

UNIVERSITY OF MARYLAND EXTENSION
Environment, Natural Resources, and Sea Grant Programs

UNIVERSITY OF
MARYLAND
EXTENSION



OPTIMIZING PERFORMANCE:

*Goals, Capacity,
& Collaboration*



MAY 2024 >>>>



Greetings,

The following report is a culmination of several months of hard work by many individuals. This effort was designed to be as inclusive and strategic as possible, given the myriad of programs and the diversity of programming we undertake within the Environmental, Natural Resources and Sea Grant area. As many of you know, we are unique within UME due to this depth and breadth, and work closely with our other programming areas in 4-H Youth Development, Family and Consumer Sciences, and Agriculture and Food Systems. According to department historians, this effort is the first of its kind for our programming area, which includes areas such as environmental horticulture, aquaculture and seafood technology, watershed science, water quality, climate resiliency, forestry and wildlife, timber harvester education, energy and many other areas! It includes nationally renowned programs such as the Bay-Wise Landscape Management Program, the Master Naturalist Program, the DelMarVa Woodland Stewards Program, the Chesapeake Landscape Professionals Program, the Watershed Stewards Academy Program, the Woods in Your Backyard Program, the Master Gardener Program and many, many other stellar programs. The objectives of this effort were to: identify how we can continue to be relevant to our stakeholders through deliberate faculty and staff hiring, be more thoughtful in programmatic prioritization, and to provide recommendations regarding more effective and efficient administration to the extent possible. I want to let our faculty, staff and stakeholders know that we are listening! We plan to utilize the results of this effort in our annual efforts in programming, budgeting and resource acquisition. Please let me know if you desire further information on any aspect of this plan.

I would like to thank Mikaela Boley, Sarah Llewellyn, Luke Macaulay, Matt Parker, and Jackie Takacs for their efforts as well as Dr. Jinhee Kim, Bonnie Negahban, Laurie Arnold and Logan Bilbrough for administrative and budgetary support. Thank you also to the faculty, staff, administrators and stakeholders who took time to be interviewed and to participate in our full day strategic planning retreat.

A final shout out and thank you to Mark Amaral and Ali Mitchell of Lighthouse Consulting for all their hard work on this effort.

Sincerely,

Bill Hubbard and the ENRSG Planning Team.



Introduction >>>>>>>>

This document captures the results of a 12-month project undertaken with the University of Maryland Environment, Natural Resources, and Sea Grant (UME ENR-SG) programs to:

1. Identify high level, high priority goals for each of the programmatic areas and for the overall ENR-SG program. These goals would have a five- to 10-year time horizon.
2. Assess the need to build program capacity to successfully achieve these goals, by collecting and prioritizing immediate and long-term capacity needs at both faculty and staffing levels.
3. Review ENR-SG internal administration and operations to learn where improvements could be made to encourage integration and learning between thematic programs and efficient and impactful operations.

To make progress on these objectives, UME ENR-SG took the following actions with the consultant:

1. Formed a Multidisciplinary Project Team (Project Team) inclusive of the four major programming areas within ENR-SG (July 2023)
2. Conducted 31, one-on-one phone interviews with faculty/staff and external partners (September 2023) (While 40 were proposed, nine were nonresponsive to interview requests)
3. Reviewed interview outcomes with the Project Team and produced an “Observations from Interviews” report (October 2023)
4. Identified overall program and team goals and UME ENR-SG capacity needs based on interview results and discussion with Project Team (November 2023)
5. Engaged the four UME ENR-SG program teams in a virtual workshop (December 2023) to:
 - a. Identify high-level, high priority goals for each of the programmatic areas; each goal would have a five- to 10-year time horizon
 - b. Describe current and future capacity needs for faculty and staff positions
 - c. Develop criteria for ranking and prioritizing future faculty and staff hires
6. Produced the “Impact and Capacity Priorities by Program Team” report (January 2024)
7. Conducted a priority-setting workshop based on the “Impact and Capacity Priorities” report at the UME ENR-SG All-Hands event in January 2024 (workshop outputs are captured in this report)
8. Produced and finalized the “Optimizing Performance: Goals, Capacity, and Collaboration” report (this report), which was vetted with the Project team and distributed to the program teams for action. (February-March 2024)

This report is divided into three sections:

1. Result areas and goals
2. Capacity needs to achieve programmatic results and goals
3. Operational assessment: observations from the interviews

1. UME ENR-SG Result Areas and Goals >>>>>>>

This section of the report captures the collective, common results that the University of Maryland ENR-SG program hopes to achieve within the next five years and what each program team—Aquaculture and Seafood Technology, Forestry and Natural Resources, Home Horticulture, and Water and Climate—will accomplish to advance those results. Within this report, these collective common results are called “result areas.” “Goals” are the specific things each program team wants to achieve in three to five years that, once achieved, contribute directly to the achievement of a result area. To encourage a unified view, the goals of each program team are first presented by the result area. The same information is then presented by the program team to help each team manage and track its progress.

The first part describes the collective, common achievements that the program teams hope to achieve in the next five years under each result area. The relevant goals of each program team are sorted under each result area. The second part arrays the teams’ full suite of goals by each result area. This section also includes a list of planned/ongoing projects that support specific goals as appropriate and relevant.



RESULT 1: Increase the success, sustainability, and climate readiness of Maryland's natural resources industries, communities, and other stakeholders.

