system.
- Participate in education and information efforts on the problems with feral swine as budgets and priorities allow through the following applicable means: news releases; radio and television programs; websites; magazines; nature/visitor centers, or other related public offices; publications; fairs, and other public events.
- Agree to support MDC in its decision to ban take of feral livestock on lands owned, leased, and managed by MDC.
- Agree to pursue the banning of feral swine take/hunting on all lands owned or managed by cooperating agencies.

A. Furthermore, each agency agrees to cooperate in efforts to monitor, control, and eliminate feral swine in Missouri as follows:

#### 1. The Missouri Department of Conservation (MDC) agrees to:

- A. Co-Chair the Missouri Feral Hog Partnership with MDA.
- B. Work directly with signatories to coordinate 2 meetings of the Feral Swine Partnership annually or as required.
- C. Involve MDC staff in cooperative efforts to define feral swine distribution and maintain a GIS database, collect blood samples and eliminate feral swine on MDC-owned and leased lands, and to assist private landowners in control efforts on their properties as budgets and priorities allow.
- D. Cooperate in the apprehension and prosecution of individuals involved in activities that violate federal and state statutes and/or agency regulations pertaining to the illegal release, movement, and hunting of feral swine and recommend and support changes in state statutes that will facilitate feral swine elimination.
- E. Review agency regulations pertaining to feral swine, and seek changes needed to facilitate their elimination.
- F. Authorize personnel of signatory agencies, including respective contractors, to participate in direct feral swine control activities on MDC-owned/leased land when requested by MDC.
- G. Provide technical advice on feral swine elimination to all signatories of this document.
- H. Provide technical advice on feral swine elimination to private landowners.
- I. Publish and reprint as necessary, and subject to budgetary constraints, brochures and other informational materials on feral swine.
- J. Specifically designate and maintain MDC's feral swine webpage as the official site for Missouri feral swine information, and allow links to be posted on signatory agency websites.

## 2. USDA, Animal and Plant Health Inspection Service –Wildlife Services (APHIS-WS) agrees to:

- A. Provide a Wildlife Biologist that will coordinate activities directly with cooperating agencies and their employees to assist in all aspects of feral swine elimination.
- B. Provide Wildlife Specialists dedicated to feral swine trapping as their main area of responsibility.
- C. Coordinate field activities with MDC regional Feral Hog Coordinators on a weekly basis.
- D. Use agency aircraft as available for monitoring and eliminating feral swine populations in Missouri.
- E. Provide technical advice on feral swine elimination to all signatories of this document.
- F. Provide technical advice on feral swine elimination to private landowners.
- G. Loan traps/gates and otherwise assist other state and federal agencies in direct feral swine elimination efforts on their land.
- H. Collect blood and tissue samples as directed by the National Feral Swine Program and USDA-APHIS-VS to monitor feral swine diseases in Missouri.
- I. Maintain a Missouri Feral Swine GIS Database to track feral swine distribution, abundance, and disease occurrence with the assistance of the signatory agencies.
- J. Notify MDA, MDC and DHSS of disease test results and locations.
- K. Publish and reprint as necessary, and subject to budgetary constraints, brochures and other informational materials on feral swine.
- L. Work directly with signatories to coordinate 2 meetings of the Feral Swine Partnership annually or as required.

#### 3. The Missouri Department of Agriculture (MDA) agrees to:

- A. Co-Chair the Missouri Feral Hog Partnership with MDC.
- B. Develop a standardized definition of feral swine for all agencies to agree upon.
- C. Involve MDA staff in cooperative efforts to define feral swine distribution, collect blood samples, and pursuant to federal and state law eliminate feral swine on private and public land as budgets and priorities allow.
- D. Cooperate in the apprehension and prosecution of individuals involved in activities that violate federal and state laws and/or agency regulations resulting in the illegal release and movement of feral swine, and recommend and support changes in state statutes that will facilitate feral swine elimination.
- E. Review agency regulations pertaining to feral swine, and seek changes needed to facilitate their elimination.
- F. Publish and reprint as necessary, and subject to budgetary constraints, brochures and other informational materials on feral swine.
- G. Coordinate feral swine control efforts with personnel of signatory agencies, including respective contractors.
- H. Assist in identify feral swine diseases for required testing.
- I. In the event of a disease incident, MDA would be the lead agency to coordinate disease response.

