



BOSC Review of SHC's Research Areas 9 & 10

RA-9: Benefits from Remediation, Restoration, and Revitalization
RA-10: Community-Driven Solutions

Overview by Michael Slimak & Andrew Geller
NPD & Principal Associate NPD

Research Implementation
by ORD Center Directors

SHC StRAP & Research Area Descriptions

StRAP (Planned by SHC)

Topics (3)

Research Areas (11); planning unit

Problem Statement (Partner's Needs)

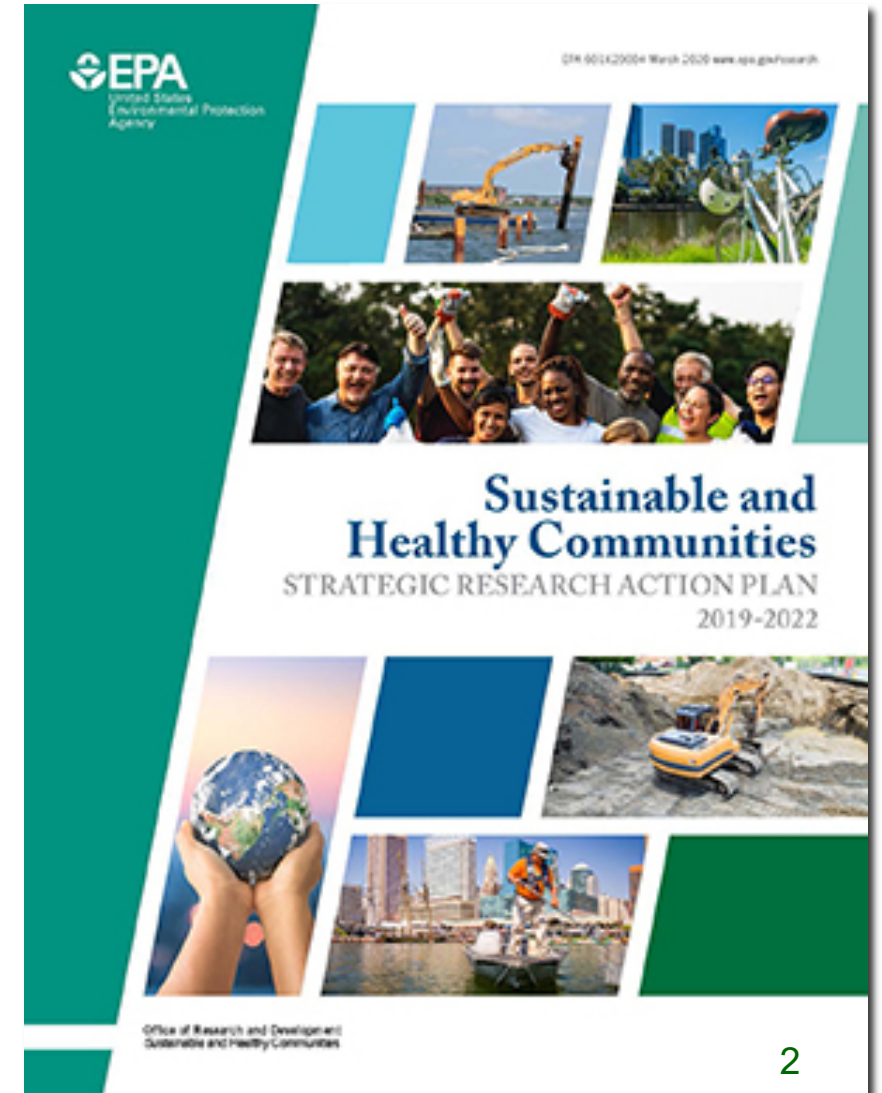
Associated Solutions (40 Outputs)

Research Area Descriptions

(Developed by Centers)

11 Research Areas; implementation unit

191 Specific Products Responsive to the Outputs



Research Planning to Implementation

- StRAP – Strategic Research Action Plan
 - FY 19-22; 4 yr plan based on EPA’s Strategic Plan
 - 11 Research Areas: Problem statements with solutions (outputs)
 - BOSC review of draft StRAP in April 2019
 - SHC’s response to BOSC comments (Section E) – Aug 2019
 - Final StRAP released in March 2020
- Research Area Description
 - Research Area Coordination Teams – April to Oct 2019
 - Specific products identified and described
 - Research Products: A tangible deliverable (report, data base, models, decision-support tools, journal articles, web-based tools)

