



Regional – ORD Applied Research (ROAR) Program

STAR Quarterly Meeting

Vanessa Van Note, EPA CBPO



What is the ROAR Program?

- An **internal EPA** program to **advance collaborative Office of Research and Development (ORD) and regional research partnerships** that address **high priority, near-term Regional, State, Tribal and strategic Agency research needs** across a wide range of environmental issues.





Goals of the ROAR Program

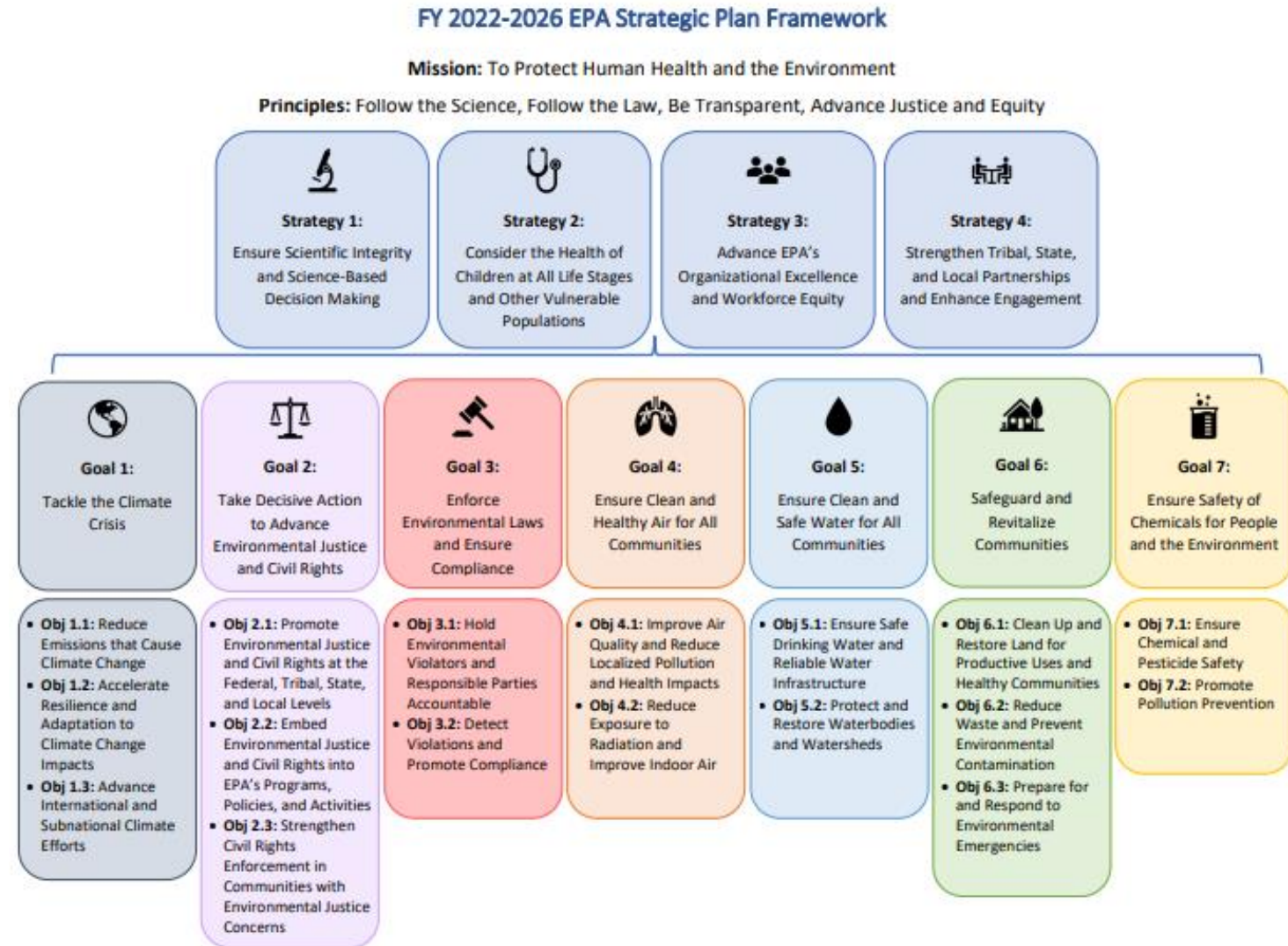
- Provide **near-term research (1-2 years)** on high-priority regional, state, tribal and community applied science needs and related strategic priorities
- **Foster collaboration** between EPA's regional offices and ORD to build a foundation **for future scientific interaction**
- **Support research collaborations** to address the region's state, tribal, local government, or community needs
- **Support research to address strategic topic areas** and innovative research approaches
- **Provide opportunities for ORD scientists** to apply their expertise to regional, state, tribal, local government and community issues and explore new research challenges in collaboration with EPA regional staff



What are “strategic research areas”?