#### 4. The USDA, APHIS, Veterinary Services agrees to:

- A. Coordinate feral swine control efforts with MDA.
- B. Assist in defining feral swine distribution in the state.
- C. Assist in identifying feral swine diseases for required testing.
- D. Assist in identifying feral swine diseases that may be of interest and concern to Missouri and nationally.
- E. Provide personnel, sampling equipment and necessary resources in times of targeted sampling efforts during outbreak events.

#### 5. The Missouri Department of Natural Resources (DNR) agrees to:

- A. Involve DNR staff in cooperative efforts to define feral swine distribution, collect blood samples, and eliminate feral swine on DNR-owned and leased lands, and coordinate with landowners in the immediate vicinity of state parks in control efforts on their properties as budgets and priorities allow.
- B. Authorize personnel of signatory agencies, including respective contractors, to participate and advise in feral swine trapping and elimination activities on DNR-owned/leased land when requested by state park management.
- C. Cooperate in the apprehension and prosecution of individuals involved in activities that violate federal and state statutes and/or agency regulations pertaining to the illegal release, movement, and hunting of feral swine.
- D. Review agency regulations pertaining to feral swine and seek changes needed to facilitate their elimination.

## 6. The U. S. Army Corps of Engineers (USACE), St. Louis District, Kansas City District, and Little Rock District agree to:

- A. Involve Corps of Engineers staff in cooperative efforts to define feral swine distribution, collect blood samples, and eliminate feral swine on Corps of Engineers fee-owned lands as budgets and priorities allow.
- B. Allow feral swine trapped on Corps of Engineers fee-owned lands by Corps of Engineers personnel to be dispatched by duly sworn law enforcement officers.
- C. Authorize personnel of signatory agencies, including respective contractors, to participate and advise in feral swine trapping and elimination activities on Corps of Engineers fee-owned land when requested by USACE personnel.
- D. Cooperate in the prosecution of individuals involved in the illegal release and movement of feral swine on USACE property, and recommend and support changes that will facilitate feral swine elimination.

#### 7. USDA, Forest Service, Mark Twain National Forest, (FS) agrees to:

- A. Involve FS staff in cooperative efforts to define feral swine distribution, collect blood samples and control/eliminate feral swine on FS-owned lands as budgets and priorities allow.
- B. Pursue and use targeted federal funds, to the extent that appropriations allow, for the elimination of feral swine in Missouri.
- C. Cooperate in the apprehension and prosecution of individuals involved in the illegal release and movement of feral swine on National Forest lands.

- D. Review agency regulations pertaining to feral swine, and seek changes needed to facilitate their elimination.
- E. Authorize personnel of signatory agencies, including respective contractors, to participate in direct feral swine control activities on FS-owned land when requested by the appropriate Forest Service Line Officer.

#### 8. U. S. Fish & Wildlife Service (FWS), National Wildlife Refuges agree to:

- A. Involve FWS staff in cooperative efforts to define feral swine distribution, and assist in the elimination of feral swine on FWS-owned lands as budgets and priorities allow.
- B. Pursue and use targeted federal funds, to the extent that appropriations allow, for the elimination of feral swine in Missouri.
- C. Utilize refuge specific guidance documented in current Comprehensive Conservation Plans or other resource management plans in the control/elimination of feral swine on FWS lands.
- D. Authorize personnel of signatory agencies, including respective contractors, to participate in direct feral swine control activities on FWS-owned land when requested by the refuge manager.
- E. Cooperate in the apprehension and prosecution of individuals involved in the illegal release and movement of feral swine on National Wildlife Refuges.

## 9. Ozark National Scenic Riverways (ONSR) of the National Park Service (NPS) agrees to:

- A. Pursue and use targeted federal funds, to the extent that appropriations allow, for the elimination of feral swine in Missouri.
- B. Cooperate in the apprehension and prosecution of individuals involved in the illegal release and movement of feral swine, and recommend and support changes in state statutes that will facilitate feral swine elimination.
- C. Review agency regulations pertaining to feral swine, and if needed seek changes needed to facilitate their elimination.
- D. Authorize personnel of signatory agencies, including respective contractors, to participate in direct feral swine control activities on fee simple lands within the boundary of ONSR when requested by the superintendent.
- E. Allow feral swine trapped and/or free roaming on fee simple lands within the boundary of ONSR to be dispatched by authorized personnel officers when requested and/or approved by the chief ranger.

