

**APPENDIX A**

**PUBLIC AND AGENCY  
COMMENTS ON THE DEIS**

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## Appendix A: Public & Agency Comments on the DEIS

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This appendix contains the comments received on the Naval Surface Warfare Center, Dahlgren Division's (NSWCDD) draft Environmental Impact Statement (DEIS) for Outdoor Research, Development, Test and Evaluation Activities. The Notice of Availability of the NSWCDD DEIS was published in the *Federal Register* on August 17, 2012 starting a 45-day comment period that closed on October 1, 2012. The DEIS was available for review on the NSWCDD website or by request from NSWCDD's Public Affairs Office. During the comment period, three public meeting/hearings were held in: Newburg, Maryland, King George, Virginia, and Montross, Virginia. In addition, the document was distributed directly to officials of federal, state, and local governments, citizen groups and associations, and parties who had expressed an interest during the EIS scoping process.

Oral and written comments provided during the public meetings/hearings, as well as comments submitted via mail, e-mail, or fax during the public comment period, were evaluated and responses prepared.

To facilitate the organization of the comments and the preparation of responses to the comments, the transcripts and comments are identified by a three-part code as follows:

1. The first part of the code refers to the origin of the comment: federal agency (code 'F'), state agency (code 'S'), local government (code 'L'), non-government organization (code 'NGO'), and public (code 'P'). The letters/faxes/e-mails/oral comments (referred to as letters) were numbered based upon chronological order (i.e., first comment received was 001).
2. For written comments containing multiple comments (such as a letter from an agency that makes a number of separate points), specific comments were identified and numbered based on their order within the document. (i.e., the first comment was numbered '1'). Specific comments were marked on the transcript/letter/e-mail/fax.
3. A sub-number was added to categorize comments by subject, based on sections of the DEIS as follows: 0.0 General, 1.0 Purpose and Need, 2.0 Alternatives including the Proposed Action, 3.0 Affected Environment (by resource), 4.0 Environmental Consequences (by resource), 5.0 Cumulative Impacts, 6.0 Protective Measures, 7.0 References, 8.0 Distribution and Notification List, 9.0 List of Preparers and Reviewers, 10.0 Appendices (Divided into 10.A, 10.B, etc.), and 11.0 Comments that Pertain to Multiple Sections. Note that comments that do not pertain to any particular section were placed in the 0.0 General category.

For example, the first comment received on August 21, 2012 came from a member of the public and focused on NSWCDD's safety record. Applying the numbering scheme described above, this became comment P001.1-3.8. The P001 represents the first public commenter, the 1 the specific comment (there is only one in this e-mail), and 3.8 refers to the Health and Safety section in the DEIS where this issue is addressed.

Comments are summarized and categorized by subject in a comment matrix that begins on the Page A-3. The order of the comments in the matrix is first federal agency (code 'F'), followed by

state agency (code 'S'), local government (code 'L'), non-government organization (code 'NGO'), and public (code 'P').

Following the comment matrix are the original versions of the comments received as transcribed oral testimony and written comments at the public hearings, and as letters, faxes, and e-mails received during the DEIS comment period. The numbered comments in the comment matrix are keyed to individual comments in the original versions of the comments.

**Comments Received and Responses to Comments**  
**Draft Environmental Impact Statement Outdoor Research, Development, Test & Evaluation Activities**  
**Naval Surface Warfare Center, Dahlgren Division, Dahlgren, Virginia**

Name/Agency	Comment Number	Comment Category	Comment	Response
<b>Federal Agency (code 'F')</b>				
Cindy Schulz, US Fish and Wildlife Service	F001.1-0.0	General	The Virginia office of USFWS no longer provides environmental reviews, but has developed a website to assist in project reviews.	Comment noted and website consulted.
Peter E. Dargle, USAG Fort A.P. Hill Commander	F002.1-0.0	General	Fort AP Hill is in receipt of the DEIS and has initiated review of the document to ensure all associated Fort AP Hill information contained in the document is current & valid.	Comment noted. The Navy responded below to Fort A.P. Hill's subsequent comments, numbered F005.1 through F005.5.
Barbara Rudnick, US Environmental Protection Agency, Region III	F003.1-0.0	General	USEPA has concerns with impacts to air, water, biological resources, environmental justice, children's/human health, and cumulative impacts. USEPA rated the DEIS an EC-2, indicating that we have environmental concerns and there is insufficient information to fully assess the environmental impacts.	Commented noted. The Navy responded below to USEPA's specific comments, numbered F003.2 through F003.55.
Barbara Rudnick, US Environmental Protection Agency, Region III	F003.2-2.0	Alternatives	USEPA is not certain that the Proposed Action would not pose an impact to human and environmental health at the quantities proposed.	The DEIS contains the analyses and comparisons that provide the basis of the negligible impacts to human health and the environment. Please see responses to specific F003 comments below.

Name/Agency	Comment Number	Comment Category	Comment	Response
Barbara Rudnick, US Environmental Protection Agency, Region III	F003.3-2.7/4.0	Alternatives, RSIP	There is no distinct reason for selecting Alternative 2 as the Preferred Alternative, as both alternatives meet the Navy's goals. USEPA suggests a more conservative approach, such as phasing in of increased activities, and questions whether the additional increase in activities would be worth the added risks to the environment and human health.	<p>As stated in EIS Section 2.7, Alternative 2 is the Navy's Preferred Alternative because it would optimize NSWCDD's activities on ranges and the Mission Area, without significantly increasing environmental impacts, and thereby would improve NSWCDD's operational capability and flexibility to provide mission support to the Navy and to the other services and organizations.</p> <p>Text was added to EIS Chapter 2 clarifying that increases in some activities, such as the chem/bio simulant testing, would occur gradually. However, based on the nature of RDT&amp;E, the rate of increase cannot be predicted.</p> <p>As stated in the EIS, Alternative 2 would not result in increased risks to the environment and human health from any of the RDT&amp;E activities, regardless of whether increases occur all at once or in stages.</p>
Barbara Rudnick, US Environmental Protection Agency, Region III	F003.4-2.0	Alternatives, small arms firing	What is the ratio of bullets fired indoors versus outdoors for each alternative?	The EIS focuses only on outdoor RDT&E activities. The bullets discussed in the EIS would be fired outdoors for all alternatives.
Barbara Rudnick, US Environmental Protection Agency, Region III	F003.5-2.0	Recovering bullets	Is it possible to capture bullets fired at river targets so that they do not enter the river and sink to the bottom?	While NSWCDD does capture bullets fired at targets on land, it would be almost impossible to capture bullets fired at river targets because of the small size of the bullets and the large area in which they may land.
Barbara Rudnick, US Environmental Protection Agency, Region III	F003.6-2.6	Inert and explosive bullets	For Alternative 2, what percent of bullets fired into the Potomac River would be inert and what percent would be explosive?	<p>As noted in EIS Section 2.5.1.2, because of the nature of RDT&amp;E, it would be difficult to project the future percent of live vs. inert bullets because program testing requirements evolve. Nevertheless, our goal is to use inert bullets as much as possible for all firings and to minimize the use of live bullets in order to minimize environmental impact.</p> <p>Most bullets fired are inert. Explosives are only used to tip some 20 mm and larger bullets. The Marine Corps program that would drive future increases in small-arms testing would use smaller 7.62 mm or 9 mm bullets, which cannot accommodate tipped explosives and are all inert. Therefore, the percentage of explosive-tipped bullets used is expected to decline in the future.</p>

Name/Agency	Comment Number	Comment Category	Comment	Response
Barbara Rudnick, US Environmental Protection Agency, Region III	F003.7-1.5/2.0	EM energy activities	Proposed activities using electromagnetic energy should be evaluated by and coordinated with the Federal Communications Commission (FCC) for safety.	NSWCDD coordinates with the Navy and Marine Corps Spectrum Center, which is responsible for ensuring access to and effective use of the EM spectrum in national security and military operations and coordinates with the FCC. For activities involving HERO, HERF, HERP, and EMI, NSWCDD is the Navy's expert in confirmed safe exposure levels and ensures that the proposed activities do not pose a danger to the public.
Barbara Rudnick, US Environmental Protection Agency, Region III	F003.8- 1.5/2.0/4.0	Chemical simulants, quantities and exposure	Chemical simulants proposed for use are not without risk and even relatively non-toxic chemicals can cause harm at high-enough doses. The important point is the quantity of simulants being released and who is being exposed.	Comment noted. NSWCDD has a proven health and safety process for protection of human health and the environment. A risk hazard assessment (RHA) is prepared for every testing operation, and those determined to be potentially hazardous require a standard operating procedure (SOP). The SOP and pre-test validation ensures worker safety and restricts individuals not involved in testing from access to test areas. No elevated exposure is expected to anyone outside the restricted test areas.
Barbara Rudnick, US Environmental Protection Agency, Region III	F003.9-4.0	Chemical simulants, human receptors	There is no information on possible human receptors, although the predicted concentrations are high enough to produce adverse effects in exposed individuals.	As described in the response to comment F003.8, NSWCDD has a process in place to protect human health and the environment. SOPs specify protective measures to be taken for RDT&E activities. No elevated exposure is expected to anyone outside the restricted test areas. As described in Section 4.4.1, the SOP for this type of test includes the provision that anyone with the potential for exposure to elevated concentrations within restricted test areas will be equipped with personal protective equipment (PPE) in the event of an unexpected incident, such as a spill or wind shift.  Simulants are released as a vapor, which requires a large amount of dilution, resulting in low simulant concentrations to challenge detection equipment.

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Barbara Rudnick, US Environmental Protection Agency, Region III	F003.10-4.4	DEM concentration	Figure 4.4-1 indicates that the DEM concentration in air decreases to zero after about five minutes, but this is not supported by Table 4.4-2.	<p>Forty-eight modeling scenarios were run for DEM. Each scenario modeled maximum concentrations and dispersal distances using a combination of possible release heights, quantity of simulant, droplet mass median diameter, wind speed, and air temperature. A summary of the modeling scenarios (runs) is presented in Appendix J of the EIS. Table 4.4-2 presents the maximum concentration modeled after 10 minutes from all 48 test runs. For DEM, run 030 had the highest modeled air concentration after 10 minutes, so it is listed in Table 4.4-2.</p> <p>Figure 4.4-1 presents a representative run, DEM test 029. This run is not listed in the table because it did not have the highest maximum DEM concentration of the 48 runs presented in Appendix J. This figure was presented to provide a representative run showing a quick return to background levels. Text was added to the EIS to clarify that many different scenarios were run for each simulant.</p>
Barbara Rudnick, US Environmental Protection Agency, Region III	F003.11-2.5	Chemical simulants safety	USEPA recommends the Navy 1) provide adequate worker safety (personnel protective equipment), 2) conduct real-time air monitoring during release activities, and 3) restrict individuals not involved in testing from areas affected by releases.	<p>As described in the response to comment F003.8, NSWCCD has a proven process in place to protect human health and the environment. SOPs and pre-test validations ensure worker safety and restrict unauthorized individuals from the test area.</p> <p>The SOP for simulant testing lists measures taken to provide worker safety protection, including providing PPE for personnel in the test area in the event of unplanned incidents or wind shifts. Individuals not involved in tests are restricted from release areas.</p> <p>Use of the detector being tested, such as the Joint Service Lightweight Stand-off Chemical Agent Detector (JSLSCAD), is preferable to real-time air monitoring because it can detect lower concentrations of simulants. Detectors will be tested indoors prior to being tested outdoors. Therefore, no additional air monitoring is planned.</p>
Barbara Rudnick, US Environmental Protection Agency, Region III	F003.12-2.5	Biological simulants, pathogenicity	<i>Bacillus atrophaeus</i> and <i>Aspergillus niger</i> are pathogenic to humans. If available, non-pathogenic simulants should be used instead. If not, the precautions described in the	As described in Section 2.5.4.6, NSWCCD would only use biosafety level 1 (BSL-1) organisms, defined by the Centers for Disease Control and Prevention as well-characterized strains of viable microorganisms not known to consistently cause disease

Name/Agency	Comment Number	Comment Category	Comment	Response
			previous comment should be considered, although they may not fully protect individuals from future exposures. Of particular concern are sensitive individuals who are more at risk than healthy adults.	<p>in healthy adult humans and of minimal potential hazard to laboratory personnel and the environment<sup>1</sup>. People with compromised immune systems may react to them, but most people do not.</p> <p>The USEPA's <i>Aspergillus niger</i> Final Risk Assessment, dated February 1997, states in the Summary of Risk Integration section that "<i>Aspergillus niger</i> is worldwide in distribution and has been isolated from numerous habitats. Humans are continually exposed to <i>A. niger</i> spores and vegetative forms on foodstuffs and in the air. The vast majority of strains of <i>A. niger</i>, especially those used in industrial fermentation, have a history of safe use. While there are sporadic reports to the contrary, most isolates have not been documented to be serious pathogens of humans, animals or plants. Specific strains may produce certain mycotoxins or may elicit allergic responses among workers. Those limited instances of adverse effects seem to be associated with a limited number of strains. With proper characterization of industrial strains, use of those with potential for such effects can be avoided."</p> <p><i>Bacillus atrophaeus</i> produces spores that serve as surrogates for <i>B. anthracis</i>, the causative agent for anthrax. It has been used for many years in this role and is the most frequently used simulant for anthrax (Borden Institute et al., 1997<sup>2</sup>; Edgewood Chemical Biological Center, 2004<sup>3</sup>; Greenberg et al., 2010<sup>4</sup>).</p> <p>SOPs similar to those for chemical simulants would be in place for testing of biological simulants. As described in the responses to F003.09 and F003.11, the SOP for this type of</p>

<sup>1</sup> Centers for Disease Control and Prevention. 2009. *Biosafety in Microbiological and Biomedical Laboratories (BMBL) 5th Edition*.

<sup>2</sup> Borden Institute, Walter Reed Army Medical Center; Office of The Surgeon General, US Army; US Army Medical Department Center and School; US Army Medical Research and Materiel Command; and Uniformed Services University of the Health Sciences. 1997. *Textbook of Military Medicine, Medical Aspects of Chemical and Biological Warfare*.

<sup>3</sup> Edgewood Chemical Biological Center. 2004. *Production of Bacillus Spores as a Simulant for Biological Warfare Agents*. U.S. Army Research, Development and Engineering Command, Aberdeen Proving Ground, MD.

<sup>4</sup> Greenberg, D.L., J.D. Busch, P. Keim, D.M. Wagner. 2010. Identifying experimental surrogates for *Bacillus anthracis* spores: A review. *Investigative Genetics* 1:4.

Name/Agency	Comment Number	Comment Category	Comment	Response
				<p>test includes the provision that anyone with the potential for exposure to elevated concentrations within restricted test areas would be equipped with PPE, including respirators, in the event of an unexpected incident, such as a spill, or wind shift.</p> <p>As described in Section 4.4.2.2, individuals with compromised immune systems or respiratory conditions would not serve as personnel on the release boat because they would not qualify for respirator use. Therefore, no high risk individuals would be potentially exposed to biological simulants.</p>
Barbara Rudnick, US Environmental Protection Agency, Region III	F003.13-2.5	Chem/bio simulants, interactions	What are the interactions of interferents, smokes, and obscurants with the proposed chemical and biological simulants and what are the risks? USEPA suggests that the Navy conduct real-time air monitoring during release activities.	<p>The interactions of interferents, smokes, and obscurants with the proposed chemical and biological simulants outdoors over and near water are not well known. The purpose of these tests is to study how the capability of detectors in estuarine/marine conditions is affected by simulants. Interactions between interferents and simulants are of concern because interferents, smokes, and obscurants can reduce the ability of detectors to distinguish between chemical and biological agents and other compounds. For example, use of soot in tests with biological simulants <i>Bacillus subtilis</i> and ovalbumin resulted in a significant number of false positives and false negatives, when the rate without the use of soot was insignificant (Gottfried et al., 2008<sup>5</sup>).</p> <p>The use of interferents, smokes, and obscurants is not considered to increase risks to human health and the environment, as there are no known toxicological interactions between interferents and simulants.</p> <p>Stand-off detectors such as the JSLSCAD would be used to remotely detect simulant vapors (see Section 2.5.4). No additional air monitoring is planned.</p>

<sup>5</sup> Gottfried, J.L., F.C. De Lucia, C.A. Munson, and A.W. Miziolek . 2008. Standoff Detection of Chemical and Biological Threats Using Laser-Induced Breakdown Spectroscopy. *Applied Spectroscopy* Vol. 62(4):353-363.



Name/Agency	Comment Number	Comment Category	Comment	Response
Barbara Rudnick, US Environmental Protection Agency, Region III	F003.14-3.4/4.4	Air quality, chemical simulants	USEPA questions whether proposed increases in chemical simulants would produce the same results as air quality analyses at No Action Alternative levels.	Chemical simulant concentration exposure levels would not increase between the No Action Alternative and the action alternatives. Under Alternatives 1 and 2 the number of chemical tests would rise to allow the testing of more types of chemical simulants, but there would be no change from the No Action Alternative in the quantity of simulant used for each test. Concentrations of vaporized chemical simulants would rapidly return to background levels – below detection levels – after each test. Tests would be spaced in time and place to minimize exposure levels in any one area.
Barbara Rudnick, US Environmental Protection Agency, Region III	F003.15-3.4/4.4	Air quality, chemical simulants	Will the Navy continue to conduct air quality modeling and testing for chemical simulants and how frequently? If measurable results are found, what actions would the Navy take to ensure the safety of human health and the environment?	<p>The Navy would continue to model simulant concentrations and distributions applicable for each event planned. Detection of chemical simulant vapors would occur at every event as the detectors being tested are designed to detect very low concentrations of simulants.</p> <p>Measurable results, given the sensitivity of the detectors, would be well below concentrations that could impact human health or the environment. Human health and the environment are protected by selecting low toxicity simulants and deploying them in small quantities to ensure that the experiments do not pose risks.</p>
Barbara Rudnick, US Environmental Protection Agency, Region III	F003.16-3.4/4.4	Air quality, chem/bio simulants	It seems difficult to assume that the same air quality impact determination as resulted from historical modeling and testing at the No Action Alternative levels would result from analyses for a maximum increase of 483 percent for chem/bio defense events.	The frequency of simulant tests would increase from a maximum of 12 events (zero events for biological simulants) under the No Action Alternative to a maximum of 60 events (could use either biological or chemical simulants) for Alternative 1 and 70 events (could use either biological or chemical simulants or a mixture) for Alternative 2. Because simulants are rapidly dispersed as aerosols into the environment, have low toxicity, are not tested repeatedly in one area, and standard operating procedures would be followed to protect human health and the environment, the increase in frequency would not result in a change from the No Action Alternative for chemical or biological simulant concentrations. Standard operating procedures would be followed to protect human health and the environment. Emission increases for other activities would be negligible and would not interact with or affect simulant concentrations.

Name/Agency	Comment Number	Comment Category	Comment	Response
Barbara Rudnick, US Environmental Protection Agency, Region III	F003.17- 4.4/4.0	Chem/bio simulants, synergistic effects	As the basis is unknown for the statement "There is no research on synergistic effects between low toxicity chemical and BSL-1 biological simulants most likely because given the low level of risk from both elements no synergistic effects are expected," it cannot be assumed that impacts would not occur.	<p>A detailed search was conducted for research on the synergistic effects between/among the particular low-toxicity chemicals and biological simulants that would be used for these tests. As stated in the EIS, there is no research on synergistic effects between low toxicity chemical and BSL-1 biological simulants most likely because given the low level of risk from both elements, no synergistic effects are expected.</p> <p>Preliminary research indoors in the laboratory is conducted at NSWCDD before tests are performed outdoors. Therefore, if there were any synergistic effects from combining the chemical and biological simulants, it would be apparent in the indoors tests. Outdoor tests would only be performed with combinations of chemical and biological simulants that have been safely tested together indoors.</p> <p><i>A Chemical and Biological Defense Program (CBDP) Programmatic EIS</i> (US Army, 2004) was prepared to evaluate the impacts of the military's nationwide CBDP. The Programmatic EIS determined that impacts at NSWCDD from the chemical simulant testing (no biological testing had taken place) were negligible. All observed effects from both chemical and biological defense programs at the eight example sites covered in the Programmatic EIS, including NSWCDD, were insignificant. The EIS concluded that potential risks to CBDP laboratory workers, public health, and the environment are and will continue to be mitigated by adherence to benchmark guidelines and regulations, including those of the Department of Defense (DoD), the Centers for Disease Control and Prevention (CDC), US Food and Drug Administration, National Institutes of Health (NIH), US Nuclear Regulatory Commission, Occupational Safety and Health Administration (OSHA), US Department of Agriculture (USDA), US Department of Transportation (USDOT), and the USEPA, and by developing and following appropriate SOPs.</p>

Name/Agency	Comment Number	Comment Category	Comment	Response
Barbara Rudnick, US Environmental Protection Agency, Region III	F003.18- 4.4/4.0	Air quality, impact threshold	The Navy should disclose at what threshold there would be concern for air quality impacts.	<p>There are no federal or state thresholds for any of the chemical or biological simulants that would be used. Levels of simulants would only be elevated in the test area. Within the test area, simulant vapors would rapidly disperse to background levels.</p> <p>Prior to each chem/bio operation, coordination takes place with NSF Dahlgren, the Maryland Department of the Environment, and the Virginia Department of Environmental Quality (VDEQ), as applicable, concerning the types and quantities of simulants proposed for use (Section 6.2.2). These agencies have not expressed concern about air quality impacts.</p>
Barbara Rudnick, US Environmental Protection Agency, Region III	F003.19- 4.4/4.8	Chemical and biological simulants interactions	The DEIS should discuss risks to human health as a result of chemical and biological interactions.	See response to comment F003.17.
Barbara Rudnick, US Environmental Protection Agency, Region III	F003.20- 4.4/4.0	Air quality monitoring and analysis	Discuss whether the Navy plans to monitor and analyze air monitoring during release events.	As discussed in F003.11, chemical simulants are detected (monitored) during all release events. The same procedures would also apply to biological simulants and chem/bio simulants used together. Therefore, no additional air monitoring is planned.
Barbara Rudnick, US Environmental Protection Agency, Region III	F003.21- 4.10/4.11/4.14	Biological simulants, water quality	At Alternative 2 levels, considering the quantity of biological simulants and number of biological defense events proposed, USEPA questions whether there will be negligible, cumulative impacts over time to water quality and aquatic resources.	<p>Although up to 70 chemical and biological simulant test events annually could occur under Alternative 2, the likely testing schedule would take place over two-week periods followed by long periods with no testing. Not all tests would include biological simulants.</p> <p>Sequential tests would not be conducted at the same location. This procedure would minimize any cumulative impacts because the concentration of biological simulants would quickly return to background concentrations. None of the biological simulants that would be tested are known to adversely affect water quality or aquatic resources. See also the response to F003.16.</p>

Name/Agency	Comment Number	Comment Category	Comment	Response
Barbara Rudnick, US Environmental Protection Agency, Region III	F003.22-4.10	Simulants, water and wetlands	How long can simulants remain in the environment, and what spacing of time is required to ensure that the land and water areas are not exposed multiple times to the same simulant?	The length of time that chemical and biological simulants remain in the environment varies depending on the degradation time of the chemical compound and the biological organism (e.g., spores may be dormant). All chemical and biological simulants are low toxicity compounds or organisms. Simulant tests are designed to minimize deposition on land and water areas. Chemical simulant vapors and biological simulant powders released into the air rapidly disperse in the environment and are diluted to concentrations below detection levels. To provide additional protection, chemical and biological simulant tests are spaced in time and location so that no one area is exposed multiple times to the same simulant in the near term. See also responses to F003.14, F003.16, and F003.21.
Barbara Rudnick, US Environmental Protection Agency, Region III	F003.23-4.10	Simulants, water and wetlands	Is simulant dispersal greater in moving water and, if so, will impacts be greater in resources with less water movement, like wetlands?	As discussed in the response to F003.22, chemical and biological simulant tests are designed to minimize deposition on land and water areas. While simulant dispersal is faster in moving water – in the river – no simulant release points would be located close to wetlands, such as the ones along Gambo Creek or pockets along the shoreline of the river.  The minute amounts of simulants that could reach nearshore areas or wetlands would be very low, generally below detection levels and well below concentrations that have been shown to cause adverse effects. As discussed in Sections 4.10 to 4.14, any impacts would be negligible and short-term and would not adversely affect water resources. This conclusion is valid for the Potomac River, creeks, wetlands, and all water resources in the area.
Barbara Rudnick, US Environmental Protection Agency, Region III	F003.24-4.10	Simulants, wetlands and floodplains	With respect to chem/bio simulants entering wetlands and floodplains, there is a question as to the cumulative impact to resources from the quantity of chemical and biological simulants proposed in addition to potential runoff from land-based firings of munitions and detonations of explosives.	Chemical and biological simulant tests are designed to minimize deposition on land and water areas. Concentrations of chemical and biological simulants reaching wetlands and floodplains would be well below detection levels and levels that could harm the environment.  A Range Condition Assessment (RCA) evaluated all land-based ranges where munitions operations are conducted and found RDT&E operations at the land ranges to be in overall compliance with applicable environmental regulations and program requirements (see Section 3.7.6). Any impacts from ordnance tested on land-based ranges would be negligible.

