

GOVERNOR'S SUMMIT ON INVASIVE SPECIES

ASSESSING THE PAST – STRATEGIZING THE FUTURE



WELCOME!

GOALS

Goal: *Convene agency, tribal sovereign nations, private landowners, industry, academic and nonprofit leaders and policy makers (and others contributing to invasive species efforts in Montana) to:*

- *Share the results of the Montana Invasive Species Council Advisory Committee statewide invasive species assessment;*
- *Develop a shared understanding of the core elements of a Montana statewide invasive species framework and identify key priority actions;*
- *Identify key gaps in existing Montana legislation; and*
- *Describe key next steps.*

Expected Work Products:

- *Identified key priorities and elements to develop a statewide invasive species framework*



IT'S A SUMMIT!

MEETING

WORKSHOP



LEADERS ARE PRESENT; AN EFFORT MUST BE MADE TO REACH CONSENSUS; CHART A PATH FORWARD WITH AN ACTION PLAN

AGENDA

- 8:00am – 9:00am **REGISTRATION AND CONTINENTAL BREAKFAST (provided)**
- 9:00am – 9:30am Welcome (*Governor Steve Bullock, Agency Directors*)
- 9:30am – 10:00am An International Invasive Species Perspective (*B. Gibbs, Canadian Council on Invasive Species*)
- 10:00am – 10:30am A National Context for Montana’s Invasive Species Efforts (*Mike Ielmini, US Forest Service*)
- 10:30am – 10:45am **BREAK**
- 10:45am – 11:00am Montana’s History Addressing Invasive Species – Protecting the State’s Natural Resources and Quality of Life (*Jerry Marks, Missoula County MSU Extension Office/Weed District*)
- 11:00am – NOON Panel Discussion: Exploring models to improve coordination and collaboration (*Mike Ielmini – US Forest Service, Barry Gibbs – Canadian Council on Invasive Species, Karen Laitala – Blackfoot Challenge, Rachel Frost – Missouri River Districts Conservation Council*)
- NOON – 1:00pm **LUNCH (provided)**
- 1:00pm – 1:30pm Setting the Stage: The Results of the 2015 Statewide Invasive Species Assessment (*Lisa DeBruyckere – Creative Resource Strategies, LLC*)
- 1:30pm – 4:30pm Developing Actions – Key Steps Montana Can Take to Address Statewide Invasive Species Issues (breakout sessions)
- 4:30pm – 5:00pm **WRAP-UP, SUMMARY, and REVIEW OF TOMORROW’S AGENDA**
- 5:00pm – 7:00pm Reception at Lewis and Clark Brewing Company, 1517 Dodge Avenue

AGENDA

- 7:00am – 8:00am **CONTINENTAL BREAKFAST (provided)**
- 8:00am – 8:15am Welcome, Yesterday Recap, Today's Agenda
- 8:15am – 10:00am Panel Discussion: Making Substantive Changes to Montana's Legislation to Advance Invasive Species Prevention Efforts (*Rep. Janet Ellis, Rep. Mike Cuffe, Rep. Mark Noland, Rep. Ray Shaw, Sen. Jon Sesso, Sen. Pat Connell*)
- 10:00am – 10:15am **BREAK**
- 10:15am – Noon Developing Actions – Key Steps Montana Can Take to Address Statewide Invasive Species Issues (breakout sessions)
- Noon – 1:00pm **LUNCH (provided)**
- 1:00pm – 2:30pm (Continued) Developing Actions – Key Steps Montana Can Take to Address Statewide Invasive Species Issues (breakout sessions)
- 2:30pm – 3:00pm **WRAP-UP, SUMMARY, and KEY NEXT STEPS**

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WELCOME!

MONTANA INVASIVE SPECIES ADVISORY COUNCIL



- **BRYCE CHRISTIAENS**, Chair - County Weed Districts; Missoula County Weed District
- **TOM BOOS**, Vice Chair - Montana Fish, Wildlife & Parks
- **STEVEN HERTEL**, Vice Chair - Private Landowners
- Amy Gannon - Montana Department of Natural Resources and Conservation
- Chip Weber - U.S. Forest Service
- Dave Burch - Montana Department of Agriculture
- Floyd Thompson - Bureau of Land Management
- Gary Adams - U.S. Department of Agriculture Animal, Plant Health Inspection Service
- Jane Mangold - Montana State University Extension
- Jeffrey Baumberger - U.S. Bureau of Reclamation
- Jim Jacobs - Natural Resources Conservation Service
- Lindy Garner - U.S. Fish & Wildlife Service
- Mark Aagenes - Conservation Organizations; The Nature Conservancy
- Mark Reller - Hydropower Utility; Bonneville Power Administration
- Mike Miller - Department of Transportation
- Patricia Gilbert - U.S. Army Corps of Engineers
- Stephanie Hester, DNRC, Council Liaison
- Steven Bekedam - U.S. National Park Service
- Steven Tyrrel - Private Industry; Integrated Ag. Services Inc.
- Steve Wanderaas - Montana Conservation Districts; McCone Conservation District
- Thompson Smith - Natural Resource Organizations; Flathead Basin Commission
- Virgil Dupuis - Salish Kootenai College, Tribal Government

WHY A STATEWIDE ASSESSMENT?

- Montana's economy, lands, and waters are threatened by invasive species
 - **Spotted knapweed** - more than 5 million acres in MT - \$2 to \$155 million to livestock industry
 - **White pine blister rust** – has killed more than 50% of white pines in Glacier NP; has reduced inland NW white pine stands by 95%
 - **Salt cedar** – More than 1 million acres of SW streambanks – lowers stream flows, increases soil salinity, displaces native species and wildlife habitats
 - **New Zealand Mud Snail** – Madison River and every drainage in Yellowstone – can reach densities of 700,000 snails per square meter – outcompetes native wildlife and provides poor food source for fish
 - **Whirling disease** – Infects 95% of water bodies in Montana – Madison River has seen 80% declines in wild trout
- Limited resources exist
- MISAC - science-based, comprehensive program to identify, prevent, eliminate, reduce and mitigate the effects of invasive species
- Assessing the status of invasive species is a key first step