#### 10. Fort Leonard Wood (FLW), DPW Natural Resources Branch agrees to:

- A. Involve FLW Natural Resources Branch staff in cooperative efforts to define feral swine distribution, collect blood samples, and eliminate feral swine on FLW.
- B. Authorize APHIS-WS to participate and advise with feral swine trapping and elimination activities on FLW when requested by FLW natural resource managers.
- C. Cooperate in the apprehension and prosecution of individuals involved in activities that violate federal and state statutes and/or agency regulations pertaining to the illegal release, movement, and hunting of feral swine.
- D. Review FLW regulations pertaining to feral swine and seek changes needed to facilitate their elimination/control.

#### 11. The Department of Health and Senior Services (DHSS) agrees to:

- A. Consult on issues pertaining to zoonotic disease potential.
- B. Assist in investigations of human disease that could have its origin in feral swine.
- C. Pursuant to Section 192.020, RSMo, take cognizance of any contagious disease which may be prevalent among feral swine and communicable to humans or other animals that may transmit disease to humans.
- D. Pursuant to Section 192.020, RSMo, the Director, DHSS, shall administer all laws, orders, and findings to quarantine, prevent, or to control the spread of such diseases.

#### B. It is further mutually understood and agreed that:

- 1. <u>RESPONSIBILITIES OF PARTIES</u>. The cooperating parties and their respective agencies and office will handle their own activities and utilize their own resources, including the expenditure of their own funds, in pursuing these objectives. Each party will carry out its separate activities in a coordinated and mutually beneficial manner.
- 2. <u>MODIFICATIONS</u>. Modifications within the scope of this MOU must be made by mutual consent of the parties, by the issuance of a written modification signed and dated by all properly authorized, signatory officials, prior to any changes being performed. Requests for modification should be made, in writing, at least 30 days prior to implementation of the requested change.
- 3. <u>AMENDMENTS</u>. This MOU may be amended upon written request of any party hereto and the subsequent written concurrence of all other cooperating parties.
- 4. <u>TERMINATION</u>. Any of the parties, in writing, may terminate this MOU in whole, or in part, at any time before the date of expiration with a 60-day written notice to the other cooperating parties.
- 5. <u>HOLD HARMLESS</u>. No party shall assume liability and shall hold harmless any other party regarding any claim or causes of action whatsoever resulting from the obligations undertaken by itself under this agreement or resulting from the work or provided for by itself or its employees and agents under terms of this MOU.
- 6. <u>PARTICIPATION IN SIMILAR ACTIVITIES</u>. This MOU in no way restricts the cooperating parties from participating in similar activities with other public or private agencies, organizations, and individuals.
- 7. FREEDOM OF INFORMATION ACT (FOIA). Any information furnished to any federal agency under this instrument is subject to the Freedom of Information Act (5 U.S.C. 552). Any information furnished to any state agency under this instrument is subject to the Missouri Open Records Law (CH. 610,RSMo)
- 8. <u>NONBINDING AGREEMENT</u>. This MOU creates no right, benefit, or trust responsibility, substantive or procedural, enforceable by law or equity. The parties shall manage their respective resources and activities in a separate, coordinated and mutually beneficial manner to meet the purpose(s) of this MOU. Nothing in this MOU authorizes any of the parties to obligate or transfer anything of value.

Specific, prospective projects or activities that involve the transfer of funds, services, property, and/or anything of value to a party requires the execution of separate agreements and are contingent upon numerous factors, including, as applicable, but not limited to: agency availability of appropriated funds and other resources; cooperator availability of funds and other resources; agency and cooperator administrative and legal requirements (including agency authorization by statute); etc. This MOU neither provides, nor meets these criteria. If the parties elect to enter into an obligation agreement that involves the transfer of funds, services, property, and/or anything of value

to a party, then the applicable criteria must be met. Additionally, each party operates under its own laws, regulations, and/or policies, and any cooperating parties obligation is subject to the availability of their own appropriated funds and other resources. The negotiation, execution, and administration of these prospective agreements must comply with all applicable law.