Name/Agency	Comment Number	Comment Category	Comment	Response
				These potential effects combined with the negligible effects from chemical and biological simulant testing over water would result in negligible cumulative impacts to wetland and floodplain resources, as neither testing activity would adversely impact water resources.
Barbara Rudnick, US Environmental Protection Agency, Region III	F003.25-4.10	Simulants, water, wetlands, and floodplains	What threshold of chem/bio simulant concentration would pose a concern for surface water, water quality, and wetlands, and what contingency plan would the Navy implement if its activities do result in considerable impact to resources?	<p>There are no federal or state water quality thresholds for any of the chemical or biological simulants that would be tested. All chemical and biological simulants are low toxicity compounds/organisms.</p> <p>As displayed in Table 3.8-5, the levels at which chemical simulants may cause adverse effects are well above concentrations that aquatic organisms would be exposed to by chemical simulant tests. Most of the toxicity values listed in this table are based on exposure through ingestion or inhalation – pathways that are unlikely to occur from incidental exposure to simulants settling on the water surface.</p> <p>The maximum predicted chemical simulant concentrations modeled were compared to aquatic toxicity values in Section 4.11.1.4. All modeled maximum exposure concentrations were orders of magnitude below effects levels, showing that threshold or target levels for effects would not be reached.</p> <p>It should be emphasized that the chemical simulant concentrations presented in Appendix J are the maximum concentrations modeled for each simulant and would be present for very short time periods (the concentration listed is after 10 minutes). For each test, before biological simulant releases for biological detector testing takes place, biological simulant modeling will be performed when the quantity and type of simulant and the dispersion method have been determined based on priorities and needs.</p> <p>Impacts to water or biological resources from increased levels of chemical and biological simulant testing would be negligible and would not adversely affect resources.</p>

Name/Agency	Comment Number	Comment Category	Comment	Response
Barbara Rudnick, US Environmental Protection Agency, Region III	F003.26-3.10	Water quality sampling	Does Virginia sample water quality in the Chesapeake Bay and the Potomac River closer to NSWCDD than the MDNR monitoring stations?	In the vicinity of NSF Dahlgren and the PRTR, the State of Maryland has jurisdiction over the Potomac River to the low water mark on the Virginia side of the river with the exception of the entrances to creeks, bays, and shoreline indentations that lie in Virginia. Therefore, Virginia does not sample water quality in the Chesapeake Bay and the Potomac River closer to NSF Dahlgren and the PRTR than the MDNR monitoring stations.
Barbara Rudnick, US Environmental Protection Agency, Region III	F003.27-3.10	Water turbidity	As data from the USGS monitoring station near Washington, DC were used in the turbidity analysis and the analysis indicated negligible correlations for the three downstream stations, can this be considered a fair account of the turbidity in the PRTR?	<p>The subject discussion in EIS Section 3.10.1.2 does not address a poor correlation between the sampling station near Washington and the three downstream stations. The analysis indicated moderate to high correlation between discharge (using data for the station near Washington) and turbidity at the two stations upstream of the MDZ, whereas it indicated negligible correlation between the two parameters for the three stations downstream of the MDZ.</p> <p>The subject discussion was revised to improve its clarity.</p>
Barbara Rudnick, US Environmental Protection Agency, Region III	F003.28-3.10	Water quality, benthic community	With reference to the health of the benthic communities and the B-IBI scores in the Potomac River, because of significant efforts to improve the health of the Chesapeake Bay, the Navy should discuss its commitment to monitor its activities in terms of water quality and water resources.	<p>As stated in NSWCDD's Environmental Policy (Section 6.1 of the EIS), the Navy has made a commitment to "<i>Ensuring pollution prevention, preservation of our land, Chesapeake Bay sustainability, and protection of natural and cultural resources.</i>"</p> <p>As described in the response to F003.25, there are no federal or state water quality thresholds for any of the chemical or biological simulants that would be tested. RDT&amp;E activities are constantly monitored to ensure that they follow protocols for the protection of human health and the environment.</p>

Name/Agency	Comment Number	Comment Category	Comment	Response
Barbara Rudnick, US Environmental Protection Agency, Region III	F003.29- 3.7/4.11	Munitions removal, wetlands	How does the Navy remove munitions that are exposed on the ground surface or partially buried, and does the Navy remove munitions from wetlands?	<p>As part of each land-based energetic material operations SOP, munitions and debris are cleared as a post-test requirement by qualified ordnance personnel. NSWCDD's Range Management Plan and the Navy's Operational Range Clearance Policy for Navy Ranges<sup>6</sup> includes requirements for such activities as the removal, disposal, and recycling of unexploded ordnance (UXO), range scrap, and debris. Generally, existing NSWCDD procedures comply with the operational range clearance policy.</p> <p>As shown on EIS Figure 3.10-8, there are no wetlands in areas of the ranges where ordnance testing occurs. Therefore, munitions do not enter wetlands, and there is no need to remove them from wetlands.</p>
Barbara Rudnick, US Environmental Protection Agency, Region III	F003.30- 2.6/4.11	Detonations, aquatic invertebrates	What percentage of the proposed increase in detonations would occur in the EEA Complex and what percentage in the PRTR?	One hundred (100) percent of the proposed increase in detonations would take place on the Churchill and Harris Ranges on the EEA with no increase in detonations on barges on the PRTR.
Barbara Rudnick, US Environmental Protection Agency, Region III	F003.31-4.11	Munitions, aquatic invertebrates	Discuss the possibility of munitions fired into the PRTR burying organisms within sediment.	Individual benthic organisms may be buried if located at the point where a projectile enters the sediment or directly adjacent to it, but the benthic invertebrate community as a whole would be only minimally impacted, and localized impacts (e.g., increased turbidity) would be temporary. Benthic communities in the target areas are adapted to living in a turbid environment due to the high annual sediment accumulation rates, ranging from 0.50 to 0.75 in per year, with higher rates within the tidal portion of the Potomac River and lower rates in the estuary near the river's mouth (Knebel et al., 1981 <sup>7</sup> ). Locations where projectiles enter the sediment would be rapidly recolonized by individuals from neighboring areas.

<sup>6</sup> The Navy's Operational Range Clearance Policy for Navy Ranges (OPNAVINST 3571.4) is available at: <<http://doni.daps.dla.mil/OPNAV.aspx>>

<sup>7</sup> Knebel, H.J., Martin, E.A., Glenn, J.L., Needell, S.W. 1981. Sedimentary Framework of the Potomac River Estuary, Maryland. *Geological Society of America Bulletin* 92(1):578-589.

Name/Agency	Comment Number	Comment Category	Comment	Response
Barbara Rudnick, US Environmental Protection Agency, Region III	F003.32-4.11	Air and water monitoring	With respect to aquatic biological resources, does the Navy propose air and water monitoring of chemical simulants to evaluate impacts over time?	<p>The Navy does not propose air and water monitoring of chemical simulants.</p> <p>In 2003, water samples were collected immediately after a test under conditions similar to those proposed for future testing. No chemical simulant was detected in the water. Because of the rate of flow of the river, it is unlikely that further monitoring would detect any simulants related to NSWCDD's RDT&amp;E. The Maryland Department of the Environment determined that modeling suggested that the potential for aquatic toxicity was negligible during simulant testing (Carlson, Kent, pers. comm., July 7, 2003).</p>
Barbara Rudnick, US Environmental Protection Agency, Region III	F003.33- 4.11/6.0	Adaptive management	In the context of chemical simulant use, has the Navy considered an adaptive management approach to ecosystem management and incorporated it into the Proposed Action?	<p>The Navy has incorporated adaptive management into their Guidelines for Preparing Integrated Natural Resources Management Plans for Navy Installations (September 1998) on the basis that management actions should be treated as a scientific hypothesis to be tested. As more information becomes available, management actions are measured against the desired result and modifications may be necessary to achieve the objectives.</p> <p>Although there is no clear need for an ecosystem adaptive management approach for chemical and biological simulant testing because exposure concentrations would be nondetectable or detectable only at background levels, adaptive management for simulant testing would be considered if management actions are not meeting objectives.</p>
Barbara Rudnick, US Environmental Protection Agency, Region III	F003.34-4.12	Birds, ingest bullets	Did the Navy consider the possibility of birds ingesting bullets or projectiles?	<p>The Navy considered the possibility of birds ingesting bullets. However, the bullets NSWCDD is using and would use in the future have not contained lead for 10 years (the DEIS incorrectly stated that lead was being used). Therefore, even if a bird were to ingest a bullet, the metals in the casing would not be bioavailable and would not be absorbed by the bird before being excreted.</p> <p>The possibility of any creature's ingesting an intact large-caliber gun projectile was not examined as projectiles would be deeply buried in the sediment. Even if a projectile were found at the surface of the sediment, it would be much too large for incidental ingestion by anything living on or near the Potomac River.</p>



Name/Agency	Comment Number	Comment Category	Comment	Response
Barbara Rudnick, US Environmental Protection Agency, Region III	F003.35- 4.12/4.0	Lead in bullets and projectiles	Discuss whether bullets and projectiles contain lead and, if so, discuss impacts to the environment and biological resources.	As described in the response to F003.34, bullets currently used at NSWCDD and that would be used in the future do not contain lead. Historically, lead was a component of some of the large-caliber munitions and was selected as one of the munitions constituents evaluated in Appendix F of the EIS. The findings summarized in Tables 4.11-5, 4.11-6, 4.11-11, 4.12-1, and 4.13-1 indicated no adverse impacts to aquatic organisms, fish, or wildlife from lead or any other munitions constituent.
Barbara Rudnick, US Environmental Protection Agency, Region III	F003.36-4.12	Biological simulants	The basis of the determination that BSL-1 biological simulants are already naturally present in the area is not clear and needs more information.	<p>The ubiquitous presence of some of the biological simulants that may be used in testing strongly suggests that these organisms are likely to be found on the PRTR. For example, <i>Bacillus subtilis</i> is a widely adapted bacterial species capable of growing within many environments including soil, plant roots and the gastrointestinal tracts of animals (Earl et al., 2008). Population levels of <math>10^6</math> to <math>10^7</math> per gram of soil have been estimated for this species (USEPA, 1997). <i>Bacillus globigii</i> is also commonly found in soils, dust, air, water and wet surfaces (CRI, 2004).</p> <p>Based on the widespread distribution of <i>Bacillus</i> species, it is assumed that one or more species of this genus of bacteria would be present in the area.</p>

Name/Agency	Comment Number	Comment Category	Comment	Response
Barbara Rudnick, US Environmental Protection Agency, Region III	F003.37- 4.12/4.0	USFWS input	<p>EPA commented that although the USFWS has not yet responded to the text cited below on page 4-173 for the DEIS, the Navy's effort to coordinate, their input or concurrence is important.</p> <p><i>"The use of chem/bio simulants would have negligible impacts on Potomac River birds. Based upon previous events and the modeling presented in Sections 4.4.1.2 and 4.11.1.4, simulant concentrations that Potomac River birds would be exposed to are predicted to be are well below levels that would cause toxicity to them. The use of BSL-1 biological simulants would have no effects on birds, as some of these organisms are already naturally present in the area."</i></p>	<p>The Navy coordinated with the USFWS' Virginia Field Office and Chesapeake Bay Field Office on the potential presence of ESA-listed species or suitable habitat for those species in the proposed project area.</p> <p>Text was added to Section 4.14 stating that "A USFWS Virginia Ecological Services Field Office online project review of the Proposed Action conducted by NSWCDD determined that the Proposed Action may adversely affect the sensitive joint-vetch (Wray, January 23, 2013; see Appendix G page G-83). This determination was the only outcome possible in the online review process, because suitable habitat exists for the sensitive joint-vetch within NSF Dahlgren and no recent surveys have been conducted that demonstrate that the species is not present on the installation. The USFWS Virginia Ecological Services Field Office concurred with the determination on February 19, 2013 (Drummond, February 19, 2013; see Appendix G page G-101). However, based on site- and project-specific information, the Proposed Action would have no effect on this species."</p> <p>Note that a biological assessment was prepared that investigated the impact of the proposed action, inclusive of chemical and biological simulant testing, on five aquatic species that occur within the PRTR and are on the Endangered Species List: the shortnose sturgeon, Atlantic sturgeon, green turtle, Kemp's ridley turtle, and loggerhead turtle. The National Marine Fisheries Service concurred that the proposed action may affect, but is not likely to adversely affect these species.</p>

Name/Agency	Comment Number	Comment Category	Comment	Response
Barbara Rudnick, US Environmental Protection Agency, Region III	F003.38-4.13	Semi-aquatic mammals, bullets	Would bullets impact the habitat of semi-aquatic mammals and would the animals be at risk?	<p>Semi-aquatic mammals such as muskrat, river otter, mink, and beaver are relatively unlikely to be found at the water's edge of a land range because of the high level of human activity. If they are occasionally found on the shoreline of the range, they are unlikely to be directly affected because only about 10 percent of the bullets fired enter the river and most of those would be immediately buried, isolating bullets from movement and exposure pathways. Bottom sediments would be temporarily disturbed, but habitats would not be impacted.</p> <p>When firing at targets in the river, NSWCDD employs protective measures to ensure that impacts to wildlife during testing are avoided when possible or are minimized. Before an activity begins, trained observers look for wildlife in the target area or test area, and alert operators if any are present. Either the test is postponed temporarily or the wildlife is startled to encourage movement out of the area. Trained observers watch for wildlife that may move into the target area or operations area during tests, and the test is stopped while they clear the area.</p>
Barbara Rudnick, US Environmental Protection Agency, Region III	F003.39-3.2/4.2	EJ communities	The methodology used to identify environmental justice (EJ) communities creates a major underestimation of areas of potential EJ concern.	The methodology was revised consistent with the approach recommended in USEPA Region III's relevant comments. The revised discussion is presented in Section 3.2.4 of the EIS.
Barbara Rudnick, US Environmental Protection Agency, Region III	F003.40-3.2/4.2	EJ communities	There seems to be confusion as to the use of state or county minority or low income population plus 20 percent.	The use of minority and low-income population plus 20 percent was corrected. The revised discussion is presented in Section 3.2.4 of the FEIS.
Barbara Rudnick, US Environmental Protection Agency, Region III	F003.41-3.2/4.2	EJ analysis	The identification of the EJ population is so flawed that it makes the analysis inaccurate and invalid. The analysis needs to be redone.	The methodology was revised consistent with the approach recommended in USEPA Region III's relevant comments. The revised discussion is presented in Section 3.2.4 of the EIS.
Barbara Rudnick, US Environmental Protection Agency, Region III	F003.42-3.2/4.2	EJ communities	The correct application of the percent minority or low-income population percentage plus 20 percent of the value should be used.	The use of minority and low-income population plus 20 percent was corrected. The revised discussion is presented in Section 3.2.4 of the EIS.
Barbara Rudnick, US Environmental Protection Agency, Region III	F003.43-3.2/4.2	EJ analysis	In addition to state percentages, county percentages of minority and low-income populations should be used for comparison.	County percentages were added and are used both for comparison and to define minority and low-income community of concern thresholds.

Name/Agency	Comment Number	Comment Category	Comment	Response
Barbara Rudnick, US Environmental Protection Agency, Region III	F003.44-3.2/4.2	EJ analysis	Census tracts within the study area should be identified and their demographics should be used in the analysis.	Tables and figures were added to Section 3.2.4 to identify the census tracts and present their relevant demographics.
Barbara Rudnick, US Environmental Protection Agency, Region III	F003.45-3.2/4.2	EJ population	In addition to the statistics for each minority population that were presented separately, it may be helpful to add a column combining the minority populations.	A column that provides the total minority populations as percentages of the total county, study area, and state populations was added to Table 3.2-5.
Barbara Rudnick, US Environmental Protection Agency, Region III	F003.46-3.2/4.2	EJ data	It would be helpful to present tables with data at the census tract or block group, county, and state levels that show percentages of minority and low-income populations, appropriate data for children and the elderly, and any other appropriate demographic.	Tables were added to Section 3.2.4 that provide relevant demographic data at the census tract, county, and state levels.
Barbara Rudnick, US Environmental Protection Agency, Region III	F003.47-3.2/4.2	Protection of children populations	Provide the rationale for the census tract value plus an additional 10 percentage points as the protection of children's benchmark.	There is no established protection of children benchmark or threshold. The Navy chose the census tract value plus 10 percent as the protection of children threshold because we judged this to be a substantial, but conservative (i.e., stringent/protective) increment that would be indicative of unusual concentrations of children. The 10 percent increment indicates 13 census tracts—about 22 percent—out of the 59 occupied tracts in the study area as having unusual concentrations of children.
Barbara Rudnick, US Environmental Protection Agency, Region III	F003.48-3.2/4.2	EJ analysis	As the methodology used to identify EJ communities is flawed, it cannot be determined if other aspects of the assessment are valid.	The methodology was revised consistent with the approach recommended in USEPA Region III's relevant comments. The revised discussion is presented in Section 3.2.4 of the EIS.
Barbara Rudnick, US Environmental Protection Agency, Region III	F003.49-3.2/4.2	EJ analysis	The EJ analysis needs to be done at the census tract level or preferably at the block group level.	The EJ analysis was done at the census tract level. Block group-level data is not yet available from the 2010 Census.
Barbara Rudnick, US Environmental Protection Agency, Region III	F003.50-3.2/4.2	Protection of children	The statement that the Proposed Action would not disproportionately affect children as RDT&E activities would not have a greater effect on children than adults, appears to disagree with the breadth and scope of EO 13045, as children may suffer disproportionately from environmental health risks and safety risks.	The protection of children discussion in EIS Section 4.2 was revised to explain that, based on the analyses presented in the EIS on air quality, noise, health and safety, and surface water, no disproportionate environmental health and safety risks specific to children are expected.

Name/Agency	Comment Number	Comment Category	Comment	Response
Barbara Rudnick, US Environmental Protection Agency, Region III	F003.51- 3.2/4.2	Protection of children	It is not clear how the Navy came to the conclusion that no high or disproportionate adverse impacts would be borne by children in census tract 8758.01, despite an unusual concentration of children.	The protection of children discussion in EIS Section 4.2 was revised to explain that, based on the analyses presented in the EIS on air quality, noise, health and safety, and surface water, no disproportionate environmental health and safety risks specific to children are expected.
Barbara Rudnick, US Environmental Protection Agency, Region III	F003.52-4.8	Health impact assessment	Considering the significant increase in activity proposed, the unknown threshold of exposure which may negatively impact human health, the wide span of potential impact, and the cumulative impacts from other activities in the area, the Proposed Action warrants consideration of a health impact assessment.	<p>A Public Health Assessment (PHA) of NSF Dahlgren was conducted in 2006 by the Agency for Toxic Substances and Disease Registry (ATSDR, 2006). The purpose of the assessment was to determine if community members could come into contact with NSF Dahlgren-related environmental contaminants and evaluate whether that contact could cause adverse health effects. ATSDR did not identify any potential exposure that would be expected to cause health effects for the local community.</p> <p>The screening level human health risk assessment provided in Section 4.8 of the EIS found that ordnance activities posed no increase in risk to people, supporting the findings of the PHA. The number of projectiles fired into the PRTR will not increase under the preferred alternative, so there would be no change to any of the conclusions. Risks from electromagnetic energy and high energy lasers would be limited to the personnel in the immediate vicinity conducting the tests and are covered by SOPs. Potential impacts from chemical and biological simulants have been covered in detail in the responses to F003.8 through F003.25 and would not impact human health. Therefore, the conclusion of the PHA, as quoted below, is still valid. <i>"In general, people do not have significant access to the environmentally contaminated sites. The occasional exposure that does occur is expected to be well below levels of health concern."</i></p> <p>Given the PHA and the screening level assessments contained in the EIS, a Health Impact Assessment (HIA) to identify the potential health effects of a new proposed action, it is not required, as there are no human health impacts to local communities expected, inclusive of minority, tribal or low-income communities. Cumulative impacts from other activities in the area would have no impact or negligible or minor recoverable impacts (see Table 5-3).</p>

<b>Name/Agency</b>	<b>Comment Number</b>	<b>Comment Category</b>	<b>Comment</b>	<b>Response</b>
Barbara Rudnick, US Environmental Protection Agency, Region III	F003.53-5.0	Cumulative impacts	It would be helpful to depict the contributing projects on a map.	A new figure – Figure 5-1 – that depicts the locations of the contributing actions was added to EIS Chapter 5.
Barbara Rudnick, US Environmental Protection Agency, Region III	F003.54-5.2	Cumulative impacts	Considering that ongoing activities by other agencies are contributing to the incremental increase in impacts to resources, is there a coordination effort among organizations—especially DoD agencies—to monitor impacts?	NSWCDD coordinates with Marine Corps Base Quantico, Fort A.P. Hill, and NAS Patuxent River concerning noise impacts from ordnance use. NSWCDD coordinates airspace use with NAS Patuxent River. Coordination with respect to water quality, air quality, and protected species takes place with state agencies. .
Barbara Rudnick, US Environmental Protection Agency, Region III	F003.55-3.10	Buffering capacity definition	The text box that defines buffering capacity is missing text.	The missing text was restored in Section 3.10.1.2 of the EIS.

