

GREAT LAKES

EXTENSION PROGRAM 2021

PROGRAMMATIC EVALUATION BRIEFING PACKET

**NOAA's National Sea Grant College Program Evaluation of the
Great Lakes NOAA-Sea Grant Extension Partnership Liaison /
Great Lakes Environmental Research Laboratory Liaison**

SEPTEMBER 16-17, 2021



Extension



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The Great Lakes Extension Program is a part of Sea Grant, executed in coordination with NOAA, Michigan Sea Grant, Michigan State University, and the Great Lakes Sea Grant Network.

The goals of the program evaluation are to measure progress during the timeframe of August 2018 - 2021 in:

- Achieving results of the liaison program in meeting objectives of the funding agreement including documenting contributions to determine feasibility for continued value and success.
- Improving partnerships between NOAA or other federal partners and Sea Grant through information development and exchange and help build operational and applicational use of federally-funded research.
- Determining if the shared position between the state Sea Grant program and federal partner offers a powerful and cost effective mechanism to build mutual capabilities and accomplishments at local to national scales.

GREAT LAKES LIAISON PROGRAM EVALUATION AGENDA

DAY 1 - SEPTEMBER 16, 2021

All times are Eastern Time; Sessions are virtual.

- 8:30 - 11:30 am **Private meetings** - Evaluation Team to meet with key individuals.
Exact times TBD.
Participants: Evaluation Team, Debbie Lee, Jennifer Day, Heather Triezenberg, Elizabeth Rohring, Chiara Zuccarino-Crowe, Jim Hurley, Tom Johengen
- 11:30 - 12:15 **Break / Lunch**
- 12:15 - 12:30 pm **Welcome and liaison program background** - [Elizabeth Rohring](#) (NOAA-NSGO)
- 12:30 - 12:50 pm **Management Structure:** Funding partnership, advisory committee, and value - [Heather Triezenberg](#) (MISG / MSUE)
- 12:50 - 2:30 pm **Stakeholder engagement:** Facilitating integration & partnership Moderator: [Chiara Zuccarino-Crowe](#) (MISG)
- Coordination across the GLSGN on regional initiatives
 - *Panelists:* [Jim Hurley](#) (WISG), [David Hart](#) (WISG), [Carolyn Foley](#) (IISG), [Marie Thoms](#) (MMSG)
 - Collaboration with NOAA in the region
 - *Panelists:* [Deborah Lee](#) (NOAA-GLERL), [Jennifer Day](#) (NOAA-GLRCT), [Ellen Brody](#) (NOAA-ONMS)
- 2:30 - 2:45 pm **Break**
- 2:45 - 3:30 pm **Impacts:** Collaborative projects addressing Great Lakes issues and needs
Moderator: Chiara Zuccarino-Crowe (MISG)
Speakers:
- GLSGN Recreation & Tourism COP - [Natalie Chin](#) (WISG)
 - Coastal Resilience - [Mary Austerman](#) (NYSG) - recorded remarks; David Hart (WISG)
 - Saginaw Bay HABs - [Devin Gill](#) (CIGLR)
 - CoastWatch - [Andrea VanderWoude](#) (NOAA)
- 3:30 - 4:15 pm **Plans for the future: Needs and opportunities**
- Proposed programmatic focus areas - Chiara Zuccarino-Crowe (MISG)
 - Opportunities for constructive input - Heather Triezenberg (MISG)
- 4:15 pm **Adjourn session** (except for Evaluation Team)
- 4:15 - 5:00 pm **Evaluation Team to meet virtually**

DAY 2 - SEPTEMBER 17, 2021

9:00 am	Evaluation team work session - Opportunity for the Evaluation Team to address any follow-up questions and continue preparation of findings and recommendations
12:00 pm	Lunch Break
1:00 - 1:50 pm	Internal briefing - Closed session for the Evaluation Team to share findings and recommendations with the Management Team
1:50 - 2:00 pm	Break
2:00 - 2:50 pm	Administrative Report Out - Evaluation Team delivers findings and recommendations <i>Participants/Invitees:</i> Management Team, Position Advisory Committee, MSUE CFEI Leadership
2:50 - 3:00 pm	Closing - Elizabeth Rohring (NOAA-NSGO)
3:00 pm	Adjourn (except for Evaluation Team)
3:00 - 4:00 pm	Evaluation Team to meet virtually

BACKGROUND

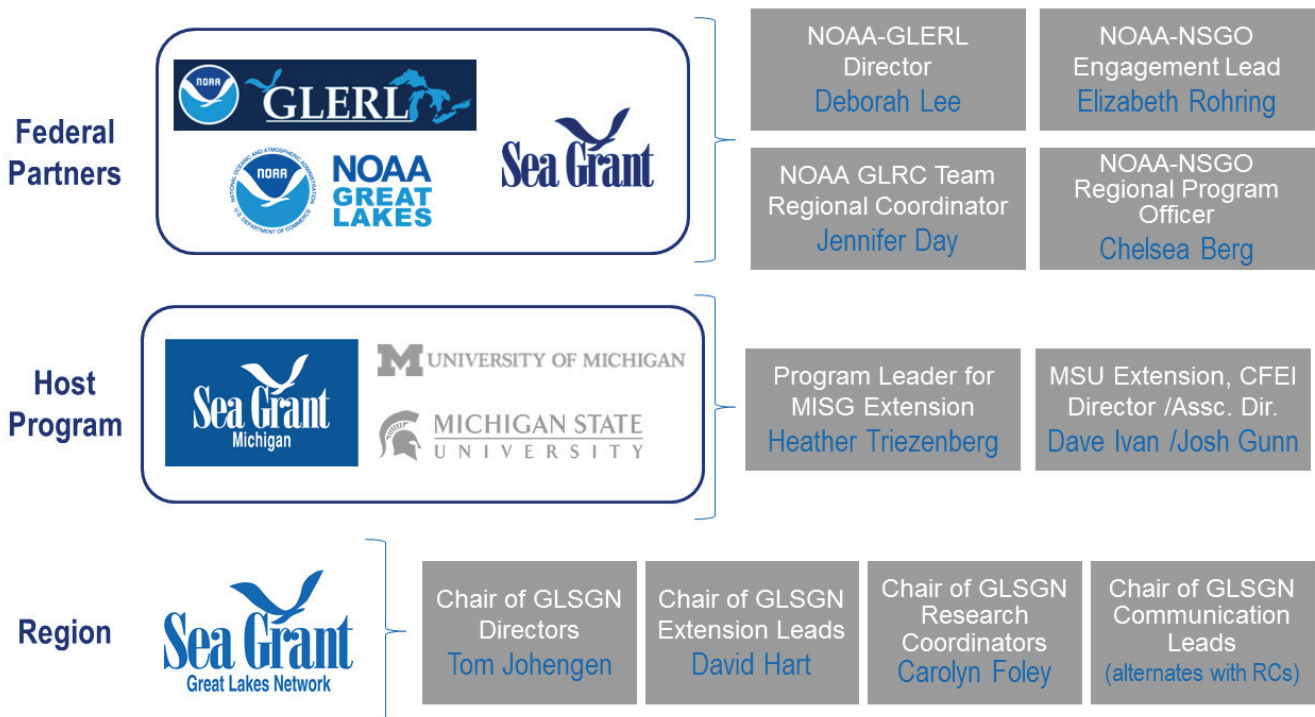
Michigan Sea Grant (MISG), the Great Lakes Sea Grant Network (GLSGN), and NOAA’s Great Lakes Environmental Research Lab (GLERL), have collaborated to enhance communication through the support of a Sea Grant agent since 1999. In 2018, the partners revised this position to take the form of a NOAA-Sea Grant Extension Partnership Liaison, which adheres to the [framework](#) established by NOAA’s National Sea Grant Office (NSGO).

In designing the goals of this particular liaison position, the partners (NSGO, GLERL, MISG and the GLSGN) noted that they had a mutual interest in the widespread public dissemination of environmental, economic and educational information about the Great Lakes and in promoting improved understanding, conservation, wise use and management of the Great Lakes and their resources, while also improving the resiliency of coastal communities relying on these resources.

They continue to recognize that their cooperation and collaboration assists them in better achieving these interests; therefore allowing them to meet their individual program missions and goals to a greater degree than they would working independently. As such, they agreed to support an extension educator at GLERL to fulfill the objectives of this position as stated above, while continuing to remain flexible and responsive to the current issues facing NOAA in the Great Lakes region through coordination with NOAA’s Great Lakes Regional Collaboration Team (GLRCT).

