



## 2025 Annual Action Plan Long Island Invasive Species Management Area (LIISMA)

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in collaboration with LIISMA partners

### Introduction

The LIISMA 2025 Annual Action Plan outlines key actions and priorities for the year, based on the goals, strategies, and objectives of the LIISMA 2025-2030 Strategic Plan. The action plan aligns with LIISMA's contractual obligations with the New York State Department of Environmental Conservation (NYSDEC).

The action plan translates long-term strategies into focused, short-term actions that guide LIISMA's work to coordinate partnerships and prevent, detect, and manage invasive species across Long Island and parts of New York City.

Together, the plans follow a GSOT (Goals, Strategies, Objectives, Tactics) planning framework. The LIISMA 2025-2030 Strategic Plan defines the long-term goals, strategies, and objectives, while the annual plan identifies the tactics, referred to here as actions, that represent short-term steps to advance those objectives.

Funding for LIISMA is provided by the New York State Environmental Protection Fund as administered by NYSDEC.

### Goal 1: Cultivate and Coordinate Engaged, Collaborative Partnerships.

Foster collaboration and coordination with key stakeholders to enhance regional invasive species planning and management, under the direction of the New York State Department of Environmental Conservation (NYSDEC) Invasive Species Coordination Section (ISCS).

- Hire a new Education and Outreach Manager (EO) and maintain four full-time positions: PRISM Director (LIISMA Program Manager), Early Detection and Rapid Response (EDRR) Manager, Conservation Area Manager, and EO Manager.
- Organize and participate in regular meetings with key stakeholders, including community leaders, federal and state agencies, counties, towns, NGOs, academia, and other PRISMs.
- Create opportunities for partners to participate in decision-making processes, such as an advisory committee, strategy sessions, and individual meetings with key partners.

- Support the 2025 New York Invasive Species Expo in September 2025 and other partner conferences (e.g., annual Cornell In-Service).
- Arrange access required for LIISMA invasive species activities with landowners or land managers.
- Hold four quarterly LIISMA Partners Meetings to educate stakeholders, discuss ongoing invasive species management initiatives, share information, and identify areas for collaboration and resource sharing.

Collaborate and communicate with other PRISMs, NYNHP, NYISRI, and ISAC in conjunction with ISCS. Provide LIISMA updates during monthly NYS Invasive Species Calls, and quarterly PRISM Coordinator calls as needed.

- Prepare updates for PRISM calls and coordinator calls.
- Host All-PRISM calls 1-2 times per year.
- Staff attend respective PRISM Committee meetings, including Terrestrial Coordinators meetings and Education and Outreach Committee meetings.

Provide guidance and technical assistance to key partners to support the development and implementation of invasive species management plans.

- Assist in management planning with the Nassau County Soil & Water Conservation District, Peconic Land Trust, Niamuck Land Trust, Plum Island, and other partners.
- Organize, host, co-host, or assist with training sessions and workshops for key partners on designing, implementing, and monitoring invasive species management plans.
- Work with landowners and resource managers to create guided, phased, and strategic invasive species management plans.

Integrate Indigenous Peoples, including the Shinnecock Nation, into collaborative partnerships to strengthen invasive species management efforts.

- Continue cultivating partnerships with the Shinnecock Nation, Niamuck Land Trust (NLT), and Peconic Land Trust to develop and implement plans for managing invasive species, such as at Sugar Loaf Hill.
- Provide technical assistance, training, and resources to the Shinnecock Nation and other Indigenous communities to protect their important cultural resources, manage invasive species appropriately, and ensure their land management priorities are supported, and medicinal plants are respected and protected.

Enhance partnerships with freshwater and marine professionals and enthusiasts to address aquatic invasive species.

- Attend meetings and working groups of the Long Island-Metro Aquatic Invasive Species Task Force (LIMAS)
- Support the 5-year planning for LIMAS.
- Advance the efforts of the aquatic restoration working group as they pursue restoration in the Peconic River following floating water primrose (*Ludwigia peploides*) removal.

- Collaborate with LIMAS to identify priority marine invasive species and develop protocols and actions for data collection, prevention, and management, while maintaining a supportive role and providing guidance.

Engage partners through regular communication and demonstrate commitment to mutual success.

