WINTER 2015

NESDI NEWS

Highlights & Happenings

NESDI
NAVY ENVIRONMENTAL SUSTAINABILITY DEVELOPMENT TO INTEGRATION

Welcome

This quarterly update provides you with the latest information about program operations, significant accomplishments, and future focus areas for the Navy Environmental Sustainability Development to Integration (NESDI) program.

We hope you will find these insights useful and that they encourage you to participate (or increase your involvement) in the program over the coming months.

The NESDI Program: Integrating Green Technologies Into the Fleet

www.nesdi.navy.mil

From the **Program Manager's Desk**

Ken Kaempffe
NESDI Program Manager

Welcome to the winter 2015 issue of *NESDI News: Highlights & Happenings*— part of our ongoing effort to keep you informed about the NESDI program.

We are quickly approaching the mid-point of Fiscal Year (FY) 2015. First and second quarter funds were received in a timely manner and distributed to projects. This may prove to be the most "normal" year in years. Except nothing is normal with the reduced FY15 NESDI budget—at $3.7M it is the lowest in program history. The good news is that our plan to adapt to the large shortfall is working well. More good news is that the FY16 President's Budget funds NESDI at $7M—in line with what we need to accomplish our mission. There are many budget battles to be fought over final FY16 funding numbers, but the outlook is promising.

In December of last year, the Technology Development Working Group (TDWG) and I screened and ranked pre-proposals that were received to address the priority needs collected via our FY15 needs solicitation process. More information about the results of our pre-proposal review are included in the following section. We have also been busy building agendas and handling the logistics for the two In-Progress Reviews (IPR) that we will hold this year—the first in Virginia Beach for our stormwater and east coast projects the week of 13-17 April and a second IPR in San Diego for our west coast projects the week of 4-8 May. We provide you with more insights into the plans for our east coast IPR in the "Dates Set for 2015 Program IPRs" section in this issues of *NESDI News*.

Who We Are

The NESDI program is the Navy's environmental research and development demonstration and validation (6.4) program, sponsored by the Chief of Naval Operations Energy and Environmental Readiness Division (OPNAV N45) and managed by the Naval Facilities Engineering Command (NAVFAC) from the Engineering and Expeditionary Warfare Center in Port Hueneme, CA.

The mission of the program is to provide solutions by demonstrating, validating, and integrating innovative technologies, processes, materials, and by filling knowledge gaps to minimize operational environmental risks, constraints, and costs while ensuring Fleet readiness.

Results of FY15 Pre-Proposal Solicitation, Screening & Ranking

All in all, we collected a total of 29 pre-proposals to address the priority needs that resulted from our FY15 solicitation process. The next significant milestone on the NESDI program schedule is the submission and review of full proposals. Once all pre-proposals were collected, NESDI program management reviewed and ranked them using established criteria including how the proposed effort addresses the need, how executable the project is, if the proposed effort is ready for demonstration and validation, and how feasible it will be to integrate the solution into ongoing Fleet operations. This was followed by a final evaluation that determines which pre-proposals will proceed to full proposal development. These results were provided to anyone who submitted a pre-proposal shortly after the evaluation period ended on 12 December 2014.

Full proposals were requested for those pre-proposals that do the best job of meeting the evaluation criteria and addressing the explicit requirements stated in the targeted need.

The NESDI program requested more information on a proposal to provide a quantitative assessment of habitat enhancement and stabilization structures.

Munitions on the seafloor present a potential explosive and human and ecological risk. The NESDI program is considering a proposal to find options to conventional blow-in-place (BIP) or leave-in-place (LIP) methods.