The details of this original agreement and the position’s management structure (including funding structure, recruitment and supervision, and composition of position advisory committee) are contained in the [memorandum of understanding](#) created among the primary partners. Each subsequent year, a team of advisors, composed of the management committee and representatives of the GLSGN, reviewed and updated the corresponding [position priorities](#) in collaboration with the liaison to support responsiveness to emerging stakeholder needs while reaffirming the main goals of the partnership.

Structure and composition of liaison position advisory committee



Annual Program Budget

	2018	2019	2020	2021
Federal	\$82,374	\$53,678	\$85,266	\$71,781
Match	\$57,847	\$52,113	\$15,048	\$31,662
Total	\$140,221	\$105,791	\$100,314	\$103,443

Note: Funding allocated through two separate grant agreements.

MANAGEMENT TEAM COMPOSITION

DEBORAH H. LEE, P.E., P.H., D.WRE, F.ASCE, SES

Director, NOAA GLERL

Ms. Deborah Lee is the director of NOAA's Great Lakes Environmental Research Laboratory (GLERL), and serves as NOAA's Regional Team Lead for the Great Lakes. With regards to the liaison position, Ms. Lee is the Senior Executive Service member overseeing the NOAA host site portion of the grant agreement.

JENNIFER DAY, M.S., APR

NOAA Great Lakes Regional Coordinator

Ms. Jennifer Day serves as the primary point of contact for the liaison position at NOAA. As the Regional Coordinator for NOAA's Great Lakes Regional Collaboration Team, Ms. Day ensures that the liaison is connected to NOAA activities in the region and has access to NOAA staff from the different line and program offices.

HEATHER TRIEZENBERG, PH.D.

Extension Specialist and Program Leader, Michigan Sea Grant

Dr. Triezenberg is the direct administrative supervisor of the liaison position, and she serves as the chair of the Liaison Position Advisory Committee. Heather served on the committee that provided recommendations for the NOAA Sea Grant Extension Partnership Liaison Framework. Heather is currently the chair of the Assembly of Sea Grant Extension Program Leaders.

ELIZABETH ROHRING, M.A., MEM

Engagement Lead, NOAA National Sea Grant Office

Ms. Rohring coordinates strategic engagement to connect federally-funded research results with stakeholder communities and end-users. She led development of the NOAA-Sea Grant Extension Partnership Liaison Framework, and currently serves as coordinator for the associated program.

CHIARA ZUCCARINO-CROWE, M.S.

Great Lakes outreach specialist and Extension Educator, Michigan Sea Grant

Ms. Zuccarino-Crowe serves as the Great Lakes Sea Grant/NOAA Liaison. She has fulfilled this role since August of 2018.

POSITION GOALS, OBJECTIVES, AND PRIORITIES

GOALS

1. To facilitate integration and partnership among the Parties about their Great Lakes-related research, extension, education and other programs.
2. To develop collaborative extension, communications, and outreach programs that draw upon the Parties' work and that are directed towards specific Great Lakes stakeholder audiences and/or the general public.

OBJECTIVES

1. **Partnership Development & Coordination:** Network effectively with NOAA GLERL, the Sea Grant Network, university, and other regional partners about Great Lakes-related research, extension, and education related goals.
2. **Planning & Assessment:** Support Planning, Assessment, Evaluation and Review Processes for GLERL, the GLSGN and individual GL Sea Grant programs, including facilitation, needs assessment, proposal reviews, proposal development, strategic planning, program reviews, and coordination.
3. **Project Development:** Improve quality of and/or support development of and promote educational/outreach/communications products for GLERL and GLSGN, through coordination, review, catalyzing interactions, and/or direct involvement in production of products, and improving accessibility.

PRIORITIES

Priority tasks organized by program objective

1. **Partnership Development & Coordination**
 - Identify emerging and ongoing priorities for collaboration through participation in applicable GLERL, GLSGN, and NSGO team meetings, review of planning materials, and compilation and distribution of regional updates among partners.
 - Facilitate opportunities for communication between leadership/management teams of the parties.
 - Highlight the parties' focal areas and collaborative accomplishments at relevant meetings/conferences.
2. **Planning & Assessment**
 - Increase familiarity with program timelines; develop regional processes to maximize opportunities for input and meaningful engagement across programs.
 - Engage in research planning processes, with goals of conveying stakeholder priorities and providing opportunities for collaborative research among the parties.
 - Confirm and communicate areas of alignment between strategic plans, focal topics, and areas of programmatic growth.
 - Professional development.

3. Project Development

- Develop tools to communicate research program processes and project status among partners.
- Regional product development as needed that align with program priorities.
- Provide leadership on special projects.

PROGRESS

The following overview of accomplishments demonstrates how the liaison program has achieved the primary position goals and objectives identified above through understanding the needs of the host program and key partners and facilitating progress toward meeting those needs.

PARTNERSHIP DEVELOPMENT AND COORDINATION

Objective: Network effectively with NOAA GLERL, the Sea Grant Network, university, and other regional partners about Great Lakes-related research, extension, and education related goals.

Summary

Issue: Representatives of NOAA and the Sea Grant Network in the Great Lakes have long identified a need to increase collaboration and opportunities for communication, which could lead to increased efficiency on shared goals and objectives for the Great Lakes.

Actions: The program initially focused on network enhancement as a foundation for future coordination. Over the first several years, the liaison identified key individuals and teams within and across NOAA-GLERL and the GLSGN, as well as among their integral partners, who could serve as regular communication nodes. The liaison cultivated these connections through regular integration in partners' core team meetings and targeted correspondence with leaders of assorted teams or those with expertise in relevant topics. Participation in conferences allowed for further engagement with external partners and an opportunity to raise awareness of program objectives and multi-state efforts to address Great Lakes issues across the region's Sea Grant programs and NOAA partnerships. These interactions allowed for the liaison to identify areas of synergy between different partners, which prompted subsequent introductions or facilitated discussions to provide an opportunity for enhanced coordination.

Results/Impacts:

- Interactions provided both organized and ad-hoc mechanisms to gather information and share knowledge, which resulted in increased effectiveness in responding to information requests from NOAA and the GLSGN.
- Increased communications with colleagues across SG and NOAA lessened redundancies.
- Increased requests for the liaison's participation on regional calls and project teams, which demonstrated program stakeholders' awareness of the opportunity to better connect with different parts of the larger NOAA-Sea Grant network in the region.
- Successful regional network meeting in September 2019, in which the program's main stakeholders were actively engaged, resulting in numerous follow-up opportunities and strengthened relationships.



ACCOMPLISHMENT HIGHLIGHTS

Great Lakes Sea Grant Regional Network Meeting

Need:

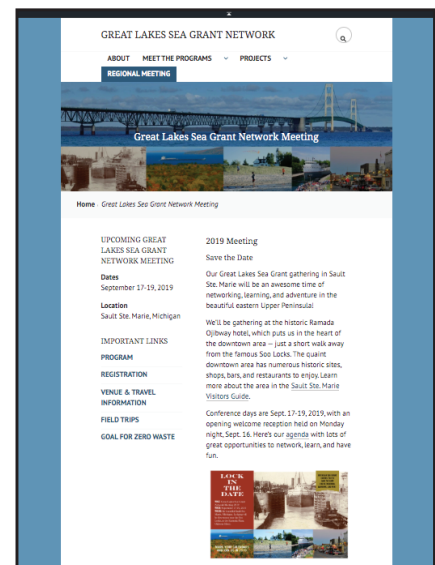
- Regional Sea Grant Network meetings are generally held every two years (off years from Sea Grant Week, the national SG meeting).
- Topics for discussion and program inclusion were solicited from the Extension Program Leads and other members of GLSGN leadership. A call for sessions was circulated among GLSGN staff.

Intervention:

- Co-chaired program committee.
- Developed conference website, coordinated session organization, and developed program content.
- Co-chaired sessions on special topics: Blue Economy; Great Lakes Water Levels.
- Planned and facilitated complementary meeting of the GLSGN Directors with NOAA-GLERL and GLRCT leadership.

Impacts/Outcomes:

- ~100 participants attended conference.
- Facilitated inclusion of NOAA staff as presenters in several conference sessions, including plenary, carnival session, and SG management team meetings.
- NOAA-GLERL Information Services lead connected with GLSGN Communicators and obtained content for use on GLERL website.
- NOAA and Sea Grant leadership identified several areas for enhanced collaboration moving forward, confirming need for liaison to follow-up with specific action items.



Evaluation:

- Participants provided very positive feedback about the conference (as measured via an assessment survey), with the majority of respondents concluding the conference met or exceeded their expectations. In addition, approximately 80% of respondents said they had planned to implement knowledge, skills or practices they learned at the conference. Constructive feedback and areas for improvement were summarized and forwarded to IL-IN Sea Grant, who was slated to host the next regional network meeting.

