

Recommendations from the Invasive Species Advisory Committee on the National Early Detection and Rapid Response Framework Mission and Measures

Federal response to input received from the Invasive Species Advisory Committee and Aquatic Nuisance Species Task Force Joint Subcommittee

October 18, 2024

Summary

The National Early Detection and Rapid Response Framework (EDRR Framework) co-chairs¹ asked the Invasive Species Advisory Committee (ISAC) and Aquatic Nuisance Species Task Force (ANSTF) Joint Subcommittee for input on the EDRR Framework’s draft mission statement and potential measures. ISAC and ANSTF provided recommendations in May 2025². The co-chairs sought feedback on those recommendations from the National Invasive Species Council (NISC) federal EDRR work group, Department of the Interior (DOI) Invasive Species Task Force, and EDRR Framework project leaders. Input from all of these entities informed an updated mission statement, a vision statement, and a set of principles, described below. This approach was taken so that the vision and mission statements can be brief and compelling, and the principles can provide additional detail.

The ISAC/ANSTF Subcommittee also provided input on measures. Project specific measures are being reviewed by EDRR Framework project leaders at DOI. In addition, the Subcommittee provided recommendations on “big picture” measures. Initial responses to those are discussed below.

Original Draft Mission Statement

The original draft mission statement shared with the ISAC/ANSTF Subcommittee for input and their recommendations are included here for reference. This draft mission has since been replaced with a new mission, vision, and principles.

The mission of the National Early Detection and Rapid Response Framework is to find and eradicate invasive species new to the United States or those demonstrating secondary spread by coordinating across federal and non-federal partners and investing in innovative approaches for surveillance, data integration, and response capabilities for natural resource management.

The ISAC/ANSTF Subcommittee suggested the following points/questions be addressed in the mission statement:

- Address how the mission statement relates to existing EDRR efforts, specifically USDA.
- Place emphasis on the second part of the mission statement.

¹ The EDRR Framework co-chairs include representatives from the Department of the Interior Office of Policy Analysis, U.S. Fish and Wildlife Service, U.S. Geological Survey, Aquatic Nuisance Species Task Force, and National Invasive Species Council.

² <https://www.doi.gov/sites/default/files/documents/2024-06/isac-recommendations-edrr-2024-0612-508.pdf>

- Focus on conservation and management of natural resources and define what is meant by natural resources.
- Is there a better word than investing, or are we investing in and implementing?
- Should it include “expand our capability and capacity”?
- Should it include preventing species from establishment?
- Should it say something about the speed of the response?
- Should “secondary” be removed from the mission statement, since it is jargony?

New Vision, Mission, and Principles

This is the new vision, mission, and principles based on the ISAC/ANSTF Subcommittee’s recommendations and additional input from various federal entities.

Vision

Lands and waters free of new invasive species.

Mission

Strengthen coordination and capacity across jurisdictional boundaries to efficiently detect and respond to new invasive species throughout the nation.

Principles

1. **Areas:** Emphasize the protection of natural areas, working landscapes, and infrastructure.
2. **Species:** Focus on invasive species new to the United States and those demonstrating secondary spread.
3. **Partnerships:** Build and sustain partnerships with governmental (federal, state, territorial, tribal, local) and non-governmental entities.
4. **Complementarity:** Complement existing detection and response systems and activities.
5. **Coordination:** Coordinate closely with lead management authorities and other partners on planning and implementation of EDRR actions.
6. **Prioritization:** Assist in prioritizing areas and species for EDRR.
7. **Timeliness:** Support timely and effective detection and response actions.
8. **Innovation:** Invest in and implement innovative approaches to strengthen early detection surveillance, data integration, and rapid response capabilities and resources.
9. **Accountability:** Evaluate progress and apply adaptive management for continual improvement.

Responses to each of ISAC/ANSTF’s recommendations on the Mission

This section describes in more detail how the EDRR Framework federal team considered and addressed the ISAC/ANSTF Subcommittee’s recommendations.

- **Address how the mission statement relates to existing EDRR efforts, specifically USDA.**
 - Three of the Principles of advancing the EDRR Framework include “Partnerships,” “Complementarity,” and “Coordination.” Each of these emphasize the importance of working with others, including the U.S. Department of Agriculture (USDA), on EDRR activities.
 - In crafting the draft mission, the EDRR Framework planning team relied on recommendations put forth in the 2016 report, *Safeguarding America’s Lands and Waters from Invasive Species: A National Framework for Early Detection and Rapid Response*. This

report was developed in collaboration with dozens of federal and nonfederal partners, including USDA.