Aquaculture and Seafood Technology	Forestry & Natural Resources	Home Horticulture	Water & Climate
<p>Increase industry accessibility by providing education and information to policy makers and other decision makers that will result in:</p> <ul style="list-style-type: none"> • Reducing aquaculture lease processing times (in conjunction with the Maryland Department of Natural Resources / MDNR). • Increasing the overall leased acreage to 50,000 acres within 10 years and 100,000 acres within 20 years. <p>Increase industry profitability by:</p> <ul style="list-style-type: none"> • Working with industry and state agencies (DNR and Maryland Department of Agriculture/MDA) to explore, develop and market value added products. • Increasing advanced technology usage to better assess product inventory, health, and farm management. • Increasing postharvest food safety, quality, and processing measures for all Maryland seafood products. • Finding markets and options for other species that are currently in low market demand (such as oysters) (work in conjunction with producers). • Exploring new shellfish and finfish species that may be adopted by the aquaculture industry. 	<p>Increase the ability of private forest owners and the overall forest community to face and respond to catastrophic weather and climate change as well as changes in the way society values and uses our public and private forests by:</p> <ul style="list-style-type: none"> • Identifying the most effective manner by which to reach the 150,000 small (1-9 acre) owners of forestland. • Providing education and assistance to increase desirable wildlife habitats and populations as well as reduce undesirable wildlife populations and habitats. • Assisting professionals in the wood-using industry as well as related natural resource professionals such as foresters, wildlife biologists, conservationists, and others with the knowledge tools they need to remain competitive and responsible stewards of the land. 	<p>Increase the reach and impact of residential landscape activities and programs that are environmentally sustainable and have positive impacts on Maryland's watersheds and the Chesapeake Bay by:</p> <ul style="list-style-type: none"> • Increasing by 10% the number of landscapes that are certified as a Bay-Wise Landscape Management Program and Water-Wise. • Developing and implementing online training to certify Bay-Wise Master Gardeners. • Incorporating Bay-Wise Landscape Management with related University of Maryland (UME) programs to achieve a larger impact. <p>Increase the number and impact of Master Gardener subprograms such as Composting, Bay-Wise, Grow it Eat it, Pollinators, Plant Clinics, and Native Plants.</p> <p>Increase the capacity of homeowners to use native plants and create habitat for wildlife by:</p> <ul style="list-style-type: none"> • Increasing the planting of natives in private landscapes by 25%. • Increasing the number of wildlife shelters (bird houses, owl boxes, bat houses, native bees, and pollinators) by 50%. <p>Educate and help residents learn about and implement ecological landscapes that are adapting to climate change.</p> <p>Be/remain the trusted source for Maryland-specific information for:</p> <ul style="list-style-type: none"> • Dealing with problems in green spaces. These include new as well as common pests, heat stress on plants, possible droughts/flood stress, pollinator losses, diseases, etc. • Home and community food gardening. 	<p>Make substantial progress toward meeting the Total Maximum Daily Load (TMDL) requirements for Maryland municipalities and communities and other water quality and quantity goals by:</p> <ul style="list-style-type: none"> • Building capacity for nonpoint source Best Management Practice (BMP) implementation in rural and urban settings. • Enhancing research, behavior change, and policy evaluation necessary for realizing bay restoration. • Providing workforce development opportunities with a focus on green jobs.



RESULT 2: *Expand the reach and responsiveness of UME ENR-SG programs to previously underserved and/or unengaged audiences.*

<p>Aquaculture and Seafood Technology</p>	<p>Forestry & Natural Resources</p>	<p>Home Horticulture</p>	<p>Water & Climate</p>
<p>Continue the commitment to exploring opportunities such as working with the Minorities in Aquaculture and Seafood Technology and other Black, Indigenous, and People of Color (BIPOC) organizations, communities, and individuals.</p>	<p>Increase the visibility of team activities to:</p> <ul style="list-style-type: none"> • On-campus UME faculty and others engaged in natural resources-related activities. • Foundations, public and private organizations, and independent funders. • Un-engaged or under-engaged local governments and landowners. 	<p>Meet the needs and serve Maryland’s diverse population (including urban residents, low-income, limited English, and BIPOC audiences)</p> <p>Develop and adopt training for Master Gardeners.</p> <p>Establish DEIR County committees.</p> <p>Develop a model for how to reach previously under-served and/or un-engaged audiences.</p> <p>Partner with community organizations.</p>	<p>Provide services to underserved populations.</p> <p>Provide workforce development opportunities with a focus on green jobs.</p>

RESULT 3: Increase the capacity of private individuals, communities, and local governments to understand key ENR-SG focus areas (water and climate, forestry and natural resources, aquaculture and seafood technology, home horticulture) and implement solutions.

Aquaculture and Seafood Technology	Forestry & Natural Resources	Home Horticulture	Water & Climate
<p>Find additional opportunities to help with local government engagement, outreach, and communications. For example: RAS Fish Systems.</p>	<p>Identify stakeholders' natural resources related needs.</p> <p>Identify solutions to natural resources programs in alignment with stakeholder needs.</p> <p>Increase the knowledge and effectiveness of local and state officials regarding natural resource management rules, regulations, ordinances, etc.</p> <p>Improve management of land across Maryland (goal acreage TBD).</p>	<p>Increase outreach efforts and create opportunities to encourage more formalized input from advisory committees for both county level home horticulture and Master Gardener programs but at the state Home and Garden Information Center and state Master Gardener Coordinator level.</p>	<p>Increase the number of stormwater BMPs and other pollution reduction practices being implemented across the state by:</p> <ul style="list-style-type: none"> Improving and informing decisions made by local governments. This will be done through increased technical assistance to those audiences. Increasing the number of stormwater management, septic, and well practices implemented by communities and individuals. This will be done by delivering direct technical assistance, information, and education on water quality and BMPs. <p>Make substantial progress toward meeting the TMDLs by:</p> <ul style="list-style-type: none"> Enhancing research, behavior change, and policy evaluation necessary for realizing bay restoration. <p>Increase the capacity of local governments, decision-makers, and residents to address flooding and climate-related challenges.</p>



UME ENR-SG Goals by Program Team

Aquaculture and Seafood Technology

RESULT 1: Increase the success, sustainability, and climate readiness of Maryland's natural resources industries, communities, and other stakeholders.