For additional examples of activities and outcomes related to the objective for partnership development and coordination, please refer to [the accomplishments section of the Appendix](#).

STAKEHOLDER ENGAGEMENT

The key stakeholders of this position (NOAA GLERL / GLRCT, Michigan Sea Grant, and the GLSGN) are primarily engaged through participation in regular meetings and direct correspondence. Their needs are assessed both in an ongoing manner (through the above engagement) and via more formal feedback opportunities aligned with the meetings of the position's advisory committee (meets ~2-3 times per year). External stakeholders are engaged through topical initiatives and special projects, as well as through general outreach conducted at meetings/conferences.

Service on Teams

Internal or closely partnered with NOAA:

- NOAA's Great Lakes Regional Collaboration Team (GLRCT) – Staffer, with roles in multiple sub-groups targeting key priorities and focus areas, as follows:
 - GLRCT Blue Economy working group – Chair of team (leadership position)
 - GLRCT Sea Grant engagement working group – team member (team is chaired by a rotating Great Lakes Sea Grant Director with official seat on the GLRCT)
 - GLRCT Tribal Engagement working group – team member
 - GLRCT Science Collaboration working group – team member
 - GLRCT Communications group – team member
- Great Lakes Restoration Initiative (GLRI) NOAA workgroup
- Staff-level teams:
 - GLERL Science Council
 - Ecosystem Dynamics Branch
 - HABs and Hypoxia workgroup
 - Coastal Partners (NOAA's Office of Coastal Management, state Coastal Zone Managers and NERRs)
- Viking Expeditions team - team member and facilitator (This group is tasked with developing and implementing the cooperative research and development agreement between NOAA and Viking Expeditions, a cruise line that is hosting Great Lakes tourism expeditions while also serving as a research platform for visiting scientists.)

Internal to Michigan Sea Grant:

- MISG CoastWatch Steering Committee – Co-chair, lead for the relationship with NOAA's Great Lakes CoastWatch node
- Communications team
- DEIJ (Diversity, Equity, Inclusion, Justice) Committee
- Tribal Engagement Visioning

Great Lakes Sea Grant Network (GLSGN) groups engaged via regular communication and participation in meetings:

- GLSGN Directors
- GLSGN Extension Program Leads
- GLSGN Communication Leads
- GLSGN Tourism and Recreation Community of Practice - co-chair
- Crude Oil Transport Team (interim co-chair)
- Great Lakes Aquaculture Collaborative – website team
- Green Infrastructure Sea Grant and Extension Community of Practice - Steering Committee member
- National Sea Grant Economic Valuation Community of Practice

External

- HABs Collaborative (chaired by Great Lakes Commission) - Sea Grant representative
- Great Lakes Commission's Standing Committee on Climate Resilience - Sea Grant representative

Great Lakes Liaison Program partners and collaborators

- Additional NOAA Program offices
 - Office of National Marine Sanctuaries
 - Office of Coastal Management
- Great Lakes Observing System (GLOS)
- Great Lakes Acoustic Telemetry Observation System (GLATOS)
- Great Lakes Commission (GLC)
- International Association for Great Lakes Research (IAGLR)
- U.S. Army Corps of Engineers (USACE); USACE Silver Jackets
- Great Lakes Fishery Commission (GLFC)
- The Nature Conservancy, Michigan Field Office / Great Lakes program
- Great Lakes Indian Fish and Wildlife Commission (GLIFWC)
- Michigan EGLE
- University of Michigan
- Michigan Technological University
- University of Wisconsin - Milwaukee
- Lake Superior National Estuarine Research Reserve
- Sea Grant National Water Extension Program
- Association of Outdoor Recreation and Education

PLANNING AND ASSESSMENT

Objective: Support Planning, Assessment, Evaluation and Review Processes for GLERL, the GLSGN and individual GL Sea Grant programs, including facilitation, needs assessment, proposal reviews, proposal development, strategic planning, program reviews, and coordination.

Summary

Issue: NOAA and Sea Grant identified a collaboration need related to coordination of research programs and strategic planning across the respective networks in the Great Lakes. While there were some touch-points, the full extent of potential opportunities for input into each other's planning processes was underutilized.

Actions: The liaison's enhanced networking among main stakeholders (NOAA and GLSGN) allowed for a better understanding of program planning, prioritization of research themes, and operational integration of science into outreach programming. The liaison shared respective processes and opportunities for input through team and individual correspondence. The liaison also enhanced program performance by actively pursuing professional development opportunities.

Results/Impacts: In clarifying this landscape, the program identified potential strategies to improve lines of communication during future research planning cycles. It has also highlighted challenges to achieving enhanced research and outreach coordination between NOAA and Sea Grant. The primary stakeholders' more frequent requests for the liaison's input on project ideas, participation on proposal/project advisory committees, and service in grant proposal reviews demonstrates the program's overall success associated with program collaboration.

ACCOMPLISHMENT HIGHLIGHTS

Facilitation of operational enhancements for Michigan Sea Grant Extension

Need: Starting in 2020, the COVID-19 pandemic led to ongoing challenges associated with virtual workspaces and programming. The effects of the pandemic put different stressors on team members, resulting in a need to improve meeting efficiency and team dynamics. Leadership and staff expressed interest in refining team operations to more effectively address administrative business, share program activities, and enhance team morale.

Intervention: The liaison confirmed anecdotal feedback and expanded supporting details through semi-structured interviews with each team member. Summarized findings were provided to leadership and used to inform a decision-making process for the team to identify a new meeting structure and related operational best practices. The liaison implemented this process through facilitated discussions during multiple team meetings.

Impacts/Outcomes:

- Revised meeting schedule and frequency.
- Documentation of key meeting processes and operational norms to allow for shared understanding of team objectives.
- Increased staff participation and buy-in.
- Regular opportunities to identify areas to streamline programming into state-wide offerings.

Evaluation:

- Staff surveys allowed for feedback on operational changes.
- Staff expressed appreciation for the liaison's individualized engagement throughout the process.

Regional Proposal Facilitation & Development

Need: Sea Grant programs support a portion of their programs by securing additional funds beyond those available through Omnibus or base funding. Some of the funding opportunities are offered through organizations external to Sea Grant or NOAA, while others are internal to the Sea Grant Network and align with emerging priorities of the Administration. This allows programs to be responsive to emerging needs of stakeholders that arise outside the multi-year Omnibus funding cycle. For issues that are pervasive across the the Great Lakes, multiple Sea Grant programs would potentially be competing for the same grants, therefore reducing each other's chance of success and return on investment. The ability to coordinate on potential grant proposals would reduce duplication and leverage synergies in areas of expertise across the programs, as well as between the GLSGN and partners.

Intervention: The liaison convened discussions among potential groups of project collaborators from across the GLSGN and partner organizations in response to funding opportunities.

Impacts/Outcomes:

- Development and submission of three grant proposals in collaboration with multiple Sea Grant programs and partners, with a total funding request of ~\$1.36 million.
- Substantial collaborative input on two proposals, with a total funding request of ~\$299,000.

- Associated proposal details are contained within the accomplishments section of the Appendix.
- *Evaluation:* The granting organizations did not select these proposals for funding (one is still pending). However, proposal collaborators and leadership within the GLSGN provided consistent positive feedback reflecting the value of a coordinated approach to regional project development. The number of requests from Sea Grant programs and external collaborators for assistance in proposal development has increased each year of the liaison program.

For additional examples of activities and outcomes related to the objective for planning and assessment, please refer to the [accomplishments section of the Appendix](#).

PROJECT DEVELOPMENT

Objective: Improve quality of and/or support development of and promote educational/outreach/communications products for GLERL and GLSGN, through coordination, review, catalyzing interactions, and/or direct involvement in production of products, and improving accessibility.

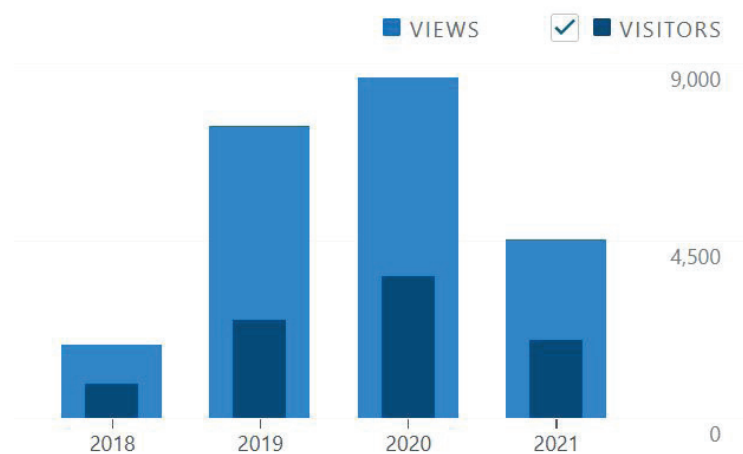
Summary

Issue: The cohesiveness of the GLSGN relies on consistent communication and interactions. Individual Sea Grant program staff primarily focus on their respective areas of expertise and have limited bandwidth to support regional coordination outside of programmatic requirements. When access to regional-scale products is limited, staff must spend additional time seeking out cross-program information. Just prior to the revised liaison program beginning in 2018, the GLSGN program leads identified 10 priority issues for collaboration across their programs, and having a central repository of associated products has the potential to increase staff efficiency and provide space for innovation.

