

FALL 2014

NESDI NEWS

Highlights & Happenings



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 fall 2014 issue of *NESDI News: Highlights & Happenings*—part of our ongoing effort to keep you up-to-date about the NESDI program. This quarterly update provides you with the latest information about program operations and recent accomplishments. I hope these insights encourage you to participate in the program over the coming months.

This is my first newsletter as the new NESDI program manager and as such, I'd like to thank my predecessor, Leslie Karr, for her many years of dedicated service to the Navy and the NESDI program in particular. Leslie's tenure as the NESDI program manager will be remembered for, among other things, her commitment to our end users. Leslie initiated a process to screen the needs that we solicit from our end users to ensure that we understood those needs before we took action. A better defined need allows us to structure better solutions to address those needs. Leslie also initiated field visits to correspond with our annual In-Progress Reviews (IPR)—another effort to stay connected with our end users and collect more needs outside of our formal needs solicitation process.

Leslie was also focused on integration—making sure that our Principal Investigators had the resources they needed to successfully integrate the results of their projects into the ongoing operations of the Navy. Being a former Principal Investigator herself, Leslie knew what it took to get a technology incorporated into the Navy's everyday business operations. And she even wrote a chapter about integration in our FY13 Year in Review report to make sure that her knowledge about and insights into integration carried on after her tenure as program manager was over.

I won't pretend to be able to fill Leslie's shoes. I just hope that I can learn from her example and follow in her footsteps—a task made easier for me since she has agreed to return to the Navy on a part-time basis to mentor me and other new RDT&E program managers at the Naval Facilities Engineering Command (NAVFAC).

I also want to thank Bob Neumann OPNAV N45's RDT&E action officer for his years of support to the program. Bob has moved on to assume other responsibilities at N45. Bob is being replaced by Lindsay Nehm—also at N45—who has been a strong advocate for the program's stormwater investments over the past years. We are excited to welcome Lindsay in her new role as OPNAV N45's RDT&E action officer for the NESDI program.

In terms of my own experience, I come to the NESDI program after serving as the head of the Environmental Technology Transfer and Central Programs Branch at the Naval Facilities Engineering and Expeditionary Warfare Center where I supervised a staff of 17 engineers and scientists in program areas including scientific diving services, environmental compliance technology transfer, environmental planning consultation, the Oil Spill Response Equipment Program, as well as installation reimbursable and RDT&E projects. Like Leslie before me, I also want to ensure that we are connecting with our end users through the needs that we collect and the projects that we sponsor. I also expect to be out in the field as often as I can to make sure that our “new start” and ongoing projects are properly focused, well executed, and eventually integrated into Navy operations.

I look forward to your continued participation in the NESDI program and, in particular, your attention and support of the next major milestone on our schedule—the collection of pre-proposals to address the priority needs that were collected via our FY15 solicitation process. More information about these priority needs can be found in the “Results of FY15 Needs Solicitation, Screening & Ranking” section in this issue of *NESDI News*.

I'd also like to highlight membership changes on our Technology Development Working Group (TDWG). Christy Bixler of NAVFAC Headquarters will assume the Commander, Naval Installation Command (CNIC) role on our TDWG effectively immediately, replacing Christine Porter. We are glad to have Christy and her experience on board. I want to thank Christine Porter for serving as the CNIC representative on the TDWG. Christine helped us to screen the needs we collected via our FY15 solicitation. Luzmarie Youngers will serve on the TDWG representing NAVAIR effective immediately, replacing Dave Brock.



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 Needs Solicitation, Screening & Ranking

All in all, the program collected a total of 52 needs via our FY15 solicitation. After a thorough review by program personnel including the TDWG and our resource sponsor, OPNAV N45, over two dozen needs were determined to be worthy of further attention by the program. As a result, pre-proposals will be solicited to address the following priority needs.