- Schedule check-ins with key partners to understand their needs and provide tailored support, such as surveys in newsletters.
- Develop and maintain consistent communication channels like the monthly e-newsletter and LIISMA website. Continue the monthly newsletter to inform partners and the public, providing LIISMA updates, upcoming events and opportunities, partner spotlights, invasive species spotlights, detection challenges, and other invasive species-related content.
- Implement an annual recognition program to celebrate partner achievements and contributions to invasive species management.
- Plan for the next Resilient Long Island Symposium, to take place in Spring 2026.

Increase collaboration by facilitating new partnerships and providing targeted outreach and resources to strengthen existing partnerships.

- Develop partnerships with academic institutions and governmental agencies to support recruiting and training staff, community members, students, and volunteers.
- Develop tailored educational materials and outreach campaigns to meet partners' specific needs, including outreach that increases interagency collaboration at the municipal, state, regional, and federal levels.
- Increase partnership by developing outreach materials (brochure, website area) for new and prospective LIISMA partners that illustrate the benefits of joining the PRISM network and the resources that LIISMA can provide.

## **Goal 2: Prevent the Introduction and Spread of Invasive Species.**

Collaborate with state and local government agencies and elected officials to strengthen and update prohibited and regulated lists.

- Partner with NYSDEC to advance the review and update the Part 575 regulated and prohibited species list.
- Work with stakeholders to ensure local invasive species lists are updated and accurate.
- Educate elected officials, government agencies, and policymakers to help decrease the number of invasive species allowed to be propagated and sold.

Increase efforts to prevent the spread of invasive species, in collaboration with partners.

- Assess the feasibility of advancing a boot brush station program, signage, or boat washing station with select partners.
- Raise awareness of PlayCleanGo as an invasive species prevention measure and distribute boot brushes when connecting with the public.

- Support county, state, and federal efforts to prevent the introduction of invasive species to LIISMA.
- Conduct targeted outreach campaigns for introduction pathways in horticulture, landscaping, agriculture, transportation, construction, pet trade, aquaculture, and the food industry.
- Develop best practice guides for pathway management, including strategies for common vectors like landscaping, vehicles, topsoil, watercraft, hiking boots, and recreational equipment.
- Explore partnerships with organizations operating in high-incidence areas for invasive species introductions, such as the New York City Department of Parks and Recreation (NYC Parks), New York City Department of Environmental Protection (NYCDEP), Lower Hudson PRISM, and the Prospect Park Alliance, to share data, coordinate response plans, and co-host events or training sessions for conservation organizations on invasive species management.

Under the direction of the ISCS Education and Outreach Coordinator, and in collaboration with NYSISD (New York State Invasive Species Database; iMapInvasives), and other PRISMs, identify and address needs and develop effective invasive species management education and outreach materials and programs for LIISMA that meet the strategic priorities of ISCS.

- Determine the strategic priorities of ISCS and NYSISD and assist as needed.
- Develop and deliver education and outreach materials and programs utilizing standardized statewide formats and materials.
  - Communicate on invasive species while highlighting what invasive species work is protecting.
  - Provide a researched and realistic viewpoint for audiences.
  - Assess partner education and outreach needs.
- Maintain a list of educational programs offered, events attended, and materials produced.
- Quantify number of participants in attendance, if applicable.
- Develop reporting metrics and evaluate the effectiveness by collecting participant evaluations and other appropriate methods.
- As needed, report recommendations and needs to the ISCS Education and Outreach Coordinator. Summaries should be included in the annual report.
- Deliver to ISCS the final and development versions of all educational and marketing materials and documents.
- Send out press releases to support programs and events.
- Check EO press releases, materials, media, and publications with ISCS before distribution.

Increase public engagement in New York Invasive Species Awareness Week (NYISAW) events and content to achieve invasive species awareness and inspire action focused on regional priorities.

- Promote NYISAW events using the newsletter, social media, press releases, and by contributing to promotional materials, such as the NYISAW video.
- Coordinate overall details of NYISAW as part of the NYISAW committee and subcommittees.
- Collaborate with partners on NYISAW events and encourage partners to host independent events and events in collaboration with LIISMA.

Develop and conduct invasive species programs and workshops to engage the community and LIISMA partners on invasive species prevention, management, surveying, mapping, reporting, restoration, and monitoring reflective of LIISMA regional priorities.