Name/Agency	Comment Number	Comment Category	Comment	Response
Lindy Nelson, US Dept of the Interior	F004.1-2.0/4.11-14	Recovery of materials, chemical composition of ordnance	The information in Chapters 2 and 4 on how the ordnance, chemical, and biological materials will be recovered after they are discharged and the chemical composition of ordnance is not sufficient to assess the potential to affect fish and wildlife populations.	<p>NSWCDD's Range Management Plan and the Navy's Operational Range Clearance Policy for Navy Ranges<sup>8</sup> includes requirements for such activities as the removal, disposal, and recycling of unexploded ordnance (UXO), range scrap, and debris on land ranges (see response to comment F003.29). Ordnance tested on the PRTR is not recovered. The potential discharges from ordnance were evaluated in detail. Appendix F contains detailed fate and transport modeling of munitions constituents. A screening-level ecological risk assessment was then performed to assess potential effects of munitions constituents from ordnance testing on aquatic life, fish, and wildlife. Table 4.11-11 provides ratios of modeled fish concentrations to fish screening toxicity concentrations and Tables 4.12-1 and 4.13-1 present hazard quotients calculated for representative bird and mammal receptors to assess the potential to affect wildlife. The screening level ecological risk assessment determined that ordnance RDT&amp;E activities posed no increased risks to fish or wildlife.</p> <p>Chemical and biological simulants would not be recovered. A comparison of exposure levels of chemical simulants to toxicological effect levels was performed, as summarized in Table 4.11-13. All exposure concentrations were orders of magnitude below effects levels. The Maryland Department of the Environment has determined that modeling suggests that the potential for toxicity following chemical simulant testing is negligible (Carlson, Kent, MDE, pers. comm., July 7, 2003).</p> <p>The biological simulants proposed for testing are present naturally in the environment (see response to comment F003.36) and do not pose a risk to fish and wildlife. The increase in these organisms from simulant testing is miniscule in relation to overall levels (e.g., <i>Bacillus subtilis</i> population levels are estimated to be 10<sup>6</sup> to 10<sup>7</sup> per gram of soil) and would not affect fish and wildlife populations.</p>

<sup>8</sup> The Navy's Operational Range Clearance Policy for Navy Ranges (OPNAVINST 3571.4) is available at: <<http://doni.daps.dla.mil/OPNAV.aspx>>

Name/Agency	Comment Number	Comment Category	Comment	Response
Lindy Nelson, US Dept of the Interior	F004.2-2.0/4.9-10	Chemical composition of ordnance	We suggest that the chemical content of the ordnance be identified along with its effect on water and sediment composition.	A detailed analysis of chemical content is provided in Appendix F. Munitions constituent concentrations were compared to water and sediment quality guidelines in Tables 4.11-5 to 4.11-8. The comparisons of modeled concentrations to water and sediment criteria and guidelines showed that all concentrations were well below target levels.
Lindy Nelson, US Dept of the Interior	F004.3-4.10-14	Chemical composition of ordnance	The DEIS should describe how long the ordnance will remain in the environment, the potential for ingestion by wildlife or fish, and the cumulative impact of the material on land, wetlands, and in water, and the effects of the proposed higher frequency of exposure.	<p>A screening-level ecological risk assessment was performed for fish and wildlife, as described in the response to F004.1.</p> <p>There are no munitions ranges near wetlands and therefore, there would be no direct effects on wetlands from RDT&amp;E activities as described in the response to F003.29.</p> <p>The potential for ingestion of bullets by birds is discussed in the response to F003.34. The increase in small-caliber projectiles would not adversely impact wildlife or fish. The number of large-caliber projectiles is consistent between all alternatives and consequently there would be no difference in frequency of exposure from ordnance. Fish and wildlife exposure to other activities would be minimal and increased frequency would not impact fish or wildlife.</p>
Lindy Nelson, US Dept of the Interior	F004.4-4.4/4.10-14	Chem/bio simulants concentrations	We suggest that the DEIS provide the expected concentrations of chemical and biological simulants in air and water, toxicity to exposed organisms, duration of exposure, and potential cumulative effects of the proposed higher frequency of exposure.	<p>As described in the response to F003.25, maximum predicted chemical simulant concentrations were compared to aquatic toxicity values in Section 4.11.1.4 and were orders of magnitude below levels at which adverse effects may occur.</p> <p>Biological simulant modeling will be performed before outdoor testing takes place when information on the quantity and type of simulant and the dispersion method for each test have been determined. In addition, biological simulant detectors will be tested indoors prior to outdoor testing.</p> <p>There would be no cumulative exposure to chemical or biological simulants, as any exposures would be brief, limited to 5 to 10 minutes, and would occur at different places and times so that the likelihood of repeated exposure is miniscule.</p>
Kristine L. Brown, USAG Fort A.P. Hill	F005.1-5.1	Natural heritage resources	The information on Fort A.P. Hill's 1993 biological diversity inventory is not current and a re-inventory was completed after the FEIS was published.	Fort A.P. Hill was contacted and new information was noted in Section 5.1.4.



Name/Agency	Comment Number	Comment Category	Comment	Response
Kristine L. Brown, USAG Fort A.P. Hill	F005.2-5.2	ACUB acreages	Only cite the approximately 35,000-ac Army Compatible Use Buffer (ACUB) goal, as the per-priority zone acreages are not current. Since 2006, ACUB has contributed to the permanent preservation of approximately 10,000 ac. All ACUB projects undergo NEPA review.	The subject discussion in EIS Section 5.2.1 was revised accordingly.
Kristine L. Brown, USAG Fort A.P. Hill	F005.3-5.2	Potomac land conservation	The Northern Virginia Regional Conservation Forum has not met for some time and may not be active.	Correspondence with the Virginia Department of Conservation and Recreation confirmed that the regional forum no longer is active; the last meeting having been held in 2010. The subject discussion in EIS Section 5.2.2 was revised accordingly.
Kristine L. Brown, USAG Fort A.P. Hill	F005.4-3.5	Noise modeling	Were PK15 noise levels modeled; if not, why?	Peak sound pressure level (PK) 15 levels (peak noise from firing a gun or a detonation that will not be exceeded 85% of the time) were modeled early in the EIS process. However, given the BNOISE2 model limitations when using a water-reflective propagation surface where the detonation occurs, the PK15 contours were overly conservative, particularly after the air shock wave reached the land and then propagated over the land surface. Therefore, based on comparison between the measurements and the model-predicted levels (e.g., see Table 3.5-11), the Navy determined that the PK50 metric (half the time a gun will create a peak noise above this level and half the time below this level) is more representative of the event peak-noise conditions around the range evaluated in the EIS. The US Army Center for Health Promotion and Preventive Medicine (CHPPM), the agency which oversees the implementation of BNOISE 2 for individual projects, concurred with this determination.
Kristine L. Brown, USAG Fort A.P. Hill	F005.5-3.5	Gun-firing noise	It would be very beneficial to Fort A.P. Hill to be notified prior to the firing of 8"/55 guns, as our northern-boundary neighbors could report to Fort A.P. Hill associated noise complaints.	The Navy added Fort A.P. Hill to the list of individuals and entities to be notified prior to NSWCDD's firing of 8"/55 guns.

Name/Agency	Comment Number	Comment Category	Comment	Response
<b>State Agency (code 'S')</b>				
Glen A. Smith, Maryland Transportation Authority	S001.1-0.0	General	The DEIS was received and the MdTA has no comments at this time.	Comment noted.
Linda C. Janey, Maryland State Clearinghouse	S002.1-0.0	General	The DEIS was received and passed on to the Maryland departments of Natural Resources, the Environment, Transportation, St. Mary's and Charles counties, and the Maryland Historical Society. They have been requested to provide comments by September 18, 2012.	Comment noted.
Amanda R. Degen, Maryland Dept of the Environment	S003.1-0.0	General	The Proposed Action is generally consistent with our plans, programs, and objectives contingent upon certain actions being taken as noted in the following comments.	Comment noted.
Amanda R. Degen, Maryland Dept of the Environment	S003.2-4.7	Petroleum storage tanks	Above ground or underground petroleum storage tanks must be installed and maintained in accordance with applicable state and federal laws and regulations.	The Proposed Action does not involve installation of petroleum storage tanks. NSF Dahlgren manages petroleum storage tanks in accordance with applicable state and federal laws and regulations, as described in Section 3.7.3.3.
Amanda R. Degen, Maryland Dept of the Environment	S003.3-4.7	Petroleum storage tanks	If the Proposed Action involves demolition, above ground or underground petroleum storage tanks, their contents, and any contamination must be removed.	The Proposed Action does not involve demolition.
Amanda R. Degen, Maryland Dept of the Environment	S003.4-4.7	Solid waste	Any solid waste generated must be properly disposed of at a permitted solid waste acceptance facility or recycled.	NSF Dahlgren disposes of and/or recycles generated solid waste in accordance with Navy and Virginia regulations. Waste management is covered in Section 3.7 of the EIS.
Amanda R. Degen, Maryland Dept of the Environment	S003.5-4.7	Hazardous wastes	Facilities that generate or handle hazardous wastes or propose to do so should contact the Waste Diversion and Utilization Program.	NSF Dahlgren and NSWCDD have in place a number of programs, plans, and processes to safely use, transport, handle, store, and dispose of hazardous material and hazardous waste, as described in Section 3.7.3.
Amanda R. Degen, Maryland Dept of the Environment	S003.6-4.7	Environmental site assessment	As the Proposed Action may involve rehabilitation, redevelopment, revitalization, or property acquisition of commercial, industrial property, MDE's Brownfields Site Assessment and Voluntary Cleanup Programs that involve environmental site assessment may provide valuable assistance.	The Proposed Action does not involve rehabilitation, redevelopment, revitalization, or property acquisition of commercial, industrial property.

Name/Agency	Comment Number	Comment Category	Comment	Response
Robert Sadzinski, Maryland Dept of Natural Resources	S004.1-0.0	General	The Proposed Action is generally consistent with our plans, programs, and objectives contingent upon certain actions being taken as noted in the following comments.	Comment noted.
Robert Sadzinski, Maryland Dept of Natural Resources	S004.2-4.1	Coastal zone management	Maryland recommends the No Action Alternative to minimize coastal resource impacts and coastal use conflicts.	Comment noted.
Robert Sadzinski, Maryland Dept of Natural Resources	S004.3-4.1	Coastal zone management	Note that the Maryland coastal consistency determination navigation comments focus on the noise policy.	Comment noted.
Robert Sadzinski, Maryland Dept of Natural Resources	S004.4-4.1	Coastal zone management	A Charles County commenter noted a potential use conflict with a marina and development project on the Maryland side of the Potomac River.	Per the response to comment L004.1, boat traffic from the proposed marina would be able to proceed along the Maryland shore when range restrictions are in effect because the range boundary does not extend to the shoreline (see Figure 1-5 of EIS). Because Range Control works with boaters to minimize delays by allowing vessels to cross the river during test breaks and set-ups, crossing the river usually results in only a short delay. The additional hours during which access to the PRTR would be restricted are not expected to materially alter the conditions for recreational boating on the Potomac River, as described in Section 4.2. Further, NSWCDD has ongoing communications with the developer of the planned Villages at Swan Point.
Robert Sadzinski, Maryland Dept of Natural Resources	S004.5-4.1	Coastal zone management	Increased training and testing activities may conflict with other activities in the Potomac River, such as recreational and commercial fishing, recreational boating, and War of 1812-related events.	The RDT&E activities are not expected to significantly alter the conditions for marine commercial freight movements, commercial fishing, or recreational boating on the Potomac River, as described in Sections 4.2.2.2 and 4.2.3.2. Likewise, increased activities are not expected to significantly alter the conditions for War of 1812-related events.
Robert Sadzinski, Maryland Dept of Natural Resources	S004.6-4.12	Bald eagle nests	The Department of Natural Resources no longer tracks bald eagle nests; therefore, the applicant should refer to the National Bald Eagle Management Guidelines and should consult with the US Fish and Wildlife Service.	As discussed in Section 3.14.4, NSF Dahlgren's bald eagle management practices are outlined in the installation's <i>Bald Eagle Management Plan</i> and are implemented in cooperation with VDGIF and USFWS to ensure protection of the species and compliance with the Bald and Golden Eagle Protection Act. Management includes the protection of documented nesting and foraging habitat, the monitoring of nesting activity and success, and the enforcement of the Bald Eagle Protection Guidelines for Virginia developed by the USFWS and VDGIF and the National Bald Eagle Guidelines. Requests for deviations from these guidelines must be approved by USFWS and VDGIF.

Name/Agency	Comment Number	Comment Category	Comment	Response
Robert Sadzinski, Maryland Dept of Natural Resources	S004.7-4.12	Waterfowl concentration and staging area	Facility is near a waterfowl concentration and staging area. If there is to be construction of water-dependent facilities or an increase in noise levels, please contact the Wildlife and Heritage Service for technical assistance.	<p>The Proposed Action does not involve construction of water-dependent facilities.</p> <p>The proposed increase in detonations on the EEA's Harris and Churchill Ranges and in small-arms firing on the Machine Gun Range would lead to minor noise impacts. However, noise modeling of Alternative 2 indicates that 65 A-weighted day-night average decibel noise levels would not extend beyond the Harris and Churchill Ranges within the EEA and would extend only slightly from the Machine Gun Range into the creek. These resulting noise contours are barely different from the No Action Alternative levels. Large-caliber gun noise levels would not change but on up to 10 days a year would extend farther downriver than under existing conditions. The resulting potential impacts to waterfowl would be negligible.</p>
Robert Sadzinski, Maryland Dept of Natural Resources	S004.8-4.5	People impacted by noise	It may be beneficial to initiate a group of people impacted by increased noise levels to recommend workable solutions.	NSF Dahlgren and NSWCDD have ongoing meetings with surrounding communities, including the Swan Point and Cobb Island homeowners associations, and the Colonial Beach mayor and chamber of commerce, to discuss activities and talk about potential noise impacts from those activities.
Robert Sadzinski, Maryland Dept of Natural Resources	S004.9-4.1	Beach habitat	Beaches on the site provide likely terrapin and horseshoe crab spawning habitat; therefore, disturbance to the beach should be minimized.	The Proposed Action does not involve construction that would disturb beaches. As discussed in Section 4.9, ground disturbance from explosive detonations would be confined to the EEA ranges. Other RDT&E activities would not result in ground disturbance. Based on the relatively limited number of PRTR usage hours requiring range control boats and the small number of boats deployed, the impact from boat wakes is anticipated to have negligible impacts on shoreline sediment erosion.
Robert Sadzinski, Maryland Dept of Natural Resources	S004.10-4.11	Largemouth bass	This area of the Potomac River is downstream of pristine largemouth bass habitat. If shoreline erosion control projects are warranted, we request that the DNR Fisheries Service be contacted.	The Proposed Action does not involve shoreline erosion control projects.

Name/Agency	Comment Number	Comment Category	Comment	Response
Robert Sadzinski, Maryland Dept of Natural Resources	S004.11-4.11	Submerged aquatic vegetation	Submerged aquatic vegetation (SAV) is adjacent to the site. Impacts to SAV should be avoided and impacts in the vicinity of SAV beds should be minimized.	<p>There is little SAV present in the MDZ and upper LDZ and few plants are found in deeper waters of the PRTR where most large-caliber gun projectiles would be fired, as discussed in Section 4.11. Therefore, the potential for direct hits of vegetation, disturbance of vegetation adjacent to direct hits, or settlement of shell fragments onto plants in the PRTR is limited.</p> <p>It is unlikely that the SAV community would be affected by the increase in any of the RDT&amp;E activities, as direct contact with these activities would be limited-to-none and any indirect effects would be negligible.</p>
Robert Sadzinski, Maryland Dept of Natural Resources	S004.12-4.2	Commercial fishing	Increased exclusion of commercial and recreational boaters may significantly impact some commercial fishermen. Therefore, we recommend soliciting comments directly from this group, and a web-based and text message system with river and creek restrictions updated daily.	The additional hours during which access to the PRTR would be restricted are not expected to materially alter the conditions for marine commercial freight movements, commercial fishing, or recreational boating on the Potomac River, as described in Section 4.2. NSWCDD's range website posts river and creek restrictions regularly. Efforts to survey fishermen for the EIS met with few responses; however, those fishermen that did respond indicated no issues with NSWCDD's activities.
Robert Sadzinski, Maryland Dept of Natural Resources	S004.13-4.11	Oyster bars	Natural oyster bars are near the property. Impacts should be minimized and the department will provide specific recommendations upon request.	<p>As described in Section 4.11, there is a low probability for direct hits, as there are few oyster bars in the fairly deep waters of the primary target areas (oyster bars are found closer to shore in shallow areas). The proposed action would have negligible, long-term, direct and indirect, negative impacts on oyster bars, as described in Section 4.11.</p> <p>The MDNR was contacted for specific recommendations and provided mapping of natural oyster bars, SAV beds, and waterfowl concentration areas in the vicinity of NSF Dahlgren (maps of oyster bars and SAV beds were included in the DEIS). Mr. Sadzinski indicated that the comment concerning specific recommendations is more applicable to shoreline projects involving construction than this EIS, which does not include construction.</p>
Robert Sadzinski, Maryland Dept of Natural Resources	S004.14-4.10	Sea level rise	The site is highly susceptible to sea level rise; therefore, we recommend a proactive plan to address sea level rise.	As the Proposed Action does not involve construction of facilities, a proactive plan to address sea level rise is not pertinent to this EIS.

Name/Agency	Comment Number	Comment Category	Comment	Response
Robert Sadzinski, Maryland Dept of Natural Resources	S004.15- 4.11/4.14	In-river habitat	The Potomac River in this vicinity is very important striped bass and anadromous fish species spawning habitat, and Atlantic sturgeon may occur. Disturbance to in-river habitat should be seasonal and minimized, and, generally, no instream work likely to result in suspended sediments is allowed between 15 February and 15 June, inclusive.	Disturbance of sediments when projectiles impact the river bottom results in localized, short-term increases in levels of suspended sediments that would not affect levels of suspended solids found in the water column, as discussed in Section 4.11. As the Proposed Action does not involve construction, there would be no instream work likely to result in suspended sediments.
Robert Sadzinski, Maryland Dept of Natural Resources	S004.16-4.2	Navigation	The US Coast Guard should be consulted concerning Potomac River mainstem boating modifications.	33 Code of Federal Regulations § 334.230 authorizes the Commander, NSWCDD to restrict access to the PRTR danger zones. Consultation with the US Coast Guard is not required, but a copy of the DEIS was sent to the Coast Guard for review. No comments were received.
Robert Sadzinski, Maryland Dept of Natural Resources	S004.17-4.11	Fish and shellfish tissue analysis	Recommend continued fish and shellfish tissue analysis to determine if increased activities will be detrimental to fish.	As described in Sections 4.8, 4.10, and 4.11, the results of the human health and ecological Range-Specific Screening-Level Risk Assessment (RSSRAs) indicate that input of munitions constituents of potential concern from munitions testing in the PRTR are orders of magnitude below concentrations that could cause adverse effects to human health or the environment. As the use of large-caliber guns and projectiles would remain at current levels, impacts to surface waters would not increase. No further analyses are required at this time.
Robert Sadzinski, Maryland Dept of Natural Resources	S004.18-4.10	Point and nonpoint pollution	Investigate and rectify point and nonpoint pollution areas.	Hazardous materials and waste management at NSWCDD are described in detail in Section 3.7 of the EIS. There are no point or nonpoint pollution areas of concern at NSWCDD.

Name/Agency	Comment Number	Comment Category	Comment	Response
Robert Sadzinski, Maryland Dept of Natural Resources	S004.19-4.13	Magnetic and electric field exposure	Determine (model) the potential effects to wildlife due to magnetic and electric field exposure.	<p>As discussed in Section 4.13.1.2, EM energy dissipates exponentially with distance from the energy source; hence wildlife outside the test area would encounter very low doses of EM energy. The magnetic field levels modeled are shown in Figure 4.8-1, well below IEEE exposure limits at 80 feet, which is set at the guideline for time-varying magnetic field exposure to pacemakers of 0.833 Gauss (see Section 4.8.1.2).</p> <p>Although there are no controls to exclude wildlife from the safety zones during activities, spotters do watch out for wildlife prior to a test, and the test is stopped if animals are sighted. The probability of wildlife's entering test areas at the exact time of emission or firing would be very low.</p> <p>EM energy activities under all alternatives would have negligible, short-term, direct, negative impacts and no indirect impacts on NSF Dahlgren's wildlife.</p>
Maryland Dept of Planning	S005.1-4.1	Plans, programs, and objectives	The Proposed Action is consistent with our plans, programs, and objectives.	Comment noted.
Maryland Dept of Planning	S005.2-4.1	Plans, programs, and objectives	The Proposed Action is consistent with the Maryland Economic Growth, Resource Protection, and Planning Act; the Smart Growth and Neighborhood Conservation Policy; and our plans, programs, and objectives.	Comment noted.
Maryland Dept of Planning	S005.3-4.1	Plans, programs, and objectives	The Proposed Action is consistent with the requirements of Maryland Code, State Finance and Procurement Articles 5-7B-02, 03, 04, and 05 concerning priority funding areas.	Comment noted.
Maryland Dept of Transportation	S006.1-0.0	General	As far as can be determined at this time, the Proposed Action has no unacceptable impacts on the plans or programs of the department.	Comment noted.
Maryland Historical Trust	S007.1-4.6	Historical properties	The Proposed Action would have no adverse effect on historical properties.	Comment noted.

Name/Agency	Comment Number	Comment Category	Comment	Response
Roberta Rhur, Virginia Dept of Conservation and Recreation	S008.1-3.14	Conservation sites, bald eagle	The Little Creek, Gambo Creek, Gambo Creek South, and Tetotum Flats Conservation Sites are located within the project area and have all been given a biodiversity significance ranking of B5, which represents a site of general significance. The natural heritage resource of concern at these sites is the bald eagle, which is classified as threatened by the Virginia Department of Game and Inland Fisheries (VDGIF). The Department of Conservation and Recreation recommends coordination with the VDGIF to ensure compliance with the Virginia endangered Species Act.	As discussed in Section 3.14.4, NSF Dahlgren's bald eagle management practices are outlined in the installation's <i>Bald Eagle Management Plan</i> and are implemented in cooperation with VDGIF and USFWS to ensure protection of the species and compliance with the Bald and Golden Eagle Protection Act. Management includes the protection of documented nesting and foraging habitat, the monitoring of nesting activity and success, and the enforcement of the Bald Eagle Protection Guidelines for Virginia developed by the USFWS and VDGIF and the National Bald Eagle Guidelines. Requests for deviations from these guidelines must be approved by USFWS and VDGIF.
Roberta Rhur, Virginia Dept of Conservation and Recreation	S008.2-3.14	Natural area preserves	There are no State Natural Area Preserves under Department of Conservation and Recreation's jurisdiction in the project vicinity.	Comment noted.
Roberta Rhur, Virginia Dept of Conservation and Recreation	S008.3-3.14	State-listed plants and insects	The Proposed Action would not affect any documented state-listed plants or insects.	Comment noted.
Roberta Rhur, Virginia Dept of Conservation and Recreation	S008.4-3.14	Natural heritage information updates	Contact the Department of Conservation and Recreation for natural heritage information updates if a significant amount of time passes before it is utilized.	Comment noted.
Roberta Rhur, Virginia Dept of Conservation and Recreation	S008.5-4.10	Stormwater management	As no construction is proposed, the Division of Stormwater Management has no comment.	Comment noted.
Roberta Rhur, Virginia Dept of Conservation and Recreation	S008.6-0.0	General	Virginia Department of Conservation and Recreation divisions other than the Divisions of Natural Heritage and Stormwater Management, whose comments are noted above, have no comments regarding the Proposed Action.	Comment noted.
Ellie Irons, Virginia Dept of Environmental Quality	S009.1-4.10	Water resources, wastewater	It appears from the DEIS that impacts to water resources would be negligible and likely would not require permitting. Wastewater generation would not increase and the Navy's sewage treatment plant would continue to meet current and future wastewater requirements.	Comment noted.