Nothing in this MOU is intended to alter, limit, or expand the agencies' statutory and regulatory authority.

- 9. <u>MEMBERS OF U.S. CONGRESS.</u> Pursuant to 41 U.S.C. 22, no U.S. member of, or U.S. delegate to, Congress shall be admitted to any share or part of this agreement, or benefits that may arise therefrom, either directly or indirectly.
- 10. TEXT MESSAGING WHILE DRIVING. In accordance with Executive Order (EO) 13513, "Federal Leadership on Reducing Text Messaging While Driving," any and all text messaging by Federal employees is banned: a) while driving a Government owned vehicle (GOV) or driving a privately owned vehicle (POV) while on official Government business; or b) using any electronic equipment supplied by the Government when driving any vehicle at any time. All cooperators, their employees, volunteers, and contractors are encouraged to adopt and enforce policies that ban text messaging when driving company owned, leased or rented vehicles, POVs or GOVs when driving while on official Government business or when performing any work for or on behalf of the Government.
- 11. <u>ACKNOWLEDGEMENT IN PUBLICATIONS, AUDIOVISUALS AND ELECTRONIC MEDIA.</u> Missouri Feral Hog Partnership shall acknowledge all cooperating parties support in any publications, audiovisuals, and electronic media developed as a result of this MOU.
- 12. <u>NONDISCRIMINATION STATEMENT PRINTED, ELECTRONIC, OR AUDIOVISUAL MATERIAL.</u> Missouri Feral Hog Partnership shall include the following statement, in full, in any printed, audiovisual material, or electronic media for public distribution developed or printed with any Federal funding.

In accordance with Federal law and U.S. Department of Agriculture policy, this institution is prohibited from discriminating on the basis of race, color, national origin, sex, age, or disability. (Not all prohibited bases apply to all programs.)

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 1400 Independence Avenue, SW, Washington, DC 20250-9410 or call (202) 720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

If the material is too small to permit the full statement to be included, the material must, at minimum, include the following statement, in print size no smaller than the text:

"This institution is an equal opportunity provider."

- 13. <u>ESTABLISHMENT OF RESPONSIBILITY</u>. This MOU is not intended to, and does not create, any right, benefit, or trust responsibility, substantive or procedural, enforceable at law or equity, by a party against the United States, its agencies, its officers, or any person.
- 14. <u>DEBARMENT AND SUSPENSION</u>. Missouri Feral Hog Partnership shall immediately inform the cooperating parties if they or any of their principals are presently excluded, debarred, or suspended from entering into covered transactions with the federal government according to the terms of 2 CFR Part 180. Additionally, should Missouri Feral Hog Partnership or any of their principals receive a transmittal letter or other official Federal notice of debarment or suspension, then they shall notify the cooperating parties without undue delay. This applies whether the exclusion, debarment, or suspension is voluntary or involuntary.
- 15. <u>COMMENCEMENT/EXPIRATION DATE.</u> This MOU is executed as of the date of the last signature and is effective through June 30, 2022 at which time it will expire.

## 16. PRINCIPAL CONTACTS. The principal contacts for this instrument are:

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C. AUTHORIZED REPRESENTATIVES. By signature below, each party certifies that the individuals listed in this document as representatives of the individual parties are authorized to act in their respective areas for matters related to this MOU.

In witness whereof, the parties hereto have executed this MOU as of the last date written below.

	SIGNED:  Parker Hall State Director, Missouri, APHIS-WS	1-23-17 Date
	Bret Fischer Acting Director, Department of Health and Senior Services	Date
	Chris China	5/22/17
	Chris Chinn	Date
	Director, Missouri Department of Agriculture	
	Min E Ers Ja	1/24/17
	Dr. Thomas Easley	Date
Ø	USDA-APHIS-VS Sara Parker Pauley	V31/17 Date
	Director, Missouri Department of Conservation	
	Carol Comer	6/29/2017 Date
	Director	

Missouri Department of Natural Resources

List of signatories who will sign individual signature page: Anthony P. Mitchell Date USACE, St. Louis District Commander Colonel Ed Jackson Date USACE, Little Rock District Commander Colonel Douglas B. Guttormsen Date USACE, Kansas City District Commander Sherri Schwenke USDA – FS, Mark Twain Forest Supervisor Charles W. Blair Regional Chief U S Fish and Wildlife Service Region 3 Refuges Lawrence E. Johnson Superintendent, Ozark National Scenic Riverways 18 APR 17 Colonel Tracy L. Lanier