- Research must align with:

1) EPA’s 2022-2026 Strategic Plan





What are “strategic research areas”?

- Research must align with:

2) ORD’s Strategic Research Action Plan (StRAPs) for FY 2023-2026

- Air, Climate, and Energy (ACE)
- Chemical Safety for Sustainability (CSS)
- Health and Environmental Risk Assessment (HERA)
- Homeland Security
- Safe and Sustainable Water Resources (SSWR)
- Sustainable and Healthy Communities

Research Area	Output	PRST Need(s)
Topic 3: Integrated Systems Approach to Building Healthy and Resilient Communities		
SHC.9 Benefits from Remediation, Restoration, and Revitalization	SHC.9.3 Increasing Environmental Benefits and Community Involvement	<ul style="list-style-type: none">• Socio-economic Valuations of Community Benefits• Linking Remediation and Restoration to Community Revitalization• Assessment of eco-health interventions and community impacts• Community Capacity
SHC.10 Cumulative Impacts and Community Resilience	SHC.10.1 Develop, Map and Analyze Assets and Vulnerabilities to support Cumulative Impact Assessments for Vulnerable and Disadvantaged Communities	<ul style="list-style-type: none">• Asset and Vulnerability Mapping• Environmental Justice• Cumulative Impacts
	SHC.10.2 Characterize interrelationships between chemical and non-chemical stressors and their impacts on disproportionately impacted and overburdened communities to support cumulative impact and risk assessments	<ul style="list-style-type: none">• Cumulative Impacts• Children’s Environmental Health• Environmental Justice
	SHC.10.3 Characterize and quantify the cumulative impacts of climate change related stressors with social, natural, and built environment assets and vulnerabilities to support community decision	<ul style="list-style-type: none">• Assessment of eco-health interventions and community impacts• Cumulative Impacts• Community Resilience• Climate Change• Environmental Justice



Three Tracks of the ROAR Program

1. Office of Science Advisor, Policy, and Engagement (OSAPE)

- Innovative research that addresses environmental justice and/or climate change issues and their impacts to States, Tribes, or communities.

2. Sustainable Healthy Communities (SHC) Track

- Must align with at least one of the topics of the ORD SHC research program: (1) advancing remediation and restoration of contaminated sites; (2) materials management and beneficial reuse of waste; and (3) integrated systems approach to building healthy and resilient communities.

3. Regional Track (Region 3 EPA)

- Support applied, near-term Regional research needs and are selected by each Region.



Three Tracks - Examples

1. Office of Science Advisor, Policy, and Engagement (OSAPE)

1. Assessing Carbon Sequestration Potential of Coastal Natural Infrastructure that Benefit Coastal Resiliency in the Chesapeake Bay Watershed Region (Blue Carbon)
2. Understanding Airborne Emissions and Health Impacts of 6PPD from Tires.
3. Low-cost Streamflow Monitoring with Process-based Machine Learning Modeling.

2. Sustainable Healthy Communities (SHC) Track

1. PFAS and Emerging Contaminant Technology Transfer to States and tribes: Delivering Expanded Access to Non-Targeted Sources.

3. Regional Track (Region 3 EPA)

1. Developing standardized methods for sampling, analyzing, and assessing benthic harmful algal blooms.
2. Impacts of Freshwater Salinization on Heavy Metals and Nutrient Mobilization in Source Waters
3. Microplastics Source Tracking in the Chesapeake Bay Watershed
4. Toxicological evaluation of produced water intended for beneficial use outside of the oilfield.



What about External Collaboration?