- Increase industry accessibility by providing education and information to policy makers and other decision makers that will result in:
 - Reducing aquaculture lease processing times (in conjunction with MDNR).
 - Increasing the overall leased acreage to 50,000 acres within 10 years and 100,000 acres within 20 years.
- Increase industry profitability by:
 - Working with industry and state agencies (DNR and MDA) to explore, develop and market value added products.
 - Increasing advanced technology usage to better assess product inventory, health, and farm management.
 - Increasing postharvest food safety, quality, and processing measures for all Maryland seafood products.
 - Finding markets and options for other species that are currently in low market demand, such as oysters (do this in conjunction with producers).
 - Exploring new shellfish and finfish species that may be adopted by the Aquaculture and Seafood Technology industry.

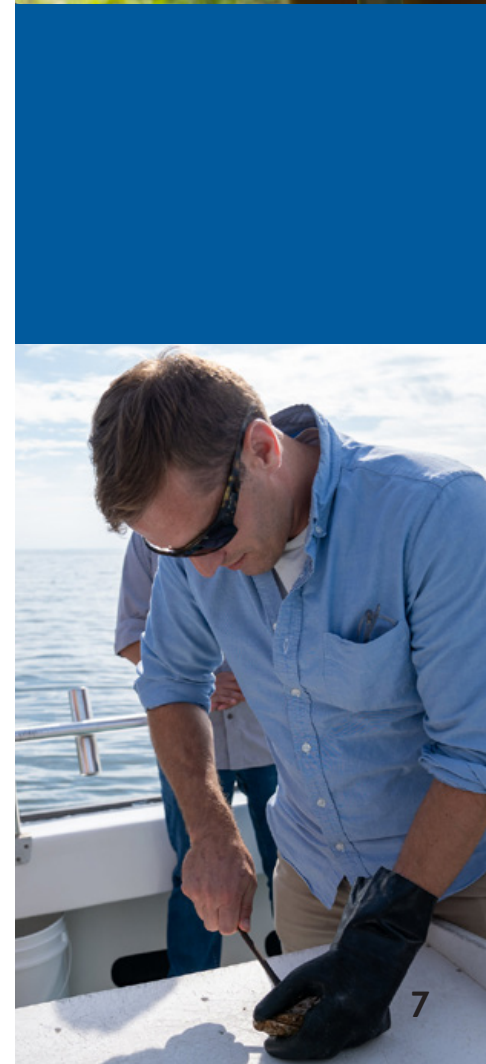
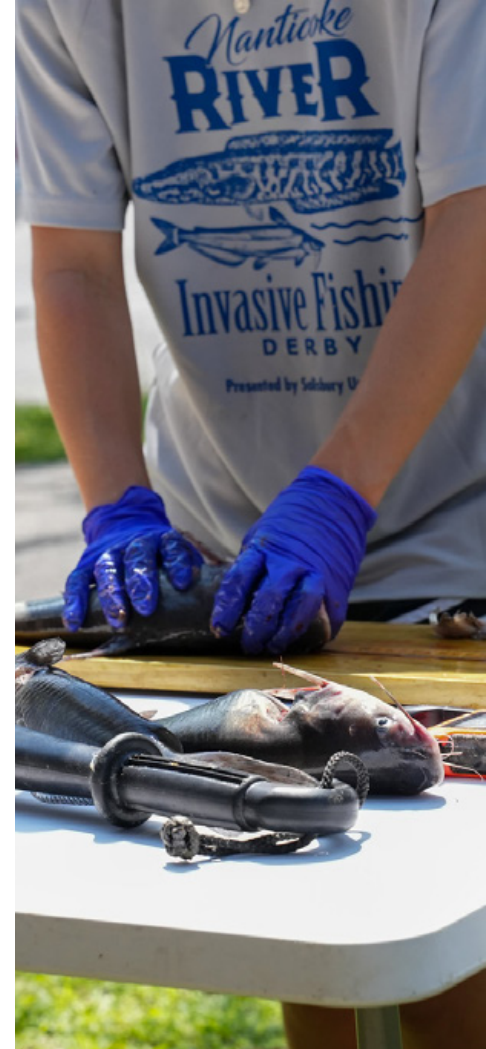
Project: Operate cooperative demo farm at Horn Point Lab (HPL) for both water column and bottom culture research projects and education.

RESULT 2: Expand the reach and responsiveness of University of Maryland ENR-SG programs to previously underserved and/or unengaged audiences.

- Continue the commitment to exploring opportunities such as working with the Minorities in Aquaculture and Seafood Technology and other BIPOC organizations, communities, and individuals.

RESULT 3: Increase the capacity of private individuals, communities, and local governments to understand key ENR-SG focus areas (water quality and quantity, NRM/wildlife, aquaculture and seafood technology, and climate) and implement solutions.

- Find additional opportunities to help with local government engagement, outreach, and communications—for example, RAS Fish Systems.



Forestry & Natural Resources



RESULT 1: Increase the success, sustainability, and climate readiness of Maryland’s natural resources industries, communities, and other stakeholders.

Increase the ability of private forest owners and the overall forest community to face and respond to catastrophic weather and climate change as well as changes in the way society values and uses our public and private forests.