- Table at events throughout LIISMA to engage with the public, discuss invasive species, and distribute education and outreach materials, focused on LIISMA priorities, such as:
  - Quogue Wildlife Refuge Earth Day, LINPI plant sale, Farmingdale plant sale
- Host six invasive species workshops to meet the needs of partners and the community, including:
  - Three iMapInvasives workshops
  - Training for U.S. Fish and Wildlife staff
  - LIISMA Invasive Species Spotters Training Webinar(s)

Measure the success of educational initiatives in achieving goals.

- Track the list of educational programs offered, events attended, and materials produced. Quantify number of participants in attendance, if applicable.
- Develop reporting metrics and evaluate the effectiveness by collecting participant evaluations and other appropriate methods.
- Develop and deliver education and outreach materials utilizing standardized statewide formats and materials.

Prevent the introduction and spread of horticultural invasive species by encouraging the use of native plants.

- Partner with local organizations and nurseries to encourage native plant use in landscaping, gardening, and restoration projects.
- Encourage the development of a native plant toolkit or planning tool for landscapers, landowners, gardeners, and conservation professionals.
- Support the cultivation of local genotypes with the Long Island Invasive Species Management Area (LINPI).

### **Goal 3: Rapidly Detect and Respond to New and Emerging Invasive Species.**

Ensure that invasive species are assessed, prioritized, and ranked in a timely manner.

- Review 2025 LIISMA data tiers with the Invasive Species Program Coordinator, NYNHP, and LIISMA Science Committee.
- Publish updated list on the LIISMA website and elsewhere to communicate invasive species priorities within the LIISMA region.

Maintain and improve data collection and EDRR efforts by enhancing the management of professional and community-sourced observations.

- Continue to document and confirm IS occurrences using the iMapInvasives and iNaturalist databases.
- Develop an “EDRR radar” spreadsheet and GIS application with maps, including data from iMapInvasives and iNaturalist.
- Develop EDRR protocols that outline the steps for detection, identification, assessment of extent and threat, and immediate control actions, focused first on Tier 1 and 2 species.
- Establish a communication network to notify stakeholders (e.g., field staff, government agencies, and partners) immediately upon identifying a high-priority species and communicate the urgency of management.
- Continue to bridge iMapInvasives and iNaturalist data on EDRR species to improve efficiency and enable rapid response. Increase use of the EDDMaps database.
- Attend monthly Terrestrial Coordinator meetings to stay current on newly emerging species migration from neighboring PRISMs.
- Collect information on newly emerging species migration from nearby regions through the utilization of horizon scanning email alerts, and aid other organizations to receive these alerts.

Promote MapInvasives and iNaturalist to monitor and report high-priority invasive species.

- Increase awareness and training for stakeholders (e.g., community scientists, land managers, volunteers) on using iMapInvasives and iNaturalist through the Invasive Species Spotters Program to report new sightings of invasive species and contribute to early detection efforts.
- Compile a list of volunteer activities and hours contributed to PRISM projects.

Advance the establishment of a New York PRISM EDRR Coordinators Team under the leadership of NYSDEC ISCS to enhance collaboration, streamline responses, and improve the PRISMs’ management of early detection species.

- Begin regular meetings for PRISM EDRR coordinators to share updates, discuss challenges, and develop coordinated response strategies for emerging invasive species threats.
- Start creating a centralized communication platform for PRISM EDRR coordinators to facilitate real-time information sharing and rapid resource mobilization during invasive species outbreaks.

Increase the collective capacity to respond to new invasions by promoting coordination, cooperation, and efficiency among LIISMA partners.

- Attend southern pine beetle (*Dendroctonus frontalis*) Incident Command System calls as needed.
- Attend presentations and seminars regarding updates on spotted lanternfly (*Lycorma delicatula*) and lead in coordinating the distribution of traps and data between partners and NYSAGM as needed.
- Set up ways to notify partners of new invasive species in the area and encourage partners to take action in surveying for and/or managing the target species.

Maintain or increase collaborative efforts for EDRR by planning, surveying, managing, and monitoring for priority species.