FOR Barbara Thompson, Director FMD
USDA-APHIS-WS
Eastern Regional Office
Date

9-23-16

Garrison Commander, Fort Leonard Wood

MICHAEL PERANIO

# Statewide Strategic Plan for Feral Hog Elimination in Missouri



July 2017
Missouri Feral Hog Partnership

#### **Definition**

Section 270.400 of Missouri Revised Statutes defines a feral hog (*Sus scrofa*) as "any hog, including Russian and European wild boar that is not conspicuously identified by ear tags or other forms of identification and is roaming freely upon public or private lands without the landowner's permission." Free-ranging populations of feral hogs currently exist in at least 39 states and several Canadian provinces. Feral hogs have been present in small, isolated areas of Missouri for many years, but it wasn't until the 1990's that they really started becoming a problem. At this time hog hunting as a form of recreation began gaining in popularity and the intentional release of hogs on public land spread populations to new areas. Presently feral hogs are found in at least 30 counties in Missouri.

#### **Vision Statement**

Through collaborative partnerships, eliminate feral hogs in Missouri to protect the state's natural resources, native fish and wildlife, agriculture, and human health.

# **Objectives:**

- 1. Inform the public of the problems feral hogs cause and the need to eliminate them
- 2. Prevent establishment of new populations, control the sources of feral hogs, and remove incentives for releasing hogs
- 3. Develop and implement a strategy to eliminate feral hogs from Missouri
- 4. Obtain population metrics and define and develop a method to measure success of elimination efforts

# Objective 1: Inform the public of the problems feral hogs cause and the need to eliminate them.

- Issue: Determining our audience?
  - Strategy: Work through an issue scoping process to determine audiences and approaches to engage them
- Issue: Much of the public is unaware of the problems associated with feral hogs
  - o Strategy: Coordinate a multi-organizational statewide outreach campaign
- Issue: How will we inform/educate our audience?
  - Strategy: Continually update and implement communication plan
  - Strategy: Use sustained, consistent messaging with these and other tools
    - Public Service Announcements
    - News releases
    - Social media
    - Field trips
    - Landowner workshops
    - Stories/personal accounts, stories of success
    - Interviews with landowners

- Issue: What messaging should be used?
  - All partners should use same messaging when possible
  - Strategy: Develop a Missouri Feral Hog Partnership Communication Plan that all partners will use.
- Issue: Who should deliver the messages?
  - All partners in the Missouri Feral Hog Partnership.
  - Any other organization or group interested in protecting Missouri's fish, forest, and wildlife resources and the state's agricultural resources. Members of the Missouri Feral Hog Partnership will need to share information with these organizations. Also share information with high school and collegiate biology classes.

# Objective 2: Prevent new populations, control the sources of feral hogs, and remove incentives for releasing feral hogs.

- Issue: People are intentionally moving and releasing feral hogs to establish new populations for hunting.
  - Strategy: Remove incentive to intentionally release feral hogs
    - The Conservation Department passed regulations that prohibit the take of feral livestock, including feral hogs, on land owned, leased, or managed by the Department.
    - Other agencies are considering passing similar regulations on property they own and manage.
    - Continue conversations with legislators to develop new legislation.
  - Strategy: Work with the state legislature to pass legislation requiring written permission from the landowner to pursue hogs on private land. This should decrease opportunities to pursue feral hogs and therefore decrease incentive for intentional releases.
  - Strategy: Encourage citizens to report sightings and damage. The Conservation Department and other partners have begun delivering this message in all outreach efforts.
  - Strategy: Establish a rapid response system to react to reports of new sightings and introductions of feral hogs.
- Issue: Existing regulations pertaining to feral hogs are difficult to understand
  - Strategy: Work with the Missouri Department of Agriculture to clarify or modify regulations regarding feral hogs as needed to reduce the likelihood of transport and aid in enforcement.
  - Strategy: Provide clarification of existing regulations in the educational outreach to law enforcement, prosecutors and judges.
  - Develop a document that outlines existing regulations related to feral hogs in Missouri and keep it updated.
- Issue: Penalties for illegal releases and transport are not severe enough to prevent these activities from occurring
  - Strategy: Work with the state legislature to pass legislation that places tougher penalties on individuals caught illegally releasing or transporting feral hogs.