NO.	NEED	COMMAND	TITLE	EEC	STATUS
1.	N-0994-15	NAVAIR	Aqueous Cleaner Recycling System Demonstrate/Validate	3	PROCEED
2.	N-0996-15	NAVFAC	Application of Natural Abundance Radiocarbon for Determining Organic Contaminant Degradation Rates at Multiple Chlorinated Solvent Sites	5	PROCEED
3.	N-0997-15	NAVFAC	Alternative Hydrant Flushing to Maintain Chlorine Residual	5	PROCEED
4.	N-0999-15	NAVFAC	Passive Sampling for Stormwater Sampling and Illicit Discharge Investigations	5	PROCEED
5.	N-1001-15	NAVAIR	Non-Isocyanate Topcoat Aviation Systems	3	PENDING
6.	N-1004-15	NAVSEA	Quantify PCB Volatilization from Coatings at Elevated Temperatures	4	PROCEED
7.	N-1007-15	NAVFAC	Autonomous Benthic Ecology System	5	PROCEED
8.	N-1013-15	NAVFAC	Determination of Underwater Ambient and Construction Noise and Noise Attenuation Near Navy Facilities and Shallow Ranges	4	PENDING
9.	N-1014-15	NAVFAC	Minimize Zinc Leaching from Galvanized Building Components	5	PROCEED
10.	N-1015-15	NAVFAC	Evaluation of Effectiveness of Habitat Enhancing Shoreline Stabilization Technologies	5	PROCEED
11.	N-1017-15	NAVFAC	Evaluation of Alternative Groundwater Supply Sources from a Safe Drinking Water Act Viewpoint	5	PROCEED
12.	N-1018-15	NAVFAC	Challenges in the Navy's Munitions Response Program	2	PROCEED
13.	N-1019-15	NAVFAC	Use of Phase Change Material to Reduce Thermal Loading to Ambient Waters	5	PROCEED

(continued on the next page)

NO.	NEED	COMMAND	TITLE	EEC	STATUS
14.	N-1020-15	NAVAIR	Environmental Fate and Effects Certification Protocol for Navy Tactical Fuels	4	PENDING
15.	N-1021-15	NAVFAC	Target Disposal	2	PROCEED
16.	N-1022-15	NAVFAC	Use of Floating Treatment Wetlands as an Effective Treatment Technology of Stormwater	5	PROCEED
17.	N-1023-15	NAVSEA	Multifunctional Surface Preparation Technology for Reducing Hazardous Waste and Cumbersome Work Practices	3	PROCEED
18.	N-1026-15	NAVFAC	Ultraviolet Cure Powder Coatings	3	PENDING
19.	N-1029-15	NAVFAC	Development of Regulated Solid Waste Management Best Practices and Standard Operating Procedures	4	PROCEED
20.	N-1030-15	NAVFAC	Development of Conceptual Site Models to Support Assessment of Perfluorochemicals Fate and Transport at Navy and Marine Corps Sites	5	PROCEED
21.	N-1031-15	NAVFAC	Validation of Promising Disinfectant for Drinking Water System Compliance	5	PROCEED
22.	N-1032-15	NAVFAC	Cost Effective Sediment Management Approaches	4	PROCEED
23.	N-1034-15	NAVFAC	Management Tools for Radiological Compounds in Environmental Media	5	PROCEED
24.	N-1036-15	NAVAIR	Cold Spray as a Hard Chromium Electroplating Alternative	3	PROCEED
25.	N-1042-15	NAVFAC	Compliance Impacts of Water Conservation Measures on Water and Wastewater Infrastructure	5	PROCEED



Collection of Proposals to Address Priority Needs

Now that the priority list of needs for FY15 has been established, the NESDI program will turn its attention to the collection of pre-proposals to address those needs. The purpose of the pre-proposal is to ensure that the proposed project adequately addresses the requirements outlined in the need. The NESDI program concentrates on technologies that are sufficiently mature for demonstration and validation and supports the overall environmental readiness of the Fleet and Navy acquisition communities. Pre-proposal should address the following requirements:

- Be approximately two pages in length.
- Clearly identify the applicable Environmental Enabling Capability.
- Focus on the problem to be addressed.
- Clearly explain the project objectives.
- Quantify and qualify the technical criteria for a successful project.
- Identify the environmental constraint(s) to be resolved.
- Include the basic strategy for successfully integrating the solution into the Fleet.
- Identify the authorization stakeholders related to the proposed effort.