Action: The liaison program initiated or re-energized various network-wide communication mechanisms and tools, such as a regional website (greatlakesseagrant.com), while also building awareness among partners of the existence of a central point of contact for regional inquiries. Demonstrated leadership in several special project areas allowed for establishment of new collaboration networks, coordinated project development, and facilitated discussions for future project areas.

Results/Impacts: As awareness of communications resources (e.g., regional newsletter, website, and the liaison as a central point of contact) grew, stakeholders and partners increasingly relied on these mechanisms for network-wide outreach. Similarly, awareness of network capacity and areas of Sea Grant expertise increased, which led to requests from NOAA for Extension-related assistance in outreach and community engagement.

Annual summary of GLSGN website views and visitors from 2018-2021



Note: Annual totals are based on a calendar year, so number of views/visitors reported for 2021 are only showing a portion of the year.

ACCOMPLISHMENT HIGHLIGHTS

Great Lakes socioeconomics

Need: The Great Lakes management, policy, leadership, and advocacy communities agreed on a need to improve the collection, analysis, and dissemination of economic data on the Great Lakes Blue Economy. This need has been discussed at workshops (e.g., those hosted by the Great Lakes Commission in 2020 and hosted by the Great Lakes Fishery Commission in 2021) along with continuing calls for action in pursuing ecosystem services valuation efforts. Blue Economy valuation and development is also a priority at a national scale for NOAA, which is also reflected by the National Sea Grant Office's efforts to build the network's capacity for economic valuation. However, there is only one Sea Grant economist and no NOAA economists in the Great Lakes region. As such, there is a need for enhanced capacity to address this key priority, which would also improve regional ability to evaluate progress in supporting resilient communities and economies - one of Sea Grant's focus areas.

Action: The liaison program regularly engaged members of NOAA's GLRCT, Sea Grant staff, and economists at NOAA's headquarters to evaluate NOAA and Sea Grant-specific needs, existing abilities, and emerging opportunities. The liaison pursued several professional development activities to increase personal technical understanding of socioeconomic valuation techniques used in natural resource management (e.g., attending NOAA's 2020 Social Coast Forum 2020 and joining the Sea Grant Ecosystem Services Valuation Community of Practice). The program continues to build on the connections made through these efforts to explore potential sources of support, including submission of two proposals for internal NOAA funding (one was not funded and the other is pending), and the liaison currently provides leadership for the GLRCT strategic priority area on the Blue Economy.

Impacts/Outcomes:

- Development of and ongoing updates to a list of NOAA and Sea Grant's socioeconomic valuation efforts in the region, which has enhanced regional awareness of potential collaborators and led to numerous new connections for leveraging existing efforts.
- Establishment of a Great Lakes Blue Economy strategic priority for the GLRCT and annual development of a team action plan.

Evaluation: Feedback from NOAA and Sea Grant partners reiterated the importance of building capacity in this area. This was reflected in the: inclusion of socioeconomics among the priorities highlighted in some Sea Grant research program funding opportunities within the GLSGN, ongoing interest from members of the NOAA GLRCT in pursuing team projects in this area, and inclusion of the liaison in a developing Great Lakes Valuation community of practice (external to NOAA or SG; chaired by the Great Lakes Fishery Commission and The Nature Conservancy) to help prioritize research needs, build support, and foster interdisciplinary collaboration among partners in the region.

For additional examples of activities and outcomes related to the objective for project development, please refer to the [accomplishments section of the Appendix](#).

ONGOING AND DEVELOPING WORK IN SPECIAL TOPICS

- Harmful Algal Blooms (HABs)
 - Maintain open communication channels between GLERL / CIGLR HABs team, GLSGN HABs contacts, the National Sea Grant HABs Liaison, and other key partners (such as the Great Lakes Commission HABs Collaborative).
- Coastal climate resilience
 - Track and clarify GLSGN needs and priorities so they can be cohesively represented in regional-level partnerships and planning efforts.
 - Continue to facilitate coordinated response to funding opportunities.
- Tourism
 - Develop products to inform sustainable cruise tourism in the Great Lakes.
 - Explore collaboration opportunities between Viking and Sea Grant's Center for Great Lakes Literacy to support potential development of adult education programs.
- CoastWatch (collection of physical environmental conditions nowcast and forecast products)
 - Further enhance relationship between [NOAA CoastWatch Great Lakes Node](#) and [Michigan Sea Grant CoastWatch website](#) committees.
 - Facilitate process for streamlining CoastWatch products to best meet end-user needs in the sportfishing community.

CHALLENGES AND OPPORTUNITIES FOR GROWTH

- Clarity on goals regarding how NOAA in the Great Lakes works with Sea Grant, specifically, but not limited to:
 - Assets, opportunities, and role clarity for Sea Grant and CIGLR related to stakeholder engagement;
 - Needs, opportunities, and processes for communication or collaboration on research portfolios and projects;
 - Regional communication pathways with OCM and Coastal Zone Managers.
- Consistency of access to GLSGN Directors, such as through regular attendance at monthly meetings in a staff-level role.
- Additional clarity about facilitative leadership role and goals for GLSGN organizational development.
- Priority setting across the region to meet stakeholder needs while maintaining effective focus.

RECOMMENDATIONS

- Solidify the “advisory committee members” to be standing members from each of the networks and not rotating members from the GLSG Directors, Extension Program Leaders, Research Coordinators, and Communicators.
- Consider aligning future funding of the grant with MSUE core competency/program areas. For example:
 - Teamwork and leadership or Partnerships and collaboration (50%):
 - Facilitate a NOAA GLERL, NOAA NSGO, GLSG leadership retreat to build relationships, clarify research coordination goals, and input processes.
 - Facilitate a GL regional Sea Grant academy.
 - Collaborative Program development on special topics (50%)
 - Coastal resilience;
 - Blue economy (coastal tourism).

APPENDIX

NOAA-Sea Grant Extension Partnership Liaison

June 2018

Purpose

The Extension Partnership Liaison (EPL) will facilitate integration of NOAA research and end-user needs by using Sea Grant extension expertise to augment NOAA science and research engagement with the user community. The EPL will work with the Sea Grant Network and NOAA partner to identify needs and products on key topics (e.g. the National Water Model, ocean acidification) and use Sea Grant extension expertise to share NOAA's research results, information products, and services with stakeholders and research end-users at the community, state or regional level. The anticipated impacts of these positions are to enhance the application of NOAA research within the Sea Grant network and end-user communities; and to enhance the relevancy of NOAA research to address societal needs.

Potential NOAA partners

Because Sea Grant is a diverse network with strengths in all areas in which NOAA focuses, any NOAA program may benefit from a Sea Grant EPL— however the scope of the position, program needs, and relevance to Sea Grant goals must be clearly identified and attainable and agreed to by the NOAA, NSGO and the host Sea Grant program ("Parties") in a EPL agreement prior to funding the position. The agreement should clearly identify how this position can meet both NOAA and Sea Grant goals.

Extension Partnership Liaison Position

The EPL will have technical or scientific experience relevant to the NOAA partner program and substantial experience with Sea Grant or stakeholder engagement/extension. The EPL can be co-located at a Sea Grant office and a NOAA entity, or what is agreed upon by the parties in the EPL agreement; however there must be a connection and responsibility to both the NOAA entity and the Sea Grant Network. The EPL will work with the Network to identify end-users of the NOAA research and provide an avenue for input into NOAA research – both in the development stage and with product, information, service release. The EPL should report to the host Sea Grant program, who will help develop a work plan with input from the NOAA program and National Sea Grant Office (NSGO). The EPL will have a point of contact at NOAA who will help to identify research and other activities to which the EPL will contribute and that are ready for end-user engagement. The EPL will also have a contact in the NSGO to provide networking and communication opportunities on a national Sea Grant level.

