

## **STRATEGIC PLAN**

The Integrated Public Alert and Warning System (IPAWS) Program Management Office

Fiscal Year 2022-2026



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#### A Message from the Director

I am honored to present the Fiscal Year (FY) 2022-2026 Strategic Plan for the Integrated Public Alert and Warning System (IPAWS). IPAWS is a critical U.S. alert and warning capability that spans the entire spectrum of emergency management from preparedness through recovery, to save lives and protect our most important stakeholder, the public. This document will guide the evolution of the alert and warning ecosystem to achieve the IPAWS mission to *"provide integrated services and capabilities for Federal, State, Territorial, Tribal, and Local authorities that enable them to effectively alert and warn their respective communities via multiple communications methods."* 

The IPAWS Program Management Office's (PMO) initiatives to improve the alert and warning ecosystem and to enhance public trust and confidence in a complex network of interconnected systems is paramount. The success of this program relies on trusted partnerships across industry, Federal, State, Tribal, Territorial, Local (FSTTL), and public stakeholders. It also relies on the program's ability to embrace and optimize emerging technologies to meet the needs of the U.S. population and visitors, including those with access and functional needs. It is incumbent on us to remain forward-thinking to ensure people have timely information for proper responses that increases their likelihood of survival and minimizes damage to their property during times of emergency.

This plan supports and aligns with the 2022-2026 FEMA Strategic Plan and provides actionable and measurable objectives in support of our goals. While our program's mission has remained consistent, our people, capabilities, and goals have both changed and expanded. This is reflected in our 4-year plan to expand, improve, and reinforce the IPAWS program and the evolving alert and warning ecosystem. With our trusted partnerships across the public and private sectors, we will focus on the necessary resources, technology, tools, and skillsets to accomplish the goals and objectives established in this Strategic Plan.

"It is with great pleasure that I release this strategic plan to guide the IPAWS program office's efforts to deliver an alert and warning ecosystem that meets the needs of all people and communities" – Antwane Johnson



Antwane Johnson Director, Integrated Public Alert and Warning System (IPAWS)

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### A Message from the Assistant Administrator, National Continuity Programs

I am honored to publish the Fiscal Year (FY) 2022-2026 Strategic Plan for the Integrated Public Alert and Warning System (IPAWS). IPAWS is a critical United States alert and warning capability and its value to the nation is realized daily in response to natural and man-man emergencies. IPAWS spans the entire spectrum of emergency management from preparedness through recovery, to inform, save lives and protect our most important stakeholder, the public. This document establishes the goals and objectives for ensuring the alert and warning ecosystem is responsive to emergency management and public safety officials and will enhance public trust and confidence in a complex network of interconnected systems to meet their needs.

The success of the IPAWS program relies on trusted partnerships across industry, Federal, State, Tribal, Territorial, Local (FSTTL) and public stakeholders. Local officials have leveraged IPAWS to alert and inform people about wildfires, flooding, volcanos, missing and endangered children, missing or wanted adults, dangerous persons, local police activity, gas leaks, road closures, evacuations, severe weather and other manmade and natural disasters. Today, IPAWS includes the unique Wireless Emergency Alerts geo-targeted alert blast to cellular phones in a given area, even if those devices are not signed-up with a local alerting service. IPAWS also includes connection to radio/TV/cable for Emergency Alert System activation and NOAA Weather Radio for sending nonweather alerts and the program is pursuing new Internet alerting connections and technologies. This plan supports and aligns with the 2022-2026 FEMA Strategic Plan and provides actionable and measurable objectives in support of our goals. With our trusted partnerships across the public and private sectors, we will focus on the necessary resources, technology, tools, and skillsets to accomplish the goals and objectives established in this Strategic Plan

"It is with great pleasure that I endorse this strategic plan to guide the IPAWS program office's efforts to deliver an alert and warning ecosystem that meets the needs of all people and communities" – Michael S. George



Michael S. George Assistant Administrator, National Continuity Programs Michael S. George

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### **Executive Summary**

The Integrated Public Alert and Warning System (IPAWS) program was established under Executive Order (E.O) 13407 in 2006, incorporating insights and capabilities from decades of national alerting experience with a mandate to make alerts more available and useful for local emergencies. IPAWS provides the capability to notify people in America and visitors of impending natural and man-made disasters, and ensure that under all conditions, the President of the United States can alert and warn people in America and transient populations. Through two systems, IPAWS Open Platform for Emergency Networks (IPAWS-OPEN), and the National Public Warning System (NPWS), the program delivers timely, geographically targeted messages during a crisis to both save lives and protect property.