Of the pre-proposals that were received, full proposals were requested for the following pre-proposals:

NO.	ID	TITLE
1.	213	Shipboard and Shoreside Regulated Garbage Management
2.	214	X-ray Inspection System to Demilitarize Targets
3.	215	Understanding the Impact of Low Water Flows on Sewer Systems and Wastewater Treatment Plants
4.	217	Innovative Hydrant Flushing
5.	219	Initiation Decision Report Passive Sampling for Stormwater
6.	220	Multi-Functional Surface Preparation Technology for Maintenance Painting
7.	221	Quantification of Polychlorinated Biphenyls Paint Volatilization
8.	222	Autonomous Benthic Ecology System
9.	223	Natural Abundance Radiocarbon for Determining Chlorinated Contaminant Degradation Rates at the Naval Support Facility Indian Head
10.	224	Aqueous Cleaner Recycling System Demonstrate/Validate
11.	226	Evaluation of Alternative Groundwater Supply Sources from a Safe Drinking Water Act Viewpoint
12.	227	Demonstration of New Strategies for Enhanced Monitored Natural Recovery at Navy Sediment Sites
13.	228	Management Tools Decision Document for Radiological Compounds in Environmental Media
14.	229	Analysis of the Long-Term Fate of Munitions Constituents from Unexploded Ordnance (UXO) and Discarded Military Munitions (DMM) on Terrestrial Sites
15.	230	Diver-less Deployment System for In-Situ Sediment Samplers
16.	231	Encasement of Munitions of Explosive Concern on the Seafloor
17.	232	Treatment of Stormwater Runoff Using Floating Treatment Wetlands
18.	233	Structure-Function Relationship and Environmental Behavior of Perfluorochemicals from Aqueous Film-Forming Foam at Department of Defense Sites for Conceptual Site Model Development
19.	234	Technology Evaluation and Sampling for Treatment of Perfluorochemicals
20.	235	Improved Dewatering of Dredged Sediment
21.	237	Integrated Diagnostic Stormwater Monitoring with Passive Sampling
22.	238	Shoreline Stabilization Technologies with Habitat Enhancement
23.	240	Non-Isocyanate Topcoat

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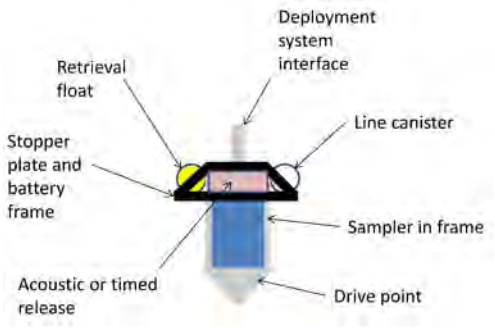
Results of FY15 Pre-Proposal Solicitation, Screening & Ranking *(continued)*

The NESDI program requested a number of full proposals this year to address the ongoing challenges associated with managing stormwater at Navy installations.



The NESDI program is considering an effort to assess the feasibility of using passive samplers as a tool to support integrated diagnostic stormwater monitoring.

The call for full proposals ran from 17 December 2014 until 18 February 2015. (Full proposals are solicited by invitation only.) Successful proposals will result in new projects beginning in FY16 and beyond.

Dates Set for 2015 Program IPRs

Each year, the NESDI program holds IPRs to check in on the progress made by the program's Principal Investigators and make sure that their efforts will achieve the intended results. These annual reviews bring together end users, resource sponsor representatives, and researchers—strengthening the gap between the research and required integration efforts. Each year, dozens of participants attend or dial in to hear briefings about ongoing projects and to provide valuable feedback to the program's Principal Investigators.

This year our stormwater and east coast IPRs will be combined and held in Virginia Beach during the week of 13-17 April 2015. In addition to a tour of the local shipyard, we will receive briefs about a number of our ongoing projects including the following:

1. Demonstration of an Improved Method for Quantifying Algal Biomass to Meet Nutrient Numeric Endpoint Compliance (#511)
2. Evaluation of Low Impact Development Implementation (#497)
3. Modeling Tool for Navy Facilities to Quantify Sources, Loads, and Mitigation Actions of Metals in Storm Water Discharges (#455)
4. Low Impact Development for Industrial Areas (#493)
5. Remove Copper and Other Heavy Metals from Oily Water Treatment System Discharge for Compliance with NPDES Discharge Standards (#479)
6. Evaluation and Implementation of Compliance Options for NPDES Cooling Water Intake Structures at Existing Facilities (#506)
7. Dynamic Mixing Zone (#473)
8. Predictive Trajectory Model for Oil Spills for Navy Harbors (#438)
9. Biofouling Reduction of Ship Cooling Water Systems (#502)

We will also hear from the Navy's representative to the Chesapeake Bay program office. Our west coast IPR will be held in San Diego during the week of 4-8 May 2015. So mark your calendars accordingly.