Term of the Position

Since effective extension programming requires establishing trust and building networks among relevant user groups, the Parties should commit to support the position for a minimum of four years of funding (pending federal appropriations). The position will be renegotiated every four years (or at the end of the agreed upon term) pending successful performance of the position and the agreement of project duration.

Establishment of a EPL Position

The Parties must agree that there is a research or outreach need that the Sea Grant network is uniquely able to fill. Each new EPL must include a NOAA program partner and a host Sea Grant program. The position goals will be developed in partnership with the Parties and the EPL will be evaluated against these goals.

When funding is available, the NSGO will create a competition for new EPL position ideas which will be open to Sea Grant programs and a NOAA program partner. If an existing EPL position is found to be unsuccessful based on the evaluation, the NSGO will terminate that EPL, and may use that funding to open a competition for new EPL ideas.

Evaluation of the Position

The EPL will undergo a quadrennial evaluation to determine feasibility for continued value and success. A team made up individuals from the Parties will conduct a review to determine if the goals of the EPL plan are being met. If the goals have been met and the Parties agree on a continued need, the position will continue (assuming federal appropriations).

Funding

A funding commitment will be determined by all Parties. While some flexibility will be maintained, each party must provide a significant and meaningful contribution to the overall cost of the EPL for the position duration. Continuation of funding will be contingent on successful evaluation and recompetition based on the Parties' agreement.

Types of Positions

The genesis of the Sea Grant EPL positions was to create a connection between NOAA research and the Sea Grant network to enhance application of NOAA science within the Network and communities, and to enhance the relevancy of NOAA research to address societal needs. Currently, there are diverse types of liaison positions that are not solely extension, some that serve a region and some that are subject matter experts. What they all have in common is that their role is to help information development and exchange to improve partnerships between NOAA and Sea Grant and build operational and applicational use of NOAA research. The shared position between the state Sea Grant program and NOAA facility offers a powerful and cost effective mechanism to build mutual NOAA and Sea Grant capabilities and accomplishments at local to national scales. While this framework describes Extension Partnership Liaison, it is not intended to limit other types of partnership positions between NOAA and Sea Grant.

Management Best Practices

- Budgets should include funding for EPL travel to actively participate in relevant professional meetings and conferences in order to achieve EPL goals (such as Sea Grant Week/Extension and Communicators Conferences or regional meetings, and others as appropriate.)
- Each EPL should establish a small advisory committee whose members are drawn from the key constituents to support strategic planning, and to provide advice on implementation, integration, and partnership.

- Each EPL should submit impacts and accomplishments via their host Sea Grant program, existing reporting system, or directly to NSGO through the PIER system.
- The individual serving as the EPL should undergo a performance review that is consistent with the processes used by the host program for similar extension personnel. The quadrennial evaluation is to determine impacts and value of the position, not the individual holding the position.

Outputs and mechanisms for engagement across Sea Grant and NOAA

- 1-2 major Extension topical initiatives
- Quarterly webinars and One NOAA programs led by NSGO Extension Lead
- Quarterly EPL Sea Grant Newsletter led by NSGO Extension Lead
- Special features and articles for National Sea Grant or NOAA websites
- Attendance at Sea Grant national/regional meetings/conferences
- Community of Practice or Network membership (Fisheries Extension Network, Working Waterfronts, climate, etc.)
- Quarterly EPL meetings led by NSGO Extension Lead
- Participation in ongoing Sea Grant activities related to areas of expertise such as the visioning process

Connecting across research and outreach networks to serve Great Lakes coastal communities



Great Lakes Sea Grant Network/GLERL Liaison

The National Oceanic and Atmospheric Administration (NOAA) Great Lakes Environmental Research Laboratory (GLERL) and the Great Lakes Sea Grant Network established a liaison position in 2001 to facilitate the transfer of information between Sea Grant specialists and GLERL staff. More recently, this role has been re-envisioned to broaden engagement across the region, including coordination with NOAA's Great Lakes Regional Collaboration Team and the eight Sea Grant programs in the Great Lakes on shared priorities.

Meet Chiara Zuccarino-Crowe, Great Lakes Sea Grant Network/GLERL Liaison



Housed within the Michigan Sea Grant Extension Program, Chiara forges and

enhances partnerships around the Great Lakes. She assists in the development of collaborative extension, communications, and outreach programs that leverage the partners' work to efficiently meet the needs of Great Lakes communities. This includes seeking new ways to integrate NOAA products and services into extension programs across the region, while also informing GLERL on Sea Grant stakeholder needs and research priorities.

The Great Lakes — Superior, Michigan, Huron, Erie and Ontario, and their connecting channels — form the largest surface fresh water system on earth. They house about one-fifth of the world's fresh surface water and nine-tenths of the U.S.'s fresh surface water.



MODIS image of the Great Lakes looking eastward. Credit: NASA

NOAA Great Lakes Environmental Research Laboratory (GLERL) and its partners conduct innovative research on the dynamic environments and ecosystems of the Great Lakes and coastal regions to provide information for resource use and management decisions that lead to safe and sustainable ecosystems, ecosystem services, and human communities. Michigan Sea Grant — a cooperative program of Michigan State University and the University of Michigan that is part of NOAA's National Sea Grant network — further supports these goals through research, education, and outreach dedicated to the protection and sustainable use of Great Lakes and coastal resources.

Cross-cutting Priorities

This cross-program integration catalyzes special projects serving needs across the region while enhancing network cohesiveness. These span regional extension network priority areas including coastal community resiliency, green stormwater infrastructure, aquatic invasive species, fisheries & aquaculture, harmful algal blooms & nutrient run-off, crude oil transport, marine debris, Great Lakes literacy, and weather & water safety.

A developing area is focused on evaluating and enhancing the **Great Lakes Blue Economy**. Both NOAA and Sea Grant make significant contributions to Blue Economy efforts in the region and will continue to play a key role in socioeconomics program coordination.

Contact:

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(734) 741-2363

NOAA, Great Lakes
Environmental Research
Laboratory
4840 South State Rd. Ann
Arbor, MI 48108-9719

For more information:

glerl.noaa.gov
greatlakesseagrant.com



MEMORANDUM OF UNDERSTANDING

Between

NATIONAL SEA GRANT COLLEGE PROGRAM OFFICE, NOAA GREAT LAKES ENVIRONMENTAL LABORATORY, MICHIGAN SEA GRANT, MICHIGAN STATE UNIVERSITY AND THE GREAT LAKES SEA GRANT NETWORK

Regarding

SEA GRANT EXTENSION EDUCATOR AT NOAA'S GREAT LAKES ENVIRONMENTAL LABORATORY

THIS AGREEMENT is entered into by and between The **National Sea Grant College Program Office** (hereinafter, "NSGO"), having offices at 1315 East-West Highway, Silver Spring, MD, the **NOAA Great Lakes Environmental Research Laboratory** (hereinafter, "GLERL"), having offices at 4840 South State Road, Ann Arbor, MI 48108-9719, **Michigan Sea Grant** (hereinafter "MSG"), having offices at 520 E. Liberty St., Suite 310, Ann Arbor, MI 48104-2210, **Michigan State University Extension** (hereinafter "MSUE"), having offices at 1405 S. Harrison Road, Suite 305 Manly Miles Building, East Lansing, MI 48824, USA and the **Great Lakes Sea Grant Network** (hereinafter "GLSGN"). These are known collectively as "the Parties".

WITNESSETH:

WHEREAS, the Great Lakes, their living and non-living resources, are an asset of overriding significance to the economy, society and culture of the Great Lakes region and the entire United States; and

WHEREAS, the Parties have a mutual interest in the widespread public dissemination of environmental, economic and educational information about the Great Lakes and in promoting improved understanding, conservation, wise use and management of the Great Lakes and their resources, and improving the resiliency of coastal communities relying on these resources; and

WHEREAS, the Parties recognize that their cooperation and collaboration will assist them to better achieve these interests and will allow them to meet their individual program missions and goals to a greater degree than they would working independently;

NOW, THEREFORE, the Parties hereto agree as follows:

Article I. The Position. The Sea Grant Extension Educator Position at GLERL (hereinafter, “the position”) provides overall leadership on coordinated special projects for the Parties regarding the Great Lakes. This position has two primary objectives: 1) to facilitate *integration and partnership* among the Parties about their Great Lakes-related research, extension, education and other programs and 2) to develop *collaborative extension, communications, and outreach programs* that draw upon the Parties’ work and that are directed towards specific Great Lakes stakeholder audiences and/or the general public.

Article II. Office. The position is physically co-located at GLERL and MSUE, with primary duty station at GLERL.

Article III. Employment Status and Funding. The incumbent is on the staff of Michigan Sea Grant Extension and is an employee of Michigan State University Extension. Terms and conditions of appointment to the position follow those normally attached to grant-funded positions at MSU.