- Obtain and/or renew all necessary research and management permits and landowner permissions.
- Monitor for new reports of Tier 1 and 2 species and specific high-priority Tier 3 species.
- Assist NYSDEC, NYSAGM, and Cornell Cooperative Extension to monitor invasive insects as needed, including spotted lanternfly, emerald ash borer, box tree moth, southern pine beetle, longhorned tick, crapemyrtle bark scale, winter moth, laurel wilt, elm zigzag sawfly, and woolly hackberry aphid.
- Survey for *Arum italicum* at Southards Pond and coordinate potential management with partners.
- Survey for incised fumewort (*Corydalis incisa*) at Fort Greene Park and coordinate potential management with partners.
- Survey for sapphire berry (*Symplocos paniculata*) at Berkeley Jackson County Park and coordinate potential management with partners.
- Survey for nodding star-of-bethlehem (*Ornithogalum nutans*) at Kissena Corridor Park.
- Survey for Japanese primrose (*Primula japonica*) at Shu Swamp Preserve.
- Survey for ragged robin (*Silene flos-cuculi*) at Fuchs Pond Preserve.
- Survey for priority EDRR species on Staten Island, including small carpet grass (*Arthraxon hispidus*) at Clay Pit Pond State Park, fuzzy deutzia (*Deutzia scabra*) at High Rock Park, and water lettuce (*Pistia stratiotes*) at Clove Lakes Park.
- Survey for water hyacinth (*Pontederia crassipes*) at Byron Lake Park.

Proactively conduct management and/or monitoring of early detection species as they emerge and carry forward existing emerging invasive species management projects.

- Survey and coordinate management for water lettuce at Forest City Community Park, Argyle Lake Park, and Two Holes Pond.
- Coordinate with partners at the Caumsett Foundation and NYS OPRHP on managing and monitoring Tier 2 species, hardy kiwi (*Actinidia arguta*) at Caumsett State Park.
- Coordinate with partners at Rechler Equities, Third House Nature Center, and SC Parks on the continued management and monitoring of Tier 2 species, small carpet grass at Gabreski airport and Montauk County Park.
- Monitor with partners at Nassau County Parks on continued managing Tier 2 species, giant reed (*Arundo donax*) in Cammans Pond County Park.
- Coordinate with NYC Parks partners on managing and monitoring Tier 2 species, including invasive yam (*Dioscorea polystachya*) at Alley Pond Park.
- Coordinate with partners at NYSDEC, the Town of Brookhaven, Greenwood Cemetery, and NYC Parks on the continued management and monitoring of Tier 3 species, floating water primrose (*Ludwigia peploides*) at Artist Lake and various NYC Parks properties. Survey for *Ludwigia peploides* at Arthur J. Hendrickson Park.
- Coordinate with partners at North Shore Wildlife Sanctuary on the potential management and monitoring of Tier 2 species, plume poppy (*Macleaya cordata*) at Coffin Woods.

- Coordinate with partners at Public Service Electric and Gas Co (PSEG-LI) on the management and monitoring of Tier 2 species, ravenna grass (*Tripidium ravennae*) at a PSEG-LI right-of-way site.
- Coordinate with partners at the Town of East Hampton on the continued management and monitoring of Tier 2 species, rock sea lavender (*Limonium binervosum*) at Three Mile Harbor.
- Coordinate with partners at the Town of Brookhaven on continued management and monitoring of Tier 3 species, perennial pepperweed (*Lepidium latifolium*) at West Meadow Beach.
- Coordinate with partners at SC Parks on the management and monitoring of Tier 3 species, Juliana's barberry (*Berberis julianae*) at Millers Pond County Park..
- Coordinate with partners at Nassau County Soil and Water Conservation District and NYC Parks on the continued management and monitoring of Tier 3 species, fuzzy deutzia at the Muttontown Preserve and NYC Parks properties.
- Coordinate with partners at NYS OPRHP on the continued management and monitoring of Tier 3 species, wild teasel (*Dipsacus fullonum*) at Bethpage State Park.
- Coordinate with partners at the NYSDEC Kudzu Control Program on the continued management and monitoring of Tier 4 species, kudzu (*Pueraria montana*), at various locations across LI.
- Coordinate with partners at the NYC Department of Environmental Protection and NYC Parks on the continued management and monitoring of Tier 3 species, Italian arum (*Arum italicum*) in the Wolfes Pond Bluebelt and nearby NYC Parks properties.