SHC's 11 Research Areas

Topic 1: Contaminated Sites

RA-1: Technical Support

RA-2: Site Characterization and Remediation

RA-3: Solvent Vapor Intrusion

RA-4: Leaking Underground Storage Tanks

RA-5: Chemicals of Immediate Concern (PFAS & Pb)

Topic 2: Waste & Materials Management

RA-6: Landfill Management

RA-7: Life Cycle Inventories and Methodologies

RA-8: Waste Recovery and Beneficial Use

Topic 3: Healthy & Resilient Communities

RA-9: Benefits from Remediation, Restoration, and Revitalization

RA-10: Community-Driven Solutions

RA-11: Measuring Outcomes

SHC Human
Health
Research

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graph TD; SHC[SHC Human Health Research] --> RA1[RA-1: Technical Support]; SHC --> RA2[RA-2: Site Characterization and Remediation]; SHC --> RA3[RA-3: Solvent Vapor Intrusion]; SHC --> RA4[RA-4: Leaking Underground Storage Tanks]; SHC --> RA5[RA-5: Chemicals of Immediate Concern (PFAS & Pb)]; SHC --> RA6[RA-6: Landfill Management]; SHC --> RA7[RA-7: Life Cycle Inventories and Methodologies]; SHC --> RA8[RA-8: Waste Recovery and Beneficial Use]; SHC --> RA9[RA-9: Benefits from Remediation, Restoration, and Revitalization]; SHC --> RA10[RA-10: Community-Driven Solutions]; SHC --> RA11[RA-11: Measuring Outcomes];
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SHC Topic 3: Healthy and Resilient Communities: *Revitalizing Communities from Contamination and Natural Disasters/Extreme Events*

**Integrating Contamination Management with Disaster
Management and Remediation to Restoration to Community
Revitalization (R2R2R) as an Iterative Cycle**



From SHC BOSC Subcommittee
recommendations, April 2019

RA-9: Benefits from Remediation, Restoration, and Revitalization

Output 1: Methods and Measures for Characterizing Restoration Effectiveness

Output 2: Ecosystem Services Tools and Approaches to Support Remediation to Restoration to Revitalization

Output 3: Contribution of Site Remediation and Restoration to Revitalizing Communities and Improving Well-being

Output 4: Case Studies to Apply and Analyze Use of Tools at Brownfield Sites

RA-10: Community-Driven Solutions

Output 1: Data and Approaches for Identifying and Mapping Assets and Vulnerabilities

Output 2: Characterize Select Interrelationships Between Environmental Stressors to Address Cumulative Impacts on Community Health

Output 3: Pathways to Revitalization and Resilience that Build Community Capacity

Output 4: Impacts from Environmental and Natural Disasters

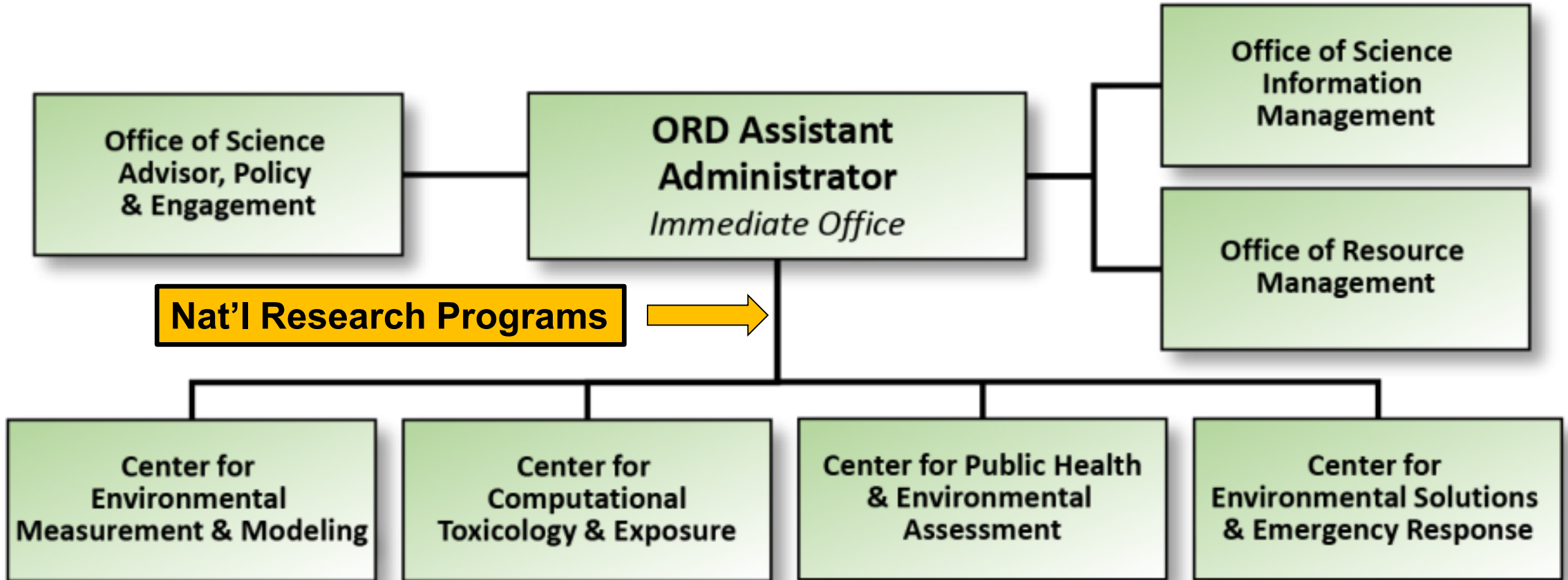
Output 5: Guidance for Effective Resiliency Actions