Funding for the position salary is 75% NOAA Oceanic & Atmospheric Research (37.5% NSGO and 37.5% GLERL) and 25% from MSU Extension (match). Annual travel expenses for the position are provided by GLERL and the NSGO at a minimum of \$2,500 each. Annual general operating expenses (other than personnel and travel) will be agreed upon by the NOAA Great Lakes Regional Coordinator and the Michigan Sea Grant Extension Program Leader and included in the annual plan of work. This agreement is not the funding vehicle for the position. Funding is provided under a separate agreement(s) between NSGO, GLERL, and MSG at MSU.

Article IV. Recruitment and Supervision. Selection of individuals to fill the position is made by a committee representative of the Parties, to wit: Program Leader of Michigan Sea Grant Extension; Director of GLERL; NOAA Great Lakes Regional Coordinator; NSGO Engagement Leader, and the sitting chairs of the Great Lakes Sea Grant Directors, Extension Leaders and Communicators groups all acting with the advice and consent of the Great Lakes Sea Grant Directors. These representatives also serve as the Regional Outreach Advisory Committee and provide programmatic advice on work planning. The committee endeavors to meet twice per year.

Formal and direct supervision to the position is provided by the Program Leader of Michigan Sea Grant Extension. At GLERL, the incumbent coordinates with the NOAA Great Lakes Regional Coordinator, who is consulted by the Program Leader in any performance evaluations

of the incumbent. The proposed reappointment, termination or any other substantive action regarding the incumbent's tenure in the position must be reviewed by the Program Leader, NOAA GLERL, and NOAA NSGO representatives, and is handled in accordance with MSUE personnel policies.

Article V. Plan of Work. The incumbent, in consultation with NOAA's Great Lakes Regional Coordinator and Michigan Sea Grant Extension Program Leader, with input drawn from the Parties, will produce an annual Plan of Work to guide his/her activities so as to best achieve the purposes of this agreement and the research, outreach, communications, and extension goals of the Parties. The attached Scope of Work (Attachment A) provides a fuller description of the work plan, performance planning and evaluation for this position, which will be reviewed and revised annually.

Article VI. Duration and Modification. The initial term of this agreement is five (5) years from the date of last signing. Thereafter, at the consent of the Parties, it may be renewed for an unlimited number of 5 year terms.

The agreement can be modified or amended at any time by the mutual consent and on the written signature of the Parties. The current date of the MOU is November 20, 2018.

Article VII. Representatives. The following are the Parties' respective representatives to this agreement. Matters involving its interpretation, implementation, renewal or revision, etc. are initially to be discussed by these individuals.

Michigan Sea Grant/ Michigan State University Extension (Advisory Group Chair)

Heather Triezenberg, Extension Specialist and Program Leader, Michigan Sea Grant,
vanden64@msu.edu, 517-353-5508

National Sea Grant Office

Elizabeth Rohring, NOAA National Sea Grant Office, Engagement Lead,
elizabeth.rohring@noaa.gov, 301-734-1082

NOAA Great Lakes Region

Deborah H. Lee, Director & Great Lakes Regional Team Lead, NOAA GLERL,
deborah.lee@noaa.gov, 734-741-2244

Jennifer Day, NOAA Great Lakes Regional Coordinator, jennifer.day@noaa.gov,
734-741-2266

Tom Johengen, Director, Michigan Sea Grant; 2021 Chair of Great Lakes Sea Grant Directors, johengen@umich.edu, 734-763-5834

David Hart, Assistant Director for Extension, Wisconsin Sea Grant; 2020-2021 Chair of Great Lakes Sea Grant Extension Program Leads, dhart@aqua.wisc.edu, 608-262-6515

Carolyn Foley, Illinois Indiana Sea Grant, 2021 Chair of Sea Grant research coordinators network, cfoley@purdue.edu, 765-494-3601

Great Lakes Sea Grant Network (FY2020):

Tomas Höök, Director, Illinois-Indiana Sea Grant; 2020 Chair of Great Lakes Sea Grant Directors, thook@purdue.edu, 765-496-6799

David Hart, Assistant Director for Extension, Wisconsin Sea Grant; 2020 Chair of Great Lakes Sea Grant Extension Program Leads, dhart@aqua.wisc.edu, 608-262-6515

Marie Thoms, Communication & Public Relations Manager, Minnesota Sea Grant, 2020 Chair of Great Lakes Sea Grant Communicators, methoms@d.umn.edu, 218-726-8710

Great Lakes Sea Grant Network (FY2019):

Jim Hurley, Director, Wisconsin Sea Grant; Chair of Great Lakes Sea Grant Directors, hurley@aqua.wisc.edu, 608-262-0905

Jesse Schomberg, Associate Director of Outreach and Coastal Communities, University of Minnesota Sea Grant Program; Chair of Great Lakes Sea Grant Extension Program Leads, jschombe@d.umn.edu, 218-726-6182

Kelly Donaldson, Communications Lead, Pennsylvania Sea Grant, Chair of Great Lakes Sea Grant Communicators, kellydonaldson@psu.edu, 717-350-3913

NOAA GLERL/Great Lakes Sea Grant Regional Outreach Advisory Committee
Liaison Workplan and Priorities for 2018
Revised November 2018

Parties: NOAA National Sea Grant College Program Office, NOAA Great Lakes Environmental Research Laboratory and NOAA Great Lakes Regional Collaboration, Michigan Sea Grant, Michigan State University Extension, Great Lakes Sea Grant Network

Position Objectives:

- 1) To facilitate *integration and partnership among* the Parties about their Great Lakes-related research, extension, education and other programs.
- 2) To develop *collaborative extension, communications, and outreach programs* that draw upon the Parties’ work and that are directed towards specific Great Lakes stakeholder audiences and/or the general public.

Academic HR Appointment (Objectives):

Note: Associated position priorities for the period of 2019-2021 [available below](#).

HR1 - (25%) Network effectively with NOAA GLERL, the Sea Grant Network, university, and other regional partners about Great Lakes-related research, extension, and education related goals.

HR2 - (25%) Support Planning, Assessment, Evaluation and Review Processes for GLERL, the GLSGN and individual GL Sea Grant programs, including facilitation, needs assessment, proposal reviews, proposal development, strategic planning, program reviews, and coordination.

HR3 - (50%) Improve quality of and/or support development of and promote educational/outreach/communications products for GLERL and GLSGN, through coordination, review, catalyzing interactions, and/or direct involvement in production of products, and improving accessibility.

Corresponding 2019 high-level priorities, associated tasks, and general timeframe:

- (1) **Network effectively with NOAA GLERL, the Sea Grant Network, university, and other regional partners about Great Lakes-related research, extension, and education related goals. (25%)**

Priorities	Tasks	Timeframe
Identify emerging and ongoing priorities	1. Participate in applicable team meetings (beginning of each GLSGN Directors’ call, SG program leads, GLRCT, NOAA GLRI, GLERL all hands, GLERL Science Council, SG/NOAA Liaison Calls, MSU Extension Work Teams) and one-on-one	1. Dependant on team (Usually monthly or quarterly)

	<p>versations (tag-ups with POCs at NSGO, GLERL, and SG Extension network contacts)</p> <p>2. Review available planning materials, newsletters, visioning documents, etc.</p> <p>3. Provide relevant updates and convey information & action items gleaned from assorted team calls</p> <p>4. Update and distribute SG/GLERL Liaison factsheet</p>	<p>2. Ongoing</p> <p>3. Monthly</p> <p>4. Annual</p>
Facilitate opportunities for communication between leadership/management teams of the parties	<p>1. Identify meetings appropriate for direct interaction (e.g., Regional Great Lakes Sea Grant meeting, etc.)</p> <p>2. Assist in design/planning of associated sessions/meetings (e.g., NOAA session at regional SG meeting)</p> <p>3. Brief GLERL Director and Regional Coordinator if needed before participation in meetings, etc.</p>	ongoing
Highlight the parties' focal areas and collaborative accomplishments at relevant meetings/conferences	<p>1. Midwest Fish & Wildlife Symposium</p> <p>2. IAGLR</p> <p>3. Great Lakes Sea Grant Network Regional meeting</p> <p>4. Sea Grant Academy</p> <p>5. Extension Tourism Conference</p> <p>6. ANR Week & Great Lakes Day at MSU</p> <p>7. Great Lakes Hill Day(s)?</p>	<p>1. January</p> <p>2. June</p> <p>3. September</p> <p>4. March (wk 1) & September (wk 2)</p> <p>5. October</p> <p>6. March</p> <p>7. March</p>