- More recently, as the current set of work developed, the planning team again collaborated with federal agencies through NISC and ANSTF, including consulting USDA representatives. Agency members were invited to participate in individual project teams to advise the work.
 - USDA Forest Health Protection invested in aspects of the EDRR Framework’s horizon-scanning efforts; and likewise, DOI invested in USDA Forest Service’s Wild Spotter program to promote citizen science engagement on public lands.
 - Following ISAC’s recommendations, the EDRR Framework Co-Chairs met with USDA’s NISC Principal and Senior Advisor to discuss next steps, including the importance of shared messaging on the interrelatedness among existing EDRR efforts.
 - In conversation with USDA Animal and Plant Health Inspection Service (APHIS) Plant Protection and Quarantine (PPQ) leaders, there was agreement that the EDRR Framework was complementary to APHIS’ efforts, and they were supportive of future engagement.
 - In addition, a summer presentation to the National Plant Board on the EDRR Framework explored ways to further strengthen involvement.
 - USDA staff are active participants in the NISC EDRR Work Group, ANSTF, and the ISAC-ANSTF Subcommittee. Those groups are key venues for engaging in EDRR Framework planning and implementation efforts.
 - As EDRR Framework planning continues, coordination and collaboration opportunities among DOI, USDA, and other partners will continue to be identified so that the EDRR Framework is meeting the most pressing needs and is as effective as possible.
- **Place emphasis on the second part of the mission statement.**
 - The updated mission now more prominently features “coordination” as one of its focal points.
 - **Focus on conservation and management of natural resources and define what is meant by natural resources.**
 - The term “natural resource management” is removed from the updated mission due to the ambiguity this seemed to raise during ISAC/ANSTF Subcommittee discussions.
 - The scope of the EDRR Framework mission is intentionally broad to be as inclusive as possible, which could include natural areas, working landscapes, and infrastructure. This point is included as a Principle.
 - **Is there a better word than investing, or are we investing in and implementing?**
 - The term “investing” is now removed from the mission statement but included in the Principles, with further clarification.
 - **Should it include “expand our capability and capacity”?**
 - The updated mission now features “capacity” as one of its focal points. In the interest of brevity, “capacity” can be interpreted to include/imply “capability.”
 - **Should it include preventing species from establishment?**
 - The updated mission does not include the term prevention, as input varied on this point. Including the term prevention may divert attention from the EDRR phase of the invasion curve (which is the focus of this effort). Prevention traditionally involves a different set of interventions. In addition, there are differing opinions on what the term establishment means so this term is also not included.

- **Should it say something about the speed of the response?**
 - The updated mission includes the terms, “strengthen” and “efficiently.” Together, these terms convey improvement from the status quo and timeliness, or speed.
 - The Principles also emphasize the need for timeliness for both surveillance and response.
- **Should “secondary” be removed from the mission statement, since it is jargony?**
 - “Secondary,” has been removed from the updated mission because the term may not be commonly understood; however, it is retained within the “Species” Principle.

ISAC/ANSTF “Big Picture” Measures Recommendations

This section describes each of the ISAC/ANSTF Subcommittee’s recommendations on “big picture” measures and preliminary responses on how those measures could be addressed. Discussion is ongoing among federal and non-federal entities about qualitative and quantitative measures that could be integrated into evaluating the EDRR Framework initiative.

A helpful approach to program evaluation is breaking down metrics into the following components: Inputs, Process, Outputs, Outcomes, Impacts, and Barriers. The recommendations provided by the ISAC/ANSTF Subcommittee apply to process, outcomes, and impacts, but did not address inputs and outputs. Therefore, as an evaluation plan is further developed, EDRR Framework leaders and partners can identify inputs, outputs, and barriers, as well as other metrics that will help measure success in each of these categories.

An outside/objective evaluator may be best, if possible, to avoid bias both on the side of the evaluator and the participants. In addition, combining quantitative data (i.e., survey responses, partner lists, number of new invasives detected/eradicated) as well as qualitative data (i.e., case studies or interviews and focus groups with partners about how the EDRR Framework is benefitting them and what impact it is having) would be best.

Qualitative research is an under-utilized approach and would provide the EDRR Framework team with narratives and specific examples to illustrate value-added of the EDRR Framework. It would also provide applicable lessons learned and opportunities for improvement. For example, a survey response may measure level of satisfaction among partners with EDRR Framework resources, but a description of their experience will show *how* they engaged and *why* they are satisfied or dissatisfied.

- **ISAC/ANSTF Recommendation: Are there mechanisms in the framework to show improvement on how we are doing EDRR in the United States?** This is the overall question the EDRR Framework team is trying to answer using the recommendations and questions listed below.

Process

Existing information can be used to assess some of these measures (e.g., partner lists can be used to determine roles of non-federal and federal partners in implementation). Otherwise, interviews, surveys, and/or focus groups would be appropriate. Federal agency/office approvals would need to be sought prior to distributing surveys.