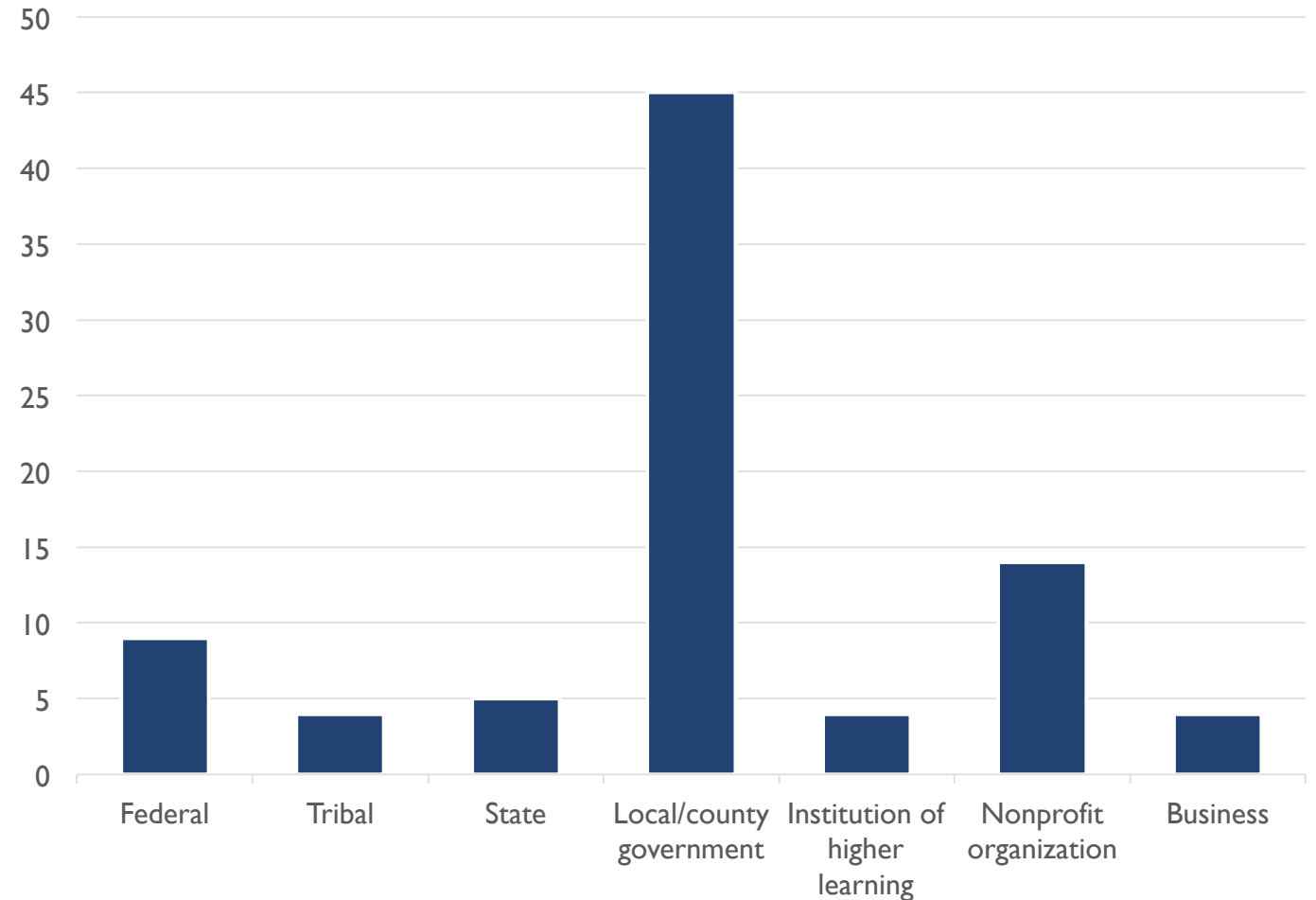
METHODOLOGY



- Create survey instrument using *Jotform*
 - Obtain information from as many entities as possible
 - Determine highest priority invasive species taxa entities worked on in 2015
 - Identify criteria used to prioritize work
 - Understand how entities rank importance of invasive species programs
 - Characterize the regulatory environment, including key gaps
 - Estimate annual funding expended on invasive species programs
 - Characterize how entities evaluate their program effectiveness
 - Characterize key challenges entities face

RESPONDENTS

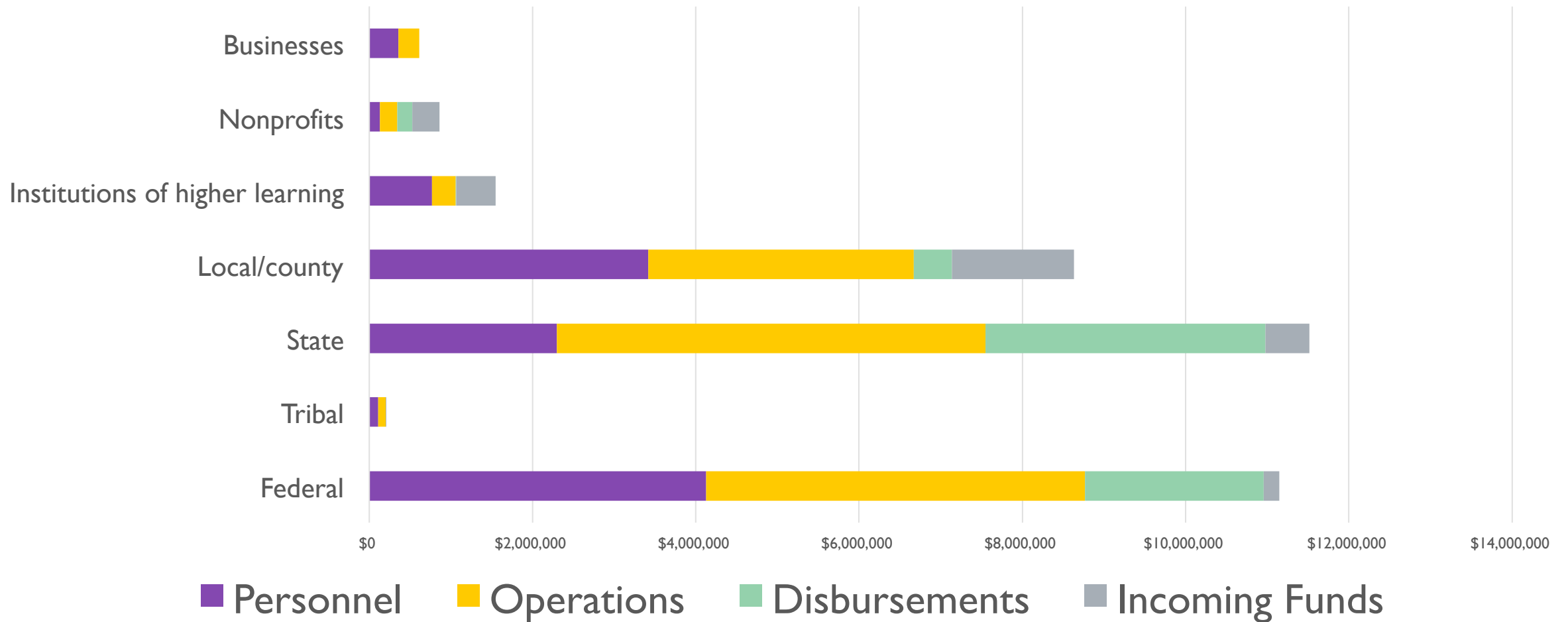
- 126 individuals representing 85 Montana entities
 - 9 federal agencies
 - 4 tribal sovereign nations
 - 4 state agencies and one state commission
 - 45 local/county governments
 - 4 institutions of higher learning
 - 14 nonprofit organization
 - 4 businesses
 - 1 utility