Submit Your Pre-proposal Now

www.nesdi.navy.mil

A solicitation for pre-proposals is executed via the program's website (www.nesdi.navy.mil) using a pre-proposal template. To submit a pre-proposal, click the "here" link in the "We are currently accepting pre-proposals for valid needs through 17 November 2014, click here for details" banner at the top of the NESDI website home page. You will be directed to a page that provides you more details about the pre-proposal collection process. Once you're ready to submit your pre-proposal, click the "Submit Your Pre-proposal Now" button. You will be asked to fill-in the information on the following screen:

The image is a screenshot of a web browser displaying the "Submit Need" page of the NESDI (Navy Environmental Sustainability Development to Integration) program. The browser's address bar shows "www.nesdi.navy.mil/submitneed.aspx". The page features the NAVFAC logo and a navigation menu on the left with links to Home, Program Details, Current Projects, Environmental Needs, Pre-proposals, and Management Login. The main content area is titled "NESDI Needs Submission Form" and includes sections for "Your Contact Information (all fields required)", "Need Description and Context (all fields required)", "Key Policy or Regulatory Drivers", and "Solutions Suggested". The contact section has fields for Name, Address, E-mail, Command, Activity, and Phone. The description section has a title field (150 characters max) and a larger text area for the description. The policy section has a text area for explaining the need, and the solutions section has a text area for suggested solutions. A footer on the left identifies the site as an official U.S. Navy Web site and provides contact information for the Chief of Naval Operations, Energy and Environmental Readiness Division (H44), 2000 Navy Pentagon, Room 2E256, Washington, DC 20350-2000.

***You have until 17 November 2014
to submit your pre-proposal.***

Once you have completed all of the fields on this form, hit "Spell Check" then "Submit" at the bottom of the form. Your pre-proposal will then be sent to the program's management team (the TDWG) for further consideration.

You have until 17 November 2014 to submit your pre-proposal.

Please direct questions you may have about submitting a pre-proposal to your TDWG representative or the NESDI program manager, Ken Kaempffe, at 805-982-4893 or ken.kaempffe@navy.mil. If your question pertains to the function of our website (www.nesdi.navy.mil) please contact our webmaster Eric Rasmussen at 732-323-7481 or eric.rasmussen@navy.mil.

Once all pre-proposals have been collected, NESDI program management will review and rank 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 is followed by a final evaluation that determines which pre-proposals will proceed to full proposal development. The results will be provided shortly after the evaluation period ends on 12 December 2014.

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

The call for full proposals will run 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.

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Annual Program Brief Well Received

Each year, the NESDI program manager delivers a brief to the program's resource sponsor (OPNAV N45) that summarizes the program's efforts for the preceding fiscal year and lays out a plan for the next fiscal year. Ken Kaempffe, Cindy Webber and Bruce McCaffrey traveled to Washington, DC and the Pentagon in early November to deliver the Fiscal Year 2014 programmatic brief to OPNAV N45 staff including Dr. Frank Stone (Branch Head, Afloat/Ashore Environmental Compliance Branch), Bob Neumann (Financial Management Lead), and Lindsay Nehm (Water Programs Lead and new RDT&E Action Officer) among others. In addition to a discussion of the program's success meeting obligation and expenditure rates and highlights of its successful projects for the fiscal year, participants engaged in a dynamic discussion about enhancements to the program's needs collection process and other ways to ensure that the program remains relevant to the Navy mission.



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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Mark Your Calendar for the Program's FY15 In-Progress Reviews

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 the Norfolk, Virginia area during the week of 13-17 April 2015. Our west coast IPR will be held in the San Diego, California area during the week of 4-8 May 2015. So mark your calendar accordingly.

More details about both of these IPRs will be provided in the next issue of *NESDI News*.