Name/Agency	Comment Number	Comment Category	Comment	Response
Ellie Irons, Virginia Dept of Environmental Quality	S009.2-4.10	Surface water, wetlands	Recommends that surface water and wetland impacts be avoided to the maximum extent practicable, and recommends practices to minimize unavoidable impacts with respect to crossing streams, operating machinery and construction vehicles, constructing trenches, excavating wetlands, designing erosion and sedimentation controls, placing heavy equipment in wetlands, restoring temporarily-disturbed wetlands, storing material temporarily in wetlands, marking non-impacted surface waters near clearing, grading, or filling activities, and employing measures to prevent spills of fuels or lubricants into state waters.	NSWCDD is committed to protecting the environment while carrying out its mission, and avoids surface water and wetland impacts to the maximum extent possible. As the Proposed Action does not involve construction, the recommended impact minimization practices do not apply, except for employing measures to prevent spills. An NSF Dahlgren spill-prevention control and countermeasures plan is in place for NSWCDD facilities and was last updated on September 29, 2009.
Ellie Irons, Virginia Dept of Environmental Quality	S009.3-4.10/10.H	Surface water, wetlands	Providing all necessary Virginia Water Protection Permit authorizations are obtained and complied with, Department of Environmental Quality, Northern Regional Office concurs that the Proposed Action will be consistent with the requirements of the VWPP program and thus consistent with the Wetlands Management enforceable policy of the Virginia Coastal Zone Management Program.	Virginia Water Protection Permit authorizations are not required, as the Proposed Action does not involve excavation, draining, filling or dumping, flooding or impounding, or significant alternation or degradation of wetlands; or water withdrawals, dredging, or discharge of fill in surface waters.
Ellie Irons, Virginia Dept of Environmental Quality	S009.4-10.H	Surface water	The Department of Environmental Quality, Northern Regional Office does not disagree with the Navy's determination that the Proposed Action would be consistent with the Point source Pollution Control enforceable policy of the Virginia Coastal Zone Management Program.	Comment noted.
Ellie Irons, Virginia Dept of Environmental Quality	S009.5-10.H	Subaqueous lands	The Virginia Marine Resources Commission did not respond to the Department of Environmental Quality's request for comments and, as such, did not disagree with the Navy's determination that subaqueous lands would not be affected.	Comment noted.

Name/Agency	Comment Number	Comment Category	Comment	Response
Ellie Irons, Virginia Dept of Environmental Quality	S009.6-3.7/4.7	Hazardous materials and waste management	The Department of Environmental Quality, Division of Land Protection and Revitalization reviewed its database and found a number of waste facility sites. The proximity of the sites and potential impact to the project should be evaluated further.	NSWCDD and NSF Dahlgren implement federal and state regulations for control of waste material. NSF Dahlgren administers an ongoing Installation Restoration Program (see EIS Section 3.7.4) that investigates potential impacts of solid waste management units.
Ellie Irons, Virginia Dept of Environmental Quality	S009.7-4.7	Hazardous materials and waste management	Encourages the Navy to implement pollution prevention principles in all construction projects and facilities, including the reduction, reuse, and recycling of all solid wastes generated. Generation of hazardous wastes should be minimized and hazardous wastes should be handled in accordance with regulatory requirements.	The Proposed Action does not involve construction. NSF Dahlgren and NSWCDD have in place a number of programs, plans, and processes to safely use, transport, handle, store, and dispose of hazardous material and hazardous waste, as described in EIS Section 3.7.3.  NSF Dahlgren implements a waste-minimization plan aimed at reducing the use of, controlling, and managing hazardous materials and reusing and recycling solid wastes. All waste is handled in accordance with VDEQ regulatory policy.
Ellie Irons, Virginia Dept of Environmental Quality	S009.8-3.14/4.14	Protected species, farmland preservation	The Virginia Department of Agriculture and Consumer Services did not respond to the Department of Environmental Quality's requests for comments.	Comment noted.
Ellie Irons, Virginia Dept of Environmental Quality	S009.9-3.4/4.4	Air quality, open burning	The Navy should contact King George County officials to determine what local requirements exist concerning open burning.	Open burning is allowed in King George County. NSF Dahlgren uses open burning for fire control measures, which also supports NSWCDD's RDT&E activities. Open burn/open detonation (OB/OD) units are monitored and managed in accordance with VDEQ guidance and the RCRA Subpart X Permit, as described in Section 3.7.
Ellie Irons, Virginia Dept of Environmental Quality	S009.10-3.1/4.1	Aviation	The Virginia Department of Aviation did not respond to the Department of Environmental Quality's requests for comments.	Comment noted.
Ellie Irons, Virginia Dept of Environmental Quality	S009.11-3.1/4.1	Regional concerns	The George Washington Regional Commission did not respond to the Department of Environmental Quality's requests for comments.	Comment noted.
Ellie Irons, Virginia Dept of Environmental Quality	S009.12-3.1/4.1	Local concerns	King George County did not respond to the Department of Environmental Quality's requests for comments.	Comment noted.

Name/Agency	Comment Number	Comment Category	Comment	Response
Ellie Irons, Virginia Dept of Environmental Quality	S009.13-10.H	Coastal zone management	Based on review of the Navy's consistency determination, and the comments and recommendations submitted by agencies administering the enforceable policies of the Virginia Coastal Zone Management Program, the department concurs that the Proposed Action is consistent, to the maximum extent practicable, with the program. The Navy must ensure that the actions is constructed and operated in accordance with all applicable federal, state, and local laws and regulations, and the department encourages the Navy to consider the Advisory Policies of the program.	Comment noted.
Virginia Dept of Game and Inland Fisheries	S010.1-4.14	Protected species, bald eagle	Recommends that the Navy coordinate with the department and with the US Fish and Wildlife Service regarding any activities resulting in bald eagle habitat alterations within 660 ft of any active bald eagle nest, or within the designated concentration zone along the Potomac River upstream of NSF Dahlgren.	<p>As discussed in Section 3.14.4, NSF Dahlgren's bald eagle management practices are outlined in the installation's <i>Bald Eagle Management Plan</i> and are implemented in cooperation with VDGIF and USFWS to ensure protection of the species and compliance with the Bald and Golden Eagle Protection Act. Management includes the protection of documented nesting and foraging habitat, the monitoring of nesting activity and success, and the enforcement of the Bald Eagle Protection Guidelines for Virginia developed by the USFWS and VDGIF and the National Bald Eagle Guidelines. Requests for deviations from these guidelines must be approved by USFWS and VDGIF.</p> <p>The Potomac River Bald Eagle Concentration Area is adjacent to the Upper Danger Zone (UDZ), on which RDT&amp;E activities not involving ordnance occasionally would take place. The Proposed Action would not result in bald eagle habitat alterations within the designated concentration area.</p>
Virginia Dept of Game and Inland Fisheries	S010.2-4.14	Protected species, bald eagles	Although increased activities generating more frequent loud noise may temporarily affect nesting, roosting, or foraging eagles, those occupying territory at Dahlgren likely are habituated to loud noise emanating from Dahlgren.	The establishment and increase in the bald eagle population on the installation over the last 25 years supports this comment.

Name/Agency	Comment Number	Comment Category	Comment	Response
Virginia Dept of Game and Inland Fisheries	S010.3-4.14	Protected species, bald eagles	Recommends adherence to the currently-approved integrated natural resources management plan for Dahlgren, including adherence to protective measures for bald eagles and their habitats.	NSWCDD's RDT&E activities are guided by the <i>Integrated Natural Resources Management Plan, Naval Support Facility Dahlgren, Dahlgren, Virginia</i> (NSF Dahlgren, 2007), including the protective measures for bald eagles and their habitats. In addition, as discussed in Section 3.14.4, NSF Dahlgren's bald eagle management practices are outlined in the installation's <i>Bald Eagle Management Plan</i> and are implemented in cooperation with VDGIF and USFWS to ensure protection of the species and compliance with the Bald and Golden Eagle Protection Act.
Virginia Dept of Game and Inland Fisheries	S010.4-4.11	Anadromous fish use areas	As the Potomac River, Upper Machodoc Creek, Gambo Creek, and Williams Creek have been designated anadromous fish use areas, recommends that any construction, restoration, or relocation activities within these waters be coordinated with the department and with NOAA Fisheries.	The Proposed Action does not involve construction, restoration, or relocation activities.
Virginia Dept of Game and Inland Fisheries	S010.5-4.11	Anadromous fish	Recommends adherence to the currently-approved integrated natural resources management plan for Dahlgren, including adherence to protective measures for anadromous fish and their habitats.	NSWCDD's RDT&E activities are guided by the <i>Integrated Natural Resources Management Plan, Naval Support Facility Dahlgren, Dahlgren, Virginia</i> (NSF Dahlgren, 2007), including protective measures for anadromous fish and their habitats.
Virginia Dept of Game and Inland Fisheries	S010.6-10.H	Fisheries management	The Proposed Action is consistent with the fisheries management section of the Virginia Coastal Zone Management Program, provided the Navy adheres to all necessary best management practices.	Comment noted.
Virginia Dept of Historic Resources	S011.1-4.6	Historic properties	The Navy has consulted on the Proposed Action and the department believes that the action will have no adverse effect to historic properties listed in or eligible for the National Register of Historic Places and the Virginia Landmarks Register.	Comment noted.
Virginia Department of Health, Office of Drinking Water	S012.1-4.10	Drinking water	The Proposed Action is not likely to affect drinking water resources.	Comment noted.

Name/Agency	Comment Number	Comment Category	Comment	Response
<b>Local Government (code 'L')</b>				
St. Mary's County, Board of County Commissioners	L001.1-3.1/4.1/5.0	County plans, aviation	Forwarded a copy of the St. Mary's County Regional Airport Master Plan Update executive summary for review and incorporation into the final document record.	The St. Mary's County Regional Airport Master Plan Update executive summary was reviewed, and discussions regarding the county's plans for the regional airport were added to EIS Section 3.1 and Chapter 5.
St. Mary's County, Board of County Commissioners	L001.2-3.1/4.1/5.0	County plans, aviation	The County intends to ensure that the Proposed Action does not impact either current or future availability of instrument approaches and other airspace or operational matters concerning the regional airport.	Comment noted. The Proposed Action would not change the hours that special use airspace (SUA) is restricted annually and is not expected to have any direct or indirect impacts on civilian aviation. A discussion was added to Chapter 5.
St. Mary's County	L002.1-4.5	Noise monitoring locations	Notes lack of noise monitoring locations for the upper Lower Danger Zone bordering St. Mary's County.	Noise-measurement sites are located around NSF Dahlgren and along the PRTR Middle Danger Zone (MDZ) to monitor peak-noise levels during gun-firing and detonation events. Large guns are mostly fired into the MDZ and, as proposed, no more than 10 days a year into the upper Lower Danger Zone (LDZ).  NSWCDD is investigating establishing a noise measurement site on Cobb Island, which would be closer to the upper LDZ than existing measurement sites. Also, NSWCDD uses hand-held noise meters to augment permanent noise meters and has the flexibility to monitor noise levels farther downriver than the fixed noise measurement stations.
Charles County	L003.1-0.0	General	The Proposed Action is generally consistent with our plans, programs, and objectives contingent upon certain actions being taken as noted in the following comments.	Comment noted.
Steven R. Ball, Charles County Dept of Planning & Growth Management	L004.1-4.2	Boat traffic, marina proximity	Increased RDT&E activities could have adverse effects on Swan Point. Activities could cause conflicts due to the future increase in boat traffic in the test range and the proximity of the new Swan Point marina to the test range.	Boat traffic from the proposed marina would be able to proceed along the Maryland shore when range restrictions are in effect because the range boundary does not extend to the shoreline. Because Range Control works with boaters to minimize delays by allowing vessels to cross the river during test breaks and set-ups, crossing the river usually results in only a short delay. The additional hours during which access to the PRTR would be restricted are not expected to materially alter the conditions for recreational boating on the Potomac River, as described in Section 4.2. Further, NSWCDD has ongoing communications with the developer of the planned Villages at Swan Point.

Name/Agency	Comment Number	Comment Category	Comment	Response
Steven R. Ball, Charles County Dept of Planning & Growth Management	L004.2-4.5	Noise, vibration, night testing	Calls attention to concerns raised by residents of the Potomac River communities of Cobb Island and Swan Point regarding noise, vibration and the addition of night testing.	As noted in the response to comment S004.8, NSWCDD has developed a noise management program that aims to minimize noise impacts. Additional night testing would be limited to laser and non-ordnance activities. No ordnance is currently fired or detonated at night, and no nighttime ordnance use is proposed in the future.  Under the Proposed Action, large-caliber gun firing, which is the noisiest activity, would not increase in the future. The annual number of small-arms firings and detonations would increase, but the noise impacts associated with these two types of activities are projected to remain primarily within the boundaries of the installation.
Gary B. Whipple, St. Mary's County Dept of Public Works and Transportation	L005.1- 3.1/4.1/5.0	County plans, aviation, cumulative impacts	Per the Regional Airport Master Plan Update, in conjunction with the FAA and the Maryland Aviation Administration, the county is working to achieve an airport reference code designation of B-II, with a non-precision instrument (NPI) approach of 1/2 mi for Runway 11, which will be extended by 1,200 ft, and an NPI approach of 1 mi for Runway 29.	Discussions regarding the county's plans for the regional airport were added to EIS Section 3.1 and Chapter 5. The use of the SUA for NSWCDD's RDT&E activities is not expected to have any direct or indirect impacts on civilian aviation.
Gary B. Whipple, St. Mary's County Dept of Public Works and Transportation	L005.2- 3.1/4.1/5.0	County plans, aviation, cumulative impacts	Consistent with the county's comprehensive plan, the county intends to encourage development of commuter air travel services and shuttle connections to airport with regional, national, and international connections to provide, in part, a certified, precision all-weather approach system.	Discussions regarding the county's plans for the regional airport were added to EIS Section 3.1 and Chapter 5. The use of the SUA for NSWCDD's RDT&E activities is not expected to have any direct or indirect impacts on civilian aviation.
Gary B. Whipple, St. Mary's County Dept of Public Works and Transportation	L005.3- 3.1/4.1/5.0	County plans, aviation, cumulative impacts	Forwarded a copy of the current, August 2012 Airport Layout Plan.	Discussions regarding the county's plans for the regional airport were added to EIS Section 3.1 and Chapter 5. The use of the SUA for NSWCDD's RDT&E activities is not expected to have any direct or indirect impacts on civilian aviation.

Name/Agency	Comment Number	Comment Category	Comment	Response
<b>Non-government Organization (code 'NGO')</b>				
Bob Elwood, Potomac River Association	NGO001.1-4.8	Biological simulants	Can biological simulants be genetically differentiated from the naturally-occurring organisms and, if needed, identified as originating from NSWCDD biological defense activities?	The small quantities of BSL-1 biological simulants used would not be genetically distinct, and there is no need to identify them as originating from NSWCDD.
Bob Elwood, Potomac River Association	NGO001.2-4.0/5.0	Cumulative impacts	What is the difference between no significant impact and negligible impact, and have a whole lot of negligible impacts ever become a significant impact?	<p>'Negligible impact' indicates that an environmental impact is of low intensity or severity. 'No significant impact' indicates a determination that an environmental impact is of comparatively low concern, given the low intensity of the impact and considering where the impact occurs.</p> <p>The various impact determinations, of negligible or other intensity or severity, reached in the EIS are for independent resources and, for the proposed RDT&amp;E activities, are not cumulative across resources. However, multiple impacts to a single resource resulting from multiple actions potentially are cumulative and, therefore, are evaluated in Chapter 5 of the EIS.</p>
Norman Chlosta, Swan Point Property Owners Association	NGO002.1-2.0	DoD budget	What Department of Defense budget assumptions is the Navy making with respect to funding the proposed increased RDT&E activities?	The EIS presents the expansion of RDT&E activities that could be conducted with full funding. Available funding for RDT&E will dictate the actual increases.
Norman Chlosta, Swan Point Property Owners Association	NGO002.2-2.0	Chem/bio simulants	Why can Ben Gay-like simulants simulate toxins and how does the Navy make that extrapolation? What is the worth of doing this kind of testing when there is no known link?	Methyl salicylate, or oil of wintergreen, is used in many household products such as Ben Gay. Methyl salicylate has also been used as a simulant for chemical warfare agents because as a vapor in the air, laboratory tests show that it responds like a known chemical warfare agent – mustard gas – to an infrared detector. Use of low-toxicity simulants allows NSWCDD to develop technology to counter chem/bio terrorism by developing early detection and warning systems.
Norman Chlosta, Swan Point Property Owners Association	NGO002.3-2.2	Alternatives development	What are the program managers' future requirements analyses based on? Are they based on threats or wishful thinking?	Parameters such as projected global threats, homeland security, and technological developments influence the RDT&E that will take place in the future. Flexibility is required in RDT&E to accommodate those requirements.

Name/Agency	Comment Number	Comment Category	Comment	Response
Norman Chlosta, Swan Point Property Owners Association	NGO002.4-1.0/2.0	Night and bad weather testing	What is the basis for doing night testing and bad weather testing?	As noted in Section 1.1, some activities (but none using ordinance) would take place under conditions in which activities are now rarely/never conducted, such as at dusk, dawn, and night and in adverse weather, to ensure that equipment and materials work effectively, even in less-than-ideal conditions.
<b>Public (code 'P')</b>				
Philip Lehman	P001.1-3.8	Health and Safety	Discuss NSWCCD's safety record over perhaps the past 5-10 years as it relates to range activities: noise complaints, structural damage, wildlife and human illnesses/injuries/deaths related to release of simulants, EM, laser or ordinance - both worker and non-employee (community) related.	<p>NSWCDD's commitment to health and safety has resulted in an excellent safety record. EIS Section 3.8 includes the following information "<i>Thanks to this commitment to safety, there have been no fatalities attributable to NSWCCD's RDT&amp;E activities in more than 40 years.</i>" Based on review of records for the past 10 years, there have been no illnesses or injuries attributable to outdoor activities. This information was added to EIS Section 3.8.</p> <p>There have also been no adverse effects to fish or wildlife populations related to RDT&amp;E activities in the last decade.</p> <p>Noise and vibration monitoring was conducted at six historical properties along the PRTR in November 2009 (see Appendix D) and included wall vibration measurements. Maximum vibration levels measured at the six historical structures were found to be below 0.5 in/sec, the level at which minor structural damage may begin to occur. This monitoring program confirmed that no buildings beyond NSF Dahlgren or along the PRTR experience vibration levels that could result in structural damage.</p> <p>To monitor and control noise from its outdoor RDT&amp;E activities and, thereby, reduce noise complaints from surrounding communities, NSWCCD has developed and implemented a noise management process, which is summarized in Section 3.5.3.5 and reproduced in full in Appendix C. The Public Affairs Office closely monitors and records any complaints involving noise and vibration (structural damage).</p>



Name/Agency	Comment Number	Comment Category	Comment	Response
Jean Public	P002.1-11	The Environment, Biological Resources, and Protected Species	There should be no growth in destruction caused by the Navy. The Navy should be training in America without hurting the environment. The fish and turtles should not be bombed and killed.	<p>The Navy is committed to protecting the environment, as stated in our policy for Environmental Protection, Natural Resources, and Cultural Resources Programs (SECNAVINST 5090.8A): "In support of the national defense mission and to restore, protect, and enhance the quality of the environment for current and future generations, it is Department of the Navy policy to integrate environmental protection, natural resources, and cultural resources programs considerations into all Department of the Navy operations and activities, as appropriate."</p> <p>Following this policy, NSWCDD provides valuable habitat for a wide range of terrestrial and aquatic species, as discussed in EIS Sections 3.11 to 3.14.</p> <p>Section 4.11 evaluates potential impacts on fish from ordnance testing and concluded that the probability of a direct hit by a projectile would be low and impacts to fish would be negligible. No aircraft bombs have been tested in the Potomac River Test Range since 1957 and therefore there is no danger of aquatic life being bombed.</p> <p>Ordnance testing under all alternatives does not overlap with the distribution of sea turtles (see Figure 4.14-1) and consequently there would be no possibility of a sea turtle's being hit by a projectile.</p>
Peter M. Fahrney, M.D.	P003.1-0.0	PRTR testing	Personal opinion is that ballistic testing on the PRTR should be phased out.	Comment noted.
Peter M. Fahrney, M.D.	P003.2-3.4	Release of explosives or toxins into air	Concern about explosives or other toxins being released into the air periodically at Pumpkin Neck.	The occasional smoky plumes seen at Pumpkin Neck – the EEA – result from the burning of kerosene and gasoline, used for fast cook-off tests of munitions. They are not associated with explosive detonation. The fuels are added to water in a 30-ft-by-30-ft pan and are burned beneath ammunition to test their stability. On average, NSWCDD uses approximately 2,500 gal of kerosene and 40 gallons of gasoline for each fast cook-off test, which occur about six times a year. Emission products from burning kerosene and gasoline are the same as the emission products from an oil fired furnace or a gasoline engine.

Name/Agency	Comment Number	Comment Category	Comment	Response
Virginia O'Brien	P004.1-4.12	Ordnance and wildlife	Will all bullets be recovered or will there be an indoor range instead? Concern about lead in increased small arms fire impacting wildlife in the area.	See response to comment F003.35-4.12/4.0.
Belinda and Kevin Keller	P005.1-4.5	Noise and vibration	Would like to know what procedures exist for homeowners to follow if homes are damaged by ordnance testing. As after years of repeated vibrations all structures will suffer.	The Navy follows NSWCDD Instruction 5100.6, "Outdoor Noise Management Process" (contained in Appendix C), in an effort to minimize noise and vibration effects on the surrounding communities. The Public Affairs Office (PAO) closely monitors and records any complaints involving noise and vibration. There is a toll-free number 866-359-5540 for noise comments and questions. Each noise complaint is investigated and appropriate changes to the noise management process are evaluated and implemented as necessary. Complaints follow the process identified in NSWCDD Instruction 5726.1A, "Community Inquiries or Complaints Related to Test Range Operations and Ordnance-Related Noise and Damage." If a property is damaged, the owner can file a "Tort Claim for Damages" with the Navy's Tort Claim Unit in Norfolk.

Name/Agency	Comment Number	Comment Category	Comment	Response
Belinda and Kevin Keller	P005.2-0.0	General	<p>The EIS does not provide the confidence needed to support expansion. As stated, findings are inconclusive, indecisive, and repetitive: "... may affect, but is not likely to adversely affect ...". When something is deemed not likely, a possibility remains.</p> <p>For us, the consequences of current activities are minimally tolerant, and most emphatically we do not favor expanding activities at dusk, dawn, night, and in inclement weather as proposed.</p>	<p>Comment noted. We have tempered many of the impact statements with qualifiers such as "negligible" based on experience with the same or similar tests or on research on the effects of the type of tests proposed. In most cases, the negligible amount of impact take place when the test occurs and it is fleeting. We also consider the environment where the small amount of impact may occur in weighing the severity of the impact – for example, Dahlgren's land ranges regularly sustain impacts from testing and further testing does not impair any precious resources. Similarly, the size of the Potomac River and daily flushing greatly lessens the impact on any one area. We weigh many factors in making these judgments, and even though "negligible" may not convey absolute certainty, using modifiers like these attests to the decision making process we have gone through in arriving at each and every conclusion and our reluctance to assert that no impact would occur when a very small amount may.</p> <p>With respect to testing at dawn, dusk, night, and in inclement weather, additional testing would be limited to lasers and non-ordnance activities. No ordnance is currently fired or detonated at night, and no nighttime ordnance use is proposed in the future.</p> <p>Lasers are being tested now over water in these conditions with little impact on the public other than to cause vessels transiting the mouth of Upper Machodoc Creek to pause for short periods. Adding other non-ordnance (non-explosive) tests in the future would have similar effects.</p>
Charlotte Simpson	P006.1-4.5	Noise and vibration	Concerned about noise and vibration, and would like to see a monitor on Cobb Island full time.	NSWCDD is investigating placing a noise meter on Cobb Island. Any noise and vibration complaints should be reported to the NSWCDD Public Affairs Office at 866-359-5540.
Charlotte Simpson	P006.2-4.5	Noise and vibration	I object to night testing.	Comment noted. No ordnance would be tested at night, so there would be no noise from gun firing or detonations. As noted in the response to comment P005.1, some night testing of lasers takes place now with little effect on the public.
Charlotte Simpson	P006.3-4.5	Noise and vibration	I know that the Navy will come down and look at cracked windows and broken stuff, but I have never heard of the Navy paying for anything.	See responses to comments P005.1 and P006.1.