- **Proposals must be written by EPA staff.**
- EPA employees may propose collaborations with external entities.
 - Proposals should list types of proposed collaborators, not specifically name entities or POCs.
 - Ex. State, tribe, local, NGO, University.
- *For non-federal research collaboration, scope of research must fall under one of the following statutes: CAA, FWPCA, Solid Waste Disposal Act, Marine, Protection, Research, and Sanctuaries Act.*
- **After project selection, external collaborations are developed.**



First Deadline = August 5th

What is due? Concept Template

Purpose: Ensure ORD Awareness and input for ROAR Proposals.

What information do you need by August 5th?

Concept Template

REGIONAL-ORD APPLIED RESEARCH (ROAR) CONCEPT TEMPLATE

This information should be submitted to the ROAR Concept Web Form by Aug 5, 2022			
<input checked="" type="checkbox"/> Check this box if you have discussed this ROAR Concept with your RSL			
Region(s) <small>(If multi-Regional, indicate the lead Region)</small>	Region 4	Proposal Track ¹ <small>(Select Regional or SHC Track)</small>	<input checked="" type="checkbox"/> Regional Track Consider for OSAPE Track nomination? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> SHC Track
Proposal Title	Effects of fine-particle sediments on scleractinian corals of Florida		
Brief Proposal Description/Abstract ² <small>(No more than 1600 characters, approx. 3-5 sentences)</small>	Coral reefs across the state of Florida have declined dramatically in the last 30 years due to warming coastal waters, intermittent cold water upwellings, disease and watershed stressors, which include excess nutrients, contaminants and sediments. Because of recent coral losses linked to dredging activities in Florida, there is an urgent need for better characterization and understanding of sediment effects. This project will examine the effects of fine-grain sediments, such as those suspended through dredging activities, on selected Florida coral species in a laboratory setting in order to inform coral monitoring and dredging mitigation activities.		
Anticipated Project Start Date	October 1, 2022	Anticipated Project Completion Date	September 30, 2023
Regional Contacts	Name	Region	Division
Regional Lead	Daniel Lehmann	Region 4	WD

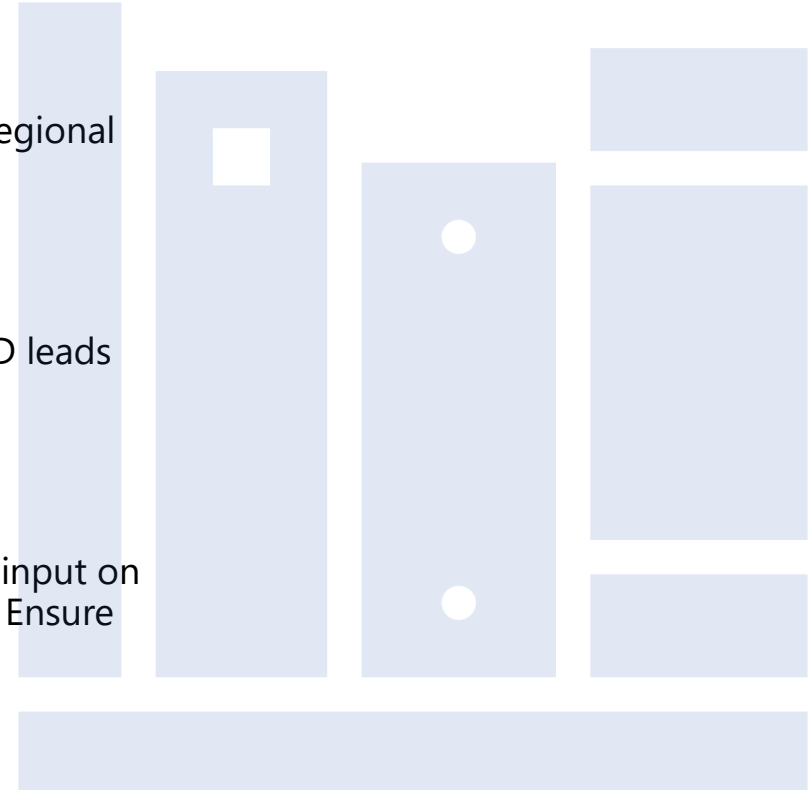
Commented [GN1]: All information submitted to the web form will be used for internal coordination and communication purposes, it is understood that all information in this table may be changed or updated before final proposals are submitted for signature/approval.