- Identify the most effective manner by which to reach the 150,000 small (1-9 acre) owners of forestland.
- Provide education and assistance to increase desirable wildlife habitats and populations as well as reduce undesirable wildlife populations and habitats.
- Assist professionals in the wood-using industry as well as related natural resource professionals such as foresters, wildlife biologists, conservationists and others with the knowledge tools they need to remain competitive and responsible stewards of the land.

RESULT 2: Expand the reach and responsiveness of University of Maryland ENR-SG programs to previously underserved and/or unengaged audiences.

- Increase the visibility of the team’s activities to:
 - o On-campus UME faculty and others engaged in natural resources related activities.
 - o Foundations, public and private organizations and independent funders.
 - o Un-engaged or under-engaged local governments and landowners.

RESULT 3: Increase the capacity of private individuals, communities, and local governments to understand key ENR-SG focus areas (water and climate, forestry and natural resources, aquaculture and seafood technology, home horticulture) and implement solutions.

- Identify stakeholder’s natural resources related needs.
- Identify solutions to natural resources programs in alignment with stakeholder needs.
- Increase the knowledge and effectiveness of local and state officials regarding natural resource management and rules, regulations, ordinances, etc.
- Improve management of land across Maryland (goal acreage TBD).





Home Horticulture

RESULT 1: Increase the success, sustainability, and climate readiness of Maryland’s natural resources industries, communities, and other stakeholders.

- Increase the reach and impact of residential landscape activities and programs that are environmentally sustainable and have positive impacts on Maryland’s watersheds and the Chesapeake Bay.
 - Increase the number of landscapes being Bay-Wise Landscape Management Program and Water-Wise certified by 10%.
 - Develop and implement online training to certify Bay-Wise Master Gardeners.
 - Incorporate Bay-Wise Landscape Management with related UME programs to achieve a larger impact.
- Increase the number and impact of Master Gardener subprograms such as Composting, Bay-Wise, GIEI, Pollinators, Plant Clinic, and Native Plants.
- Increase the capacity of homeowners to use native plants and create habitat for wildlife.
 - Increase the planting of natives in private landscapes by 25%.
 - Increase the number of wildlife shelters (bird houses, owl boxes, bat houses, native bees, and pollinators) by 50%.
- Educate and help residents learn about and implement ecological landscapes that are adapting to climate change.
- Be/Remain the trusted source for Maryland-specific information for:
 - Dealing with problems in green spaces. These include new as well as common pests, heat stress on plants, possible droughts/flood stress, pollinator losses, diseases, etc.
 - Home and community food gardening.

Projects: Develop and enhance resources for low-cost, small-space, and limited resource gardening.

RESULT 2: Expand the reach and responsiveness of University of Maryland ENR-SG programs to previously underserved and/or unengaged audiences.

- Meet the needs and serve Maryland’s diverse population (including urban residents, low-income, limited English, and BIPOC audiences).
- Develop and adopt training for Master Gardeners.
- Establish DEIR County committees.
- Develop a model for how to reach previously underserved and/or unengaged audiences.
- Partner with community organizations.

RESULT 3: Increase the capacity of private individuals, communities, and local governments to understand key ENR-SG focus areas (water and climate, forestry and natural resources, aquaculture and seafood technology, home horticulture) and implement solutions.

- Increase outreach.

Projects: (1) Create additional resources and increase public awareness of these for climate-resilient gardening, including sustainable horticulture practices and new climate-resilient edible plants.

(2) Develop and implement a statewide curriculum for Master Gardeners and teaching the public. (3) Create Statewide Residential/Community Horticulture Evaluation Tools/Guidance.

Water and Climate

RESULT 1: Increase the success, sustainability, and climate readiness of Maryland's natural resources industries.

- Make substantial progress toward meeting the Total Maximum Daily Load (TMDL) requirements for Maryland's municipalities and communities and other water quality and quantity goals by:
 - Building capacity for nonpoint source Best Management Practice (BMP) implementation in rural and urban settings.
 - Enhancing research, behavior change, and policy evaluation necessary for realizing bay restoration.
 - Providing workforce development opportunities with a focus on green jobs.

RESULT 2: Expand the reach and responsiveness of University of Maryland ENR-SG programs to previously underserved and/or unengaged audiences.

- Provide services to underserved populations.
- Provide workforce development opportunities with a focus on green jobs.

RESULT 3: Increase the capacity of private individuals, communities, and local governments to understand key ENR-SG focus areas (water and climate, forestry and natural resources, aquaculture and seafood technology, home horticulture) and implement solutions.

- Increase the number of stormwater BMPs and other pollution reduction practices being implemented across the state by:
 - Improving and informing decisions made by local governments. This will be done through increased technical assistance to those audiences.
 - Increasing the number of stormwater management, septic, and well practices implemented by communities and individuals. This will be done by delivering direct technical assistance, information, and education on water quality and BMPs.
- Make substantial progress toward meeting the TMDLs by:
 - Enhancing research, behavior change, and policy evaluation necessary for realizing bay restoration.
- Increase the capacity of local governments, decision-makers, and residents to address flooding and climate-related challenges.



2. Capacity Needs to Achieve the Results and Goals >>>>

Capacity needs are provided for each program team and are sorted by faculty and staff. Each of these is divided into current or immediate needs and future needs. Following this assessment is a prioritization of current faculty needs.