- **ISAC/ANSTF Recommendation: Is the framework adaptive based on user feedback?**
- **ISAC/ANSTF Recommendation: Do non-federal partners have a role in implementation?**
- **ISAC/ANSTF Recommendation: Are there incentives necessary to encourage participation?**

Example survey questions:

- Likert scale question item on a scale from Strongly disagree to Strongly agree: *The National EDRR Framework team has incorporated my feedback into the resources they are delivering.*
- Likert scale question items on a scale from Very unlikely to Very likely: *Based on your experiences with the National EDRR Framework, in the future how likely would you*
 - *Use additional resources provided by the National EDRR Framework*
 - *Request support directly from the National EDRR Framework*

Outcomes

A survey would be an efficient method for measuring the two recommendations below. Interviews with partners to gather more in-depth data on how the EDRR Framework is benefiting them would be valuable. However, the list below is likely incomplete. Measuring additional outcomes, such as the connectedness of the people and organizations in the EDRR Framework network, would be valuable.

- [ISAC/ANSTF Recommendation: Do non-federal partners believe the framework is benefiting them?](#)
- [ISAC/ANSTF Recommendation: Is the framework user-friendly?](#)

Example survey questions:

- Likert scale question items on a scale from Strongly disagree to Strongly agree: *The National EDRR Framework has provided me with resources that*
 - *Were easy to access*
 - *I can rely on*
 - *Was salient to my needs or problems*
 - *Was useful to me in my work*

Impacts

Metrics for the below impacts may be measured using data from sources such as Siren, the National EDRR Information System.

Case studies (or other qualitative data) demonstrating the application of the EDRR Framework principles, processes, and resources for detection, response, and/or eradication are critical for understanding *how* the resources from the EDRR Framework are implemented, what is successful, and where there are opportunities for improvement. This may include the hotspot pilots that are demonstrating proof of concept of integrating EDRR Framework tools, funding, services, and on-the-ground efforts. This could also include other efforts that use the EDRR Framework processes and resources. Additional expert input is needed about how to incorporate data on species detections, responses, and rate of establishment and how to determine where these phenomena are impacts of, or caused by, the EDRR Framework specifically.

The last recommendation from the ISAC/ANSTF Subcommittee is that all metrics should be about improvement. To measure improvement in the above items, the evaluation should be done at multiple points in time. If a survey measures process and engagement, then it should be sent every 1-2 years, for example. However, for partner-focused items (see Process and Outcomes), it would be possible to make conclusions based on the first iteration of the survey since the EDRR Framework is already being implemented. For example, the first iteration of a survey can provide a snapshot of user-friendliness and responsiveness to user feedback. It is worth noting that not all metrics may be about measuring improvement. It will depend on the goal or objective and the directionality of the associated metric. No change might be the most appropriate goal given efficiency, resource constraints, or if the value is already high (or, e.g., the cost for marginal improvement of the metric is high).

- ISAC/ANSTF Recommendation: Is the EDRR framework detecting species early and responding rapidly, or are we seeing the same rate of establishment? Note that it may be necessary to separate evaluations of early detection and rapid response efforts.
- ISAC/ANSTF Recommendation: What percentage of new introductions are successfully detected and responded to? Note that it may be necessary to separate evaluations of early detection and rapid response efforts.
- ISAC/ANSTF Recommendation: All metrics should be about improvement.

Approaches for sampling and collecting information on the measures listed above
Survey, interviews, and/or focus groups with partners

To identify the sample population for the survey, intentionally solicit names and contact information of partners from:

- Partner groups of National EDRR Framework projects
- Partners facilitating asset-based protection surveillance projects
- Partners collaborating on invasion hotspot surveillance pilot projects
- Partners and collaborators at the National EDRR Framework as a whole
 - Federal Agencies
 - Interagency fora (e.g., NISC, ANSTF)
 - Members of the ISAC/ANSTF Subcommittee on EDRR
- Individual boundary spanners who collaborate with EDRR Framework Leadership (i.e., Association of Fish and Wildlife Agencies Invasive Species Program Coordinator, Native American Fish and Wildlife Society Invasive Species Program Coordinator)

Case Studies

Develop narratives of efforts that demonstrate the application of EDRR Framework principles, processes, and tools, including:

- Hotspot pilots
- Asset-based protection efforts in current and future locations and jurisdictions (currently DOI lands/waters and physical assets)
- Other applications of EDRR Framework tools outside of pilots and asset-based efforts (i.e., horizon scans, hotspot analyses, Invasive Species Habitat Tool, Siren, marker development, environmental DNA (eDNA) point of use tool, eDNA automated samplers, Molecular Lab Network, Rapid Response Fund for Aquatic Invasive Species, DOI Interjurisdictional Invasive Species Rapid Response Team)

This is a preliminary assessment of how these potential measures could be integrated into evaluating the EDRR Framework initiative. The EDRR Framework team will continue to refine this approach in collaboration with others, including subject matter experts in program measures, assessment, and evaluation.