## **Goal 4: Support and Conduct Invasive Species Management at Priority Conservation Areas and other high-priority sites.**

Ensure the effective engagement and coordination of key stakeholders, agencies, NGOs, landowners, volunteers, scientists, and community members at Priority Conservation Areas (PCAs).

- Guide and lead invasive species coordination with the agencies responsible for Priority Conservation Areas (PCAs). Coordinate and collaborate based on LIISMA's local and regional priorities.
- Exchange information with key partners about projects planned or in progress. Meet one-on-one with key partners to develop strategic, management, and annual plans as needed.
- Engage and assist key partners in accomplishing goals and objectives that they otherwise would not be able to because of insufficient resources or lack of jurisdiction.

Grow the PCA program by training volunteers and other partners to monitor and manage high-priority invasive plants at ISPZs, MCs, and buffer zones.

- Identify high probability areas for early detection of invasive species within PCAs.
- Recruit, train, and equip diverse groups of volunteers to monitor and manually remove invasive plant species within PCAs, ISPZs, MCs, and buffer zones. Develop and implement a volunteer training curriculum covering invasive plant identification, monitoring, manual control techniques, and safety practices.
- Work with Community Science Long Island to expand the PCA program by building partnerships with local community groups, schools, environmental organizations, and volunteers.

- Develop volunteer job descriptions.

Ensure the protection of high-priority waterbodies from the expansion of invasive species to the fullest extent possible.

- Through the Long Island Metro Aquatic Invasive Species (LIMAIS) Task Force, maintain connections with partners working with freshwater and marine aquatic invasive species.
- Communicate with the public on AIS spread prevention through the LIISMA website.
- Align priorities through the waterbody prioritization process.

Survey for aquatic invasive species at five of the highest priority waterbodies as determined with LIMAIS, via rake toss and/or visual survey.

- Obtain and/or renew all necessary research and management permits and landowner permissions for the 2025 field season.
- Connetquot State Park: survey and monitor for aquatic invasive species and manually control water chestnut (*Trapa natans*).
- Carmans River (Southaven County Park): Survey and monitor for invasive species along the Carmans River in collaboration with the Town of Brookhaven in the section between Rt. 495 and 27. Pay particular attention to floating water primrose (*Ludwigia peploides*). Confer with Suffolk County Parks at Southaven County Park on mitigating aquatic invasive species issues.
- David A. Sarnoff Preserve: survey and monitor for aquatic invasive species at Cheney Pond and/or Cedar Pond

Advance management efforts at PCAs, including Invasive Species Prevention Zones (ISPZs), Invasive Species Management Complexes, and Natural Heritage Sites, in collaboration with partners.

- Continue monitoring and compiling data on ISPZs and developing a list of information gaps. Create LIISMA priorities for each ISPZ and advance priorities with ISPZ partners. Engage partners to manage invasive species.
- Survey and monitor at ISPZs, collaborating with landowners and updating plans and priorities as needed. As time allows, priorities for 2025 may include: Cedar Point, Long Pond Greenbelt, Sears Bellows, Rocky Point, Hither Hills, and Connetquot.
- Collaborate with the Town of Southampton Community Preservation Fund on the Lake Management Plan for Long Pond and Little Long Pond.
- Survey and conduct public outreach on silvergrass (*Miscanthus sinensis*) at and around Hither Hills and Napeague State Parks.
- Coordinate with partners at the National Park Service on the continued management and monitoring of Tier 3 species, Asiatic sand sedge (*Carex kobomugi*), at various locations on the Fire Island National Seashore.
- Collaborate with Seatuck at West Brook in wetland monitoring and/or restoration.
- Coordinate glossy buckthorn (*Frangula alnus*) management with volunteers at Quogue Wildlife Refuge.
- Survey William Floyd Estate (NPS) for priority invasive species, as time allows.
- Employ a broader range of management tools, including herbicide and weed torching.

Conduct or monitor proactive phragmites management projects in at least five coastal plain ponds.