FACULTY: Current

Aquaculture and Seafood Technology

1. Maintain/Refill:
 - a. Regional specialist for Western Shore
 - b. HPL oyster specialist (joint position)
2. Add: N/A

Forestry and Natural Resources

1. Maintain/Refill:
 - a. Forestry extension position
2. Add:
 - a. Urban forester/Urban natural resources extension specialist based at Central Maryland Research and Education Center.
 - b. Master logger program coordinator
 - c. Forest stewardship educator

Home Horticulture

1. Maintain/Refill:
 - a. Bay-Wise faculty vacancies
 - b. Plant pathology specialist (plan for retirements)
 - c. Food gardening specialist (plan for retirements)
2. Add:
 - a. Faculty lead for each UME Master Gardener subprogram or combination of subprograms (Ask A Master Gardener, Bay-Wise, Composting, Native Plants, Grow It Eat It, Pollinators)
 - b. State-level residential horticulture specialist (tenure) to lead the development and implementation of a statewide curriculum for Master Gardeners and teach the public
 - c. Native plant specialist that is not commercial only

Water and Climate

1. Maintain/Refill:
 - a. Southern Maryland Tenured Track (TTK) position in Water/Climate (currently filled by J. Takacs) but shift it to cover Anne Arundel County, Prince George's County, and possibly Charles County
2. Add:
 - a. One Eastern Shore regional position (TTK or Professional Track (PTK)) with regional reframe of responsibilities that would allow three extension agents to each cover three counties
 - b. Statewide climate specialist (not coastal focus)



FACULTY: Future

Aquaculture and Seafood Technology

1. UME extension engineering specialist in cooperation with Clark Engineering College
2. Aquaponics extension position
3. Seafood processing technology position
4. Legal specialist position (or build on the legal capacity of Agriculture Law Education Initiative with respect to aquaculture and seafood technology)

Forestry and Natural Resources

1. Urban forester/Urban natural resources extension specialist
2. Forest manager for university properties
3. Community development natural resources specialist

Home Horticulture

1. Climate-resilient gardening faculty (state-level horticulture faculty specialist)
2. Volunteer management faculty specialist (could be UME-wide)
3. DEIR specialist that can work with our volunteer base
4. Faculty specialist to create statewide Master Gardener curriculum

Water and Climate

1. Statewide specialist position (e.g., engineer, or landscape architect, or GI specialist) to provide broad floating coverage in the more urbanized areas
2. PTK position to cover Garrett, Allegany, and Washington Counties
3. PTK position to cover Charles County, but if not feasible then the Southern MD TTK should cover Charles County as well as Anne Arundel County and Prince George's County
4. PTK water quality - well and septic position (consider split with Family & Consumer Sciences)



STAFF: Current

Aquaculture and Seafood Technology

1. Maintain/Refill:
 - a. Communications position
2. Add:
 - a. Pre- and post-award management staff
 - b. Communications enhancement (internal/external) staff
 - c. Workshop support staff

Forestry and Natural Resources

1. Maintain/Refill: N/A
2. Add:
 - a. Master naturalist full-time program coordinator
 - b. Master naturalist program part-time program assistant
 - c. Master naturalist/natural resources programs business officer
 - d. Administrative assistant - forest stewardship
 - e. Administrative assistant - master logger program

Home Horticulture

1. Maintain/Refill: N/A
2. Add:
 - a. Part-time administration/program assistants for those needing additional support
 - b. Graphic designer /social media/audio-video specialist
 - c. Master Gardener coordinators for each county — staff or faculty appointments
 - d. IT staff in University of Maryland Extension Communications Department to improve website

Water and Climate

1. Maintain/Refill: N/A
2. Add:
 - a. Evaluation specialist positions to help faculty run and analyze surveys, conduct research, ready papers for publication
 - b. Full-time statewide the Watershed Stewards Academy staff position to help track, report, remind, set-up, etc., with many of the functions of county-based WSA and statewide-WSA leadership activities
 - c. Grant support position for each group within ENR, i.e., Water and Climate, Aquaculture and seafood technology, etc.



STAFF: Future

Aquaculture and Seafood Technology

1. Technician for HPL demo farm
2. Legal staff with knowledge of aquaculture and seafood technology issues (ALEI Program)
3. Someone in Extension to help with annual reporting
4. Pre- and post-award management staff

Forestry and Natural Resources

1. Short- and long-term administrative staff support person
2. Grant coordinator/seeker

Home Horticulture

1. Instructional designer for web content and training
2. ASK extension consultant

Water and Climate

1. Administrative support roles and program assistants
2. Coordinator focused on connections to low-income individuals/communities to assist faculty



Criteria for Ranking Future Faculty Positions by Program Team

Below are the cross-cutting criteria for hiring faculty positions. These were developed independently by each program team and aligned in the table below to highlight overlapping criteria.

Aquaculture and Seafood Technology	Forestry & Natural Resources	Home Horticulture	Water & Climate
Advances overall ENR programmatic goals.	Advances overall ENR programmatic goals.	Advances overall ENR programmatic goals	Advances overall ENR programmatic goals.
High likelihood of successfully competing for grant funding.	High likelihood of successfully competing for grant funding.	High likelihood of successfully competing for grant funding.	High likelihood of successfully competing for grant funding. Applies to TTK faculty.
Equitable and fair distribution across programmatic areas (total resources allocated, staff, faculty, etc.).	Equitable and fair distribution across programmatic areas (total resources allocated, staff, faculty, etc.).	Equitable and fair distribution across programmatic areas (total resources allocated, staff, faculty, etc.).	Equitable and fair distribution across programmatic areas (total resources allocated, staff, faculty, etc.).
New and innovative knowledge and skills.	New and innovative knowledge and skills.	New and innovative knowledge and skills that relate to the current needs of MD residents and UME.	New and innovative knowledge and skills.
Positions reflect demonstrated community need.	Designed to meet the needs of stakeholders	Serves a large audience with high demand for subject area knowledge	Need is demonstrated by data collected in the county/region to show that the education/info is in demand.