April 2015

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1	2	3	4
5	6	7	8	9	10	11
12	**13** Virginia Beach, Virginia	**14**	**15**	**16**	**17**	18
19	20	21	22	23	24	25
26	27	28	29	30		

May 2015

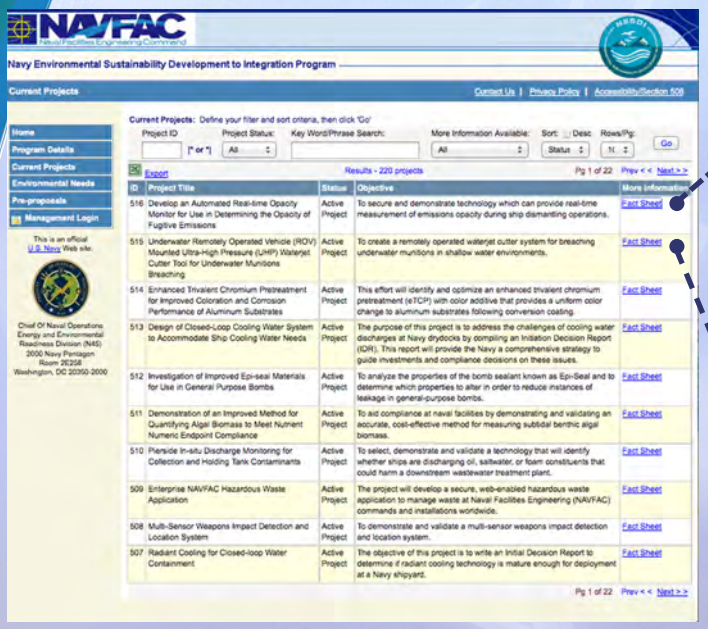
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1	2
3	**4** San Diego, California	**5**	**6**	**7**	**8**	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

As always, space for our IPRs is limited. To request a seat or for more information including a draft agenda and dial-in information, contact Cindy Webber at cynthia.webber@navy.mil or 760-939-2060.

The Latest Project Fact Sheets On-line

Want insights into our new start projects? Fact sheets for all of our new projects are now available on our web site and no username or password is required.

Visit www.nesdi.navy.mil then select "Current Projects." You'll see a list of projects with our most recent efforts at the top of the list. Click on the "Fact Sheet" link in the "More Information" column for more insights.



On-line Fact Sheets

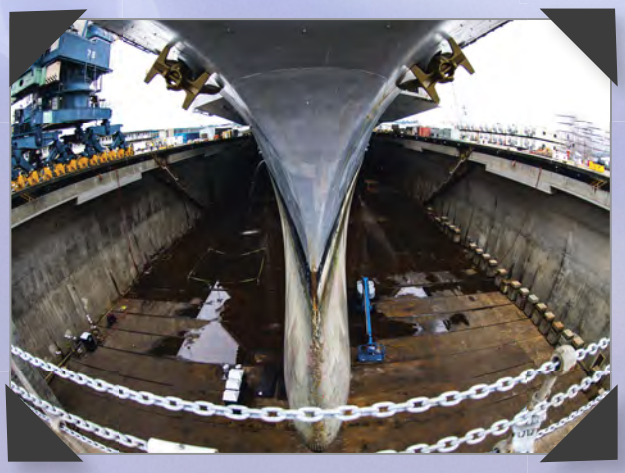
www.nesdi.navy.mil

Submit Your Photo!
Recommend Your Site!