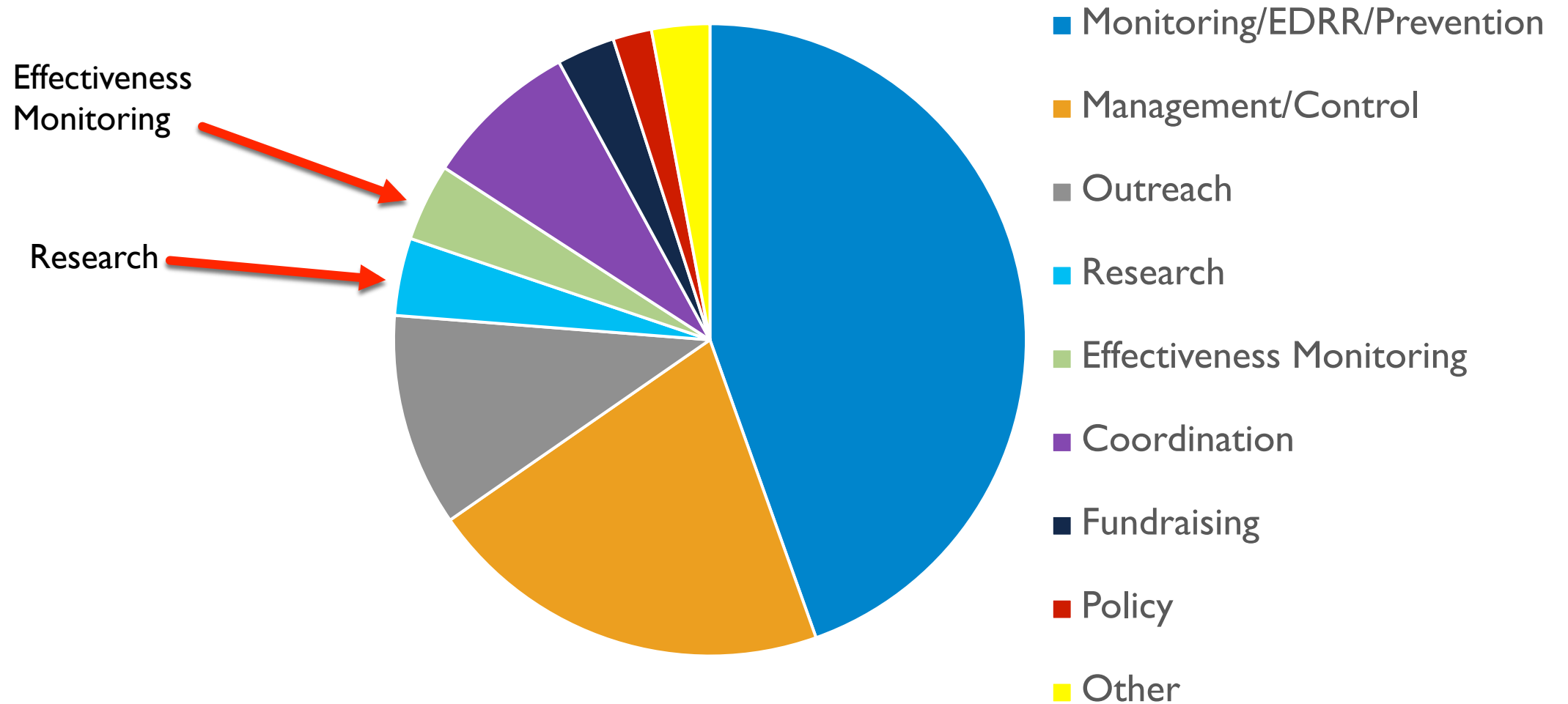
INVASIVE SPECIES BUDGETS - 2015

	Personnel	Operations	Disbursements	Incoming
Federal agencies	\$4,128,083	\$4,636,796	\$2,190,822	\$192,674
Tribal sovereign nations	\$109,000	\$89,000	\$0	\$7,500
State agencies	\$2,297,556	\$5,249,688	\$3,426,276	\$540,885
Local/county governments	\$3,417,463	\$3,252,856	\$467,550	\$1,491,579
Institutions of higher learning	\$769,600	\$286,236	\$6,500	\$485,941
Nonprofit organizations	\$133,000	\$209,400	\$183,180	\$335,372
Businesses	\$360,000	\$250,000	\$0	\$0
TOTALS	\$11,214,702	\$13,973,976	\$6,274,328	\$3,053,951

PERSONNEL, OPERATIONS, DISBURSEMENTS, AND INCOMING FUNDS



EFFORT EXPENDED BY CATEGORY



KEY BUDGET POINT

Montana entities reported investing about \$28 million in fiscal year 2015. **But the direct and indirect costs of invasive species are in the hundreds of millions of dollars.**

It is estimated an invasion of quagga/zebra mussels to Montana would cost the state more than \$80 million annually (PNWER 2015).