(2) Support Planning, Assessment, Evaluation and Review Processes for GLERL, the GLSGN and individual GL Sea Grant programs, including facilitation, needs assessment, proposal reviews, proposal development, strategic planning, program reviews, and coordination. (25%)

Priorities	Tasks	Timeframe
Increase familiarity with program timelines; develop regional process to maximize opportunities for input and meaningful engagement across programs	<p>1. Interview staff at GLERL and each of the GLSG programs about RFP and priority planning processes</p> <p>2. Develop “engagement roadmaps” that outline research planning timelines and highlight areas for synergy</p> <p>3. Apply this model to specific regional programs, such as CSMI (develop roadmap product in collaboration with IL/IN SG)</p>	<p>1. Q1-2</p> <p>2. Q2</p> <p>3. Q2-3</p>
Engage in research planning processes, with goals of conveying stakeholder priorities and providing opportunities for collaborative research among the parties	<p>1. Participate in applicable meetings and seminars, as appropriate</p> <ul style="list-style-type: none"> - Engage in GLERL AOP process – identify possible areas of collaboration with Sea Grant (e.g., stakeholder input, outreach for research projects, opportunities to leverage Sea Grant RFP process) - Attend GLERL Science Council meetings (quarterly) - Update and share timelines of GLSG network RFP processes and GLERL project planning/execution process 	<p>1. annual/quarterly</p> <p>2. ongoing</p>

	2. Compile and maintain running list of “research/science needs” from across the GLSGN to share with GLERL	
Confirm and communicate areas of alignment between strategic plans, focal topics, and areas of programmatic growth	<ol style="list-style-type: none"> 1. Visit each of the network’s Sea Grant programs 2. Ensure GLSG programs’ strategic plans are accessible to partners (post/highlight on network website) 3. Conduct periodic needs assessments of information desired by: <ul style="list-style-type: none"> - The GLSG network from NOAA GLERL - NOAA GLERL from GLSG network programs - External stakeholders (e.g., GLC, GLFC, etc.) from NOAA GLERL and GLSG network programs. 	<ol style="list-style-type: none"> 1. Q1-3 (observe site reviews?) 2. Q1 & 3 (before and after site reviews) 3. Advisory committee check-in (2-3x/year) and ad-hoc meetings
Professional development	<ol style="list-style-type: none"> 1. Multi-cultural self-awareness training (MSU, required) 2. Sea Grant Academy 3. Community Engagement Training (at Freshwater Center) 4. Data visualization training 5. Leadership / partnership management training 	<ol style="list-style-type: none"> 1. March 26-27 2. March 2-6 and September 3. May 4 & 5. As available

(3) Improve quality of and/or support development of and promote educational/outreach/communications products for GLERL and GLSGN, through coordination, review, catalyzing interactions, and/or direct involvement in production of products, and improving accessibility. (50%)

Priorities	Tasks	Timeframe
Develop tools to communicate research program processes and project status among partners	<ol style="list-style-type: none"> 1. Establish GLSGN all-staff distribution list, and maintain focus area specific contact lists 2. Newsletter digest for SG network with updates on GLERL, NOAA, and other GL SG program activities 3. Enhance effectiveness and use of GLSGN website (e.g., needs assessment, search engine optimization) 4. Facilitate opportunities for interested GLSGN members to join GLERL brownbags 5. Initiate micro-webinar series for GLSGN that highlights GLERL research and emerging areas of inquiry 6. Develop/update and share inventory of funded research projects (building on information available in PIER and NRDD) 	<ol style="list-style-type: none"> 1. Q1 2. Monthly 3. Q2 4. Ongoing 5. Monthly 6. Ongoing
Regional product development as needed that align with program priorities	<ol style="list-style-type: none"> 1. Update economic/jobs report 2. Green Infrastructure and stormwater management (support identification/development of online resource) 3. Contribute short articles or updates to GLERL and Michigan Sea Grant newsletters & websites as topics/events/projects warrant e.g., for conferences with substantial SG/NOAA engagement (i.e, IAGLR): Create digest highlighting 	<ol style="list-style-type: none"> 1. Q3 2. Q2 3. Q3

	GLERL & Sea Grant presentations/sessions prior to conference (compile once the program has been published) to help people connect and identify these opportunities out of the 'background' of the much larger conference.	
Provide leadership on special projects	<ol style="list-style-type: none"> 1. Fisheries acoustic telemetry visualization: <ul style="list-style-type: none"> - Produce communication products highlighting telemetry data visualizations - Needs assessment for further cross-partner visualization projects - Develop accompanying extension program proposal 2. Socioeconomics: <ul style="list-style-type: none"> - NOAA in the Great Lakes (and participation in associated GLERL FY2019 project team) - Needs assessment for GL socioeconomics community of practice (potential workshop?) - Update Great Lakes jobs SG product (see above) 3. Facilitate series of conversations with partners related to the Great Lakes Water Model and areas of application for Sea Grant Programs: <ul style="list-style-type: none"> - Organize webinar with National Water Center Liaison & GLERL PIs for GLSG network 	<ol style="list-style-type: none"> 1. Q2 2. Q1-3 3. Q3 4. Ongoing / as-needed

Proposed priorities for the period of 2019-2021
(organized by parties' interests)

Priorities for Great Lakes Sea Grant Network

- 1) **Confirm and communicate existing and developing areas of alignment between strategic plans and focal areas of the parties** (including visits to each of the network's Sea Grant programs during initial year).
HR#2 10%

- 2) **Share information about research program processes and project status among partners** (for consideration of joint RFPs or coordinated research projects)
HR#3 5%

- 3) **Develop Great Lakes Sea Grant Network communication and education product(s)** (e.g., Regional Website refresh, webinar brownbags, etc.)
HR#3 15%

Priorities for GLERL / NOAA GL Regional Collaboration

- 1) **Facilitate opportunities for communication between GLERL and GLSG Network leadership/management teams**
HR#1 5%

- 2) **Engage in research planning processes**(Communicate research priorities, understand GLERL's portfolio of research, participate in applicable meetings and seminars, as appropriate)
HR#2 10%

- 3) **Support for GLERL / NOAA Regional Collaboration team** – (Participate in team meetings, provide relevant updates from GLSGN and convey information & action items)
HR#1 10%

- 4) **Communications** (Contribute short articles or updates to GLERL internal or external newsletter as topics/events/projects warrant on an ad hoc basis)
HR#3 5%

Priorities for MSUE & Michigan Sea Grant / U of M

- 1) **Conferences & workshops** (Support sessions highlighting the Great Lakes Sea Grant Network at relevant meetings/conferences)
HR#1 10%

- 2) **Professional Development** (e.g., trainings: Partnership management, multi-cultural self-awareness; Sea Grant network familiarity: Sea Grant Academy, Tourism & Recreation Extension Workshop, etc.)

HR#2 5%

Priorities for **Special projects** – As identified across the parties.

- 1) Assist in programs related to any co-supported Great Lakes Regional Team-Sea Grant projects
- 2) Develop Extension partnerships with the National Water Center within the Great Lakes Region
- 3) Develop partnerships and training related to NOAA GLERL and partners' data, science, and tools (e.g., for 2019 those related to: Fisheries acoustic telemetry visualization; Socioeconomics of ecosystem services)

HR#3 25 %

Additional Highlights of Accomplishments

(Organized by position objective)

Partnership Development and Coordination

Objective: Network effectively with NOAA GLERL, the Sea Grant Network, university, and other regional partners about Great Lakes-related research, extension, and education related goals.

Examples of corresponding activities and outcomes

- Regular meeting attendance, committees, conferences, etc. (e.g., IAGLR workshop coordination)
- Assisted NOAA's GLRCT in planning of Congressional Roundtables (Wisconsin and New York), resulting in the integration of Sea Grant into planning and connection to local stakeholders as potential panelists, as well as elevating awareness of NOAA services and Sea Grant activities among elected officials
- Coordinated SG response to information requests related to issues of concern to the Great Lakes Task Force, such as:
 - Great Lakes and Lake Champlain Invasive Species Program
 - Harmful Algal Bloom and Hypoxia Research Control Act (HABHRCA)
- Conducted assessment of perceptions of engagement between coastal management programs and GLSGN programs and identified potential areas of growth in collaboration with NOAA's Office of Coastal Management
- Facilitated connections between the Great Lakes Acoustic Telemetry Observing System (GLATOS) and Sea Grant programs that can assist GLATOS with its outreach goals while also creating opportunities for integration of GLATOS data into Sea Grant educational programs, resulting in the development of an outreach plan. (implementation is ongoing)

Planning & Assessment

Objective: Support Planning, Assessment, Evaluation and Review Processes for GLERL, the GLSGN and individual GL Sea Grant programs, including facilitation, needs assessment, proposal reviews, proposal development, strategic planning, program reviews, and coordination.