Name/Agency	Comment Number	Comment Category	Comment	Response
Warren Veazey	P007.1-1.6	Notice of range restrictions	The Navy should post at public marinas notices, with a map of the range, informing jet skis and boats of testing so as to avoid having to stand down.	NSWCDD provides a pamphlet to marinas that describes the range and gives Range Control contact information. We also maintain a website that provides: the Range Schedule; a toll-free Range/Weapons Testing hotline for daily information on range activities (877-845-5656) and test schedules. This information is available at: <a href="http://www.navsea.navy.mil/nswc/dahlgren/RANGE/rangeschedule.aspx">http://www.navsea.navy.mil/nswc/dahlgren/RANGE/rangeschedule.aspx</a>
Warren Veazey	P007.2-4.4/4.8	Fast cook-off	A friend of mine who lives just down river, is concerned about the big plumes of diesel smoke when NSWCDD does burns on Pumpkin Neck, although the plumes have not yet come over his house.	See response to comment P003.2.
Warren Veazey	P007.3-1.6	Railgun	A sound meter should be used during railgun firings and firings should be announced to employees at NSF Dahlgren.	Comment noted. Both internal and external installation noise sound levels are taken during most railgun firings. Personnel in areas that could be affected by railgun firing noise are notified the day of the firings and before each firing.
Dreda Newman	P008.1-1.6	Monitoring	How is the use of chem/bio simulants and lasers going to be monitored by other entities than the Navy?	Testing of chem/bio simulants and lasers would take place on Navy ranges. As they would be contained on these ranges, there is no need for additional monitoring by other entities.  As a protective measure, prior to each chem/bio operation, coordination takes place with NSF Dahlgren Environmental and the Maryland Department of the Environment and the Virginia Department of Environmental Quality, as applicable, concerning the types and quantities of simulants proposed for use (Section 6.2.2).
Dreda Newman	P008.2-1.6/4.8	Accidents and deaths	Is the public informed of accidents or deaths on NSF Dahlgren?	See response to comment P001.1.
Christopher Wiggins	P009.1-1.6	Aircraft	Maybe it would be prudent to inform the public if aircraft are being used.	Comment noted.

**FEDERAL AGENCY  
COMMENTS**

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DEPARTMENT OF THE NAVY  
**RECEIVED**  
NAVAL SURFACE WARFARE CENTER  
DAHLGREN DIVISION  
6149 WELSH ROAD SUITE 203  
DAHLGREN VIRGINIA 22448-5130  
AUG 16 2012

## Virginia Field Office

IN REPLY REFER TO

5090  
Ser CX8/042

14 AUG 2012

From: Commander, Dahlgren Division, Naval Surface Warfare Center

Subj: NAVAL SURFACE WARFARE CENTER, DAHLGREN DIVISION OUTDOOR  
RESEARCH, DEVELOPMENT, TEST, AND EVALUATION ACTIVITIES  
DRAFT ENVIRONMENT IMPACT STATEMENT

Encl: (1) Outdoor Research, Development, Test and Evaluation  
Activities Draft Environmental Impact Statement

1. Enclosure (1) is an electronic copy of the Draft Environmental Impact Statement (EIS) prepared by the Department of the Navy, Naval Surface Warfare Center, Dahlgren Division (NSWCDD) for your review and comment. The draft EIS evaluates the effects of expanding outdoor research, development, test, and evaluation activities within the Potomac River Test Range and Explosives Experimental Area Complexes, the Mission Area, and Special-Use Airspace at Naval Support Facility Dahlgren.

2. The Navy will conduct three public hearings to receive oral and written comments on the draft EIS. Federal, state, and local agencies, elected officials, and other interested individuals and organizations are invited to be present or represented at the public hearings. Public hearings will be held on:

a. 11 September 2012 at the Newburg Volunteer Rescue Squad and Fire Department, 12245 Rock Point Road, Newburg, MD 20664.

b. 12 September 2012 at the A. T. Johnson Alumni Museum, 18849 Kings Highway, Montross, VA 22520.

c. 13 September 2012 at University of Mary Washington-Dahlgren Campus, 4224 University Drive, King George, VA 22485.

3. All hearings will be held from 6 p.m. to 8 p.m. and will begin with a presentation followed by public comments. All venues are wheelchair accessible. Anyone needing special assistance, such as a sign language interpreter, please contact



Subj: NAVAL SURFACE WARFARE CENTER, DAHLGREN DIVISION OUTDOOR  
RESEARCH, DEVELOPMENT, TEST, AND EVALUATION ACTIVITIES  
DRAFT ENVIRONMENT IMPACT STATEMENT

the NSWCDD Public Affairs Office at 540-653-8154 or e-mail  
dlgr\_nswc\_eis@navy.mil.

4. Written comments may be submitted at the hearings or mailed  
during the comment period to:

Naval Surface Warfare Center Dahlgren Division  
6149 Welsh Road, Suite 203  
Dahlgren, VA 22448-5117  
Attn: Code C6 Fax: 540-653-4679  
E-mail: dlgr\_nswc\_eis@navy.mil.

5. All written comments must be received by 1 October 2012 to  
ensure they become part of the official record and are assessed  
and considered as part of the final EIS.

6. If you have any questions about the enclosed statement or  
need additional information, please contact the NSWCDD Public  
Affairs Office at 540-653-8154 or e-mail dlgr\_nswc\_eis@navy.mil.

7. Thank you for your participation in the EIS process.



M. H. SMITH

Distribution:  
(See Attached Sheets)





# United States Department of the Interior

## FISH AND WILDLIFE SERVICE

Ecological Services  
6669 Short Lane  
Gloucester, Virginia 23061



APR 13 2012

Greetings:

Due to increases in workload and refinement of our priorities in Virginia, this office will no longer provide individual responses to requests for environmental reviews. However, we want to ensure that U.S. Fish and Wildlife Service trust resources continue to be conserved. When that is not possible, we want to ensure that impacts to these important natural resources are minimized and appropriate permits are applied for and received. We have developed a website, [http://www.fws.gov/northeast/virginiafield/endspecies/Project\\_Reviews\\_Introduction.html](http://www.fws.gov/northeast/virginiafield/endspecies/Project_Reviews_Introduction.html), that provides the steps and information necessary to allow landowners, applicants, consultants, agency personnel, and any other individual or entity requiring review/approval of their project to complete a review and come to the appropriate conclusion.

F001.1

The website will be frequently updated to provide new species/trust resource information and methods to review projects, so refer to the website for each project review to ensure that current information is utilized.

If you have any questions about project reviews or need assistance, please contact Kimberly Smith of this office at (804) 693-6694, extension 124, or [kimberly\\_smith@fws.gov](mailto:kimberly_smith@fws.gov). For problems with the website, please contact Mike Drummond of this office at [mike\\_drummond@fws.gov](mailto:mike_drummond@fws.gov).

Sincerely,

Cindy Schulz  
Supervisor  
Virginia Field Office

-----Original Message-----

From: Dargle, Peter E LTC USARMY USAG (US)

[<mailto:peter.e.dargle.mil@mail.mil>]

Sent: Monday, August 27, 2012 8:10 AM

To: dlgr\_nswc\_eis

Subject: Environmental Impact Statement Review (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

Fort AP Hill is in receipt of your Environmental Impact Statement and have initiated review of the document to ensure all associated Fort AP Hill information noted in the document is current & valid. We will submit any recommended changes and/or updates on the document as necessary to the appropriate Point of Contact. Ms. Terry Banks from the AP Hill Environmental Division is our lead in the review process.

] F002.1

Fort AP Hill appreciates being part of this review process and trust that a favorable outcome is on the horizon. Should we have to engage in a similar effort in the future, we will certainly include Dahlgren, Naval Surface Warfare Center in our planning and review process.

Please forward my comments to CAPT Smith as appropriate and thank you again for including us in this effort.

v/r

Peter E. Dargle

LTC, AR

USAG Fort A.P. Hill Commander

Fort A.P. Hill, Virginia

"The Best Training & Support - Anywhere!"

(804) 633-8206

DSN: 578-8205

Classification: UNCLASSIFIED

Caveats: NONE





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION III  
1650 Arch Street  
Philadelphia, Pennsylvania 19103-2029

October 1, 2012

Mr. M. H. Smith  
Captain, U.S. Navy Commander  
Department of the Navy  
Naval Surface Warfare Center Dahlgren Division  
6149 Welsh Road, Suite 203  
Dahlgren, VA 22448-5117

Re: Outdoor Research, Development, Test, and Evaluation Activities Naval Surface Warfare Center, Dahlgren, Virginia Draft Environmental Impact Statement (CEQ #20120267)

Dear Mr. Smith:

In accordance with the National Environmental Policy Act (NEPA) of 1969, Section 309 of the Clean Air Act and the Council on Environmental Quality regulations implementing NEPA (40 CFR 1500-1508), the U.S. Environmental Protection Agency (EPA) has reviewed the Draft Environmental Impact Statement (DEIS) for the Outdoor Research, Development, Test and Evaluation (RDT&E) Activities within the Potomac River Test Range and Explosives Experimental Area Complexes, the Mission Area and Special-Use Airspace at Naval Support Facility Dahlgren in Virginia.

The Proposed Action would expand the Naval Surface Warfare Center Dahlgren Division's (NSWCDD) RDT&E activities within the Potomac River Test Range (PRTR) and Explosives Experimental Area (EEA) Range complexes, the adjoining Mission Area, and the Special-Use Airspace (SUA). These RDT&E activities include outdoor operations that require the use of ordnance, electromagnetic energy, lasers, chemical and biological simulants. The average number of events that could take place annually (with the exception of large-caliber gun firing events) would increase above recent levels. To ensure that equipment and materials work effectively, even in less-than-ideal conditions, some activities would take place under conditions in which activities are now rarely/never conducted, such as at dusk, dawn, and night and in adverse weather.

The purpose of the Proposed Action is to enable NSWCDD to meet current and future mission-related warfare and force-protection requirements by providing RDT&E of surface ship combat systems, ordnance, lasers and directed energy, force-level warfare, and homeland and force protection. The need for the Proposed Action is to enable the Navy and other stakeholders to successfully meet current and future national and global defense challenges required under 10 U.S.C. §5062(d) by developing a robust capability to carry out assigned RDT&E activities on range complexes, in the Mission Area, and in SUA at NSF Dahlgren.



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In addition to the No Action Alternative, the Navy proposes two action alternatives, Alternative 1 and Alternative 2 (the Preferred Alternative). Alternative 1 includes annual increases of 325 percent in small arms firing, 5 percent in detonations, 20 percent in EM energy events, 108 percent in laser events, 400 percent in chemical/biological events, and 16 percent in PRTR hours of use above recent levels. Alternative 2 includes annual increases of 400 percent in small arms firing, 21 percent in detonations, 39 percent in EM energy events, 142 percent in laser events, 483 percent in chemical/biological events, and 33 percent in PRTR hours of use above recent levels.

EPA understands the purpose and need for the proposed action for the Navy's Outdoor RDT&E activities. However, as a result of our review of the DEIS, EPA has concerns with impacts to air, water, biological resources, environmental justice, children's/human health and cumulative impacts. A detailed description of these concerns is presented in the Technical Comments (enclosed) for your consideration. EPA rated the DEIS an EC-2 (Environmental Concerns/Insufficient Information), which indicates that we have environmental concerns regarding the proposal and that there is insufficient information in the document to fully assess the environmental impacts of this project. A copy of EPA's rating system is enclosed for your information.

F003.1

Thank you for providing EPA with the opportunity to review this project. EPA would appreciate the opportunity to discuss some of the topics and questions raised in the Technical Comments. If you have questions regarding these comments, the staff contact for this project is Karen DelGrosso; she can be reached at 215-814-2765.

Sincerely,



Barbara Rudnick  
NEPA Team Leader  
Office of Environmental Programs

Enclosure (2)



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## Technical Comments

### Alternatives

Page 4-6 states, "Unlike the No Action Alternative, Alternative 1 would support the recommendation from the RSIP to promote NDW as an RTD&E center that stands out among other regions, since it would allow NSWCDD to better accommodate new and emerging RDT&E needs and requirements. Because it would result in NSWCDD's making better use of its facilities at NSF Dahlgren, Alternative 1 would also support the RSIP's recommendation to maximize existing facilities for highest and best use." Page 4-10 states, "Alternative 2 would better support the recommendations of the RSIP to promote NDW as an RTD&E center that stands out among other regions and maximize existing facilities for the highest and best use than would Alternative 1." EPA is not certain that the proposed activities would not pose an impact to human and environmental health at the quantities proposed. In addition, there is no distinct reason to selecting Alternative 2 as the Preferred Alternative since both (Alternative 1 and 2) meet the needs and goals of the Navy. Thus, EPA suggests considering a more conservative approach such as phasing in of increased activities and questions whether the additional increase in activities from Alternative 2 would be worth the added risks to environment and human health.

F003.2

F003.3

### Small Arms Activities

As the DEIS states (page 2-11), "As is the case today, much of the future small arms firing would take place indoors, but some must be done outdoors." The average annual activities under the No Action Alternative would result in 6,000 bullets, Alternative 1 proposes 25,500 bullets, and Alternative 2 proposes 30,000 bullets. What is the ratio of bullets fired indoors versus outdoors for each alternative?

F003.4

The DEIS states, "Bullets will be fired at targets on land that will trap them and over the river at targets up to 4,000 yards from shore where the bullets will enter the river and not be recovered." Considering the increase in the number of bullets proposed, is it possible to add catch basins/netting to the river targets to capture the bullets so as not to sink to the river bottom?

F003.5

Page 1-24 states, "Most bullets fired are inert – made of solid metal with no explosive filler – but some are explosive." With a maximum number of bullets proposed (30,000), what percent of projectiles to be fired from the PRTR land ranges into the Potomac River would be inert and what percentage would be live explosives?

F003.6

### Electromagnetic Energy

Proposed Activities using electromagnetic energy both low-powered and high-powered should be evaluated by the Federal Communications Commission (FCC) for safety. The Distribution List did not include the FCC. Please coordinate activities with the FCC to determine and confirm safe exposure levels for hazards of electromagnetic radiation to fuel, ordnance and personnel.

F003.7



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### Chemical Simulants

While it is true that the chemicals proposed for use in the DEIS have low-to-moderate toxicities, they are not without risk (some more than others). Even chemicals that are designated as "relatively non-toxic" can cause harm at high enough doses. So, the important point is not so much which chemicals are being used, as how much of those chemicals are being released and who is being exposed.

F003.8

There is no information in the report on possible human receptors, but Section 4 of the DEIS does provide modeled data on the maximum concentrations expected for a few of the chemical simulants. The predicted concentrations are very high, both at the time of release and 10 minutes later -- high enough to produce adverse effects in exposed individuals, such as irritation (respiratory, eye, and dermal). (Note that Figure 4.4-1 indicates that the concentration of DEM in air decreases to zero after approximately five minutes, but this is not supported by Table 4.4-2, Modeled Maximum Air Concentration after 10 Minutes.)

F003.9

F003.10

To allow the military base to fulfill its task, EPA recommends the Navy 1) provide adequate worker safety (in the form of personnel protective equipment), 2) conduct real-time air monitoring during release activities and 3) ensure that individuals not involved in testing are restricted from areas affected by releases.

F003.11

### Biological Simulants

A few of the biological agents proposed for testing are, in fact, pathogenic to humans; these are *B. atrophaeus* and *Aspergillus niger*. If available, other similar, non-pathogenic simulants should be used instead. If not, the steps described above for chemical simulants should be considered. Note, however, that some organisms can persist in the environment for a very long time; consequently, these precautions may not fully protect individuals from future exposures. Of particular concern, are the impacts to sensitive individuals who are more at risk than the "healthy adult" used in your analysis.

F003.12

Page 2-21 states, "All of the sensor-testing described in the preceding section could be repeated with the introduction of interferents, smokes, or obscurants. Examples of these include fog oil, PEG 200, poly alpha olephin, paints, fuels, and cleaners." What is the interaction of these chemicals with the chemical and/or biological agents proposed? What are the risks? Again, EPA suggests that the Navy conduct real-time air monitoring at the time of release.

F003.13

### Air Quality

As stated on page 3-55, "Consequently, the general conformity rule does not apply to the Proposed Action within this nonattainment area since no change in emissions would occur." Page 3-59 states, "All chemical simulants previously used and proposed for future use are not considered criteria pollutants under the CAA and are not hazardous air pollutants." In addition, "Concentration levels modeled in 2002 for each simulant were within available NIOSH



guidelines, and there were no potential air quality effects from releasing these chemicals during testing. Additional modeling and testing performed in 2003, 2005, and 2009 showed no significant impacts from the testing of chemical simulants. There were no observable environmental effects during or after testing (Bossart, letter, February 9, 2006; NSWCDL, 2004; NSWCDL, 2005; NSWCDL, 2009).” The analyses conducted were at the No Action Alternative levels. The increase in chemical simulants proposed for Alternative 1 and 2 is significantly greater. EPA questions whether the significant increase in the quantity of chemical simulants proposed would produce the same results? Also, will the Navy continue to conduct modeling and testing? How frequently? If measurable results are found, what action(s) would the Navy take to ensure the safety of human health and the environment?

F003.14

F003.15

The DEIS determined that with a maximum increase of 483% for chemical/biological defense events and the addition of biological simulants, which may be mixed with chemical simulants, there would be negligible, long-term, direct and indirect, negative air quality impacts. Again, since historical modeling and testing has been performed at the No Action Alternative levels, it seems difficult to assume that the same determination would result with a much greater simulant concentration proposed (combined with emissions from other activities).

F003.16

In addition, page 4-173 states, “There is no research on synergistic effects between low toxicity chemical and BSL-1 biological simulants most likely because given the low level of risk from both elements no synergistic effects are expected.” The basis of this statement is unknown so it cannot be assumed that impacts would not occur. Although an air conformity analysis is not necessary, EPA reiterates the need to conduct real-time air monitoring during release activities to assess exposure to human health.

F003.17

The Navy should disclose at what threshold would there be concern for air quality impacts, especially when considering increased activities? The DEIS should also discuss risks to human health as a result of chemical and biological interactions. The DEIS did not address this nor did it discuss monitoring commitments to ensure that proposed activities would, in fact, result in negligible impacts. Please discuss if the Navy plans to analyze/monitor air quality in combination with an increase in activities.

F003.18

F003.19

F003.20

### Surface Water/Water Quality Wetlands

The DEIS states that RDT&E activities would have little contact with surface water resources and minimal potential to affect them. Low concentrations of munitions constituents and simulants would enter surface water with predicted concentrations below standard detection levels. Chemical/biological defense activities would have no direct impacts and negligible, short-term, indirect, negative impacts. Naturally-occurring biosafety level (BSL)-1 organisms used in bio defense tests would not affect surface water. Page 4-112 states “No modeling was performed for biological simulants, as NSWCDL would only use BSL-1 simulants. BSL-1 bacteria, fungi, viruses, and proteins rarely cause reactions or diseases, and many are ubiquitous in the environment.” EPA understands why no modeling was performed for biological simulants and why the Navy derived that there is no synergistic interaction with chemical and biological



simulants. However, when considering the quantity of biological simulants and activities proposed (cumulatively), EPA questions whether there will be negligible impacts to water quality and aquatic resources at the Alternative 2 level over the course of time.

F003.21

Page 4-114 states that “For each chemical simulant event, the point concentrations of simulants that potentially could settle on the water surface or on land and be dispersed into surface waters would not increase. Simulants entering the PRTR and other surface waters would be rapidly diluted to well-below-detection levels.” The DEIS states on page 4-116, “Simulant releases would be spaced so that no land or water area would be exposed multiple times to the same stimulant”. In addition, “Concentrations of chemical simulants that would reach land would be very low – well below concentrations that have been shown to cause adverse effects – as would the concentrations that could be deposited on terrestrial vegetation or to which wetland communities would be exposed.” How long can these simulants remain active in the environment? What spacing time is required to ensure that the land and water areas are not exposed multiple times to the same simulant? Is the dispersal rate greater within moving water? If so, is there concern that resources like wetlands, etc where there is less movement of water will have a greater impact?

F003.22

F003.23

Page 4-115 states, “Residues from the land-based firing of munitions and detonation of explosives that remain on land after operational range surface clearance could enter wetlands and floodplains via surface water or soil runoff and shallow groundwater discharge. Although some residues may migrate into these resources areas, they are expected occur at concentrations below most standard detection levels.” The DEIS states that chemical/biological simulant exposure would be very low also. This then raises the question as to the cumulative impact to resources from all activities proposed. Also, what contingency plan will the Navy implement if its activities do result in considerable impact to resources? What threshold of chemical and/or biological simulant concentration would pose a concern for surface water, water quality, and wetlands when considering increased activity?

F003.24

F003.25

Page 3-258 states, “The MDNR has routinely sampled water quality year round in the Chesapeake Bay and the Potomac River (as well as other tidal tributaries to the Chesapeake) since 1985 (MDNR, 2010). Five MDNR monitoring stations are located in the vicinity of NSF Dahlgren and the PRTR, as shown on Figure 3-10-4. The MDNR collects data 12 to 20 times a year at the four Potomac River stations (RET2.2, RE2.4, LE2.2, and LE2.3) and 16 times a year at Station CB5.3 in the Chesapeake Bay, near the mouth of the Potomac.” When viewing Figure 3.10-4, the MDNR monitoring stations are located closer to Maryland. Does Virginia sample water quality in the Chesapeake Bay and the Potomac River which would be in closer proximity to NSWCDD?

F003.26

Page 3-269 discusses turbidity and it states, “As river discharge data for the Potomac River were not available for a gage in the vicinity of the PRTR, data from the United States Geological Survey (USGS) monitoring station near Washington, DC (Station 01646502) were





used in the analysis. The analysis indicated negligible correlations for the three downstream stations – LE2.2, LE2.3, and CB5.3.” Can this be considered a fair account of the turbidity in the PRTR area?

F003.27

Page 3-273 of the DEIS states, “Analysis of the probability-based sampling data indicated that in terms of the condition of the health of the benthic communities, the Potomac River is in poor condition.” In addition (page 3-274) states, “The B-IBI scores within the Potomac River that are marginal or that meet the Chesapeake Bay benthic community restoration goals are relatively low compared to scores within the rest of the Chesapeake Bay watershed.” Because of significant efforts to improve the health of the Chesapeake Bay, it is important to discuss the Navy’s commitment to monitoring their activities in terms of water quality and water resources to ensure that the Navy’s activities do not impede efforts to restoring the Bay and to be accountable to that which is outlined in Executive Order 13508, *Strategy for Protection and Restoring the Chesapeake Bay Watershed*.