Photo credit: Natalie Muth, Utah Division of Wildlife Resources.

RECOMMENDATIONS

Key challenges: Adequate resources and coordinating grant programs and disbursements to ensure the highest priority invasive species issues are being addressed.

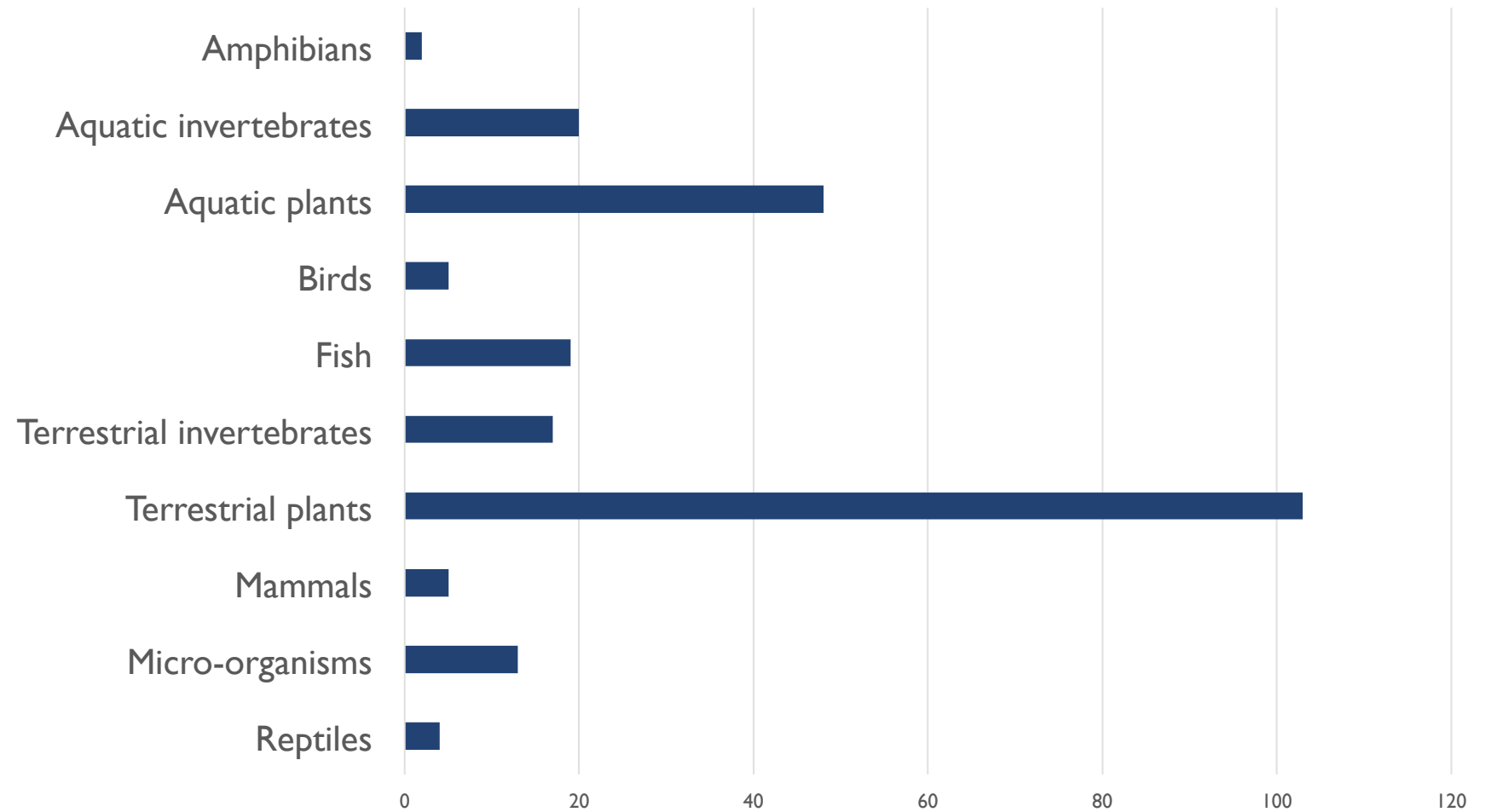
Recommendations:

1. Funding agencies work together to define the highest priorities and align grant programs and inter-agency cooperative agreements. Combine small grant awards to reduce administrative costs.
2. Improve coordination of all government and tribal sovereign nation invasive species programs to ensure the highest priority invasive species issues are addressed.
3. Ensure the composition of expended funds best represents Montana's priorities - or should new or existing funds should be used to supplement activities in other areas, e.g. outreach, or research?
4. Maintain funding for all programs, particularly those programs that are less well-established.

INVASIVE SPECIES PRIORITIES

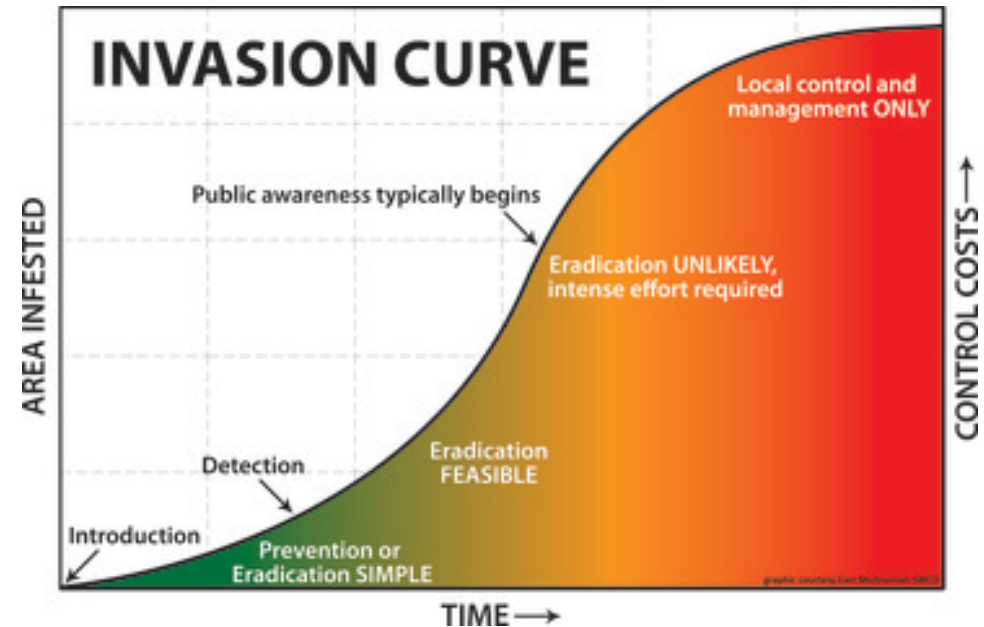
The top species:

1. Knapweeds
2. Toadfax spp.
3. Leafy spurge
4. Canada thistle
5. Houndstongue
6. Whitetop
7. Field bindweed
8. Hawkweeds
9. Hoary alyssum
10. Salt cedar
11. Eurasian watermilfoil

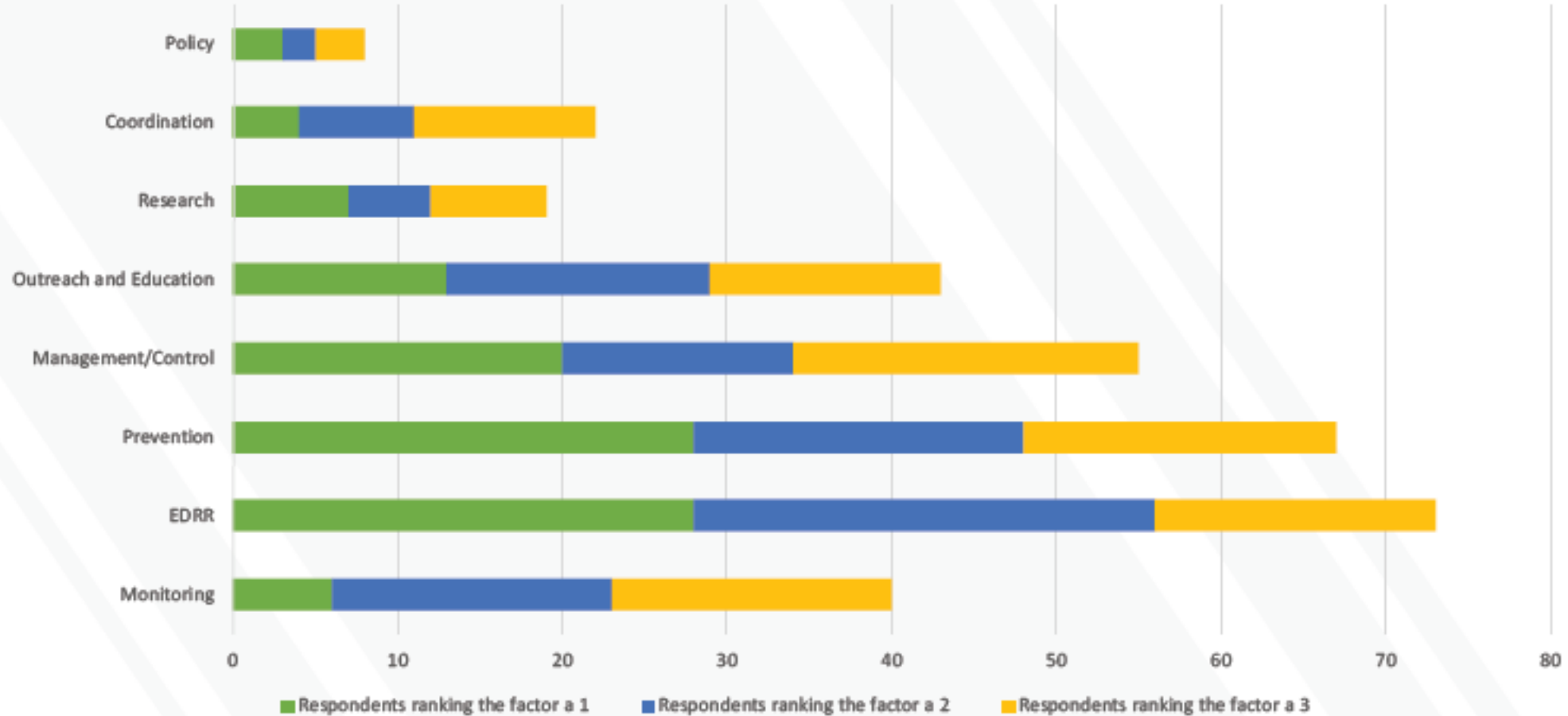


INVASIVE SPECIES PRIORITIES

- Good alignment with 2015 priority terrestrial plants and the species on Montana's Noxious Weed List.
- Good alignment with 2015 priority aquatic plants and invertebrates and Montana's AIS Grant Program priority species.
- Majority of survey respondents work on terrestrial plants; imperative that adequate funding be available for other taxa (catastrophic economic and environmental consequences of EAB, e.g.)
- Funding drives activities and priorities.
- General understanding that EDRR is the most cost-effective way of managing invasive species



RANKING OF INVASIVE SPECIES PROGRAMS BY IMPORTANCE



RANKING OF INVASIVE SPECIES PROGRAMS BY IMPORTANCE

Key challenges: Assessing and reassessing existing and emerging priorities.

Recommendations:

1. Conduct a biannual summit to achieve consensus on key strategies, improve collaboration and cooperation, streamline funding programs, address emerging priorities, and develop a shared understanding of statewide priorities, needs, and gaps.
2. Develop a systematic approach to prioritizing aquatic invasives in Montana.
3. Develop categories of aquatic invasive species priorities for other taxa similar to the Noxious Weed List categories.

STANDARDIZED MONITORING PROTOCOLS

Key challenges: Number and diversity of entities working on IS issues requires consistent monitoring protocols and reporting of results in a shared accessible database.

Recommendations:

1. Monitoring protocols for all invasive species should be reviewed for adequacy and efficacy to ensure the protocols are effective, widely distributed, used, and reported. Results of all types of monitoring efforts should be incorporated into a shared database that is readily accessible to land managers and others.
2. Develop categories of aquatic invasive species priorities similar to the Montana Noxious Weed List categories so that there is shared understanding of the different priorities across all taxa.