- Strategy: Create incentive for the public to report illegal transportation and release of feral hogs similar to Operation Game Thief.
- Strategy: Work with local law enforcement and prosecutors to gain support for enforcing existing regulations.

# Objective 3: Develop and implement a strategy to eliminate feral hogs where they currently exist

- Issue: It is difficult to determine the precise location of feral hog populations at any given time; therefore it is difficult to develop an elimination strategy without knowing the current distribution of feral hogs on the landscape
  - Strategy: The Department of Conservation, in cooperation with the University of Missouri is designing a camera trap research project that will begin in early 2017 to collect data with the intent of developing a model to determine feral hog distribution. The project will also provide monitoring of feral hog distribution through time to measure success of elimination efforts.
- Issue: Currently lack staff and resources to effectively attack all populations statewide simultaneously.
  - Strategy: Prioritize geographies and identify resources for feral hog elimination efforts.
    - On October 31, 2016 a group of representatives from the Missouri Feral Hog Partnership met in Jefferson City to identify the resources necessary to eliminate feral hogs from the state of Missouri based on the current understanding of feral hog distribution in Missouri.
    - Six geographic areas were identified (Figure 1) and the number of additional staff that would be needed was determined. Additionally, the cost associated with adding those additional staff, the areas where they should be based out of, and some issues associated with effective feral hog elimination in each area (see recommendations on Page 6).
    - All personnel and resources identified during that meeting are in addition to existing resources currently being allocated to feral hog elimination efforts. Figure 2 depicts the location of existing full time feral hog trappers, as well as the locations for the additional staff required. It was agreed that at a minimum all existing staff and resources should be maintained at current levels throughout implementation of the Statewide Strategic Plan.

#### Elimination Area 1:

- This area consists of Hickory, St. Clair, Benton and Dade counties.
- Three additional full-time trappers will be needed in this geographic area to effectively eliminate feral hogs.
- These staff should be based around Hermitage, Stockton, and El Dorado Springs.
- Challenges in Elimination Area 1: Feral hogs in this area are sparsely
  populated so a lot of time will be spent traveling; much of the land in this
  area is privately owned so access can be an issue.

#### Elimination Area 2:

- This area consists of Pulaski, Phelps and Texas counties.
- Five additional full-time trappers will be needed in this geographic area to effectively eliminate feral hogs.
- These staff should be based around Houston, Licking, Waynesville, and Lebanon.
- Challenges in Elimination Area 2: Vehicle access to much of this area is difficult so staff will spend extra time trying to access traps; staff will need to spend extra time building relationships with landowners in this area in order to obtain permission to access private property.

#### **Elimination Area 3:**

- This area consists of Christian, Taney, Ozark and Douglas counties.
- Four additional full-time trappers will be needed in this geographic area to effectively eliminate feral hogs.
- These staff should be based around Ava, Gainesville, Forsyth, and Ozark.
- Challenges in Elimination Area 3: Access is an issue in this area due to a lot of the land in private ownership, terrain, lack of roads, and two large reservoirs (Bull Shoals and Table Rock). This is also a large area so staff will spend significant amounts of time traveling between traps. There is a high hog density in this area. This area is close to established feral hog populations in Arkansas.

#### Elimination Area 4:

- This area consists of Iron, Madison, Bollinger, Wayne, and Reynolds counties.
- Ten additional full-time trappers will be needed in this geographic area to effectively eliminate feral hogs.
- Two staff should be based out of each of the five counties:
- Challenges in Elimination Area 4: A deeply-engrained hog hunting culture exists in this area; there is a lot of public land which provides good habitat for hogs; public land provides access most of the year except during hunting seasons; there are various public land managers in this area and they have different regulations; there is a high density of hogs; road access is poor throughout much of the area; communication/cell phone service in the area is very limited so smart phone technology such as the BoarBuster trap isn't available in much of the area.