The program integrates services to support Federal, State, Tribal, Territorial, and Local (FSTTL) Alerting Authorities (AAs) that use the systems to send alerts to their communities through a range of dissemination channels, increasing the likelihood a given message will reach people in an affected area through the national alert and warning infrastructure. IPAWS has and will continue to expand the delivery of alert and warning information over additional channels and platforms to more people before, during, and after an emergency. In this way, IPAWS will increase resilience to local systems and provide additional means by which officials and emergency managers can distribute life-saving information to all people during a crisis.

**Mission:** Provide integrated services and capabilities for Federal, State, Territorial, Tribal, and Local authorities that enable them to effectively alert and warn their respective communities via multiple communications methods.

**Vision:** To provide trusted timely alert and warning to people affected by threats to public safety in the preservation of life and property.

**Long-Term Goals:** To support the mission and vision, IPAWS has established four over-arching long-term goals:

Goal 1: Expand the Breadth and Equity of IPAWS Alerting Coverage

Goal 2: Improve Stakeholders' Abilities to Send Effective Alerts

Goal 3: Improve and Reinforce the Alert and Warning Ecosystem

Goal 4: Improve Internal Efficiency and Resource Management

These goals encompass 16 objectives that aim to make alerting available to more people and broader demographics, improve the effectiveness of alerts, improve the quality and sustainability of the national alerting ecosystem, and improve the internal operations of the IPAWS PMO to optimize service delivery and long-term capability development.

## **1.0 Introduction**

#### **1.1 Background and Mission Context**

IPAWS-OPEN is FEMA's national system for local alerting that provides authenticated emergency and life-saving information to the public through mobile phones using Wireless Emergency Alerts (WEA), to radio and television via the Emergency Alert System (EAS), and on the National Oceanic and Atmospheric Administration's (NOAA) Weather Radio. The National Public Alert and Warning System (NPWS) ensures that the President can broadcast a national warning message in the most severe conditions.

IPAWS has evolved out of early civil defense programs designed to alert and keep the public informed in the event of national emergencies. Envisioned by Executive Order 13407 in 2006, expanded national capabilities have become an adaptable and dynamic tool for FSTTL officials to alert and warn their communities in the face of a wide range of threats to people and property. It continues to evolve, incorporating new partners, new channels, and new expertise focused on helping the public understand and act on the threats they face. As it evolves, the IPAWS Program Office plays an increasingly significant role in fielding and maintaining technology, coordinating insights and best practices, providing support to alerting authorities so they can send warnings to underserved or disadvantaged areas, and providing an overall vision for the nation's alerting ecosystem and methods.

IPAWS consists of two main parts: IPAWS-OPEN and the National Public Warning System (NPWS).

IPAWS-OPEN (**Figure 1**), developed and maintained by IPAWS, is a federated system of systems that enables local Alerting Authorities to independently craft and transmit alerts targeted for their communities, using technology and protocols managed by IPAWS. These alerts, once verified through the IPAWS-OPEN platform, are distributed through private sector radio and television partners through the EAS and WEAs to cell phones and similar devices, and to other internet-based and unique alerting systems.

#### The IPAWS-OPEN Network:

- Consists of over 1,700 Alerting Authority partners
- Delivers over 600 WEA alerts/month
- Saved 130+ children through AMBER alerts
- Delivered 720+ COVID-related alerts in 2020 and 2021

#### The NPWS Ecosystem:

- Ensures President and FEMA Administrator can broadcast national warnings
- Consists of 77 Primary Entry Point (PEP) Stations

#### IPAWS Strategic Plan FY 2022-2026



## Figure 1 – IPAWS quickly distributes alerts to the Public through multiple pathways including the EAS, WEAs, National Oceanic and Atmospheric Administration (NOAA), internet services, State and Local alerting systems, and emerging technologies.

NPWS helps to ensure that under all conditions, the President of the United States can alert and warn the public. It consists of seventy-seven specially designated and highly resilient commercial and public radio broadcast stations who cooperatively participate with FEMA to provide emergency alert and warning information to the public. FEMA equips NPWS stations with backup communications equipment and power generators that enable them to continue broadcasting information to the public during and after an emergency event.

#### **1.2** Partners and Stakeholders

The nature of the IPAWS mission and operations requires it to interact with a complex network of critical partners and stakeholders to deliver alerts. The most critical include the general public, FSTTL Alerting Authorities, radio and television stations, wireless providers, technology providers, and federal and state regulatory bodies.

The public is the ultimate target and beneficiary of alerts. Although IPAWS does not author and send alerts to the public, IPAWS plays a vital role in helping public safety officials, train and exercise and be prepared to send effective alerts that will help people in their jurisdictions avoid and mitigate disaster consequences.