Examples of corresponding activities and outcomes

- Promotion of an internal NOAA Great Lakes Restoration Initiative projects overview webinar among Great Lakes Sea Grant Network Staff. This resulted in significant

participation of Sea Grant staff, who ultimately composed 42% of the webinar's attendees.

- Assisted in annual strategic planning efforts for NOAA's Great Lakes Regional Collaboration Team; This resulted in the development of annual statements of work for strategic focus areas on the overall Sea Grant partnership, Blue Economy, Water Levels, Science Collaboration, and Tribal Engagement.
- Participation in GLERL Annual Execution Planning meetings, GLERL Science Council, GLRCT Science Coordination sub-team, and targeted outreach to GLSGN Research Coordinators provided ongoing identification of areas for potential collaboration between Sea Grant and NOAA.
- Site visits conducted to Sea Grant programs in Wisconsin, Ohio, Illinois-Indiana, and Vermont, which led to increased understanding of the liaison program priorities and served to highlight individual Sea Grant program's needs of NOAA and regional coordination.

Grants pursued

- Details for proposed projects in which the liaison served a lead or co-lead role in the development and submission of grant proposals:
 - "Enhancing water levels decision-support capacity for the Great Lakes Sea Grant Network and its stakeholders" in response to a NSGO Special Projects Announcement in Support of Network Visioning Plan Implementation (2020)
 - *Project leads:* Chiara Zuccarino-Crowe (Michigan Sea Grant / MSU Extension), collaborators included an additional 13 PIs representing all eight GL Sea Grant programs
 - *Total funds requested:* \$200,000 over a two-year project period (2020-2022). Allocated among programs as follows: MN \$22,000; WI \$22,000; IL-IN \$22,000; OH \$22,000; PA \$22,000; NY \$22,000; LC \$22,000; and MI \$46,000.
 - *Status:* Not funded, but components of project continued to develop conceptually and were included in two subsequent project ideas
 - "A Prevention, Intervention, Education and Research (PIER) Hub for Reducing Drownings in the Great Lakes Region" sub-award via Michigan Technological University-led proposal in response to an NSF Coastlines and People (CoPE) opportunity (2020)
 - *Project leads (sub-award):* Chiara Zuccarino-Crowe (Michigan Sea Grant / MSU Extension), Kristin Arola (MSU); Full proposal included PIs at Michigan Technological University, University of Wisconsin, SUNY Buffalo, Wisconsin Sea Grant, New York Sea Grant
 - *Total funds requested:* \$309K over 5 year project period (2021-2026)
 - *Status:* Not funded
 - "Mitigating runoff and pollution on freshwater systems using green infrastructure, low impact development, and urban stormwater management - Investing in research and articulating the role of Sea Grant" in response to the NSGO Special

Projects Competition for Mitigating Runoff and Pollution Impacts on Freshwater Systems (2021)

- *Project leads:* John Bilotta (MNSG), Kara Salazar (IISG), Eliana Brown (IISG), Lisa Merrifield (U of Illinois Extension), David Hart (WISG), Chiara Zuccarino-Crowe (MISG), David Dickson (U of Connecticut Extension / NEMO and CTSG)
- *Total funds requested:* \$850,000 over three year project period (2022-2024)
- *Status:* Not funded
- Proposals in which liaison served in collaborative capacity, but did not lead proposal development or serve as a PI:
 - “Improving the resilience of vulnerable Great Lakes communities to the impacts of flooding through community engagement and building connectivity with stormwater managers and utilities” in response to a NSGO/CPO Special Projects Competition for Water Equity in the Great Lakes (2021)
 - *Project leads:* Tom Johengen (Michigan Sea Grant), Kris Stepenuck (Lake Champlain Sea Grant), Sara Hughes (University of Michigan), Kim Coleman (SUNY Plattsburgh)
 - *Total funds requested:* \$99,910 over a 17-month project period
 - *Status:* Not funded, but team encouraged to apply for potential FY22 funds
 - “Strengthening Coastal Communities’ Resilience in the Great Lakes Region” submitted by the Association of State Floodplain Managers (ASFPM) to the NFWF National Coastal Resilience Fund 2021 competition.
 - *Core project team includes:* American Planning Association, Coastal States Organization, Wisconsin Sea Grant / Great Lakes Sea Grant Network, and the Great Lakes St. Lawrence Cities Initiative
 - *Total funds requested:* \$198,980 over a two year project period (2022-2024)
 - *Status:* Pending

Professional service

- Review panel for NOAA’s Great Lakes B-WET grant program (2019, 2020)
- Outreach support for the International Association of Great Lakes Research (IAGLR); Co-chair of Website Updates Committee (2018 - 2021, ongoing)
- Published book chapter, “Lifting Each Other Up and Building Leaders through Mentorship.” In: Lessons in Leadership: Integrating Courage, Vision, and Innovation for the Future of Sustainable Fisheries, edited by William W. Taylor et al. 2020
- Review / selection committee for inaugural Wisconsin Sea Grant’s Great Lakes Champion Award (2021)
- Great Lakes Ocean Science Bowl (2021)
- Search Committee for MISG Research Program Manager (2021)
- Reviewer of Tourism section of “Wisconsin Initiative on Climate Change Impacts” report (2021)

Project Development

Objective: Improve quality of and/or support development of and promote educational/outreach/communications products for GLERL and GLSGN, through coordination, review, catalyzing interactions, and/or direct involvement in production of products, and improving accessibility.

Examples of corresponding activities and outcomes

- Instituted regular e-newsletter to all GLSGN staff and members of NOAA's GLRCT with highlights from around the network and NOAA on Great Lakes issues, applicable funding opportunities, job openings, and a regional calendar of events; The initial year of the newsletter distribution demonstrated higher engagement (open and click rates) than the industry average; Adapted outreach approach to targeted emails as opposed to broad newsletter distribution as conditions changed as a result of the switch to virtual workplaces during the pandemic
- Developed regional Sea Grant staff contact list and associated tracking of topical communities of practice and their membership
- Regional network website upkeep and development; Addition of new project pages on: water levels, integration of Crude Oil Transport Team, and integrated multi-page websites for the Great Lakes Aquaculture Collaborative (GLAC) and the regional Sea Grant Network Meeting
- Other special topics that are also ongoing/developing
 - Harmful Algal Blooms (HABs)
 - Conducted regional HABs outreach products/tools needs assessment and strengthened integration of Sea Grant within NOAA's HABs communications team
 - Facilitated connection between MISG Extension and CIGLR in collaborative stakeholder engagement efforts (survey and focus group) related to HABs in Saginaw Bay, MI
 - Serving as regional point of contact for new National Sea Grant HABs Liaison
 - Coastal resilience & fluctuating water levels
 - Developed water levels information page on GLSGN website - <https://greatlakesseagrant.com/projects/water-levels/>
 - Tracked collective GLSGN outreach in response to 2019 high water levels and cross-promoting workshops hosted by various Sea Grant programs and NOAA
 - Served on Program Steering Committee and as session moderator for Illinois-Indiana Sea Grant workshop, "Improving Communication About Changing Lake Michigan Water Levels in the Chicago Metropolitan Area" (October 2020)
 - Served as regional Sea Grant representative on Great Lakes Commission Standing Committee on Climate Resilience; provided input for Climate Resilience Action Plan (still under development)

- Facilitated coordinated response to several funding opportunities, including proposal development (detailed above, see **Regional Proposal Facilitation & Development**)
 - Developed outreach product concepts to meet NOAA information needs about water levels for Great Lakes Regional Collaboration Team; completed by contractor
- Tourism
 - Developed and co-lead a GLSGN Tourism & Recreation Community of Practice (co-chair is WI Sea Grant), that tracks regional initiatives, identifies areas for increased coordination, and regularly engages with Extension, NOAA, and state agency contacts to enhance program cohesiveness; Team members and partners are currently collaborating on development of products to inform sustainable cruise tourism in the Great Lakes.
 - Served NOAA team in developing and managing a cooperative research and development agreement between GLERL and the Viking Expedition cruise line that will be offering new Great Lakes cruises from a state-of-the-art vessel that will also serve as a platform for Great Lakes research activities of NOAA scientists.
 - Provided maritime law and statute analysis for planned research activities associated with NOAA-Viking Expedition partnership
- CoastWatch (collection of physical environmental conditions nowcast and forecast products)
 - Planned and facilitated user engagement sessions for NOAA CoastWatch program during national workshop hosted by GLERL (2019)