April 2015						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	Norfolk, Virginia				24	25
26	27	28	29	30		

May 2015						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1	2
3	4	5	6	7	8	9
10	San Diego, California				15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						



Program Schedule

For the next several months, the program will concentrate its efforts on the collection and evaluation of pre- and 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 complete program schedule is provided below.

NO.	WHAT	WHEN
1.	Pre-proposals DUE	17 November 2014
2.	Make Pre-proposals Assignments to FWGs	24 November 2014
3.	TDWG & FWG Comments on Pre-proposals DUE	5 December 2014
4.	Evaluate Pre-proposals	8-12 December 2014
5.	Request Full Proposals	17 December 2014
6.	Full Proposals DUE	18 February 2015
7.	FWG Comments on Full Proposals DUE	13 March 2015
8.	TDWG Comments on Full Proposals DUE	20 March 2015
9.	Screen Full Proposals	23-27 March 2015
10.	Conduct Stormwater and East Coast In-Progress Review	13-17 April 2015 (Norfolk, VA)
11.	Principal Investigator Answers to Full Proposal Screening Questions DUE	27 April 2015
12.	Conduct West Coast In-Progress Review	4-8 May 2015 (San Diego, CA)
13.	Evaluate Full Proposals	11-15 May 2015
14.	Announce FY16 Needs Solicitation	1 June 2015
15.	Obtain Sponsor Review & Approval of Full Proposals	8 June 2015
16.	Announce FY16 New Starts	30 July 2015
17.	Close FY16 Needs Solicitation	3 August 2015
18.	Screen Needs	10-14 August 2015
19.	Evaluate & Rank Needs	14-18 September 2015
20.	Obtain Sponsor Review & Approval of Needs	21 September - 8 October 2015
21.	Request Pre-proposals	14 October 2015
22.	Conduct OPNAV N45 Programmatic Review	October 2015
23.	Quarterly Status Reports Due (all Mondays)	5 January 2015 6 April 2015 6 July 2015 5 October 2015

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.

No.	Name	Command	Phone	Email
1.	Kaempffe, Ken (Chair)	NAVFAC	805-982-4893	ken.kaempffe@navy.mil
2.	Bendick, John	NAVSUP	717-605-9144	john.bendick@navy.mil
3.	Bixler, Christy	NAVFAC/CNIC	202-685-9313	christy.bixler@navy.mil
4.	Earley, Pat	SPAWAR	619-553-2768	patrick.earley@navy.mil
5.	Hertel, Bill	NAVSEA	301-227-5259	william.hertel@navy.mil
6.	McCaffrey, Bruce	Consultant	773-376-6200	brucemccaffrey@sbcglobal.net
7.	Rasmussen, Eric	NAVAIR	732-323-7481	eric.rasmussen@navy.mil
8.	Sugiyama, Barbara	NAVFAC	805-982-1668	barbara.sugiyama@navy.mil
9.	Venable, Bill	NAVFAC	805-982-1674	william.venable@navy.mil
10.	Webber, Cindy	NAVAIR	760-939-2060	cynthia.webber@navy.mil
11.	Youngers, Luzmarie	NAVAIR	904-790-6396	luzmarie.youngers@navy.mil



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 winter 2015 issue, we will provide you with an update on the pre-proposals that we collected in the fall.

Until then, look for an article entitled "NAVAIR Discovering Alternatives to Hexavalent Chromium & Cadmium: NESDI-Sponsored Projects Targeting Primers & Coating Methods" in the fall 2014 issue of *Currents*, the Navy's energy and environmental magazine. Hexavalent chromium and cadmium are used in a variety of applications to protect Navy aircraft from corrosion—but both substances are known carcinogens. In 2009, the Office of the Secretary of Defense released a memo restricting the use of hexavalent chromium unless no cost-effective alternatives with satisfactory performance were available. The use of cadmium faces similar restrictions. This article talks about the work being done by NESDI Principal Investigators to eliminate the use of cadmium and hexavalent chromium on Navy and Marine Corps aircraft.

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