CRITERIA USED TO PRIORITIZE EFFORTS

Lower impact Higher prevention ability Management actions: Promote awareness and encourage citizen action.	Higher impact Higher prevention ability Management actions: Support detection and control efforts and prepare response plans.
Lower impact Lower prevention ability Management action: Focus control on species in high- value sites.	Higher impact Lower prevention ability Management actions: Prepare response plans, identify regulatory gaps, and enhance prevention strategies through policy, education, and funding.

From Washington Invasive Species Council 2009 report.

- Land management priorities and plans
- Ecosystem/Species health
- Economics
- Risk assessment
- Site characteristics
- Cooperation
- Research

MONTANA'S INVASIVE SPECIES FRAMEWORK

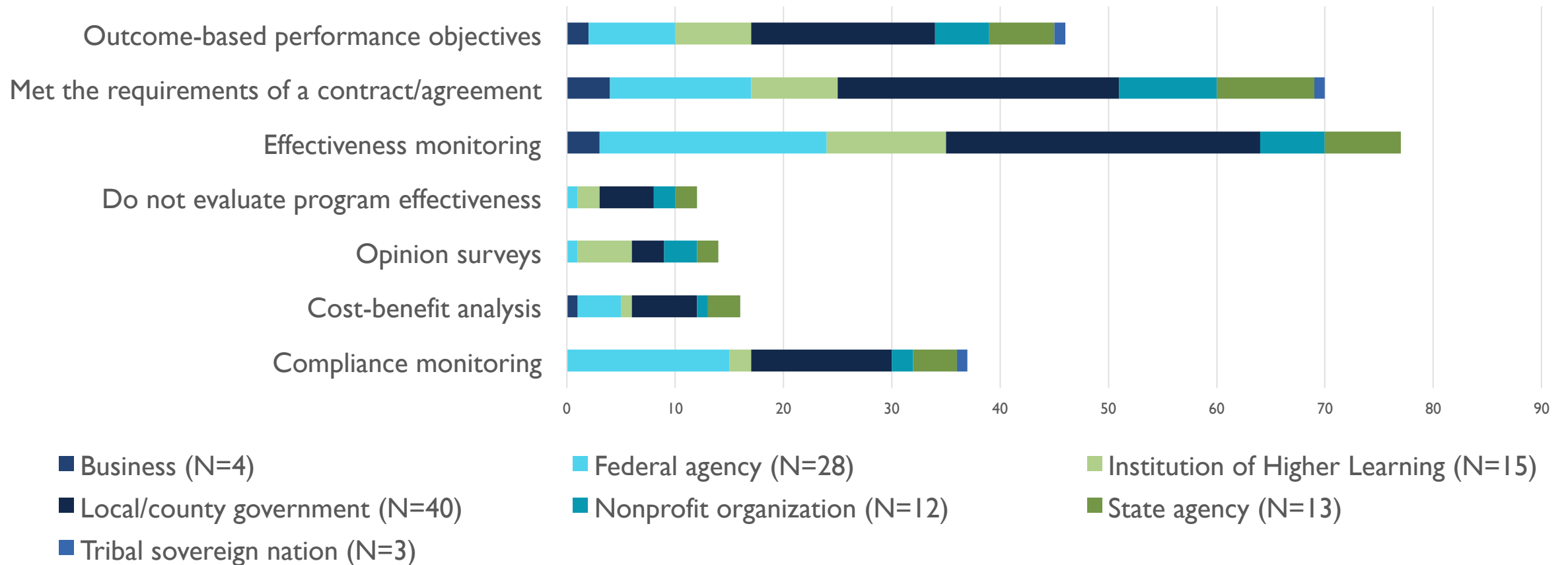
Key challenges: The current method of addressing invasive species issues is inefficient, includes gaps in coverage, has redundancies, and doesn't consider an all-taxa approach.

Recommendations:

1. Consider implementing a **systematic, comprehensive, tiered, all-taxa approach** and framework to prioritizing and implementing invasive species strategies to make the best use of available and limited resources and ensure the state maximizes limited resources efficiently and effectively.
2. Review and analyze all plans relating to invasive species and land management to identify overlap and key gaps in invasive species program implementation.
3. Establish consistency among federal and state agencies for the criteria used to assess grant fund requests (e.g., risk assessment, species on Noxious Weed List, etc.) to inform statewide priorities.

EVALUATING PROGRAM EFFECTIVENESS

How programs evaluate their effectiveness



EVALUATING PROGRAM EFFECTIVENESS

KEY GAPS/CHALLENGES: A variety of methods are used to evaluate program effectiveness; some use few or no methods.

RECOMMENDATIONS:

1. Require monitoring as a mandatory part of agreements and grant programs. Agree on a set of best management practices to implement monitoring as well as use of a shared database that facilitates learning, cooperation, and use of an adaptive management framework.
2. Address monitoring challenges, and institutionalize monitoring as a key element of program implementation.
3. Conduct a statewide biannual assessment of program effectiveness to determine success in preventing/eradicating new introductions and controlling, or preventing the spread, of existing populations.
4. Review all IS and land management plans to identify overlap and key gaps and to inform the development of a comprehensive all-taxa strategic framework.
5. Establish consistency among federal and state agencies for the criteria used to assess grant fund requests (e.g., risk assessment, species on Noxious Weed List, etc.) to help ensure statewide priorities and taxa-specific priorities are met.