- Assist with phragmites (*Phragmites australis*) management at Dog Ponds to protect the spotted salamander.
- Continue underwater cutting and spading of phragmites in Sandy Pond at Calverton Ponds with NYSDEC Region 1 Fisheries.
- Continue phragmites management in Sears Bellows County Park. Follow-up on underwater cutting in Sears Pond and House Pond, and shoreline spading at Bellows Pond.
- Follow up on underwater cutting of phragmites at Long Pond, and work with the Town of Southampton and Friends of Long Pond Greenbelt to address phragmites encroachment of Ligonee Brook and other stands at Long Pond.
- Advance phragmites surveying and management at Linus Pond, mapping the weed-free shoreline.

Address priority existing invasive species populations in PCAs, in collaboration with partners.

- Explore using weed torching to control small carpet grass (*Arthraxon hispidus*) at Montauk County Park.
- Contain populations of floating water primrose at Artist Lake with the Town of Brookhaven and NYSDEC Region 1 Fisheries.
- Follow-up on containment of swallow-wort (*Vincetoxicum rossicum*) at two Otis Pike State Forest populations.
- Collaborate with NYSDEC Region 1 Fisheries on managing water chestnut (*Trapa natans*) at upper Twin Pond and Mill Pond, Nassau County.
- Monitor and manage water chestnut at Main Pond in Connetquot State Park.

## **Goal 5: Support and Conduct Ecosystem Restoration and Enhance Resilience.**

Encourage a monitoring component for all invasive species control and restoration projects.

- Encourage partners to use monitoring protocols for management and restoration sites.
- Develop multi-year monitoring programs that enable recovery of native communities and continued management of any invasive species that begin to re-establish.

Evaluate projects for restoration needs and assist with restoration planning and implementation when necessary.

- Work with the Long Island Metro Aquatic Invasive Species Restoration Working Group to develop guidelines for restoration in aquatic and wetland systems.
- Explore opportunities for a native plant replacement program with the Long Island Native Plant Initiative.

- Gather a list of key partners who may require native plants for future restoration projects following invasive species removal.
- Monitor sites for signs of natural regeneration, as local native plants may fill in unoccupied niches from the seed bank and surrounding vegetation.
- Encourage restoration components in LIISMA invasive species management projects for sites that cannot be restored with natural regeneration alone; encourage partners to evaluate the need for restoration. Use local genotypes.
- Make restoration information, including lists of plants available and provider contacts, available on the LIISMA website. Encourage restoration projects to utilize plants from within the LIISMA ecoregion.

Support and implement restoration projects that prioritize native species and ecosystems and improve resilience against invasive species and climate change.

- Work with landowners and resource managers to create integrated plans for invasive species management and ecological restoration.
- Utilize native plant species, especially local genotypes, in sensitive or rare communities and ecologically appropriate restoration techniques to increase habitat resilience and reduce future invasions.
- Engage local communities, volunteers, and community scientists in monitoring and maintaining restored ecosystems, focusing on invasive species detection and management.

## **Goal 6: Incorporate Climate Adaptation and Mitigation Strategies.**

Provide awareness around new and emerging threats due to shifting ranges and climate change.

- Develop and distribute educational materials and programs highlighting the potential effects of climate change on the spread of invasive species, focusing on species likely to shift their ranges into new areas and the role of climate change in altering species distributions and ecosystems.
- Promote upcoming events and webinars in the newsletter, like events of the RISCC Network.
- Have a resource/research corner highlighting climate change and invasive species research.

Integrate climate change mitigation into invasive species management plans to reduce the spread and impact of invasive species affected by climate change.

- Assess and incorporate climate change projections into invasive species management plans, identifying species and ecosystems most at risk due to temperature shifts, altered precipitation patterns, and other climate factors.
- Develop a better understanding from regional partners of what is on the move and what to look for regarding specific species pathways and climate patterns.
- Research restoration practices focusing on increasing ecosystem resilience to invasive species, such as promoting native plant species better adapted to changing climate conditions.
- Develop adaptive management strategies for invasive species that account for climate change.

## Goal 7: Support Research and Community Science.

Utilize iMapInvasives field data collection tools, including iMap Mobile App (iMMA), and ESRI ArcGIS apps such as Survey123, Field Maps, and Simple Aquatic Survey (SAS) to the fullest extent possible.