FSTTL AAs, are the prime actors in creating alerts for public dissemination. These alerting authorities must be enrolled, guided through certification, and supported (as needed and practical) in developing their capacity and capabilities to send effective alerts.

Radio and television participants in the EAS maintain equipment to monitor and broadcast emergency alerts to their listening and viewing customers. Wireless providers make WEAs possible by transmitting alerts through their networks to their customers' mobile phones. IPAWS must work closely with these providers to enable appropriate alerts without undue burden on private sector partners and networks.

Technology providers provide the underlying tools used by alerting authorities to create and send alerts, for components in the IPAWS wireless networks and devices that deliver alerts, and other communications infrastructures. IPAWS works closely with providers and other partners to communicate needs and develop standards.

Federal and state regulatory agencies help to manage the myriad public-private responsibilities associated with telecommunications activities.

#### **1.3 Challenges**

This strategic plan is intended to accomplish the IPAWS mission even in the face of a range of challenges. Some challenges result from changes in technologies, demographics, and other national trends. Other challenges arise from the nature of the IPAWS operational model and from IPAWS' own success to date.

**New Platforms and Preferences** – The public is moving away from radio and broadcast/cable television as the primary channels for news and information. Just as IPAWS has adapted emergency alerting to smart phones via WEAs, the program must now find ways to communicate with the public however they receive information.

**Equity** – The nation increasingly recognizes the need to provide FEMA services to all affected populations, even those with limited means, access and functional needs, or limited English proficiency. IPAWS must ensure its alerts are available and understood by everyone who faces threats. Additionally, IPAWS must find ways to help AAs in underserved areas or with limited resources to be able to provide timely and effective alerts to people in their jurisdiction.

**Public-Private Coordination** – While IPAWS and its partners across government and within the private sector maintain excellent relationships, it requires continuous effort to balance the needs, objectives, and capabilities of each partner to maintain and improve alerting capabilities overall.

**Mandates and Prioritization** – As IPAWS has grown in reach and reputation, additional mandates, such as the National Defense Authorization Acts (NDAA) of 2019 and 2020, have laid out new requirements without providing additional funding sufficient to achieve these aspirations. While this strategic plan lays out a vision and planning framework to achieve the legislative intent, IPAWS will need to continue to make difficult resource allocation decisions to direct staff and funding at the most critical areas.

# **2.0 Mission, Vision, Goals, and Objectives**

Since its creation, IPAWS has played a critical role in providing technology infrastructure to enable alerts. While this remains critical, IPAWS and FEMA leadership recognize that IPAWS must play a greater role in helping FSTTL partners, and the communities they serve, realize the full benefits of alerting technology and capabilities.

IPAWS slightly modified its prior Mission and Vision statements to reflect the need to enable the delivery of trusted and effective alerts (**Figure 2**). In some cases, achieving the IPAWS mission and vision will focus on IPAWS' role as a leader, champion, and advocate where sufficient resources or defined authorities for more direct actions do not exist.



Figure 2 - The IPAWS Mission, Vision, Goals, and Objectives

## Goal 1: Expand the Breadth and Equity of IPAWS Alerting Coverage

Expand the breadth of IPAWS coverage by increasing the number of Alerting Authorities, working alongside IPAWS champions, and integrating the program into additional platforms to ensure equal access to emergency alerts is accessible and available to all.

Since 2015, IPAWS users have grown from 621 Alerting Authorities (AAs) to over 1,600, with local, military, territorial, and tribal AAs now covering over 82% of the population. To support this, and future, growth, IPAWS helps AAs coordinate across jurisdictions, and helps the public to understand alerting benefits and how to use them more fully. To improve overall population coverage, IPAWS is working to expand alerts to new platforms that increasingly reflect the information and entertainment preferences of the population.



#### **Everyone Benefits from Alerts**

#### **Objective 1.1 Improve Coordination and Remove Barriers Among Alert Stakeholders**

IPAWS, as both an authoritative guidance provider and training and support center, has a unique opportunity to facilitate relationship building between key stakeholder organizations to reduce barriers in the alerting process, increase the access to life and property saving information, and reach a greater number of communities.

IPAWS will work to be a key facilitator among neighboring and overlapping jurisdictions, alerting technology vendors, and private sector regulatory bodies to better understand and expand IPAWS capabilities and coverage for Alerting Authorities. Sample potential initiatives include:

 Identify barriers of entry to the program and implement solutions and/or working sessions with relevant stakeholders to reduce access limitations

#### **Objective 1.2 Increase Public Awareness of Benefits**

Greater awareness of IPAWS correlates with higher interest and enrollment in the program. IPAWS looks to be more systematic in its approach to increasing awareness by identifying and working with communities who are not familiar with the system as well as expanding outside of emergency management specialists to reach individuals.