PRIVATE LANDOWNERS

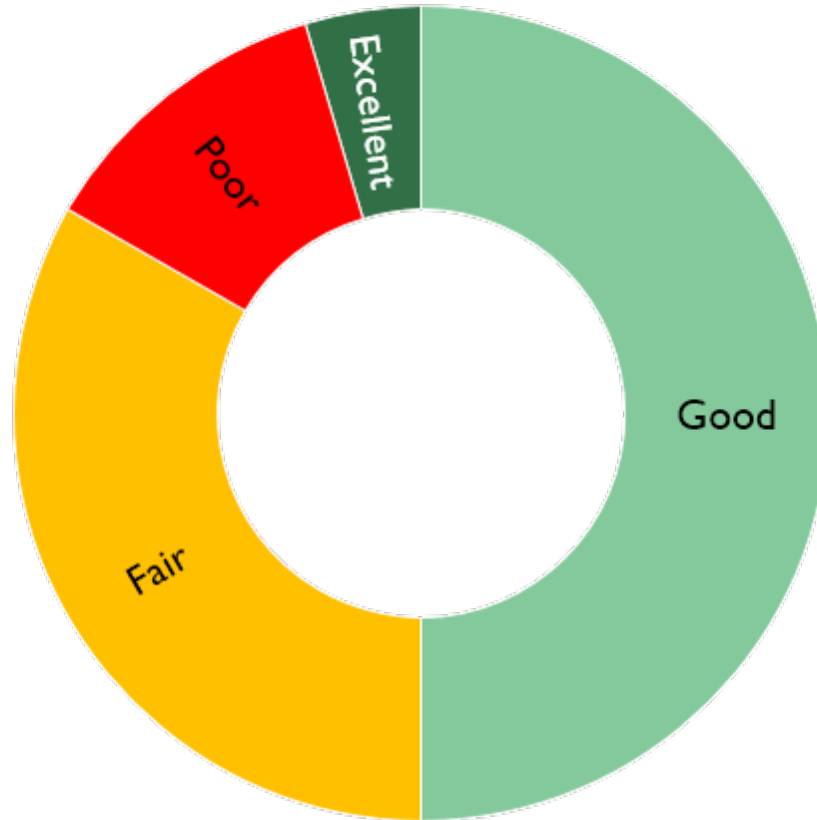
KEY GAPS/CHALLENGES:

- Landowner priorities may be different than management agencies.
- Many private landowners lack an understanding of the County Weed Law and their responsibilities as landowners.
- Small and absentee landowners have challenges addressing priority invasives.
- There is neither a consistent nor comprehensive approach to assessing whether invasive species efforts are improving land health for private landowners.
- Landowners who own land in multiple counties can be confused about the rules and regulations for each county.

RECOMMENDATIONS:

1. Increase outreach to landowners to inform understanding of the benefits of early detection and control.
2. Properly vet priority lists for all invasive species taxa, and ensure adequate notifications occur for rule changes to promote stakeholder engagement and buy-in.
3. Create new incentives that address the needs of private landowners as well as priority invasives.
4. Share case studies of private landowners willing to communicate the benefits of control to motivate reluctant landowners.
5. Enforce noncompliance of county weed laws to make it easier and more straightforward for landowners that own property in multiple counties.

HOW EFFECTIVE ARE MONTANA LAWS AND REGULATIONS?