Commented [GN2]: Provide as much detail as you can about the science issue and the conceptual idea of the proposal. This is just a draft concept at this phase, and the proposal team will have more time to refine it into an abstract when developing the proposal.



Key Roles of the ROAR Program

- **Regional Science Liaison (RSL)**
 - Help develop proposals, select tracks, provide recommendations on cross-regional collaborations, and identify ORD leads and ACDs,
- **Program Support Coordinator (PSC)**
 - ORD staff who provide assistance developing proposals and identifying ORD leads and ACDs. Facilitate information sharing among national program directors.
- **Assistant Center Director (ACD)**
 - Responsible for providing direct input to the proposal team using the “ACD input on proposal feasibility and alignment table” included in the proposal template. Ensure alignment with ORD’s national research programs.
- **ORD and Regional Proposal Leads**
 - Work together to develop a ROAR proposal following instructions in the proposal guidelines document.
 - ORD lead is responsible for ensuring that the anticipated funding mechanism for the proposal is appropriate through consultation with their extramural management specialist.



Concept Template Continued...

Regional Contacts	Name	Region	Division
Regional Lead	Daniel Lehmann	Region 4	WD
RSL	Dawn Taylor	Region 4	LSASD
ORD Contacts	Name	Center	Division
ORD Lead	Cheryl Hankins	CEMM	GEMMD
ORD Lead's Program Support Coordinator (PSC)	Lee Riddick (CEMM)	CEMM	RPIS
Assistant Center Director (ACD) ³	Name: Ann Grimm Research Program: SSWR	CEMM	RPIS
Additional ORD Collaborators (Including other divisions/centers/offices)	N/A		
Multi-Regional Proposal Contacts (Only applicable for multi-Regional proposals)	Name	Region	Division
Additional Regional Collaborator	N/A		
Additional EPA Collaborators	Name	Region or Office	Center/ Division
Other EPA Collaborator	N/A		

proposal team will have more time to refine it into an abstract when developing the proposal.

Commented [GN3]: Include if known. ORD Proposal Lead or RSL can help identify. THE PSC should be in the same ORD Center as the ORD Proposal Lead.

Commented [GN4]: Include if known. PSC or ORD Proposal Lead can help identify.

What comes after August 5th? (Due date for Concept Template)

Draft Proposals Due

Final Proposals Due

Projects Announced

Schedule for FY23 Regional-ORD Applied Research (ROAR) Program	
Programmatic Action	Date
Solicitation Phase	
Solicitation announced	6/27/2022
Proposal Development Phase	
Proposal teams submit a draft proposal concept/overview to the ROAR concept web form no later than this date.	8/5/2022
Proposal teams share draft proposal with appropriate ACD and RSL for review and comment.	9/16/2022
ACD and RSL share comments on proposal with proposal team.	9/30/2022
Regional and ORD proposal leads submit finalized proposals to first line supervisors for signature/approval of submission.	10/7/2022
Proposal teams submit all finalized and approved ROAR proposals to RSLs no later than this date.	10/21/2022
RSLs send proposals to OSAPE and enter into RSP Tracker and Regional and SHC review processes begin.	10/28/2022
Proposal Review and Selection Phases	
Regions complete review and ranking process; RSLs submit OSAPE Track nominations to OSAPE, along with priority ranking of proposals submitted to all Tracks	12/9/2022
OSAPE convenes Internal Relevancy Review Team to score OSAPE Track nominations	12/16/2022
RSP Briefs OSAPE management on recommendations; OSAPE makes OSAPE Track selections	2/1/2023
OSAPE and SHC Brief ORD management on OSAPE and SHC Track selections	2/15/2023
OSAPE Notifies RSLs of OSAPE and SHC Track Selections	3/3/2023
RSLs meet with DRAs to select final Regional Track selections; RSLs submit Regional Track selections to OSAPE no later than this date	3/17/2023
OSAPE holds briefing for ORD and Regional Senior Leadership Group on all ROAR project selections	3/29/2023
ORD announces project selections and notify RSLs and ORD and Regional Leads to begin project planning. OSAPE begins scheduling kick-off calls	4/7/2023