#### Elimination Area 5:

- This area consists of Barry, Stone, and McDonald counties.
- Four additional full-time trappers will be needed in this geographic area to effectively eliminate feral hogs.
- These staff should be based around Cassville, Pineville, Monett, and Seligman.
- Challenges in Elimination Area 5: There are deep hog hunting traditions in this area; many of the roads are not in good shape so travel is difficult; large waterbodies make travel difficult; a lot of absentee landowners so communication is difficult and they cannot run traps themselves; this area

- will require a three-state coordination effort between Missouri, Oklahoma, and Arkansas which could present additional challenges.
- Aerial assistance from USDA helicopters could be very effective in this area.

#### Elimination Area 6:

- This area consists of Shannon, Carter, Oregon and Ripley counties.
- Initially this area could operate with existing staff with occasional assistance from one or two additional staff from Elimination Area 4.
- Challenges in Elimination Area 6: There is a strong and growing hog hunting culture, may be difficult to obtain access to private land, access difficult because rough terrain and lack of roads.

#### **Hog Free Zone:**

- There are no known populations of feral hogs in this area currently.
- If feral hogs are found in this area at any time in the future, all necessary resources will be sent to that location to eliminate those hogs as quickly as possible to prevent a population from becoming established.
- The goal is to maintain this area as hog free and to expand it as hogs are eliminated from other areas.

#### Recommendation:

Fund 26 additional full time trappers to supplement existing staff that are conducting feral hog control efforts to begin eliminating feral hogs from Missouri.

- If hired through USDA each additional trapper would cost approximately \$70,000.00 per year. That estimate includes equipment and supplies. The total cost would be approximately \$1.8 million per year to fully fund the strategy identified here to work toward the elimination of feral hogs from Missouri.
- In addition to the 26 additional trappers, a managerial framework will need to be developed and staff hired to fill these positions. This would include at least three Supervisor/Crew leader positions and one administrative assistant position. The administrative assistant would be in the USDA office in Columbia.
- Strategy: Work with partners in the Missouri Feral Hog Partnership and encourage them to request additional funding for elimination efforts
- Strategy: Work with agricultural and natural resources groups to obtain commitment from them to provide additional resources for feral hog elimination efforts.
- Strategy: The Conservation Department is requesting \$1.8 million dollars in FY18 for funding to obtain the additional trappers and resources as identified in this plan.
- Strategy: Work with private landowners and encourage them to provide additional funding for feral hog elimination efforts.
- Strategy: Prioritize populations to determine which ones to approach for elimination. This prioritization will be based on size of population, potential

- impacts to threatened and endangered species (Figure 3) and location of population.
- Issue: Elimination will be challenging because large numbers of feral hogs occur on private land
  - Strategy: Continue to provide technical assistance and equipment to landowners to eliminate feral hogs on private property
  - Strategy: Assure landowners receive proper training so they can be effective trappers
  - Strategy: Continue to educate the public to "Report don't Shoot" feral hogs
- Issue: Public land (Figure 4) is largely inaccessible during hunting season Sept. 1 Jan. 15
  - Strategy: Shut down portions of public land to hunting while hog trapping efforts are conducted
  - Strategy: Where feasible, only allow managed hunts on public lands that have hogs and close down the entire area to hunting for the rest of the season.

# Objective 4: Obtain population metrics, and define and develop a way to measure success

- Issue: Lack a method to estimate population size and distribution
  - Strategy: Establish a baseline index of population using:
    - Archery surveys
    - Citizen science (trail cameras)
    - Hotline/online reporting form and office calls
    - Well designed, repeatable survey
    - Catch per unit effort (research ongoing through USDA APHIS)
    - Trend data from occupancy rate study on Fort Leonard Wood
  - Strategy: Develop a presence/absence data map with data from staff and the public.
  - Strategy: The Department of Conservation in cooperation with the University of Missouri initiated a research project in 2017 that will develop a model to accurately determine occupancy/distribution of feral hogs on the landscape.
- Issue: No consistent method to measure success (e.g. decrease in number of damage complaints, number of hogs trapped, hogs seen on trail cameras, age ratio, gender ratio, decrease in number of damage complaints)
  - o Strategy: Work with experts to develop a method to measure success
  - Strategy: The Department of Conservation in cooperation with the University of Missouri initiated a research project in 2017 aimed at developing a method to measure success of elimination efforts.

Figure 1. Feral Hog Elimination Areas.