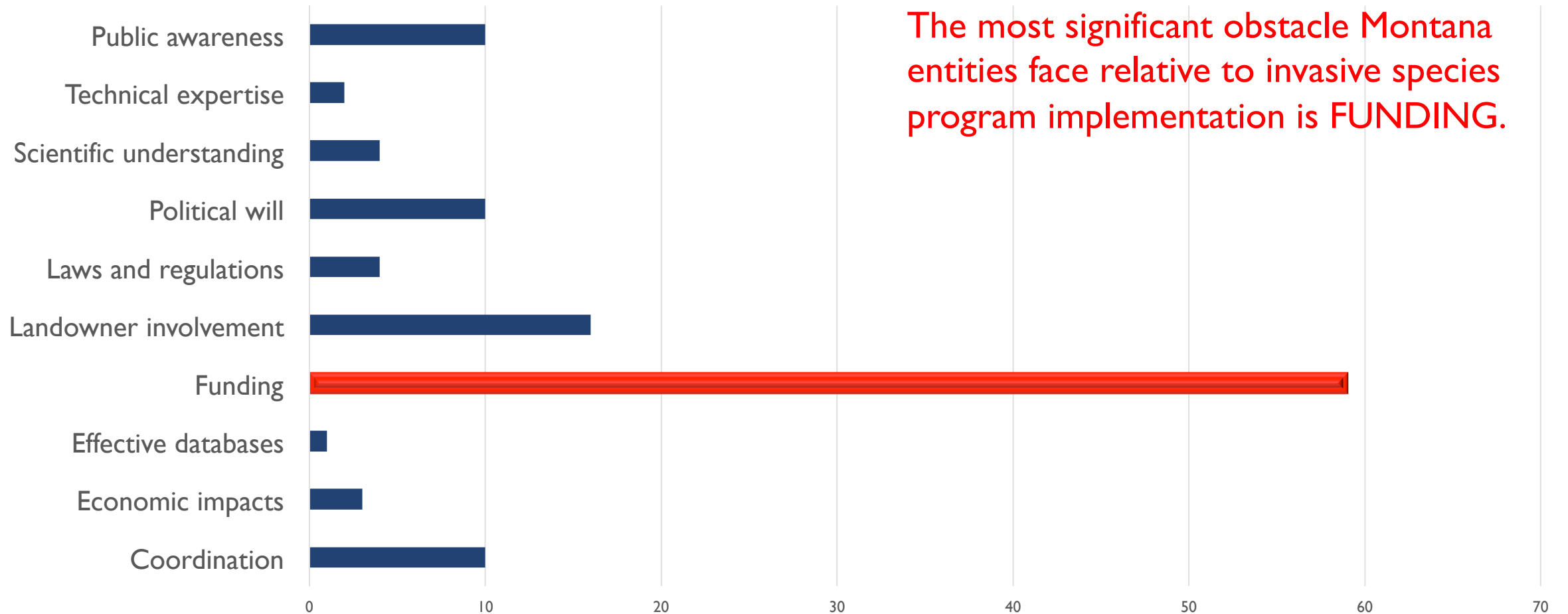
MONTANA LAWS AND REGULATIONS

KEY CHALLENGES: Terrestrial, Aquatic, Enforcement, Funding, and Authorities

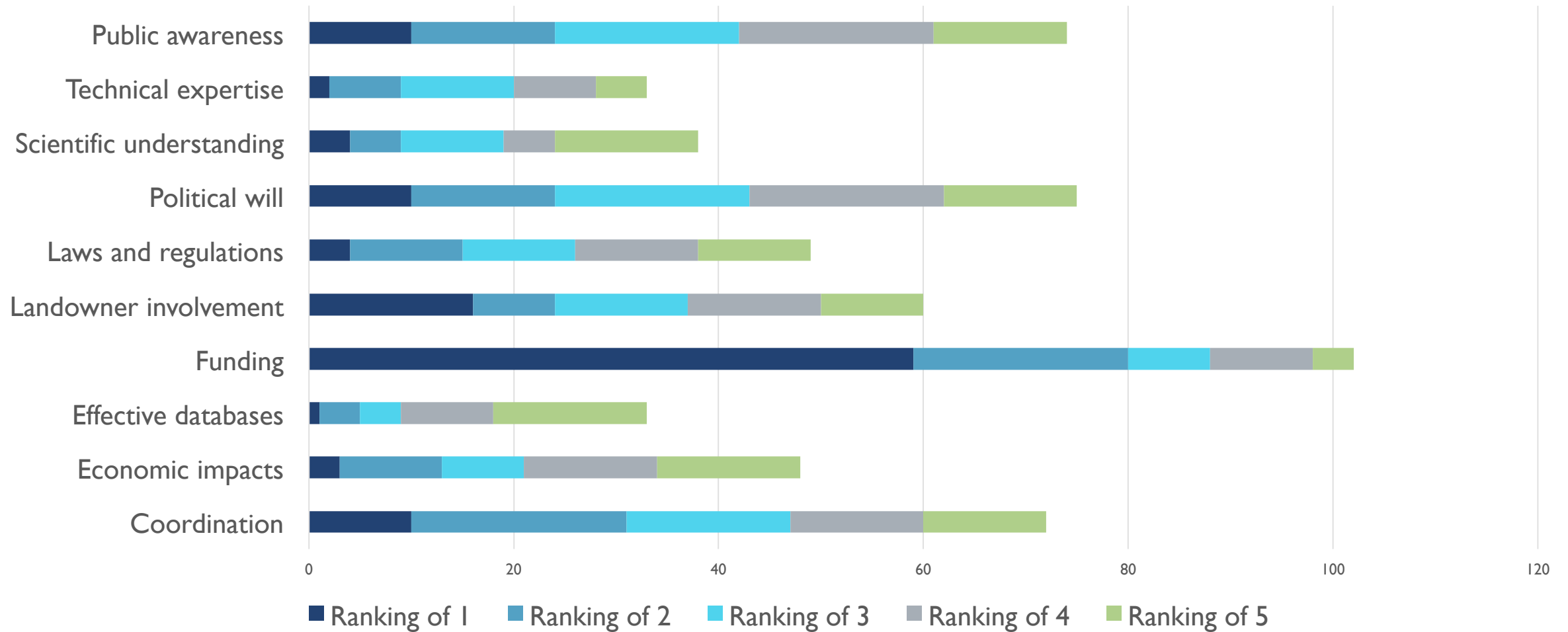
RECOMMENDATIONS:

- Terrestrial (firewood transport regs, clarity to County Weed Control Act)
- Aquatic (enhance AIS statute, prohibit use of live bait statewide, identify agencies to implement AIS regs)
- Enforcement and management (consistently enforce Weed Law, require commercial applicators to have insurance)
- Funding (allocate sufficient funding for the AIS Trust Fund, implement WRRDA, fund MISAC)
- Authorities (institutionalize MISAC beyond 2016, create authorities to quarantine infested wood products, improve laws pertaining to transportation and sale of non-native invasive species)

PROGRAM CHALLENGES



PROGRAM CHALLENGES



PROGRAM CHALLENGES

(FUNDING, INFO MANAGEMENT, OUTREACH)

KEY GAPS/CHALLENGES:

- **FUNDING:** Inadequate funding exists to implement invasive species programs in Montana.
- There is no single database, or clearinghouse, that contains IS information.
- Improved outreach and education efforts are needed to address pathways and vectors of invasive species introduction, engage landowners, and obtain the political support.

RECOMMENDATIONS:

1. Long-term sustainable funding needs to be identified for all of Montana's invasive species programs but, in particular, for the aquatic invasive species program, which currently is funded with one-time-only funds to DNRC and FWP.
2. Montana needs a statewide database clearinghouse for all taxa of invasive species that incorporates existing data from agencies and organizations in the state, as well as from nearby states, provinces, Canada, tribes and the federal government.
3. Outreach and education programs, core messages, and modes of delivery should be evaluated to ensure the messaging is effectively contributing to behavioral and attitudinal changes, and is providing policy makers with the information and tools to understand key priorities and take action to address those priorities. Messaging should align with regional and national messages.

QUESTIONS?



BREAKOUT SESSIONS

For each invasive species category (Prevention, Early Detection, Rapid Response, and Control), please answer the following questions:

1. FUNDING

- a) What are key funding gaps?
- b) What can Montana do to improve the amount of funding available to address invasive species?

2. REGULATIONS

- a) What are the key gaps in Montana's invasive species regulations?
- b) What key regulatory changes should be implemented within the next 2 years to improve Montana's ability to effectively deal with invasive species?
- c) The next 5 years?

3. SPECIES PRIORITIZATION

- a) What gaps and challenges occur in Montana's ability to prioritize invasive species?
- b) What needs to occur to implement a systematic approach to prioritizing invasive species (terrestrial and aquatic) (consider a variety of scales, e.g., county, statewide, watershed)?

4. OUTREACH AND EDUCATION

- a) What gaps and challenges exist in invasive species outreach and education efforts?
- b) What can we do to improve public awareness, appreciation, and understanding of the importance of invasive species issues?

5. FRAMEWORK MOVING FORWARD

- a) What key coordination gaps and challenges exist in the delivery of invasive species programs in Montana?
- b) What core elements of a statewide framework would address existing gaps and challenges and result in a systematic, comprehensive, tiered, all-taxa approach to addressing invasive species? (e.g., county-based, watershed-based, etc.; funding, coordination, etc.)

6. PRIVATE LANDOWNERS

- a) What are the barriers to the public participating in invasive species programs?
- b) What solutions would improve public engagement in invasive species prevention, early detection, rapid response, and control efforts?

BREAKOUT SESSIONS

- Beaverhead
 - Facilitator Bill Milton; Note Taker Jane Mangold
- Big Horn
 - Facilitator Donna Rise; Note Take Lauren Simonich
- Clark Fork
 - Facilitator Laura King; Note Taker Lori Witham
- Missouri
 - Facilitator Elena Evans; Note Taker Bryce Christiaens
- Milk River
 - Facilitator Karl Christians; Note Taker Mary Hendrix
- Musselshell
 - Facilitator Deb O'Neil; Note Taker Linnaea Schroeer

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THANK YOU!

And STAY TUNED!