We are always looking for some good pictures of our project demonstrations in progress. Or do you have another site for us to consider for one of our ongoing projects?

So whether you've got a great picture to share or a new demonstration site to propose, let us know.

Your picture, your site or both may end up in a future issue of *NESDI News.*



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Using Our **Web Site**

Direct any questions about our web site (www.nesdi.navy.mil) to our webmaster Eric Rasmussen at 732-323-7481 or eric.rasmussen@navy.mil.

www.nesdi.navy.mil

Program **Schedule**

For the next couple of months, the program will concentrate its efforts on the evaluation of full proposals to address the priority needs that were collected, screened, evaluated, and ranked as part of the program's FY15 needs solicitation process. A program schedule for the entire year is provided below.

NO.	WHAT	WHEN
1.	**FWG Comments on Full Proposals DUE**	**20 March 2015**
2.	**TDWG Comments on Full Proposals DUE**	**20 March 2015**
3.	**Screen Full Proposals**	**23-27 March 2015**
4.	**Conduct Stormwater and East Coast In-Progress Review (Virginia Beach, VA)**	**13-17 April 2015**
5.	**Principal Investigator Answers to Full Proposal Screening Questions DUE**	**27 April 2015**
6.	Conduct West Coast In-Progress Review (San Diego, CA)	4-8 May 2015
7.	Evaluate Full Proposals	11-15 May 2015
8.	Announce FY16 Needs Solicitation	1 June 2015
9.	Obtain Sponsor Review & Approval of Full Proposals	8 June 2015
10.	Announce FY16 New Starts	30 July 2015
11.	Close FY16 Needs Solicitation	3 August 2015
12.	Screen Needs	10-14 August 2015
13.	Evaluate & Rank Needs	14-18 September 2015
14.	Obtain Sponsor Review & Approval of Needs	21 September - 8 October 2015
15.	Request Pre-proposals	14 October 2015
16.	Conduct OPNAV N45 Programmatic Review	October 2015
17.	Pre-proposals DUE	18 November 2015
18.	Make Pre-proposals Assignments to FWGs	1 December 2015
19.	TDWG & FWG Comments on Pre-proposals DUE	16 December 2015
20.	Evaluate Pre-proposals	11-15 January 2016
21.	Request Full Proposals	20 January 2016
22.	Full Proposals DUE	16 March 2016
23.	Quarterly Status Reports Due (all Mondays)	6 April 2015 6 July 2015 5 October 2015 4 January 2016

Check out our web site (www.nesdi.navy.mil) for the latest version of our program schedule.

GETTING ON OUR MAILING LIST

If you're not already on our mailing list and want to subscribe to *NESDI News*, please send your email address to Lorraine Wass at 207-384-5249 or ljwass@outlook.com.

CONTACT YOUR TDWG MEMBER

For more information about the operation of the NESDI program, contact Ken Kaempffe, the NESDI program manager, or members of the TDWG.

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IN THE NEXT ISSUE OF *NESDI NEWS*

There is a lot more information coming your way in the next issue of *NESDI News: Highlights & Happenings*. In our spring 2015 issue, we will provide you with updates on our efforts to evaluate and rank the full proposals received by our 18 February deadline.

Until then, look for the following articles about three of our more successful projects in future issues of *Currents*, the Navy's energy and environmental magazine:

1. **SPAWAR Validates New Tool for Quantifying Copper and Zinc in Stormwater: WinSLAMM Use Supports Development of Control Practices to Reduce Metal Concentrations (by Chuck Katz)**
2. **NESDI Project Studies Pier Cleaning to Reduce Toxicity in Stormwater: Technique Combines Power Vacuuming & High-Pressure Washing (by Chuck Katz and Brandon Swope)**
3. **SPAWAR Validates Sampler for Underwater Detection of Munitions Constituents: Polar Organic Chemical Integrative Samplers Deemed More Effective Than Methods (by Gunther Rosen)**

You can read *Currents* on-line and subscribe to the magazine at: http://greenfleet.dodlive.mil/currents-magazine.