IPAWS will work to increase public awareness and interest of IPAWS, IPAWS alerting benefits, and the importance for FSTTL officials to adopt and use IPAWS-OPEN capabilities. Sample potential initiatives include:

- Increase Alerting Authorities across FSTTL organizations
- Increase IPAWS awareness at the individual and community level

#### **Objective 1.3 Fill Alerting Authority Gaps**

The IPAWS benefit is only as strong as the Alerting Authorities sending messages. IPAWS plays a critical role in helping them be able to effectively do their job. IPAWS will proactively and continuously engage FSTTL partners, and community representatives and leaders to give insight into the IPAWS program, share best practices, ensure people with disabilities or access and functional needs are equally benefitting from alerts, and fill gaps in alerting practices.

IPAWS will identify and fill gaps in local alerting practices and underserved populations to expand IPAWS' reach and benefits to local communities to manage risk. Sample potential initiatives include:

- Explore IPAWS developed alerting tools for Alerting Authorities with program access difficulties including costs and awareness
- Identify gaps in guidance or best practices and provide alerting authorities with clear, actionable, recommendations

#### **Objective 1.4 Expand Program to Additional Platforms**

As technology and societal tastes have evolved, people have moved away from traditional TV and radio to other platforms such as streaming video and social media. IPAWS will engage additional media organizations to establish new partners to expand IPAWS alerting capabilities to incorporate additional platforms and outlets to distribute alerts. IPAWS looks to enter the next generation of alert and warning technology to meet the evolving needs of users and align with changing technology. IPAWS aligns with FEMA's goal to bolster capacity in incident management and support the workforce. Sample potential initiatives include:

 Research and engage with new platforms and document expansion efforts for measurable results

## Goal 2: Improve Stakeholders' Abilities to Send Effective Alerts

Improve IPAWS Stakeholders' abilities to send effective alerts through training, hands-on testing, and building strong relationships for vendor collaboration and support. Empower stakeholders in risk-informed decision making and strengthen the emergency management workforce.

The capabilities and resources available to Alert Authorities vary widely across the scope of jurisdictions, from large cities to small towns, and in wealthier and underserved areas. IPAWS seeks to help Alerting Authorities send effective alerts that spur appropriate action, regardless of where a person lives. These efforts focus on direct assistance to Alerting Authorities and helping to coordinate insights and best practices among Alerting Authorities.

Goal 2 Vision

Alerts are Effective and Actionable

#### **Objective 2.1 Strengthen the IPAWS TSSF Services and Capabilities**

Developing the IPAWS Technical Support Services Facility (TSSF) was an important accomplishment and milestone for the program. The TSSF is a hub of 24/7 support and best practices. IPAWS looks to have a well-defined TSSF that expands outside of solving problems and is a leader in developing strong and confident emergency management personnel across the U.S.

IPAWS will further develop and sustain an organized and focused IPAWS TSSF that supports training, testing, and relationship building with external partners. This includes defining customer experience targets and aspirations. Sample potential initiatives include:

- Track and increase customer experience metrics
- Develop and sign off on a TSSF Roles and Responsibilities program charter
- Increase levels of testing and training capacity

#### **Objective 2.2 Increase Stakeholder Engagement and Coordination**

IPAWS understands that navigating the world of emergency management alerting is complex and challenging. The program also understands this burden can be reduced when emergency management organizations partner and share information and best practices. These partnerships often reduce alerting hesitations and help organizations identify, prioritize, and plan to address their specific community-based threats, identify hazards and risks, and mitigate capability gaps.

#### IPAWS Strategic Plan FY 2022-2026

IPAWS will increase engagement and influence with the alerting community to expand the program's national presence and support information sharing and coordination among Alerting Authorities on training, informational materials, program benefits and capabilities, and success stories. Sample potential initiatives include:

- Support and facilitate partnership building at a local level (e.g., provide best practices and guidance on local public alerting program development, etc.)
- Engage Stakeholder Engagement representatives in regional and national emergency management events and conferences for a face-to-face approach to build trust, representation, and engagement

#### **Objective 2.3 Expand Role in Training and Evaluating Alerting Authorities**

While the IPAWS program does not directly author and send alerts to communities, IPAWS Subject Matter Experts (SMEs) are a hub of best practices for effective alerting. As the program expands into additional platforms and is used more frequently, IPAWS will support continued training and development of Alerting Authorities to reduce gaps in knowledge and to enable individuals and communities to use the system effectively.