Individual comments

Will provide measurable outcomes to Extension programs.	Consider the scope and scale of the sectors being engaged to calculate return on investment.	Position serves a specific niche for the state of MD for example: diagnostics and Integrated Pest Management (IPM) education	
Consider core teams of expertise and key faculty to lead each team.	Skillset and professional development capabilities.		



Prioritization of Current Faculty Needs.

Participants at the January 24, 2024 workshop used the common criteria above to identify priority Current Faculty capacity needs through a voting exercise. Individuals were given two votes. Only one of those votes could be specific to their program. The other vote or both votes had to be applied outside of their program's capacity needs. The vote was captured on a flip chart, with each program team using a specified color. This allows for a better understanding of how votes were placed.

THE RESULTS OF THIS POLL ARE, IN ASCENDING ORDER:

- State-level residential horticulture specialist (17 votes).
- Statewide climate specialist (13 votes)
- Urban forester/natural resources extension specialist (8 votes)
- One Eastern Shore watershed regional position (7 votes)
- Western shore aquaculture specialist (4 votes)
- Native plant specialist that is not commercial only (2 votes)

3. Operational Assessment: Observations from the Interviews >>>>>>>>>>>>>>

This section is based on interviews conducted with staff and stakeholders during September 2023. It included 21 internal and 10 external interviews. Each interview lasted about 30 minutes and followed a defined list of previously agreed upon questions.

This section captures the notes taken during those interviews. Comments are arrayed under major headings. These are sorted by input received from the internal and external interviews. These reflect re-occurring themes, which denote the strategic areas the program should consider focusing on. For the purpose of these notes, we have used program to denote the MD ENR Sea Grant program and projects to denote the activities, initiatives and sub-programs that fall under the MD ENR Sea Grant program.

WHAT MAKES ENR UNIQUE AND SUCCESSFUL

The sections that follow capture observations and assessments about the program's challenges and weaknesses. It is important to note that most of those interviewed understood the program's resource limitations and identified with the program's success and felt that the work they are doing is important and valued. People appreciate working for Extension and are passionate and driven. Most had a positive message about the leadership.

Common areas of success included:

- Dedication to the environmental health and sustainability of Maryland, especially the Chesapeake Bay and its surrounding watershed
- Doing important work in the area of community and climate resilience
- Making research-related information available and accessible to the public so they can make choices about how to solve their problems
- Collaboration directly with people, local and state government entities, and funders
- Well connected
- Professionals have high-level research expertise and intersecting skillsets, especially on watershed and bay-related issues
- Connection to the university allows them to bring research to the people in an accessible way and conversely bring research needs back to the university

Products and services the interviewees were most proud of/ aware of included:

- Advocacy partnership – meetings on Capitol Hill about Sea Grant's value
- YouTube videos
- Reports
- Communications materials
- Outreach programs
- Site visits
- Research
- Experimental design in social science and hard science space
- Collaboration on community organizations
- Newsletters



INTERNAL OBSERVATIONS

Most issues raised by the interviewees were operational in nature. Most, we suspect, are not new revelations.

Recognizing that the program is under-resourced. The most consistent theme raised during the internal interviews was the issue of being under-resourced in terms of funding, staffing, and time. While there was a near universal statement of the need for more resources, interviewees understood that a lack of sufficient resources is an organization-wide issue. The organization, beyond ENR-SG, needs to look at how administrative resources are allocated and how administrative personnel are compensated (salary and growth). These observations can be parsed into three different categories:

- Professional capacity
 - There are far too few human resources to do the job correctly
 - Starting salaries are not competitive to attract talent (from stakeholders)
 - Schedules are packed, making it difficult to even attend Zoom meetings
 - Retired Extension professionals are being leaned on to keep programs running
 - Faculty are needed to create materials that are then used in the field by program staff
 - Program people lack the time to make new materials
- Administrative tasks
 - Need operational and functional support
 - Administrative assistance – centralized, cohesive support is needed
 - Administrative burden is heavy — “I am spending hours on budgets and travel, not getting my work done.”
 - The end user is now responsible for administrative tasks, marketing, communication, budgets, etc.
 - Considerable frustration with inconsistencies in support from county to county— even within the same program area and between programs
 - Administrative support is especially needed in areas necessary for successful programs – i.e., communications, web design, assembling materials, volunteer paperwork, scheduling, marketing, publication support, grants management
 - Need assistance in communicating our successes
 - Getting data into peer reviewed formats
 - Websites, especially at the county level, are out of date and are not easily updated
 - Assistance in how to update and manage public-facing marketing channels
- Management capacity
 - Too many people for one person (the ENRSG Program Leader) to manage
 - Any additional administrative support should be coupled with a reduction of bureaucratic layers and clarity in how much a program person can direct an administrative person’s activities
 - There is little or no structure for the staff to report up, or to get input and advice
 - Leadership needs to recognize the good work being done by people in the field
 - There is a lack of time for building connections between projects and linking the program’s work with the broader community (clients, counties, funders)
 - Too busy with delivery to focus on centralizing learning and impact. No time for landscape assessment and programmatic adjustments
 - The requirements or expectations communicated by Extension central management often do not align with input from program leaders, which is again different from what county partners expect.