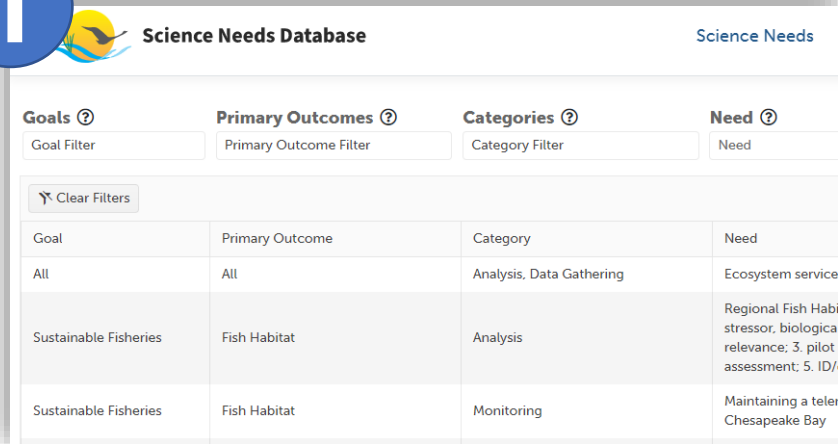
What is included in the proposal template (draft due September 16th)?

- Proposal Overview Table
- Detailed Proposal Context and Description
- ROAR Track Supplement Tables
- ACD Input on Proposal Feasibility and Alignment Table
- Project Budget and Management
- Anticipated/Planned ROAR Products
- Citations
- Required Signatures



Summary – Where do I go from here?

1

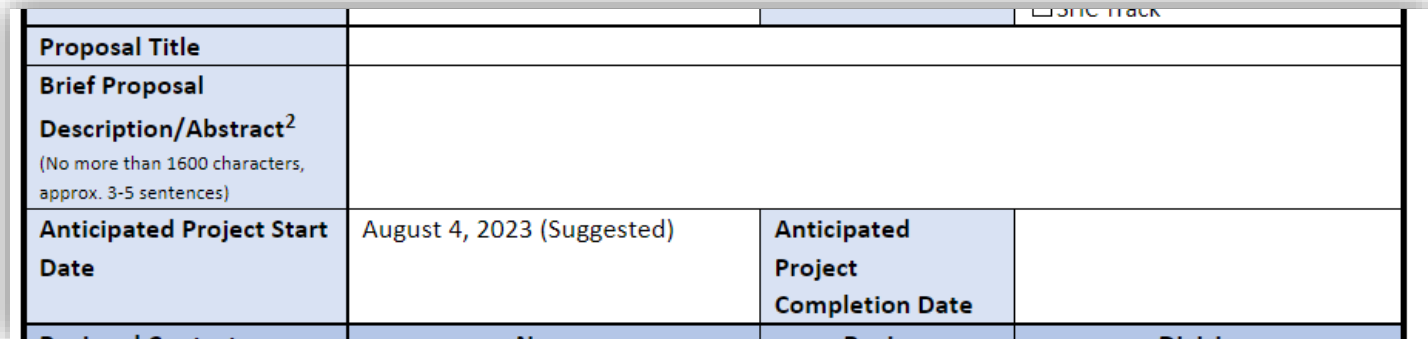


The Science Needs Database interface features a header with the title and a logo. Below the header, there are four filter sections: Goals, Primary Outcomes, Categories, and Need. Each section has a dropdown menu and a 'Clear Filters' button. The main table displays results with columns for Goal, Primary Outcome, Category, and Need. The first row shows 'All' for Goal, 'All' for Primary Outcome, 'Analysis, Data Gathering' for Category, and 'Ecosystem service' for Need. The second row shows 'Sustainable Fisheries' for Goal, 'Fish Habitat' for Primary Outcome, 'Analysis' for Category, and 'Regional Fish Habitat stressor, biological relevance; 3. pilot assessment; 5. ID/' for Need. The third row shows 'Sustainable Fisheries' for Goal, 'Fish Habitat' for Primary Outcome, 'Monitoring' for Category, and 'Maintaining a teler Chesapeake Bay' for Need.

Goal	Primary Outcome	Category	Need
All	All	Analysis, Data Gathering	Ecosystem service
Sustainable Fisheries	Fish Habitat	Analysis	Regional Fish Habitat stressor, biological relevance; 3. pilot assessment; 5. ID/
Sustainable Fisheries	Fish Habitat	Monitoring	Maintaining a teler Chesapeake Bay

1. Identify a CBPO research need that aligns with one of the three tracks of the ROAR program. (Take into consideration EPA's strategic plan and ORD's StRAPs.)