IPAWS will expand its role in Alerting Authorities' initial and recurring training to support best practices and communicate, teach, and refresh guidance. Play a larger role in evaluating Alerting Authorities capabilities and focus on supporting communities/individuals that require more direction. Sample potential initiatives include:

- Increase tracking and understanding of Alerting Authority capabilities
- Refine training based on Alerting Authority feedback and evaluation measures



#### Goal 3: Improve and Reinforce the Alert and Warning Ecosystem

Reinforce the existing alert and warning ecosystem with value-added system improvements, tests, and releases. Combine relevant emerging technologies and long-term program aspirations to facilitate additional capabilities, access, equity, and trust in the program. Look to the future of the NPWS communication options for the public.

A trusted, capable, and reliable technology ecosystem is the foundation of all IPAWS alerting capability. As IPAWS expands to new communities and applications, its underlying technology must be able to support the growth and embrace innovative technologies and platforms.



The System is Accessible, Reliable and Trusted

#### **Objective 3.1 Build Trust in the IPAWS-OPEN System**

IPAWS has always prioritized mission capability in technology development. This has sometimes come at the expense of tools and capabilities that help to monitor, manage, and stabilize the system.

IPAWS will enhance capabilities in monitoring, data analysis, updates (system enhancements and requirements), and Operations and Maintenance (O&M) to simplify improvements, minimize outages, and maximize reliability. Sample potential initiatives include:

- Collaborate with DHS to improve the DHS CISA Trusted Internet Connection (TIC) availability
- Support REST interface in IPAWS -OPEN feeds
- Support retrieval and persistent alerting practices

#### **Objective 3.2 Identify Relevant New Technologies**

Integrating IPAWS into emerging technologies supports the program vision of building a strong, trusted, alert delivery system. IPAWS recognizes the need to pursue next generation technology while maintaining steady-state functionality.

In coordination with research and development organizations such as DHS Science and Technology (S&T), IPAWS will research, identify, and evaluate emergent technologies for integration into existing infrastructure to improve and enhance security and reliability of public alert and warning systems using interoperable communications. Increase interoperability with "Smart" technology and devices (self-driving cars, smart homes, and buildings etc.). Sample potential initiatives include:

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 Engage with product vendors (Amazon, Roku, Chromecast etc.) to encourage and support roles as alert

#### **Objective 3.3 Improve Alert Capabilities**

The program actively solicits and depends on stakeholder feedback to improve and maintain a strong system. As one example, IPAWS will solicit the largest amount of feedback on the program in its history through a survey after the 2023 nationwide WEA test. The results will support additional alert capability releases and user understanding.

IPAWS will work to increase alert effectiveness and targeting across the nation by operationalizing insight from the test results and stakeholder feedback. Sample, potential initiatives include:

- Successful execution of the nationwide WEA test survey and implementation of recommendations that enhance alerting best practices
- Conduct bi-annual comprehensive and representative Alerting Authority interviews. Track feedback and implementation of recommendations

#### **Objective 3.4 Enable Language Options**

Even though an IPAWS alert might reach everyone in a targeted area, the lack of English proficiency can limit the effectiveness for an individual. IPAWS will direct resources and work with stakeholders to reduce language disparities in alerts so that all individuals that receive an alert are able to understand and act on vital information.

IPAWS will act as a key player in facilitating the alerting community's multilingual capabilities and in enabling individuals with disabilities in understanding the English language. Sample potential initiatives include:

 Review and address language challenges in core IPAWS functionality and related systems and processes

#### **Objective 3.5 Explore the Future of NPWS**

The NPWS system and architecture is vital to the IPAWS program, providing resilient audio only radio broadcast for Presidential alerts and emergency messaging. The cost to maintain and sustain the NPWS program is high.

IPAWS will research and report on the needed long-term considerations and resilient communications options for NPWS, addressing shifting public preferences regarding broadcast radio and corporate shifts in investment and prioritization. Sample potential initiatives include:

 Evaluate and research the changing landscape of broadcast radio to best inform the next generation of NPWS and long-term sustainment options for the infrastructure

## Goal 4: Improve Internal Efficiency and Resource Management

Improve internal PMO efficiency and relieve overstressed workstreams by expanding funding, allocating additional personnel, and identifying clear roles and responsibility expectations to promote and sustain a ready FEMA.

The IPAWS Program staff executes critical functions ranging from program planning, system operations and maintenance, stakeholder support, procurement, contracts and financial management, technology standards development, technology evaluation, and other supporting functions. The IPAWS program's growth in scale and scope has outpaced the available resources to complete new policies and initiatives. This leads to a continuing need to focus on efficient operations even as the program explores options for additional resources.