F003.28

### Biological Resources

Page 4-135 states, “NSWCDD removes fired military munitions and range scrap and debris that are exposed on the ground surface or partially buried.” How does the Navy remove munitions? Are munitions removed from wetlands, if entered?

F003.29

Page 4-156 states, “Most detonations would take place on the EEA Complex’s land ranges and would have negligible impact on aquatic invertebrates.” What percentage of the increase will occur in the EEA Complex and what percentage in the PRTR? In addition, page 3-177 states that “A total of approximately 33 million lbs of constituents are associated with the 343,815 total rounds fired into the PRTR, as recorded in the log books.” Discuss the possibility of burying organisms within sediment.

F003.30

F003.31

Page 4-159 (Vegetation, Plankton, Aquatic Invertebrates, and Fish) states, “...the quantities of chemical simulants released into the environment and the resulting concentrations of simulants in the river would be well below levels that could cause adverse effects.” Please state whether the Navy proposes any monitoring (both air and water). There should be a monitoring plan in place to evaluate if impacts will occur over time. In addition, EPA questions whether the Navy has considered an Adaptive Management Approach. An Adaptive Management Approach is the ecosystem management counterpart to “learning from experience.” These two concepts have two essential elements in common: 1) a feedback element that gathers and evaluates information about current performance (of an action or activity), and 2) an adjustment element that responds to feedback information by being able to alter future performance when needed.” Please identify if the Navy has considered this approach and incorporated it into the Proposed Action.

F003.32

F003.33

Page 4-161 (Potomac River Birds), did the Navy considered the possibility of whether the birds can ingest bullets or projectiles?

F003.34

Page 4-172, Please identify whether the bullets/projectiles contain lead and if so discuss impacts to the environment and/or biological resources.

F003.35

Page 4-173 states, "The use of chem/bio simulants would have negligible impacts on Potomac River birds. Based upon previous events and modeling presented in Sections 4.4.1.2 and 4.11.1.4, simulant concentrations that Potomac River birds would be exposed to are predicted to be well below levels that would cause toxicity to them. The use of BSL-1 biological simulants would have no effects on birds, as some of these organisms are already naturally present in the area." The basis of this determination is not clear and needs more information. The Navy's effort to coordinate with the U.S. Fish and Wildlife Service (FWS) is recognized with its letter included in Appendix F. Although, FWS had not yet responded, their input and/or concurrence is important.

F003.36

F003.37

Page 4-177 states that "Semi-aquatic mammals, such as the river otter, muskrat, and mink, may spend much of their time on or near the Potomac River in search of prey. Would bullets impact the habitat of these animals and would they be at risk?"

F003.38

### Environmental Justice

The methodology used to identify areas of potential Environmental Justice (EJ) concern is a matter of serious concern. The methodology used creates a major underestimation of areas of potential EJ concern. The errors in understand and application of the simple mathematics used in development benchmarks grossly misrepresents the manner in which the methodology and its mathematics are applied. The error is one that created additional burdens for any areas of EJ concern that may exist within the study area to an extent that may lead to a failure to identify all of the communities of EJ concern. The application of the mathematics in this inappropriate way may disenfranchise those seeking fair and appropriate treatment. To begin with, there seems to be some confusion as to the nature of the use of the state or county minority or low income population plus 20 percent. This is a very routine mathematical calculation that is used for any number of purposes. This calculation means that the percent minority population value as given in the document of 45.1% or Maryland is multiplied by 1.2 (that is the value plus 20 percent of the value which is 54.12 %). The benchmark value should have been 54.12%, based upon the correct application of the 20 percent value. The benchmark value is not calculated as 45.1 % plus 20 additional percent as was incorrectly done to arrive at a value of 65.1%. The benchmarks provided in this document are incorrectly calculated. There is a significant difference in the two benchmarking values 54.12% (the value plus 20 percent of the value) as opposed to 65.1% (the value plus an additional 20 percentage points added). When looking at the low income numbers, the same serious mistake is made. A low income percentage of 8.6 % is indicated to be the percent of residents in Maryland that are identified as low income residents. The benchmark calculated in this document is 28.6 percent, as opposed to what it should have been (8.6 times 1.2 which equals 10.32%). To demonstrate the gross error in the benchmark calculations, if we look at the percent increase in values from 8.6 percent to 28.6 percent, we are looking at an increase of 332.558 percent in the values. That is, the benchmark calculated is more than three times higher than the percent of low income population for the state. This does not appear to be an

F003.39

F003.40



appropriate application of the mathematics. This created an unfair and unreasonable burden upon the population that is unacceptable at any level.

The identification of at risk populations is so flawed that it makes any assessment inaccurate and invalid that has been done. This assessment needs to be redone with appropriate calculations, and the rethinking of much of the methodology.

F003.41

- a. The correct application of the percent minority or low income population percentage plus 20% of the value should be used throughout this document.
- b. All benchmarks should be recalculated.
- c. County percentages should be used for comparison to percentages of minority and low income populations in the respective states as values for comparison.
- d. Census tracts within the study area should be identified, and the demographics of those census tracts used in the analyses.
- e. In addition to the statistics for each minority population that were presented separately, it may also be helpful to add a column combining the entire minority populations found in a given census tract.
- f. It would be helpful to have tables with data at the census tract or block group level for the study areas that show percentages of minority and low income populations along with the state and county averages, all minority percentages combined, low income population percentages and the state and county averages, appropriate data for children, the elderly, or any other appropriate demographic for the study.

F003.42

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F003.46

The calculations used to benchmark children in the study area uses the same incorrect and unacceptable mathematics. The error for the children's benchmark was the value plus an additional 10 percentage points. Why? Why not 20? Why not 30? Why not 5? Please provide the rationale. The use of the methodology is incorrect and seems arbitrary.

F003.47

It cannot be determined if other aspects of the assessment are valid since the assessment methodology used to identify areas of potential Environmental Justice concern is flawed.

F003.48

Environmental Justice is something that needs to be assessed at the local level. The assessment requires you to know what is going on at the community level. Using county level data does not assist in identifying communities of concern. The communities in question will be too small to be identified through county level assessment. The assessments need to be done at the census tract, or preferably at the block group level.

F003.49

### Protection of Children from Environmental Health Risks

Page 4-25 states, "The RDT&E activities conducted by NSWCD would not disproportionately affect children, as activities would not have a greater effect on children than adults." This statement seems to disagree with the breath and scope of Executive Order 13045, *Protection of Children from Environmental Health Risks and Safety Risks*. As stated in Section 1 of the EO, "A growing body of scientific knowledge demonstrates that children may suffer

F003.50

disproportionately from environmental health risks and safety risks. These risks arise because: children's neurological, immunological, digestive, and other bodily systems are still developing; children eat more food, drink more fluids, and breathe more air in proportion to their body weight than adults, children's size and weight may diminish their protection from standard safety features; and children's behavior patterns may make them more susceptible to accidents because they are less able to protect themselves." Therefore, to the extent permitted by law and appropriate, and consistent with the agency's mission, each Federal agency:

- (a) Shall make it a high priority to identify and assess environmental health risks and safety risks that may disproportionately affect children; and
- (b) Shall ensure that its policies, programs, activities, and standards address disproportionate risks to children that result from environmental health risks or safety risks.

The DEIS states on page 4-25 that tract 8758.01 in St. Mary's County, Maryland is identified as having an unusual concentration of children. However, "no high or disproportionate adverse impacts would be borne by children as a result of the current RDT&E activities at NSWCDD." It is not clear how the Navy has come to this conclusion. Have studies been done to assess impacts to children? Has the population on tract 8758.01 been assessed to determine activities impact or is there a plan to monitor effects on this specific tract or others for trend setting information?

F003.51

### Health Impact Assessment

Considering the significant increase in activity proposed, the unknown threshold of exposure which may negatively impact human health, the wide span of potential impact and the cumulative impacts from other activities in the area, EPA suggests that this action warrants consideration of a Health Impact Assessment (HIA). An "HIA is a systematic process that uses an array of data sources and analytic methods and considers input from stakeholders to determine the potential effects of a proposed policy, plan, program, or project on the health of a population and the distribution of those effects within the population. Health impact assessment provides recommendations on monitoring and managing those effects." (*Adapted from the International Association for Impact Assessment's definition of health impact assessment.*)

F003.52

For more information, contact the Board on Environmental Studies and Toxicology at (202) 334-3812 or visit <http://dels.nas.edu/best>.

### Cumulative Impacts

Section 5, Cumulative Impacts and NEPA Considerations, presents a brief description of projects (past and present) in the area which may have the potential to influence the resources affected by the Proposed Action. It would have been helpful to have had the referenced projects depicted on a map to better appreciate where they are located in proximity to NSWCDD.

F003.53





Section 5.2.5, The Summary of Cumulative Impacts Relative to the Proposed Action, presents a discussion of cumulative impacts to resources. Considering that other agencies/activities are ongoing and contributing to the incremental increase in impact to resources, is there a coordination effort among organizations to monitor resource impacts, especially with the DOD agencies?

] F003.54

Miscellaneous

Page 3-270, the "Buffering capacity" definition in the blue box is not complete; it is missing text.

] F003.55





IN REPLY REFER TO:

# United States Department of the Interior

OFFICE OF THE SECRETARY  
Office of Environmental Policy and Compliance  
Custom House, Room 244  
200 Chestnut Street  
Philadelphia, Pennsylvania 19106-2904



October 1, 2012

9043.1  
ER 12/590

Commander  
Naval Surface Warfare Center Dahlgren Division  
6149 Welsh Road, Suite 203  
Dahlgren, VA 22448-5130  
Attn: Code C6 (NSWCDD PAO)

Subject: Draft Environmental Impact Statement (DEIS), for the Outdoor Research,  
Development, Test and Evaluation Activities Potomac River Test Range, Naval  
Facilities Dahlgren, VA

Dear Commander:

The U.S. Department of the Interior, Office of Environmental Policy and Compliance, has reviewed the subject draft environmental impact statement and offers the following comments.

## COMMENTS

### Chapter 2 and Chapter 4

General: These sections do not contain sufficient information about how the ordinance, chemical, and biological materials will be recovered after they are discharged, nor do they contain sufficient information on the chemical composition of the ordinance to allow an assessment of environmental residence times. This information is needed to assess the potential to affect fish and wildlife populations.

F004.1

F004.2

We suggest that the chemical content of the ordinance be identified along with its effect on water and sediment composition (similar to the discussion in section 4-8 on human toxicity). The DEIS should describe how long the ordinance will remain in the environment, the potential for ingestion by wildlife or fish, and the cumulative impact of the material on land, wetlands, and in water, resulting from that potential. This analysis should also contain estimates of the effects of higher frequency of exposure as proposed in the DEIS.

F004.3

F004.4

### 2.5.4.2 Likely Progression of Chem/Bio RDT&E

In any environmental risk assessment the toxicity of a chemical compound is dependent on the concentration (dose). We suggest that the DEIS provide information on the expected

concentrations of chemical and biological simulants in air and water along with the toxicity to exposed organisms, the duration of exposure, and the potential cumulative effects of the higher frequency exposures proposed. Without the concentration information, it is not possible to assess the biologic impact and to support the finding of Negligible Effects.

Thank you for the opportunity to review and comment on the DEIS. If you have any questions concerning our comments, please contact Gary Patterson, Acting USGS Coordinator for Environmental Document Reviews, at (303) 236-1476 or at [glpatter@usgs.gov](mailto:glpatter@usgs.gov)

Sincerely,

A handwritten signature in black ink, appearing to read 'Lindy Nelson', with a stylized flourish at the end.

Lindy Nelson  
Regional Environmental Officer

cc: Gary Patterson, USGS  
FWS, VA

-----Original Message-----

From: Brown, Kristine L CIV (US) [<mailto:kristine.l.brown.civ@mail.mil>]

Sent: Thursday, October 04, 2012 11:58 AM

To: dlgr\_nswc\_eis

Cc: Banks, Terry L CIV (US)

Subject: Draft EIS Comments (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

Good afternoon. Attached are comments from Fort A.P. Hill regarding the Draft Environmental Impact Statement for Outdoor Research, Development, Test and Evaluation Activities.

My apologies for being a couple of days late. If you have any questions regarding our comments, please feel free to contact me at: 804-633-8417

V/R,

Kristine

Kristine L. Brown CMNRP, AWB

NEPA Planner - Fort A.P. Hill

Department of the Army

19952 N. Range Rd, Fort A.P. Hill, VA 22427

Comm: (804) 633-8417 DSN: 578-8417

Fax: (804) 633-8443

<https://www.facebook.com/FortAPHillEnvironmentalDivision>

Classification: UNCLASSIFIED

Caveats: NONE



NEPA Comment  
Form.xls



Draft Dahlgren EIS Review Comments					
Comment Number	Page Number	Section/Figure/ Table/Appendix	Line Number	Commentor	Comment
1	5-10	5.1.4		Jason Applegate	This information is no longer current. A re-inventory of Natural Heritage resources was completed after the FEIS was published. Contact FAPH Natural Resources for updated information.
2	5-21	5.2.1		Jason Applegate	(1) FAPH's ACUB goal is to permanently preserve approximately 35,000 acres of open space around the installation. However, the acreages cited in the draft EIS per priority zone are no longer current. Only cite the 35,000 +/- acreage. (2) FAPH ACUB has contributed towards the permanent preservation of approximately 10,000 acres since 2006. All ACUB projects undergo NEPA Analysis.
3	5-23	5.2.2		Jason Applegate	The NOVA Regional Conservation Forum has not met for some time. Unsure if this is an active initiative.
4	3-91	fig 3.5-5 and -6		Sergio Sergi	General comment on section: Noticed that noise models results of PK50 Peak levels reach 115 dbp or higher near the northern boundary of Fort AP Hill. Was PK15 also modeled? If it wasn't why. Our concern is that our northern boundary neighbors could report noise complaints to Fort AP Hill associated with Dahlgren activities. We understand that these events associated with the 8"/55 guns are very infrequent but it would be very beneficial to Fort AP Hill staff to be notified prior to testing.
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**STATE AGENCY  
COMMENTS**

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**Maryland  
Transportation  
Authority**

Martin O'Malley  
Governor

Anthony Brown  
Lt. Governor

Darrell B. Mobley  
Acting Chairman

Peter J. Basso  
Rev. Dr. William C. Calhoun, Sr.  
Mary Beyer Halsey  
Arthur Hock  
A. Bradley Mims  
Michael J. Whitson  
Walter E. Woodford, Jr., P.E.

Harold M. Bartlett  
Executive Secretary

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1-866-713-1596

e-mail: [mdta@mdta.maryland.gov](mailto:mdta@mdta.maryland.gov)

[www.mdta.maryland.gov](http://www.mdta.maryland.gov)



August 28, 2012

Naval Surface Warfare Center  
Dahlgren Division  
6149 Welsh Road, Suite 203  
Dahlgren, Virginia 22448-5117

Dear Commander M. H. Smith:

Thank you for the opportunity to review the Naval Surface Warfare Center, Dahlgren Division's Outdoor Research, Development, Test, and Evaluation Activities Draft Environment Impact Statement (DEIS). We have reviewed the DEIS and have no comments at this time.

5001.1

Should you have any questions or need any additional information regarding the Governor Harry W. Nice Memorial Bridge Improvement Project, please do not hesitate to contact me at 410-537-5665 or via email at [gsmith2@mdta.state.md.us](mailto:gsmith2@mdta.state.md.us). You may also visit the project's webpage for updates at [www.mdta.maryland.gov](http://www.mdta.maryland.gov).

Sincerely,

Glen A. Smith  
Project Manager

**MDP**  
*Maryland Department of Planning*

*Martin O'Malley*  
Governor  
*Anthony G. Brown*  
Lt. Governor

*Richard Eberhart Hall*  
Secretary  
*Matthew J. Power*  
Deputy Secretary

September 6, 2012

M. H. Smith  
Naval Surface Warfare Center Dahlgren Division  
Department of the Navy  
6149 Welsh Road, Suite 203  
Attn: Code C6  
Dahlgren, VA 22448-5117

**STATE CLEARINGHOUSE REVIEW PROCESS**

State Application Identifier: MD20120828-0630

Reviewer Comments Due By: September 18, 2012

Project Description: Draft Environmental Impact Statement (EIS): Naval Surface Warfare Center, Dahlgren Division Outdoor Research, Development, Test, and Evaluation Activities

Project Location: State(s) of Maryland and Virginia; and the District of Columbia  
Clearinghouse Contact: Sophia Richardson

Dear Smith:

Thank you for submitting your project for intergovernmental review. Participation in the Maryland Intergovernmental Review and Coordination (MIRC) process helps ensure project consistency with plans, programs, and objectives of State agencies and local governments. MIRC enhances opportunities for approval and/or funding and minimizes delays by resolving issues before project implementation.

The following agencies and/or jurisdictions have been forwarded a copy of your project for their review: the Maryland Department(s) of Natural Resources, the Environment, Transportation; the County(ies) of St. Mary's, Charles; including Maryland Historical Trust. They have been requested to contact your agency directly by **September 18, 2012** with any comments or concerns and to provide a copy of those comments to the State Clearinghouse for Intergovernmental Assistance. Please be assured that after **September 18, 2012** all MIRC requirements will have been met in accordance with Code of Maryland Regulations (COMAR 34.02.01.04-.06). The project has been assigned a unique State Application Identifier that should be used on all documents and correspondence.

5002.1

If you need assistance or have questions, contact the State Clearinghouse staff noted above at 410-767-4490 or through e-mail at [srichardson@mdp.state.md.us](mailto:srichardson@mdp.state.md.us). Thank you for your cooperation with the MIRC process.

Sincerely,

*Linda C. Janey*  
Linda C. Janey, J.D., Assistant Secretary

**P.S. Great News!!** Your project may be eligible to be "FastTracked" through the State permitting processes. For more information, go to: <http://easy.maryland.gov/wordpress/fasttrack/>.

LC:SR

Enclosure(s)

cc: Greg Golden - DNR  
Melinda Gretsinger - MDOT

Steven Ball - CHAS  
Beth Cole - MHI

Phil Shire - STMA  
Amanda Degen - MDE

12-0630\_NDC\_NEW.doc

301 West Preston Street • Suite 1101 • Baltimore, Maryland 21201-2305

Telephone: 410.767.4500 • Fax: 410.767.4480 • Toll Free: 1.877.767.6272 • TTY Users: Maryland Relay

Internet: [Planning.Maryland.gov](http://Planning.Maryland.gov)





Good morning Mr. Smith:

I am providing you with all of the comments received by the Clearinghouse for **MD20120828-0630 - Draft Environmental Impact Statement (EIS): Naval Surface Warfare Center, Dahlgren Division Outdoor Research, Development, Test, and Evaluation Activities**. This concludes the review of this project.

Thanks Sophia

### 1. Maryland Department of Planning:

C1 - It is Consistent with our plans, programs, and objectives

] S005.1

C2 - It is **Consistent** with the policies contained in **Executive Order 01.01.1992.27** (Maryland Economic Growth, Resource Protection, and Planning Act of 1992), **Executive Order 01.01.1998.04** (Smart Growth and Neighborhood Conservation Policy), and our plans, programs, and objectives.

] S005.2

C7 - It is consistent with the requirements of State Finance and Procurement Article 5-7B-02; 03; 04 and 05 Smart Growth and Neighborhood Conservation (Priority Funding Areas).

] S005.3

### 2. Maryland Department of Natural Resources:

R2 – See attached

**CONTINGENT UPON CERTAIN ACTIONS:** It is generally **Consistent** with our plans, programs and objectives contingent upon certain actions being taken as noted in the attached comment(s).

] S004.1

### 3. Maryland Department of the Environment:

R2 – See attached

**CONTINGENT UPON CERTAIN ACTIONS:** It is generally **Consistent** with our plans, programs and objectives contingent upon certain actions being taken as noted in the attached comment(s).

] S003.1

### 4. Charles County:

R2 – See attached

**CONTINGENT UPON CERTAIN ACTIONS:** It is generally **Consistent** with our plans, programs and objectives contingent upon certain actions being taken as noted in the attached comment(s).

### 5. Maryland Department of Transportation:

R1 - As far as can be determined at this time, the subject has no unacceptable impacts on the

] S006.1

Martin O'Malley, Governor  
Anthony G. Brown, Lt. Governor

Richard Eberhart Hall, AICP, Secretary  
Matthew J. Power, Deputy Secretary

plans or programs of the Department of Transportation.

] S006.1

**6. Maryland Historical Trust:**

C3 - No adverse effect on historic properties

] S007.1

**7. St. Mary's County:**

C1 – Note lack of noise Monitoring Locations for the upper LDZ bordering St. Mary's "County





## MARYLAND DEPARTMENT OF THE ENVIRONMENT

1800 Washington Boulevard • Baltimore, Maryland 21230

410-537-3000 • 1-800-633-6101 • <http://www.mde.state.md.us>

Martin O'Malley  
Governor

Robert M. Summers, Ph.D.  
Secretary

Anthony G. Brown  
Lieutenant Governor

September 18, 2012

M. H. Smith  
Naval Surface Warfare Center Dahlgren Division  
Department of the Navy  
6149 Welsh Road, Suite 203  
Attn: Code C6  
Dahlgren, VA 22448-5117

RE: State Application Identifier: MD20120828-0630  
Project: Draft Environmental Impact Statement (EIS): Naval Surface Warfare Center, Dahlgren Division Outdoor Research, Development, Test, and Evaluation Activities

Dear M. H. Smith:

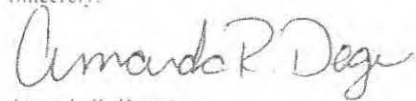
Thank you for the opportunity to review the above referenced project. The document was circulated throughout the Maryland Department of the Environment (MDE) for review, and the following comments are offered for your consideration.

1. Any above ground or underground petroleum storage tanks, which may be utilized, must be installed and maintained in accordance with applicable State and federal laws and regulations. Underground storage tanks must be registered and the installation must be conducted and performed by a contractor certified to install underground storage tanks by the Land Management Administration in accordance with COMAR 26.10. Contact the Oil Control Program at (410) 537-3442 for additional information. ] S003.2
2. If the proposed project involves demolition, Any above ground or underground petroleum storage tanks that may be on site must have contents and tanks along with any contamination removed. Please contact the Oil Control Program at (410) 537-3442 for additional information. ] S003.3
3. Any solid waste including construction, demolition and land clearing debris, generated from the subject project, must be properly disposed of at a permitted solid waste acceptance facility, or recycled if possible. Contact the Solid Waste Program at (410) 537-3315 for additional information regarding solid waste activities and contact the Waste Diversion and Utilization Program at (410) 537-3314 for additional information regarding recycling activities. ] S003.4
4. The Waste Diversion and Utilization Program should be contacted directly at (410) 537-3314 by those facilities which generate or propose to generate or handle hazardous wastes to ensure these activities are being conducted in compliance with applicable State and federal laws and regulations. The Program should also be contacted prior to construction activities to ensure that the treatment, storage or disposal of hazardous wastes and low-level radioactive wastes at the facility will be conducted in compliance with applicable State and federal laws and regulations. ] S003.5
5. The proposed project may involve rehabilitation, redevelopment, revitalization, or property acquisition of commercial, industrial property. Accordingly, MDE's Brownfields Site Assessment and Voluntary Cleanup Programs (VCP) may provide valuable assistance to you in this project. These programs involve environmental site assessment in accordance with accepted industry and financial institution standards for property transfer. For specific information about these programs and eligibility, please contact the Land Restoration Program at (410) 537-3437. ] S003.6

M. H. Smith  
September 18, 2012  
Page Two

Again, thank you for giving MDE the opportunity to review this project. If you have any questions or need additional information, please feel free to call me at (410) 537-4120.