2



The proposal form is a table with four columns. The first column is for the Proposal Title and Brief Proposal Description/Abstract. The second column is for the Anticipated Project Start Date. The third column is for the Anticipated Project Completion Date. The fourth column is for the SNC Track. The first row is for the Proposal Title and Brief Proposal Description/Abstract. The second row is for the Anticipated Project Start Date, which is August 4, 2023 (Suggested). The third row is for the Anticipated Project Completion Date. The fourth row is for the SNC Track.

Proposal Title	Anticipated Project Start Date	Anticipated Project Completion Date	SNC Track
Brief Proposal Description/Abstract ² (No more than 1600 characters, approx. 3-5 sentences)	August 4, 2023 (Suggested)		

2. Prepare 3-5 sentences on your concept/idea.

3

3. Identify an EPA Lead

The EPA lead is responsible for communicating with the Region 3 RSL (Regina Poeske) ahead of August 5th and submitting the concept template.

Regional Contacts		Completion Date	
Name	Region	Division	
Regional Lead			
RSL		LSASD	
ORD Contacts		Center	
Name	Center	Division	

4

4. EPA Lead submits concept by August 5th.

REGIONAL-ORD APPLIED RESEARCH (ROAR) CONCEPT TEMPLATE

This information should be submitted to the [ROAR Concept Web Form](#) by Aug 5, 2022

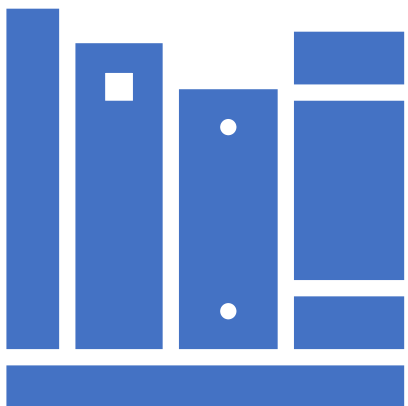
☐ Check this box if you have discussed this ROAR Concept with your RSL

Region(s) <small>(If multi-regional, indicate the lead region)</small>	Proposal Track ¹ <small>(Select Regional or SHC Track)</small>	<input type="checkbox"/> Regional Track <small>Consider for OSAP Track nomination?</small> <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> SHC Track	
Proposal Title Brief Proposal Description/Abstract ² <small>(No more than 500 characters, approx. 3-5 sentences)</small>			
Anticipated Project Start Date	August 4, 2023 (Suggested)	Anticipated Project Completion Date	
Regional Contacts	Name	Region	Division
Regional Lead			
RSL			LSASD
ORD Contacts	Name	Center	Division
ORD Lead		Choose an item	
ORD Lead's Program Support Coordinator (PSC)	Identify a PSC	Choose an item	RPS
Assistant Center Director (ACD) ³	Name: Research Program:	Choose an item	RPS
Additional ACDs <small>(If applicable)</small>	Name: Research Program:	Choose an item	RPS
Additional ORD Collaborators <small>(including other divisions/centers/offices)</small>		Choose an item	
Multi-Regional Proposal Contacts <small>(only applicable for multi-regional proposals)</small>	Name	Region	Division
Additional Regional Collaborator			
Additional EPA Collaborators	Name	Region or Office	Center/ Division
Other EPA Collaborator			



Some CBPO Concepts brought forward:

- Establish a **methodology to assess climate vulnerability and resilience effectiveness of natural infrastructure strategies**, such as marsh restoration, marsh conservation, living shorelines, and submerged aquatic vegetation (SAV) restoration, in connection with community needs associated with flooding, shoreline erosion, saltwater intrusion, water quality, and habitat in a NOAA habitat focused area.
- **Utilizing shallow water monitoring data** to assess trends, correlations with aquatic life or other continuous data analysis.
- Study one to three different locations to **assess PCB response where mitigation actions were being implemented**.
- Develop a **guidance for strategic retreat of coastal Bay communities in** preparation for sea level rise in the Bay.
- Develop a target module to address the effects of climate change that will become part of the Delaware Targeting and Prioritization Toll through **identifying BMPs and the location of these BMPs that meet community goals as well as support resilience to climate change**.



Questions?