The Program Operates at Maximum Efficiency

### **Objective 4.1 Improve and Streamline Internal Program Operations and Controls**

IPAWS will improve communication of program statuses, hiring, expectations, resource constraints, and branch needs between IPAWS leadership and workstream leads. Clearly define branch missions and roles and responsibilities across the program to inform streamlined processes and responsible POCs. Sample potential initiatives include:

- Identify and eliminate unnecessary redundancies
- Optimize program organizational structure

#### **Objective 4.2 Outsource Specialty Activities**

In addition to their core responsibilities, IPAWS SMEs often support other program initiatives and activities. By outsourcing specialty activities to high-performing teams or external vendors, IPAWS SME's can focus on advancing delivery in support of the program's strategic goals.

IPAWS will maximize its focus on core responsibilities by outsourcing support for non-core or temporary capability needs and promoting internal focus on operation and maintenance and program expansion. Sample potential initiatives include:

- Identify Research and Development (R&D) goals and desired end state for the program
- Outsource specific objectives to support goals

#### **Objective 4.3 Reduce Critical Single Points of Failure**

Key IPAWS staff members have developed deep and unique expertise regarding IPAWS technology, operations, and other key areas. Building broader staff expertise to reduced critical single points of failure in the program supports a positive work environment, long-term program sustainment, reduced burden of tasks, and more efficient operations.

IPAWS will increase capacity and knowledge sharing across the IPAWS program to reduce single points of failure or lack of institutional knowledge. Develop core competencies and support building a strong pipeline of capable individuals for the program. Sample potential initiatives include:

- Develop and streamline program operations, knowledge base, and documentation to further mitigate critical single points of failure
- Increase personnel capacity in support of IPAWS SME's and support the necessary training time

#### **Objective 4.4 Expand IPAWS Advocates and Diversify Funding Sources**

Accomplishing the full scope of IPAWS legislated responsibilities and its vision requires funding. As the expectations and goals of the program grow, IPAWS looks to secure a broader base of funding opportunities (potentially non-appropriated funds) in support of AA training, alert accessibility, and awareness, and advancing system capabilities.

IPAWS will develop and foster relationships with partners that are champions of the program that can support IPAWS initiatives and funding needs to support new and existing requirements. Sample potential initiatives include:

 Develop new DHS and private partnerships that champion the IPAWS program in additional areas



Secure external non-Government funding in support of the program

## **3.0 Traceability to the FEMA Strategic Plan**

The FEMA 2022-2026 Strategic Plan outlines an important and bold approach to building a strong and sustainable FEMA for the nation. IPAWS, as part of FEMA, is responsible for and enthusiastic towards contributing to the achievement of the FEMA vision and strategic goals. The IPAWS FY 22-26 Strategic Plan is in direct alignment with 100% of the FEMA Goals and Objectives. **Table 1** demonstrates the alignment between the IPAWS and FEMA FY22-26 Goals and Objectives.

IPAWS Goal	IPAWS Objective	FEMA Goal 1		FEMA Goal 2			FEMA Goal 3			
		Prioritize and Harness a Diverse Workforce	Remove Barriers to FEMA Programs Through a People First Approach	Achieve Equitable Outcomes for Those we Serve	Increase Climate Literacy Among the Emergency Management Community	Build a Climate Resilient Nation	Empower Risk- Informed Decision Making	Strengthen the Emergency Management Workforce	Posture FEMA to Meet Current and Emergent Threats	Unify Coordination and Delivery of Federal Assistance
1: Expand the Breadth and Equity of IPAWS	1.1 Improve Coordination and Remove Barriers Among Alert Stakeholders		х							
Alerting Coverage	1.2 Increase Public Awareness of Benefits		х		х			Х	х	
	1.3 Fill Alerting Authority Gaps		х					х		
	1.4 Expand Program to Additional Platforms		х							
2: Improve Stakeholders' Abilities to Send	2.1 Strengthen the IPAWS TSSF Services and Capabilities						х	х		
Effective Alerts	2.2 Increase Stakeholder Engagement Coordination						Х	х		
	2.3 Expand Role in Training and Evaluating Alerting Authorities					х	х	х		
3: Improve and Reinforce the	3.1 Build Trust in the IPAWS-OPEN System						Х		х	
Alert and Warning Ecosystem	3.2 Identify Relevant New Technologies		х	Х						х
cosystem	3.3 Improve Alert Capabilities		х	Х						
	3.4 Enable Language Options		х	Х						
	3.5 Explore the Future of NPWS		х	Х				х	х	х
4: Improve Internal Efficiency and Resource	4.1 Improve and Streamline Internal Program Operations and Controls		х						х	
Management	4.2 Outsource Specialty Activities		х						х	
	4.3 Reduce Critical Single Points of Failure		х						х	
	4.4 Expand IPAWS Advocates and Diversify Funding Sources		х						х	

Table 1 – FEMA's 9 overarching Strategic Objectives are supported by 16 IPAWS Objectives.Prioritizing and Harnessing a Diverse Workforce is a daily ongoing commitment for the IPAWS<br/>program.