Tension between sustaining programs and evolving to meet new needs. Either now or in the past, emphasis was on creating new programs to pursue funding available at the time of inception. It was noted that:

- Once that funding ends, project staff are encouraged to “keep the program going,” through “entrepreneurial” efforts to find and retain funds.
- It is not possible to accomplish core work and be flexible to respond to new/changing needs.
- There is constant competition for limited resources. Projects have been institutionalized that only marginally cover their costs and do not allow for growth or the pursuit of new opportunities within the project’s scope.
- Priorities are based on individuals, not what the community, client, or funder needs.
- Projects are driven by grant requirements and, as a result, are not able to flexibly meet evolving demands and needs.
- There is growing competition in some of the topical areas, and we are not able to quickly adapt and change programming to address this threat. The program’s structure (organization and funding) ensures that it is not very nimble.
- Are we organized, or just a bunch of solo actors? We need more program-wide coordination to help set priorities and direct the limited resources.
- When a person relies on a one-year grant or county funding, managing these competing needs or expectations is exceedingly difficult.
 - Showing value to the funding source will always win.
 - The administrative burden related to 1-year funding is high. Means you have even less time to consider non-deliverables.

The challenge with collaboration. How the projects within the program collaborate and cross-pollinate was an area of interest during the interviews. Most reported that it was hard to do because everyone is so busy. It was noted that there is not time for collaboration, and it often feels like a zero-sum game, where instead of collaborating, all are fighting for recognition and resources. It was also reported that cross pollination does not happen as often as it should and is usually left to one-off contacts and informal connections. Challenges include:

- Aligning and or combining similar projects within the program (e.g., Master Gardener and the HGIC Center) is difficult.
- Taking into account all the other strategic planning documents that need to inform leadership decisions (for example the watershed team’s “proposals for strategic plan and staffing”), how do these all connect?
- Everyone is ultimately accountable to their funding stream and primary local constituents—if a cross-program initiative is not going to meet that, even if it is interesting and good, it is not a priority.
- Consider expanding the opportunity for staff to report under big programming areas and/or establishing universal expectations for individual extension plans so they are broad and impactful.
- Agreement between projects about public-facing policies (e.g., when are we open/closed to the public?) to allow for a consistent customer experience needs to be balanced against staff being able to complete their work requirements.
- Climate change impacts are identified regularly by internal staff and external stakeholders, but little structure or process (or incentive) to engage the topic across the program.
- It is hard to coordinate between watersheds. We are responsive to our place/county. We do collaborate with teammates quarterly.
- It is difficult finding partners to work on a project, even though it has been identified as an important statewide issue. While noted as important, it is not a priority to individuals or their programs.
- Distance/time to travel to in-person events. Connections to places make people good at their jobs but also makes traveling to campus a huge burden. Vibrant work locations everywhere could increase collaboration.
- Communication is limited or inconsistent—if you don’t know what is happening, you cannot get involved.
- There is a push for interdisciplinary work but no offer of incentives to do so.

Aligning ENR's profile within Extension, the College, and the University- There does not seem to be a clear alignment between ENR's goals and the goals of Sea Grant, Extension, the College, or University. Some observed that it does not appear that the program is a priority for Extension, Sea Grant, the College and/or University. Further, there does not appear to be a system for regularly communicating "up the ladder" about the program's successes and impact on the State. Leadership needs to sell the success of Extension to bigger stakeholders and lead the charge on cross-campus connections and collaboration.

Opportunities and priorities for capacity building. General "professional development" does not appear to be a significant area of concern or need. However, there is a deep, repeated request for support and training in core Extension competencies and in working with new and historically underserved audiences/communities. When interest in building individual and project capacity was raised by an interviewee, it was immediately noted that there is not enough time or the resources to pursue capacity building. Very few people enter Extension with Extension-specific degrees. There is a gap in expectations and available training in core competencies. Areas where MD ENR-SG could provide support, attention, or training that is applicable to all program areas include:

- Technical topics such as designing and managing websites, social media campaigns, and other marketing and communications techniques (this was also highlighted as an area where centralized support would be welcomed)
- How to make connections in and communicate with communities
- How to get new audiences to understand and value what you are trying to do
- How to organize programs
- How to design a focus group
- How to identify and work with leaders in a community
- How to do volunteer management and support
- How to facilitate
- How to manage program dollars
- Facilitation of/how to run a successful public event and/or focus group
- Measuring evaluation and impacts
- Faculty time for scholarly work
- Training on how to incorporate DEI (diversity, equity, inclusion) principles into their own programmatic efforts or how to responsibly engage with or navigate new communities to bring them into current programs or develop/adapt programs to meet their needs

Consistently raised as an area for future capacity building was the need for *common evaluation tools*. *The lack of consistent reporting resources leads to inefficiency and subpar impact stories*. Challenges include:

- It is difficult and time consuming to make evaluation tools. Most program staff do not have the time nor expertise to make high quality instruments.
- There is a need for human capacity with resources and adaptable tools (e.g., IRB-approved surveys) that can be used across programs with small adjustments.

Also mentioned, was the need for *onboarding and supporting staff during their first three years on the job*. Given the complexity and structure of the program, future success depends on onboarding new staff properly—using a consistently applied process and providing necessary support. Specific comments include:

- Provide an up-to-date human resources manual that is easily accessible and consistently applied.
- Mentoring programs are especially important. These must be implemented well. There is a good mentoring program in place. Its concept is solid. However, it is not well executed.
- How do new team members connect with people outside their projects, but within the program? Mitigate the feeling of being disconnected and having to act as a solo actor.
- Clarify how performance is measured, especially where there are both faculty and non-faculty working on the same project.



EXTERNAL OBSERVATIONS

Aligning with the changing priorities of the funders. There was a tone in some of the interviews that suggest certain projects are focused on past successes and are not evolving to meet future needs. This tone was relayed in comments such as:

- Funding priorities are evolving. Money is not forever.
- Projects that, in the past, have been viewed as successful, are not keeping pace with on-the-ground changes in funders' needs. Instead, projects are focused on doing what they have always done, which may not align with future funding.
- What are the programs' core goals and values that bind them all together? Are these evolving to meet future needs?
- Grant funds are not going to increase and, in fact, will continue to have less impact as cost-of-living increases.
- What is UME's stake in all of this—except for maintaining positive cash flow? Not going to get more; stop asking. Other partners are not asking for more.