Sincerely,

A handwritten signature in cursive script that reads "Amanda R. Degen".

Amanda R. Degen  
MDE Acting Clearinghouse Coordinator  
Office of Communications

cc: Sophia Richardson, State Clearinghouse

**Comments on MD20120828-0630 - the Naval Surface Warfare Center, Dahlgren Division Outdoor Research, Development and Test and Evaluation Activities, Draft Environmental Impact Statement.**

In response to your request dated 14 August 2012, following are Maryland DNR's comments concerning the Draft Environmental Impact Statement concerning the Naval Surface Warfare Center, Dahlgren Division Outdoor Research, Development and Test and Evaluation Activities. Three alternatives are analyzed in this EIS: the No Action Alternative, which addresses historical and current mission activities; Alternative 1 which addresses baseline activity levels plus known future requirements; and Alternative 2, which addresses current baseline requirements, known future requirements, and projected increases in the foreseeable future based on current trends.

**Consistent with Maryland's previous communication with the U.S. Navy regarding training and testing activities in coastal areas, Maryland recommends the No Action Alternative to minimize coastal resource impacts and coastal use conflicts. The No Action Alternative keeps training and testing at the same level as contained in existing Master Plans.**

S004.2

Consistency with the Coastal Zone Management Act

Appendix H contains two Consistency Determinations (CDs), one for Virginia's Coastal Program and one from Maryland's Coastal Program. Regarding the CD intended for Maryland, please note that Navigational comments focus on the noise policy. In addition to this issue, a Charles County commenter noted a potential use conflict with a marina and development project on the Maryland side of the Potomac River. The proposed increased training and testing activities may conflict with other activities in the Potomac River, such as recreational and commercial fishing, recreational boating and War of 1812 related events. Please consider both the above comments and the General Comments below in assessing the consistency of proposed activities with Maryland's enforceable policies.

S004.3

S004.4

S004.5

General Comments

For the above referenced facility, (Potomac River Watershed), we have the following information on key natural resources:

1. DNR no longer tracks Bald Eagle nests therefore the applicant should refer to the National Bald Eagle Management Guidelines, which can be found online at <http://www.fws.gov/northeast/EcologicalServices/eagle/guidelines/index.html>. We also recommend that you consult with the U.S. Fish and Wildlife Service concerning this issue
2. The facility is a near a waterfowl concentration and staging area. If there is to be any construction of water-dependent facilities or an increase in the noise levels from the Center, please contact Larry Hindman of the Wildlife and Heritage Service (WHS) Service at (410) 221-8838 ext. 105 for further technical assistance regarding waterfowl. In addition, it may be beneficial to initiate a group of people who are impacted by the proposed increased level of noise to recommend workable solutions to this potential problem.
3. Beaches on the site provide likely terrapin and horseshoe crab spawning habitat and therefore permanent and seasonal disturbance to the beach should be minimized. MD DNR Fisheries Service can be contacted for specific guidelines.
4. This area of the Potomac River is downstream of pristine largemouth bass (LMB) habitat and if shoreline erosions control projects are warranted, we

S004.6

S004.7

S004.8

S004.9

S004.10

- requested that Joe Love (MD DNR Fisheries Service, black bass biologist) be contacted at 410-260-8257. S004.10
5. Submerged aquatic vegetation (SAV) is also adjacent to the site, although it appears to be limited in distribution, it is important in erosion control, water quality benefits, and fish habitat. Therefore, impacts to SAV should be avoided, and if impacts are proposed in the vicinity of SAV beds, impacts should be minimized. S004.11
6. Increased exclusion of commercial and recreational boaters due to increased naval warfare activities as stated in your DEIS may significantly impact the livelihood of some commercial fishermen, therefore we recommend contact the Potomac River Fish Commission, obtaining a list of licensed fishermen and soliciting comments directly from this group to more accurately assess this impact. Recommend a web-based and text message system with river and creek restrictions updated daily, allowing recreational and commercial boaters access to the latest up-to-date information. S004.12
7. Natural oyster bars are also near the property, any potential impacts should be minimized but the Department will provide specific recommendations upon request. S004.13
8. According to our inundation maps, this site is highly susceptible to sea level rise and therefore we would recommend a proactive plan to address sea level rise using the framework outlined on the State's vulnerability to sea level rise webpage: [http://www.dnr.state.md.us/bay/czm/sea\\_level\\_rise.html](http://www.dnr.state.md.us/bay/czm/sea_level_rise.html) S004.14
9. The Potomac River in this vicinity is very important striped bass and anadromous fish species spawning sites. Fish species in this area may also include Atlantic sturgeon, a potentially federally protected species, as such; disturbance to in-river habitat should be both seasonal and minimized. Generally, no instream work likely to result in suspended sediments within the water column is allowed in this area of the Potomac River between 15 February and 15 June, inclusive, of any year. S004.15
10. The USCG should be consulted concerning Potomac River mainstem boating modifications. S004.16
11. Recommend continued fish and shellfish tissue analysis to determine if the increases in the Center's activities will be detrimental to the fish in the area. This should consider different life stages especially the older fish in the system. S004.17
12. Investigate point and non-point source pollution areas and rectify these areas. S004.18
13. Determine (model) the potential effects to wildlife due to magnetic and electric field exposure. S004.19

Concerning the above general comments, please contact:

Robert Sadzinski,  
Environmental Review Unit  
Maryland Department of Natural Resources  
Tawes State Office Building, D-2  
Annapolis, MD 21401  
410-260-8312





**COMMONWEALTH of VIRGINIA**  
**DEPARTMENT OF CONSERVATION AND RECREATION**

203 Governor Street  
Richmond, Virginia 23219-2010  
(804) 786-1712

**MEMORANDUM**

DATE: September 21, 2012  
TO: Dept of Navy  
FROM: Roberta Rhur, Environmental Impact Review Coordinator  
SUBJECT: DCR 12-057, Outdoor Research and Testing Activities, Naval Surface Warfare Center Dahlgren

Division of Natural Heritage

The Department of Conservation and Recreation's Division of Natural Heritage (DCR) has searched its Biotics Data System for occurrences of natural heritage resources from the area outlined on the submitted map. Natural heritage resources are defined as the habitat of rare, threatened, or endangered plant and animal species, unique or exemplary natural communities, and significant geologic formations.

According to the information currently in our files, the Little Ferry, Gambo Creek, Gambo Creek South and Tetotum Flats Conservation Sites are located within the project area. Conservation sites are tools for representing key areas of the landscape that warrant further review for possible conservation action because of the natural heritage resources and habitat they support. Conservation sites are polygons built around one or more rare plant, animal, or natural community designed to include the element and, where possible, its associated habitat, and buffer or other adjacent land thought necessary for the element's conservation. Conservation sites are given a biodiversity significance ranking based on the rarity, quality, and number of element occurrences they contain; on a scale of 1-5, 1 being most significant. The Little Ferry, Gambo Creek, Gambo Creek South and Tetotum Flats Conservation Sites have all been given a biodiversity significance ranking of B5, which represents a site of general significance. The natural heritage resource of concern at these sites is:

*Haliaeetus leucocephalus*

Bald eagle

G5/S2S3B,S3N/NL/LT

The Bald eagle breeds from Alaska eastward through Canada and the Great Lakes region, along coastal areas off the Pacific and Atlantic Oceans, and the Gulf of Mexico, and in pockets throughout the western United States (NatureServe, 2009). In Virginia, it primarily breeds along the large Atlantic slope rivers (James, Rappahannock, Potomac, etc) with a few records at inland sites near large reservoirs (Byrd, 1991). Bald eagle nest sites are often found in the midst of large wooded areas near marshes or other bodies of water (Byrd, 1991). Bald eagles feed on fish, waterfowl, seabirds (Campbell et. al., 1990), various mammals and carrion (Terres, 1980). Please note that this species is currently classified as threatened by the Virginia Department of Game and Inland Fisheries (VDGIF).

Threats to this species include human disturbance of nest sites (Byrd, 1991), habitat loss, biocide contamination, decreasing food supply and illegal shooting (Herkert, 1992).

Due to the legal status of the Bald eagle, DCR recommends coordination with Virginia's regulatory authority for the management and protection of this species, the VDGIF, to ensure compliance with the Virginia Endangered Species Act (VA ST §§ 29.1-563 – 570).

] S008.1

There are no State Natural Area Preserves under DCR's jurisdiction in the project vicinity.

] S008.2

Under a Memorandum of Agreement established between the Virginia Department of Agriculture and Consumer Services (VDACS) and the DCR, DCR represents VDACS in comments regarding potential impacts on state-listed threatened and endangered plant and insect species. The current activity will not affect any documented state-listed plants or insects.

] S008.3

New and updated information is continually added to Biotics. Please contact DCR for an update on this natural heritage information if a significant amount of time passes before it is utilized.

] S008.4

The Virginia Department of Game and Inland Fisheries (VDGIF) maintains a database of wildlife locations, including threatened and endangered species, trout streams, and anadromous fish waters that may contain information not documented in this letter. Their database may be accessed from <http://vafwis.org/fwis/> or contact Gladys Cason (804-367-0909 or [Gladys.Cason@dgif.virginia.gov](mailto:Gladys.Cason@dgif.virginia.gov)).

#### Division of Stormwater Management

A review of the project indicates that there is no construction proposed; therefore, this division has no comment.

] S008.5

The remaining DCR divisions have no comments regarding the scope of this project. Thank you for the opportunity to comment.

] S008.6

Cc: Amy Ewing, VDGIF

## Literature Cited

- Byrd, M.A. 1991. Bald eagle. In *Virginia's Endangered Species: Proceedings of a Symposium*. K. Terwilliger ed. The McDonald and Woodward Publishing Company, Blacksburg, Virginia. Pp. 499-501.
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- Herkert, J. R., editor. 1992. *Endangered and threatened species of Illinois: status and distribution. Vol. 2: Animals*. Illinois Endangered Species Protection Board. iv + 142 pp.
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## COMMONWEALTH of VIRGINIA

### DEPARTMENT OF ENVIRONMENTAL QUALITY

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Douglas W. Domenech  
Secretary of Natural Resources

David K. Paylor  
Director

(804) 698-4000  
1-800-592-5482

October 18, 2012

Commander, Attn: Code C-6  
Naval Surface Warfare Center, Dahlgren Division  
6149 Welsh Road, Suite 203  
Dahlgren, Virginia 22448

RE: Draft Environmental Impact Statement and Federal Consistency Determination,  
Outdoor Research, Development, Test, and Evaluation Activities at Naval  
Surface Warfare Center, Dahlgren (DEQ-12-152F)

Dear Sir or Madam:

The Commonwealth of Virginia has completed its review of the above-referenced Draft Environmental Impact Statement, which includes a Federal Consistency Determination as Appendix H. The Department of Environmental Quality is responsible for coordinating Virginia's review of federal environmental documents prepared pursuant to the National Environmental Policy Act, and Federal Consistency Determinations prepared pursuant to the Coastal Zone Management Act. The following state agencies joined in this review:

Department of Environmental Quality  
Department of Game and Inland Fisheries  
Department of Conservation and Recreation  
Department of Health  
Department of Historic Resources.

In addition, the following agencies, planning district commission, and locality were invited to comment:

Department of Agriculture and Consumer Services  
Marine Resources Commission  
Virginia Institute of Marine Science  
Department of Aviation  
George Washington Regional Commission  
King George County.



## DESCRIPTION OF PROPOSED ACTIONS

The Navy proposes to expand research, development, test, and evaluation activities within the Potomac River Test Range and Explosives Experimental Area complexes, the Mission Area, and special use airspace at the Naval Support Facility, Dahlgren in King George County. These activities include outdoor operations requiring the use of ordnance (guns and explosives), electromagnetic energy, lasers, and chemical and biological simulates (non-toxic substances used to mimic dangerous agents). The purpose of the proposed action is to enable the Naval Surface Warfare Center, Dahlgren Division to meet current and future mission-related warfare and force protection requirements by providing research, development, testing, and evaluation of surface ship combat systems, ordnance, lasers and directed energy systems, force level warfare, and homeland and force protection. The Draft Environmental Impact Statement (Draft EIS) analyzes three alternatives:

- No-Action Alternative, addressing historical and current mission activities (Draft EIS, pages 2-5 through 2-9, sections 2.4 through 2.4.5);
- Alternative 1, addressing baseline activity levels plus known future requirements (Draft EIS, pages 2-9 through 2-22, sections 2.5. through 2.5.5); and
- Alternative 2 (Preferred Alternative), addressing current baseline requirements, known future requirements, and projected increases in the foreseeable future, based on current trends (pages 2-22 through 2-23, sections 2.6 and 2.7).

The Draft EIS includes a Federal Consistency Determination (Appendix H). The Federal Consistency Determination indicates, in broad terms, that Alternative 1 would involve approximately doubling the existing ("No-Action") activity level, and that Alternative 2 would involve an increase of 15 percent over Alternative 1 activity levels (FCD, page H-5, "Alternatives" heading). Greater specificity is available in the Draft EIS in Table 2-2, page 2-6. See also "Federal Consistency....," below.

## ENVIRONMENTAL IMPACTS AND MITIGATION

**1. Surface Water, Wastewater, and Wetlands.** According to the Navy, none of the alternatives would involve filling of, or other significant physical alterations to, wetlands on or outside the Dahlgren installation. Concentrations of residues from ordnance activities would be virtually undetectable, as explained in Appendix F of the Draft EIS (FCD, page H-10, "Wetlands Management" heading). In addition, the Navy states that the Navy-owned sewage treatment plant on the installation would continue operating as at present (FCD, pages H-10 and H-11, "Point Source Pollution Control" heading).

**1(a) Agency Jurisdiction.** The State Water Control Board (SWCB) promulgates Virginia's water regulations, covering a variety of permits to include Virginia Pollutant Discharge Elimination System (VPDES) Permit, Virginia Pollution Abatement Permit, Surface and Groundwater Withdrawal Permit, and the Virginia Water Protection Permit (VWPP). The VWPP is a state permit which governs wetlands, surface water, and



surface water withdrawals/impoundments. It also serves as § 401 certification of the federal *Clean Water Act* § 404 permits for dredge and fill activities in waters of the U.S. The VWPP Program is under the Office of Wetlands and Water Protection/Compliance, within the DEQ Division of Water Quality Programs. In addition to central office staff that review and issue VWP permits for transportation and water withdrawal projects, the seven DEQ regional offices perform permit application reviews and issue permits for the covered activities.

**1(b) Agency Findings.** According to DEQ's Northern Regional Office, it appears from the Draft EIS that impacts to water resources from the proposed actions will be negligible. Also, wastewater generation would not increase, and the Navy's sewage treatment plant, located at the southern end of Mainside, would continue to meet current and future wastewater requirements.

S009.1

**1(c) Requirements.** In the event impacts to surface waters are contemplated by the Navy, a Virginia Water Protection Permit may be required from DEQ's Northern Regional Office (DEQ-NRO). See "Regulatory and Coordination Needs," item 4, below.

**1(d) General Recommendations.** In general, DEQ recommends that surface water and wetland impacts be avoided to the maximum extent practicable. To minimize unavoidable impacts to wetlands and waterways, DEQ recommends the following practices:

S009.2

- Use directional drilling from upland locations for stream crossings, to the extent practicable. If directional drilling is not feasible, stockpile the material excavated from the trench for replacement.
- Operate machinery and construction vehicles outside of stream-beds and wetlands; use synthetic mats when in-stream work is unavoidable;
- Construct trenches in a manner that does not drain the wetlands (for example, backfilling with extensive gravel layers thereby creating a French drain effect).
- Preserve the top 12 inches of trench material removed from wetlands for use as wetland seed and root-stock in the excavated area.
- Design erosion and sedimentation controls in accordance with the most current edition of the *Virginia Erosion and Sediment Control Handbook*. These controls should be in place prior to clearing and grading, and maintained in good working order to minimize impacts to State waters. The controls should remain in place until the area is stabilized.
- Place heavy equipment, located in temporarily impacted wetland areas, on mats, geotextile fabric, or use other suitable measures to minimize soil disturbance, to the maximum extent practicable.
- Restore all temporarily disturbed wetland areas to pre-construction conditions and plant or seed with appropriate wetlands vegetation in accordance with the cover type (emergent, scrub-shrub, or forested). The applicant should take all appropriate measures to promote re-vegetation of these areas. Stabilization and restoration efforts should occur immediately after the temporary disturbance of each wetland area instead of waiting until the entire project has been completed.



- Place all materials which are temporarily stockpiled in wetlands, designated for use for the immediate stabilization of wetlands, on mats, geotextile fabric in order to prevent entry in state waters. These materials should be managed in a manner that prevents leachates from entering state waters and must be entirely removed within thirty days following completion of that construction activity. The disturbed areas should be returned to their original contours, stabilized within thirty days following removal of the stockpile, and restored to the original vegetated state.
- Flag or mark all non-impacted surface waters within the project or right-of-way limits that are within 50 feet of any clearing, grading, or filling activities for the life of the construction activity within that area. The project proponent should notify all contractors that these marked areas are surface waters where no activities are to occur.
- Employ measures to prevent spills of fuels or lubricants into state waters.

**1(e) Conclusions.** Provided that all necessary VWPP authorizations are obtained and complied with, DEQ-NRO concurs that this project will be consistent with the requirements of the VWPP program, and thus consistent with the Wetlands Management enforceable policy of the VCP.

S009.3

In addition, DEQ-NRO did not disagree with the Navy's determination that the proposed action would be consistent with the Point Source Pollution Control enforceable policy of the VCP (see item 1(b), above, and also FCD, pages H-10 and H-11, "Point Source Pollution Control" heading).

S009.4

**2. Subaqueous Lands Management.** According to the Navy, the proposed action would not involve any encroachment in, on, or over state-owned subaqueous lands (FCD, page H-10, "Subaqueous Lands Management" heading).

**2(a) Agency Jurisdiction.** The Virginia Marine Resources Commission (VMRC), pursuant to Section 28.2-1204 of the Code of Virginia, has jurisdiction over any encroachments in, on, or over any state-owned rivers, streams, or creeks in the Commonwealth. For any development that involves encroachments channelward of ordinary high water along natural rivers and streams, a permit is required from VMRC.

The VMRC serves as the clearinghouse for the Joint Permit Application used by the:

- VMRC for encroachments on or over state-owned subaqueous beds as well as tidal wetlands;
- U.S. Army Corps of Engineers for issuing permits pursuant to Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act;
- DEQ for issuance of a Virginia Water Protection Permit; and
- Local wetlands boards for impacts to wetlands.

**2(b) Agency Comments.** VMRC did not respond to our request for comments. Questions may be directed to VMRC (Tony Watkinson, telephone 9757) 247-2200).

S009.5



**2(c) Conclusion.** The VMRC did not disagree with the Navy's determination that subaqueous lands would not be affected (item 2, above).

S009.5

**3. Erosion and Sediment Control, and Stormwater Management.** The Draft EIS discusses impacts of the preferred alternative, Alternative 2, to soils and sediments in Chapter 4 (pages 4-104 through 4-105, sections 4.93. through 4.9.5).

**3(a) Agency Jurisdiction.** The Department of Conservation and Recreation (DCR) Division of Stormwater Management (DSM) administers the *Virginia Erosion and Sediment Control Law and Regulations (VESCL&R)* and *Virginia Stormwater Management Law and Regulations (VSWML&R)*.

**3(b) Agency Comments.** DCR's review of the project indicates that there is no construction proposed; therefore, DCR's Division of Stormwater Management has no comment.

S008.5

**3(c) Requirements.** The following guidance is provided for any future projects with land-disturbing activities.

**(i) Erosion and Sediment Control and Stormwater Management Plans**

According to DCR-DSM guidance, the Navy and its authorized agents conducting regulated land-disturbing activities on private and public lands in the state must comply with *VESCL&R* and *VSWML&R*, including coverage under the general permit for stormwater discharge from construction activities, and other applicable federal nonpoint source pollution mandates (e.g. Clean Water Act-Section 313, federal consistency under the Coastal Zone Management Act). Clearing and grading activities, installation of staging areas, parking lots, roads, buildings, utilities, borrow areas, soil stockpiles, and related land-disturbing activities that result in land disturbance equal to or greater than 2,500 square feet would be regulated by *VESCL&R*. Accordingly, the Navy must prepare and implement an erosion and sediment control (ESC) plan to ensure compliance with state law and regulations. The ESC plan is submitted to the DCR Regional Office that serves the area where the project is located for review for compliance. The Navy is ultimately responsible for achieving project compliance through oversight of on-site contractors, regular field inspection, prompt action against non-compliant sites, and other mechanisms consistent with agency policy. [Reference: *VESCL* §10.1-567]

**(ii) Virginia Stormwater Management Program General Permit for Stormwater Discharges from Construction Activities**

DCR is responsible for the issuance, denial, revocation, termination and enforcement of the Virginia Stormwater Management Program (VSMP) General Permit for Stormwater Discharges from Construction Activities related to municipal separate storm sewer systems (MS4s) and construction activities for the control of stormwater discharges



from MS4s and land disturbing activities under the Virginia Stormwater Management Program.

The operator or owner conducting land-disturbing activities equal to or greater than 2,500 square feet in areas designated as subject to the *Chesapeake Bay Preservation Area Designation and Management Regulations* is required to register for coverage under the General Permit for Discharges of Stormwater from Construction Activities and develop a project-specific Stormwater Pollution Prevention Plan. The SWPPP must be prepared prior to submission of the registration statement for coverage under the general permit and the SWPPP must address water quality and quantity in accordance with the *VSMP Permit Regulations*. General information and registration forms for the General Permit are available on DCR's website at: [http://www.dcr.virginia.gov/stormwater\\_management/vsmp.shtml](http://www.dcr.virginia.gov/stormwater_management/vsmp.shtml). [Reference: Virginia Stormwater Management Act §10.1-603.1 *et seq.*; *VSMP Permit Regulations*, 4 VAC 50 *et seq.*]

**4. Solid and Hazardous Waste Management.** The Draft EIS discusses hazardous materials and hazardous waste management in Chapter 4. The preferred alternative, Alternative 2, is covered on pages 4-73 through 4-78 (sections 4.7.3 through 4.7.3.4).

**4(a) Agency Jurisdiction.** Solid and hazardous wastes in Virginia are regulated by the Virginia Department of Environmental Quality, the Virginia Waste Management Board (VWMB) and the U.S. Environmental Protection Agency. These entities administer programs created by the federal Resource Conservation and Recovery Act (RCRA), the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, or the Superfund Act), and the Virginia Waste Management Act. DEQ administers regulations established by the VWMB and reviews permit applications for completeness and conformance with facility standards and financial assurance requirements. All Virginia localities are required, under the *Solid Waste Management Planning Regulations*, to identify the strategies they will follow on the management of their solid wastes to include items such as facility siting, long-term (20-year) use, and alternative programs such as materials recycling and composting.