# 4.0 Program Management and Implementation

The IPAWS Program is organized by the operational functions required to complete the mission including Stakeholder Engagement, Customer Support, Engineering, and Strategic Integration. The primary systems supporting the IPAWS mission are IPAWS Open Platform for Emergency Networks (OPEN) and the National Public Warning System (NPWS). For this ecosystem to effectively operate and achieve the mission, all IPAWS operational functions work in tandem to implement the needed operations and maintenance, modernization, technical support, training, communication, and program performance goals. IPAWS looks to the next four years as an opportunity and cumulative effort to be a programmatic leader in the advancement of technology, capabilities, and stakeholder support with strong documentation, adherence to fundamental acquisition, and documented best practices.

#### 4.1 Implementation Approach

As IPAWS implements this plan, the program will maintain focus on several key success factors to achieve its strategic goals and objectives.

#### **Mission Focused Resource Prioritization**

At IPAWS, our goals are ambitious with an eye to the future of emergency alerts and warnings. IPAWS intends to maintain our current services and prioritize our strategic goals and objectives based on resource availability and mission.

#### Project Ownership and Accountability

Responsibility and accountability are vital to attaining strategic goals and objectives. IPAWS will assign ownership and accountability of strategic objectives over the four-year performance period. A responsibility matrix will outline projects and project owners, activities, and target completion dates to ensure clarity on responsibility and timing. IPAWS leadership will track and review the matrix regularly.

#### Transparency

IPAWS will maintain transparency both internally to the program and externally with relevant stakeholders. A transparent approach builds trust and collaboration across IPAWS to meet strategic goals. This will allow key support personnel to operate with full disclosure of both inhibitors and opportunities, increase communication, and allow program stakeholders to see program evolution and progress.

#### **Multi-Year Outlook**

IPAWS is a complex program, and our goals and objectives may take years to complete. Our program will remain focused on the long-term goals and proactively support and identify opportunities to ensure strategic objectives are achieved and on target.

#### Transferring and Sharing Knowledge

Many strategic objectives require support from multiple IPAWS operational areas. Cross-collaboration and knowledge sharing allows us to utilize a base of IPAWS SMEs to advance and manage our goals and objectives. By focusing on knowledge sharing, process documentation, and clearly defined roles and responsibilities, the program will have the depth of personnel and knowledge to meet the goals outlined in this plan.

#### 4.2 Performance Measures

IPAWS will aggressively track, interpret, and act on measures that reflect its success in implementing this plan. Key indicators of successful performance are listed in **Table 2**, below. Potential measures and targets both Goals and Objectives based on these indicators are still being evaluated relative to mission alignment and measurement practicality.

	Goal	Performance Indicators
1	Expand the Breadth and Equity of IPAWS Alerting Coverage	<ul> <li># of Alerting Authorities (AAs)</li> <li>% Population coverage</li> <li>Public awareness/satisfaction</li> </ul>
2	Improve Stakeholders' Abilities to Send Effective Alerts	<ul> <li># of AA customers completing monthly proficiency demonstrations</li> <li>AA Satisfaction with IPAWS</li> <li>Prevalence of high-quality alerts transmitted</li> </ul>
3	Improve and Reinforce the Alert and Warning Ecosystem	<ul> <li>System availability</li> <li>Languages supported</li> <li>Action on improvement recommendations</li> </ul>
4	Improve Internal Efficiency and Resource Management	<ul> <li>Employee engagement</li> <li>Project management efficiency (schedule, budget, quality)</li> <li>Diversity of funding sources</li> </ul>