- Train new staff and re-familiarize the team with features and functionalities of each tool as needed.
- Take advantage of training opportunities, webinars, and online resources provided by the platform developers or user communities to enhance our skills and knowledge.
- Customize survey forms or surveys to ensure that data is being collected accurately and that the data aligns with requirements of the field project.
- Share successes, lessons learned, and best practices with other organizations working on similar projects. Collaborate with peers and platform developers to exchange insights, troubleshoot challenges, and collectively advance the use of field data collection tools for invasive species management and environmental monitoring efforts.
- Have all staff become certified as iMapInvasives trainers.

Collaborate with the New York Invasive Species Research Institute (NYISRI) and submit annual LIISMA research priorities to ISCS.

- Continue to develop and test metrics for measuring success.
- Identify research needed for prevention, EDRR, and management of invasive species.
- Explore collaboration opportunities for using the sentinel method to assess ecosystem impacts of invasive species.
- Share a survey to assess partners' research needs when requested by NYISRI.

Collaborate with researchers and universities in the region as opportunities arise and according to LIISMA priorities.

- Continue developing plans with the Long Island Metro Aquatic Invasive Species eDNA Working Group to establish eDNA protocols and potential projects for the region.
- Be on the lookout for research opportunities with colleges and universities.

Increase the reporting, documentation, and tracking of invasive species and invasive species projects by volunteers, community scientists, and resource managers.

- Launch a community science/volunteer program that encourages using iMapinvasives/iNaturalist to increase survey efforts and reports of priority invasive species, including emerging species.
- Identify and/or create invasive species projects through LIISMA and partners that utilize volunteers to maximize management outcomes.
- Collaborate with existing groups to recruit and train volunteers and community scientists to survey and report high-priority invasive species.
- Record volunteer contributions to track success over time in volunteer management.
- Highlight top contributors at partner meetings, on the LIISMA website, and in the LIISMA e-newsletter.

Increase support for LIISMA partners' community science efforts.

- Promote and advertise partners' community science group recruitment through the LIISMA monthly newsletter, social media, workshops, and other avenues.
- Aid in water chestnut (*Trapa natans*) pull volunteer recruitment with NYSDEC Region 1 Fisheries.
- Collaborate with partners to include LIISMA priorities in community science groups' survey and monitoring efforts when applicable, such as for EDRR species in PCAs or near RTE species.
- Collaborate with partners as part of the Community Science Long Island series focused on invasive species; lead webinars and in-person events in the series and support, promote, and attend partner events within the series.

## **Goal 8: Inform and Support Policy and Resource Development.**

Promote awareness of policies, programs, and funding resources that support invasive species management.

- Create and maintain an online hub or toolkit on the LIISMA website that outlines relevant policies, funding opportunities, and best practices to support partner and community engagement.
- Identify and share external grant opportunities, government funding programs, and private foundation resources.
- Collaborate with state agencies to develop and promote competitive grant programs or subcontract opportunities that enable partners to secure funding for invasive species projects.
- Promote and share information about grants and subcontracts to help landowners and resource managers develop and implement invasive species management plans.

Enhance LIISMA staff knowledge, understanding, and skill through continuing education, training, networking, and experience.

- Attend conferences, workshops, and courses, and study educational resources focused on invasive species management, botany, conservation practices, geographic information systems (GIS), planning, organizing, surveying and monitoring, restoration, communications, and program and project management.
- Pursue professional development opportunities to expand the capacity of LIISMA Staff.
- Cross-train staff in various program areas to expand knowledge, increase skills, and promote flexibility, with special attention to GIS.

Improve internal data management by developing tools that automate management tracking and prioritization.

- Maintain and advance LIMAS waterbody prioritization web map development.
- Utilize raster maps to analyze and prioritize management within PCAs.
- Continue to prioritize and enable rapid response measures by utilizing an EDRR project tracking system categorized by species, date, and conservation value.
- Continue to track management via a site-based project tracking system and collaborate with iMapInvasives and other PRISMs in developing a management dashboard.

Advance mechanisms of tracking progress towards goals to aid in annual report development.

- Define metrics to assess success and measure progress throughout the field season.
- Update and maintain automated activity log and site-based project tracker.
- View progress in real-time to support adaptive management.
- Solicit reports from LIISMA partners, including the use of a questionnaire.
- Complete and deliver an annual report by January 31 of each year.
- Complete Workforce Audit (EEO) Quarterly Reports.