From StRAP to Products

- ORD committed to an engaged, translational approach with partners for identification and development of products
- April 2019 - SHC named Research Area Coordinators (RACs) to form Research Area Coordination Teams (RACTs)
 - RACs were SHC Assistant Center Directors (ACDs)
 - Membership included ORD staff, program and regional office staff (Partners), selected states
- Partners' charge
 - Refinements to problem statements or outputs in StRAP
 - How will StRAP outputs support specific decisions; deadlines for decisions
 - Format of product to support decision making
- Scientists' charge
 - Do we have skills/capacity to accomplish the outputs
 - Conceive and develop specific products to address the outputs in conjunction with partners

- April - June 2019 - RACTs identified products
 - In conjunction with partners
 - met weekly to evaluate drafts and discuss issues
 - Output-focused sub-teams to identify priority needs and develop appropriate products to meet the output
- June - July 2019 – Review and revise
 - multiple rounds of review
 - products vetted with RACTs & ORD Management
 - refined product submissions
- August 2019 – lists of products submitted to ORD management
- September 2019 – final product descriptions
 - RA-9 & 10 provided to BOSC
 - Loaded into ORD tracking system (RAPID)

ORD's New (Oct 2019) Organization



Research Implementation

- Planning by the Nat'l Research Programs
- Implementation by ORD's Research Centers
 - Center for Public Health & Environmental Assessment (CPHEA)
 - Wayne Cascio, Director (Tim Buckley, Associate Director)
 - Center for Computational Toxicology & Exposure (CCTE)
 - Russell Thomas, Director
 - Center for Environmental Measurement & Modeling (CEMM)
 - Tim Watkins, Director
 - Center for Environmental Solutions & Emergency Response (CESER)
 - Greg Sayles, Director
- Accountability and Communication a shared responsibility

BOSC Charge Questions

Q.1-- BOSC subcommittee members have been provided a summary of planned research products for research areas 9 & 10 for review at this BOSC meeting. After reviewing these materials, combined with the presentations provided during the 2-day virtual meeting, are there any critical gaps that would preclude accomplishing the environmental science goals of RA 9 and 10? Please provide recommendations for addressing those.

Q.2 -- The StRAP and Research Area Coordination Team (RACT) processes were resource intensive for both ORD scientists and partner organizations. Yet, this engagement has clearly vested EPA programs and regions, states, and tribes in the research to be conducted, and heightened their interest in participation with ORD and in the outcomes of the work. ORD is seeking BOSC input on effective ways to maintain this mutual engagement and communication between researchers and our research partners as we go forward with implementation.

Meeting Materials

- Posted on May 22, 2020
 - Meeting Agenda
 - Final StRAP (FY 19-22)
 - SHC's Response to BOSC Recommendations
 - Research Area Descriptions for RA 9 & 10
 - Bio sketch of EPA presenters
 - BOSC Charge Questions
- Posted on June 14
 - Presentation materials

Michael Slimak – National Program Director
slimak.michael@epa.gov
919-541-1406

Andrew Geller – Principal Associate Director
geller.andrew@epa.gov
919-541-4208

Internet Link

<https://www.epa.gov/aboutepa/about-sustainable-and-healthy-communities-research-program>