#### Table 2 – These indicators help guide and measure successful performance in relation to theIPAWS Strategic Goals.

### **Appendix A: Glossary**

- Alerting Authority (AA): A jurisdiction with the designated authority to alert and warn the public when there is an impending natural or human-made disaster, threat, or dangerous or missing person. (Source: IPAWS Alerting Authorities – Agencies and Organizations, fema.gov)
- Common Alerting Protocol (CAP): A digital format for exchanging emergency alerts, allows a consistent alert message to be disseminated simultaneously over multiple communications pathways (Source: Frequently Asked Questions About IPAWS, fema.gov)
- Emergency Alert System (EAS): A national public warning system that requires radio and TV broadcasters, cable TV, wireless cable systems, satellite, and wireline operators to provide the President with capability to address the American people within 10 minutes during a national emergency (Source: Frequently Asked Questions About IPAWS, fema.gov)
- Emergency Management: As subset of incident management, the coordination and integration of all activities necessary to build, sustain, and improve the capability to prepare for, protect against, respond to, recover from, or mitigate against threatened or actual natural disasters, acts of terrorism, or other manmade disasters. (Source: National Response Framework Glossary)
- Incident: An occurrence or event, natural or man-made that requires a response to protect life or property. Incidents can, for example, include major disasters, emergencies, terrorist attacks, terrorist threats, civil unrest, wildland and urban fires, floods, hazardous materials spills, nuclear accidents, aircraft accidents, earthquakes, hurricanes, tornadoes, tropical storms, tsunamis, war-related disasters, public health and medical emergencies, and other occurrences requiring an emergency response. (Source: National Response Framework Glossary)
- IPAWS Open Platform for Emergency Networks (IPAWS-OPEN): A platform that receives and authenticates messages transmitted by Alerting Authorities. IPAWS-OPEN then routes the messages to IPAWS communications pathways. (Source: Technology Vendors & Developers, fema.gov)
- National Public Warning System (NPWS): The NPWS enables stations that are equipped with backup communications equipment and power generators to continue broadcasting information to the public during and after an emergency event. The 77 participating broadcast stations across the nation cover more than 90 percent of the U.S. population. (Source: Broadcasters and Wireless Providers, fema.gov)
- Technical Support Services Facility (TSSF): A 24/7 facility staffed with subject-matter experts experienced in emergency management, public safety communications, public works, and broadcasting, who assist Alerting Authorities with IPAWS needs. The TSSF hosts a closed, end-toend, IPAWS environment for alert creation and dissemination to all IPAWS pathways including the EAS, WEAS, Non-Weather Emergency Messages and IPAWS All-Hazards Information Feed so that

Alerting Authorities may train, practice, and exercise alert, warning, and notification procedures and processes. (Source: The IPAWS Technical Support Services Facility, fema.gov)

 Wireless Emergency Alert (WEA): Short messages from FSLTT public alerting authorities that can be broadcast from cell towers to any WEA-enabled mobile device in a locally targeted area. WEA messages automatically "pop-up" on the home screen and include a unique attention tone and vibration cadence when received by a capable cell phone and include brief information about the type of warning, the duration of the warning, and who is sending the alert. (Source: Frequently Asked Questions About IPAWS, fema.gov)

## **Appendix B: Authorities and Governance Guidance Documents**

- Presidential Policy Directive 40, Continuity Policy, July 15, 2016
- Public Law 114-143, the Integrated Public Alert and Warning System Modernization Act of 2015
- Presidential Policy Directive 21 (PPD-21), Critical Infrastructure Security and Resilience, February 12, 2013
- Presidential Memorandum 1995, Emergency Alert System Statement of Requirements, September 15, 1995
- Executive Order (E.O.) 13618, Assignment of National Security and Emergency Preparedness Communications Functions, July 2012
- Executive Order (E.O.) 13407, Public Alert and Warning System, June 26, 2006
- National Response Framework, Third Edition, June 2016
- 2017 National Preparedness Report, August 28, 2017
- The Robert T. Stafford Disaster Relief and Emergency Assistance Act, Section 611(d), and e, 42 USC. 5196(d) and (e), November 23, 1988
- Warning, Alert, and Response Network (WARN) Act, October 13, 2006
- The Office of Science and Technology Policy (OSTP) / Office of Management and Budget (OMB) Directive D-16-1
- HSPD-7, Critical Infrastructure Identification, Prioritization, and Protection, September 22, 2015, Government Accounting Office (GAO) Report, Emergency Alerting: Capabilities Have Improved, but Additional Guidance and Testing are Needed, GAO-13-375, March 2013
- E.O. Improving Critical Infrastructure Cybersecurity, February 12, 2013
- GAO Report, Emergency Preparedness: Improved Planning and Coordination Necessary for Development of Integrated Public Alert and Warning System, GAO-09-1044-T, September 2009
- National Incident Management System, Third Edition, October 2017
- The Federal Response to Hurricane Katrina: Lessons Learned, February 23, 2006
- The War Powers Act, 1941 Section 706 of 47 U.S.C. 606