Communication and Brand Confusion. It was clear at the start of many interviews that the interviewee was not clear what the ENR Sea Grant Program is, or how it fits into Extension or Sea Grant. They were only able to speak about their own, narrow interaction with a specific project. Most did not know:

- How the program is organized, or how it fits within Extension, or how it is connected to Sea Grant. Several asked why the program is organized the way it is and suggested that there should not be a distinction between Sea Grant and Extension outreach; these should be one and the same.

Others noted:

- The program is fragmented on the inside; we see that on the outside.
- There is a need for communication about what the program is doing—how you could help me and the community.
- Extension assumes that our colleagues know what we know, and that the public knows what we know. That is not always the case!
- The public and other organizations need to understand what Extension does and provides so they can take advantage of resources, can identify gaps that they can fill, and can suggest project opportunities.
- We need to get beyond a quarterly, promotional newsletter.

Understanding the importance of and gaps in statewide leadership and coordination. There was recognition that a lot of good work is happening. But there were also consistent comments about the lack of statewide leadership who could connect the different projects so that positive outcomes are maximized.

Comments included:

- The University (the program) could play an important role aligning National Oceanic and Atmospheric Administration, State Coastal Zone Management, National Estuarine Research Reserve System, Extension and Sea Grant goals and programmatic funding. I do not see “bigger goals” that can help connect the individual efforts.
- Our outcomes could be more complimentary if we worked together.
- There is a need to better coordinate UME strengths such as research and outreach and direct those efforts towards real-world, real-time issues.
- Although the Advisory Committee is a good idea, it felt like checking a box on public engagement. They talked to us; we didn’t get to talk to them, which was frustrating.
- The program excels at doing stuff well, but is it the right stuff?
- There does not seem to be a centralized unit that understands and can communicate what the overall program does and how the projects connect to one another.
- Staff in the field are good at their projects but are not able to talk about the broader program or provide connections to other projects or even community leaders/stakeholders.
- How about new and innovative ways to bring stakeholders together to talk about advances, challenges, and common goals?
- Play the role of connector—connecting actors and projects. The program, or at least project staff, should serve as connections to key stakeholders and influencers. When an agency is asking for a connection into the community, they should be able to provide it.

Areas for future investment. Programmatically, interviewees noted that the organization should consider the following adjustments and changes:

- Policy and regulation — analyze where problems are and where research is needed.
- Underwater technology — application of underwater drones.
- Guidance on climate change— how are watershed restoration projects impacting climate change?
- Green infrastructure and viable use as a resiliency tool in the watershed. Research on adaptation and mitigation.
- Community-based social marketing—need to ramp up communications through social media. Need greater emphasis on social marketing in addition to traditional approaches.
- Water quantity, not just quality. Best practices for water quantity.
- Shift orientation from “traditional” agriculture and old-style gardens to natural systems, native species, climate resilient species, non-invasives. Lacking capacity and knowledge about changing needs of gardens. Rigid to the detriment of the program. Focus on insects and pests instead of eco-friendly gardening.
- Expand aquaculture and seafood technology in the state beyond oysters to include finfish and other shellfish. Engage with actual farmers and communities impacted by aquaculture (landowners, supply chain, etc.)
- Collaborate on big, long-term projects.
- Increase attention to workforce development.
- Expand efforts with underserved and new communities. Focus effort to help program staff engage with communities that are not being represented in their programming.



ADDITIONAL OBSERVATIONS FROM DECEMBER FACILITATED SESSIONS

These items were collected during the facilitated sessions but are more related to Extension administration and management than an individual team's priorities. These comments align with the observations collected during the interviews that were part of phase I of this effort and are available in a separate Observations from Interviews report.

Hiring

1. Focus on attracting the best high-quality candidate for positions without listing PhD as “preferred” in job announcements. Requiring a PhD may hinder qualified MS candidates from applying.
2. Increase the starting salary/promotion potential for PTK faculty.
3. Consider investing salary savings from retirement positions as start-up for new hires, i.e., PTK or Master Gardener (MG) Coordinator.
4. Put a succession plan in place for new MG Coordinators.
5. The hiring process for faculty/staff should also include years of experience as a substitute for having a bachelor's degree—so positions can be filled quickly.
6. Starting salary is low for a position that requires a bachelor's degree.
7. College of Agriculture & Natural Resources should prioritize funding for faculty positions over internal staff positions at the College that provide limited value to Extension faculty and staff.

Financials

1. Move grant funded and program revenue funded faculty to state lines (e.g., Master Naturalist Coordinator and Woodland Stewardship/Master Logger Coordinator positions, others).
2. Change PTK funding model to go from year-to-year to longer term or permanent funding for positions.
3. Consider funding current positions fully with permanent funds so the faculty/staff member does not need to rely on grant funding.
4. Increase accounting and budget transparency and understanding.

Management

1. There should be consideration to alternative options for overseeing and managing the Sea Grant and Natural Resources Extension Programs. One alternative could be for two Program Leaders, one for Sea Grant Extension, and one for Natural Resources Extension. This would be the best option to most effectively build our programs to meet the challenges our stakeholders face
2. Increase coordination with program leader and UME administration so they know about and can advocate for our programs.
3. Teams would benefit from the development of standard operating procedures and defined processes, ticketing systems for improved coordination and transparency, and a unified organizational knowledge repository.
4. Include staff in professional development opportunities.

Overarching

1. Providing valuable services to underserved populations will require more time and engagement than the traditional Extension annual planning, which is based on annual programming efforts, outputs, and expectations.