**4(b) Agency Findings.** The DEQ Division of Land Protection and Revitalization (DLPR) (formerly called the Waste Division) conducted a cursory review of its database files for zip codes 22448 and 22485, including a VEGIS database search (within an 0.25 mile radius of the project site), and found a number of waste facility sites. A list of these sites is included in the attachments (DEQ memo, Coe to Fisher, dated September 20, 2012) to this document. The proximity of the sites to the project site should be evaluated further.

5009.6

**4(c) Requirements.** Any soil that is suspected of contamination or wastes that are generated during construction-related activities must be tested and disposed of in accordance with applicable federal, state, and local laws and regulations (see "Regulatory and Coordination Needs," item 1(b), below). Any contaminated media generated from the facility project site are the Navy's responsibility; the Navy must



ensure that contaminated media undergo proper management, storage, treatment, and disposal in accordance with state regulations. Questions regarding the proper management of solid and/or hazardous waste should be directed to DEQ's Northern Regional Office (see "Regulatory and Coordination Needs," item 1(a), below).

**4(d) Recommendations.** DEQ encourages the Navy to implement pollution prevention principles in any construction projects. These principles include reduction of wastes at the source, re-use of materials, and recycling of all solid wastes generated. Hazardous waste generation should be minimized, and hazardous wastes handled in accordance with regulatory requirements.

S009.7

## **5. Natural Heritage Resources.**

### **5(a) Agency Jurisdiction.**

#### **(i) Department of Conservation and Recreation**

The mission of the Virginia Department of Conservation and Recreation is to conserve Virginia's natural and recreational resources. DCR supports a variety of environmental programs organized within seven divisions including the Division of Natural Heritage. The Natural Heritage Program's (DCR-DNH) mission is conserving Virginia's biodiversity through inventory, protection, and stewardship. The Virginia Natural Area Preserves Act, Virginia Code sections 10.1-209 through 10.1-217, codifies DCR's powers and duties related to statewide biological inventory: maintaining a statewide database for conservation planning and project review, land protection for the conservation of biodiversity, and the protection and ecological management of natural heritage resources (the habitats of rare, threatened, and endangered species, significant natural communities, geologic sites, and other natural features).

#### **(ii) Department of Agriculture and Consumer Services**

The Endangered Plant and Insect Species Act, Virginia Code Chapter 39, sections 3.1-102 through 3.1-1030, as amended, authorizes the Virginia Department of Agriculture and Consumer Services (VDACS) to conserve, protect and manage endangered species of plants and insects. VDACS Virginia Endangered Plant and Insect Species Program personnel cooperate with the U.S. Fish and Wildlife Service, DCR-DNH and other agencies and organizations on the recovery, protection or conservation of listed threatened or endangered species and designated plant and insect species that are rare throughout their worldwide ranges. In those instances where recovery plans, developed by the U.S. Fish and Wildlife Service, are available, adherence to the order and tasks outlines in the plans are followed to the extent possible.

**5(b) Agency Comments.** VDACS did not respond to DEQ's request for comments on this project. Questions on plant and insect species may be directed to VDACS (Keith Tignor, telephone (804) 786-3515). DCR comments follow.

S009.8



**(i) Natural Heritage Resources; Definition.**

DCR-DNH has searched its Biotics Data System for occurrences of natural heritage resources in the project area. Natural heritage resources are defined as the habitat of rare, threatened, or endangered plant and animal species, unique or exemplary natural communities, and significant geologic formations. DCR-DNH indicates that four conservation sites are located within the project area; the natural heritage resource of concern in these conservation sites is the bald eagle. See item 5(c), below.

**(ii) Threatened and Endangered Plant and Insect Species.**

VDACS has regulatory authority to conserve rare and endangered plant and insect species through the Virginia Endangered Plant and Insect Species Act (item 5(a)(ii), above). Under a Memorandum of Agreement established between VDACS and DCR, DCR has the authority to report for VDACS on state-listed plant and insect species. DCR finds that the proposed actions will not affect any documented state-listed plants or insects. Additional responsibilities of VDACS are indicated in item 10(a), below.

**(iii) State Natural Area Preserves.**

DCR indicates that there are no State Natural Area Preserves in the project vicinity.

**5(c) Conservation Sites and the Bald Eagle.**

**(i) Conservation Sites.**

DCR indicates that the Little Ferry, Gambo Creek, Gambo Creek South, and Tetotum Flats Conservation Sites are located within the project area. Conservation sites are tools for representing key areas of the landscape that warrant further review for possible conservation action because of the natural heritage resources and habitat they support. Conservation sites are polygons built around one or more rare plant, animal, or natural community designed to include the element and, where possible, its associated habitat, and buffer or other adjacent land thought necessary for the element's conservation. Conservation sites are given a biodiversity significance ranking based on the rarity, quality, and number of element occurrences they contain; on a scale of 1-5, 1 being most significant. The Little Ferry, Gambo Creek, Gambo Creek South and Tetotum Flats Conservation Sites have all been given a biodiversity significance ranking of B5, which represents a site of general significance. The natural heritage resource of concern at these sites is:

*Haliaeetus leucocephalus*

Bald eagle

G5/S2S3B,S3N/NL/LT

**(ii) Bald Eagle.**

The bald eagle breeds from Alaska eastward through Canada and the Great Lakes region, along coastal areas along the Pacific and Atlantic Oceans and the Gulf of Mexico, and in pockets throughout the western United States (NatureServe, 2009). In



Virginia, the bald eagle breeds primarily along the large Atlantic slope rivers (James, Rappahannock, Potomac, *etc.*) with a few records at inland sites near large reservoirs (Byrd, 1991). Bald eagle nest sites are often found in the midst of large wooded areas near marshes or other bodies of water (Byrd, 1991). Bald eagles feed on fish, waterfowl, seabirds (Campbell *et al*, 1990), various mammals and carrion (Terres, 1980). This species is currently classified as threatened by the Virginia Department of Game and Inland Fisheries (DGIF).

Threats to the bald eagle include human disturbance of nest sites (Byrd, 1991), habitat loss, biocide contamination, decreasing food supply, and illegal shooting (Herkert, 1992).

**5(d) Recommendation.** Due to the legal status of the Bald eagle, DCR recommends coordination with DGIF, Virginia's regulatory authority for the management and protection of this species, to ensure compliance with the Virginia Endangered Species Act (Virginia Code sections 29.1-563 through 29.1-570).

] S008.1

**5(e) Additional Information.** New and updated information is continually added to Biotics. Please contact DCR (Rene' Hypes, telephone (804) 371-2708) for an update on this natural heritage information if a significant amount of time passes before it is utilized.

] S008.4

**6. Wildlife Resources.** According to the Navy, the proposed actions are not expected to have significant adverse impacts on the conservation and enhancement of finfish or shellfish resources, or the promotion of commercial and recreational fisheries (FCD, page H-6, "Fisheries Management" heading).

**6(a) Agency Jurisdiction.** The Department of Game and Inland Fisheries (DGIF), as the Commonwealth's wildlife and freshwater fish management agency, exercises enforcement and regulatory jurisdiction over wildlife and freshwater fish, including state or federally listed endangered or threatened species, but excluding listed insects (Virginia Code Title 29.1). The DGIF is a consulting agency under the U.S. Fish and Wildlife Coordination Act (16 U.S.Code, sections 661 *et seq.*), and provides environmental analysis of projects or permit applications coordinated through DEQ and several other state and federal agencies. DGIF determines likely impacts upon fish and wildlife resources and habitat, and recommends appropriate measures to avoid, reduce, or compensate for those impacts.

**6(b) Agency Comments and Recommendations.**

**(i) Bald Eagle**

According to DGIF and as reflected in the Draft EIS (see, for example, pages 4-161 through 4-173, sections 4.12 through 4.12.3.5, including the map on page 4-163), a number of state-listed threatened bald eagle nests are known from Dahlgren. In addition, the shoreline of the Potomac River upstream of Dahlgren has been designated



a bald eagle concentration zone. Accordingly, DGIF recommends that the Navy coordinate with the Department and also with the U.S. Fish and Wildlife Service regarding any activities resulting in bald eagle habitat alterations within 660 feet of any active bald eagle nest, or within the designated concentration zone along the Potomac River. See "Regulatory and Coordination Needs," item 2(a), below.

S010.1

Although increased activities generating more frequent loud noise may temporarily affect nesting, roosting, or foraging eagles, those occupying Dahlgren territory are likely to be habituated to loud noise. DGIF recommends adherence to the currently approved Integrated Natural Resources Management Plan (INRMP) for Dahlgren, including adherence to protective measures for bald eagles and their habitats.

S010.2

S010.3

**(ii) Anadromous Fish Use Areas.**

The Potomac River, Upper Machodoc Creek, Gambo Creek, and Williams Creek have been designated Anadromous Fish Use Areas. Accordingly, DGIF recommends that any construction, restoration, or relocation activities within these waters be coordinated with the Department and with NOAA Fisheries (see "Regulatory and Coordination Needs," item 2(a), below).

S010.4

As with bald eagle protection (item 6(b)(i), above), DGIF recommends adherence to the currently approved Integrated Natural Resources Management Plan (INRMP) for Dahlgren, including adherence to protective measures for anadromous fish and their habitats.

S010.5

**6(c) Additional Information.** The Virginia Department of Game and Inland Fisheries (DGIF) maintains a database of wildlife locations, including threatened and endangered species, trout streams, and anadromous fish waters that may contain information not documented in this letter. The DGIF database may be accessed from <http://vafwis.org/fwis/> or contact Gladys Cason (804-367-0909 or [Gladys.Cason@dgif.virginia.gov](mailto:Gladys.Cason@dgif.virginia.gov)).

**6(d) Conclusion.** DGIF indicates that the proposed activities are consistent with the Fisheries Management enforceable policy of the VCP, provided the Navy adheres to all necessary Best Management Practices.

S010.6

**7. Air Pollution Control.** The Draft EIS addresses air quality impacts of Alternative 2, the preferred alternative, in Chapter 4 (page 4-42, section 4.4.3). These include the potential impact on air quality of proposed chemical defense activities, for which a chemical stimulant dispersion modeling analysis was conducted. The FCD refers to this analysis, and indicates that no significant adverse impacts on air quality would result from proposed chemical defense activities; personnel working near the release point, on land or water ranges, would be equipped with respirators and protective clothing, but outside of this vicinity, there would be no exposure to elevated stimulant concentrations (FCD, page H-11, "Air Pollution Control" heading).

**7(a) Agency Jurisdiction.** DEQ's Division of Air Program Coordination, on behalf of the State Air Pollution Control Board, develops regulations implementing Virginia's Air Pollution Control Law. DEQ is charged to carry out mandates of the state law and related regulations as well as Virginia's obligations under the federal Clean Air Act as amended in 1990. The objective is to protect and enhance public health and quality of life through control and mitigation of air pollution. The Division ensures the safety and quality of air in Virginia by monitoring and analyzing air quality data, regulating sources of air pollution, and working with local, state and federal agencies to plan and implement strategies to protect Virginia's air quality. DEQ's regional offices are directly responsible for issuing permits to construct and operate all stationary sources in their regions as well as to monitor emissions from these sources for compliance. As a part of this mandate, the environmental documents of new projects to be undertaken in the state are also reviewed. In the case of certain projects, additional evaluation and demonstration must be made under the general conformity provisions of state and federal law.

**7(b) Agency Findings.** According to the DEQ Air Division, the project site is in an ozone (O<sub>3</sub>) attainment area.

**7(c) Requirements.**

**(i) Fugitive Dust**

During any construction, fugitive dust must be kept to a minimum by using control methods outlined in 9 VAC 5-50-60 through 9 VAC 5-50-120 of the *Regulations for the Control and Abatement of Air Pollution*. These precautions include, but are not limited to, the following:

- Use, where possible, of water or chemicals for dust control;
- Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials;
- Covering of open equipment for conveying materials; and
- Prompt removal of spilled or tracked dirt or other materials from paved streets and removal of dried sediments resulting from soil erosion.

**(ii) Open Burning**

Any open burning must meet the requirements of the *Regulations* (9 VAC 5-130 *et seq.*). The *Regulations* provide for, but do not require, the local adoption of a model ordinance concerning open burning. The Navy should contact King George County officials to determine what local requirements, if any, exist.

S009.9



### **(iii) Fuel-burning Equipment**

In the event new or modified fuel-burning equipment is to be constructed or operated, the project may be subject to 9 VAC 5-80, Article 6 of the *Regulations*, "Permits for New and Modified Sources." This requirement applies to boilers, generators, compressors, or any other air pollution emitting equipment. See "Regulatory and Coordination Needs," item 3(b).

**8. Historic Structures and Archaeological Resources.** The Draft EIS addresses impacts of the alternatives on archaeological resources (pages 4-54 through 4.57, sections 4.6.1 through 4.6.1.3); it addresses impacts on historic structures as well (pages 4-57 through 4.69, sections 4.6.2 through 4.6.2.6). The Draft EIS indicates that the proposed alternative, Alternative 2, might give rise to impacts upon old buildings. However, in accordance with section 106 of the National Historic Preservation Act, ordnance noise and vibration modeling indicates no adverse effect to either the Dahlgren Residential Historic District or the three proposed districts on Naval Support Facility Dahlgren (the Dahlgren installation) (Draft EIS, page ES-28, Table ES-2, "Summary of Environmental Impacts").

**8(a) Agency Jurisdiction.** The Department of Historic Resources conducts reviews of projects to determine their effect on historic structures or cultural resources under its jurisdiction. DHR, as the designated State's Historic Preservation Office (SHPO), ensures that federal actions comply with Section 106 of the National Historic Preservation Act of 1966 (NHPA), as amended, and its implementing regulation at 36 CFR Part 800. The NHPA requires federal agencies to consider the effects of federal projects on properties that are listed or eligible for listing on the National Register of Historic Places. Section 106 also applies if there are any federal involvements, such as licenses, permits, approvals or funding.

**8(b) Agency Comments.** DHR indicates that the Navy has already consulted on this undertaking, pursuant to section 106 of the NHPA and its implementing regulations at 36 CFR Part 800. DHR believes that the undertaking will have no adverse effect upon historic properties listed in or eligible for the National Register of Historic Places and the Virginia Landmarks Register.

S011-1

### **9. Public Water Supply.**

**9(a) Agency Jurisdiction.** The Virginia Department of Health (VDH), Office of Drinking Water (ODW), reviews projects for the potential to impact public drinking water sources (groundwater wells and surface water intakes).

**9(b) Agency Findings.** According to VDH-ODW, the project is not likely to affect drinking water resources.

S012-1

**10. Farmland Preservation.** According to the Draft EIS, the implementation of Alternative 1 or Alternative 2, with their increased levels of activity over existing



conditions, (including increased use of installation land and resulting noise, and increased access restrictions), would give rise to direct, short-term impacts on such activities as travel and recreation on and near the installation (page 4-10, sections 4.1.3 through 4.1.3.2). The Draft EIS does not appear to address farmland loss or preservation

**10(a) Agency Jurisdiction.** The 2001 Virginia General Assembly established the Office of Farmland Preservation within the Virginia Department of Agriculture and Consumer Services (VDACS) to help reduce the loss of agricultural land. Additional responsibilities of VDACS are indicated in item 5(b)(ii), above.

**10(b) Agency Comments.** The Department of Agriculture and Consumer Services did not respond to our request for comments. Questions may be directed to VDACS (Keith Tignor, telephone (804) 786-3515).

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## 11. Aviation Concerns.

**11(a) Agency Jurisdiction.** The Virginia Department of Aviation's (DoAv) Airport Services Division provides airport sponsors and managers with technical assistance on a wide range of projects and issues, including the planning, design, construction and maintenance of airport facilities. The division manages funding programs for capital improvements, facilities and equipment, airport maintenance projects, and airport security; the General Aviation Voluntary Security Certification Program; the licensing program for public-use airports; and the registration program for private-use airports. This division conducts statewide aviation system planning and maintains the Virginia Air Transportation System Plan.

**11(b) Agency Comments.** The Department of Aviation did not respond to our request for comments. Questions may be directed to DoAv (Scott Denny, telephone (804) 236-3632).

S009.10

## 12. Regional and Local Concerns.

**12(a) Jurisdiction.** In accordance with Virginia Code section 15.2-4207, planning district commissions encourage and facilitate local government cooperation and state-local cooperation in addressing, on a regional basis, problems of greater than local significance. The cooperation resulting from this is intended to facilitate the recognition and analysis of regional opportunities and take account of regional influences in planning and implementing public policies and services. Planning district commissions promote the orderly and efficient development of the physical, social and economic elements of the districts by planning, and encouraging and assisting localities to plan, for the future.

**12(b) Regional Comments.** The George Washington Regional Commission did not respond to our request for comments. Questions may be directed to the Commission (Eldon James, telephone (540) 373-2890).

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**12(c) Local Comments.** King George County did not respond to our request for comments. Questions may be directed to the County (Travis Quesenberry, telephone (540) 775-9181).

S009.12

## **FEDERAL CONSISTENCY UNDER THE COASTAL ZONE MANAGEMENT ACT**

Pursuant to the Coastal Zone Management Act of 1972, as amended, federal actions that can have reasonably foreseeable effects on Virginia's coastal uses or resources must be conducted in a manner which is consistent, to the maximum extent practicable, with the Virginia Coastal Zone Management Program (VCP) (previously called the Virginia Coastal Resources Management Program). The VCP is comprised of a network of programs administered by several agencies. In order to be consistent with the VCP, the federal agency must obtain all the applicable permits and approvals listed under the Enforceable Policies of the VCP prior to commencing the project.

As indicated above ("Project Description"), the Draft EIS includes a federal consistency determination (Appendix H), by which the Navy states that the proposed activities will be consistent, to the maximum extent practicable, with the enforceable policies of the Virginia Coastal Zone Management Program (VCP).

### **Federal Consistency Public Participation**

In accordance with 15 CFR § 930.2, public notice of the proposed action was published on DEQ's web site from August 7, 2012 to August 28, 2012. No public comments were received in response to the notice.

### **Federal Consistency Concurrence**

Based on our review of the Navy's consistency determination, and the comments and recommendations submitted by agencies administering the enforceable policies of the VCP, DEQ concurs that the proposed actions are consistent, to the maximum extent practicable, with the VCP. However, other state approvals which may apply to this project are not included in this concurrence. Therefore, the Navy must ensure that this project is constructed and operated in accordance with all applicable federal, state, and local laws and regulations. We encourage the Navy to consider the Advisory Policies of the VCP as well (see Attachment 2).

S009.13

## **REGULATORY AND COORDINATION NEEDS**

### **1. Solid and Hazardous Waste Management.**

**1(a) Coordination.** For further information on the administrative records of the pollution complaint (PC) cases in close proximity to the project area, the Navy may contact DEQ's Northern Regional Office (Richard Doucette, telephone (703) 583-3813).



General questions relating to waste management may be directed to DEQ's Division of Land Protection and Revitalization (Steve Coe, telephone (804) 698-4029).

**1(b) Authorities.** The state and federal laws which apply to waste management include, but are not limited to, the following.

Virginia:

- Virginia Waste Management Act, Virginia Code sections 10.1-1400 *et seq.*;
- Virginia Hazardous Waste Management Regulations, 9 VAC 20-60;  
For lead-based paint, see 9 VAC 20-60-261
- Virginia Solid Waste Management Regulations, 9 VAC 20-80;  
For asbestos-containing materials, see 9 VAC 20-80-640;
- Virginia Regulations for the Transportation of Hazardous Materials, 9 VAC 20-110.

Federal:

- Resource Conservation and Recovery Act (RCRA), 42 U.S.C. sections 6901 *et seq.*;
- Applicable regulations contained in Title 40, *Code of Federal Regulations*;
- U.S. Department of Transportation, *Rules for Transportation of Hazardous Materials*, 49 CFR Part 107.

## 2. Natural Heritage and Wildlife Resources.

**2(a) Coordination regarding Bald Eagles.** The Department of Game and Inland Fisheries (DGIF) recommends that the Navy consult with that Department (begin with Amy Ewing, telephone (804) 367-2211 or e-mail [amy.ewing@dgif.virginia.gov](mailto:amy.ewing@dgif.virginia.gov)) and also with the U.S. Fish and Wildlife Service (begin with Cindy Schultz, Virginia Field Office, telephone (804) 693-6694) for activities as follows:

- Within the designated concentration zone, or
- Resulting in bald eagle habitat alterations within 660 feet of any active bald eagle nest.

See "Environmental Impacts and Mitigation," item 6(b)(i), above.

In addition, where construction, restoration, or relocation activities are proposed within Anadromous Fish Use Waters, DGIF recommends consultation with the Department, as above, and also with NOAA Fisheries (David O'Brien, e-mail [David.O'Brien@NOAA.gov](mailto:David.O'Brien@NOAA.gov)). See "Environmental Impacts and Mitigation," item 6(b)(ii), above.

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**2(b) Additional Information.** For updated information concerning natural heritage resources, the Navy may contact the Department of Conservation and Recreation's Division of Natural Heritage (Rene' Hypes, telephone (804) 371-2708).

Questions regarding the Department of Game and Inland Fisheries database may be directed to DGIF (Gladys Cason, telephone (804) 367-0909 or e-mail [Gladys.Cason@dgif.virginia.gov](mailto:Gladys.Cason@dgif.virginia.gov)).

**2(c) Authorities.** Laws governing natural heritage and wildlife resources include, but are not limited to, the following:

- Virginia Natural Area Preserves Act, Virginia Code sections 10.1-209 through 10.1-217 (see "Environmental Impacts and Mitigation," item 5(a)(i), above);
- Virginia Endangered Species Act, Virginia Code sections 29.1-563 through 29.1-570 (see "Environmental Impacts and Mitigation," item 5(d), above);
- Virginia Endangered Plant and Insect Species Act, Virginia Code Chapter 39, sections 3.1-102 through 3.1-1030 (see "Environmental Impacts and Mitigation," item 5(a)(ii), above).

### **3. Air Pollution Control.**

**3(a) Coordination.** Questions on permitting and other matters affecting air pollution control should be directed to DEQ's Northern Regional Office (Terry Darton, Air Permits Manager, telephone (703) 583-3845).

**3(b) Authorities.** The regulations which might apply to this project include, but are not limited to, the following:

- 9 VAC 5-50-60 through 9 VAC 5-50-120, the Fugitive Dust/Fugitive Emissions Rule;
- 9 VAC 5-80, Article 6, Permits for New and Modified Sources.
- 9 VAC 5-130 *et seq.*, Open Burning.

**4. Water Permitting.** As DEQ's Northern Regional Office (DEQ-NRO) indicates, water resource impacts from the proposed action appear negligible, and not likely to require permitting. In the event this circumstance should change, the Navy should be aware of permitting requirements.

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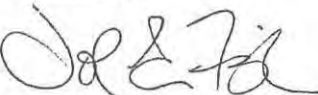
**4(a) Coordination.** Inquiries regarding water quality permits should be directed to DEQ-NRO (Bryant Thomas, telephone (703) 583-3843 for VPDES (point-source discharge) permits, or Trisha Beasley, telephone (703) 583-3845 for Virginia Water Protection permits (wetlands, surface water impacts).

**4(b) Authority.** Virginia Water Protection permits are governed by Virginia's water regulations at 9 VAC 25-210-60 B.11.



Thank you for the opportunity to review the Draft EIS and the Federal Consistency Determination for the proposed Outdoor Research, Development, Test, and Evaluation Activities at the NSWC at Dahlgren. Detailed comments of reviewing agencies are attached for your review. If you have questions, please feel free to call me at (804) 698-4325 or Charles Ellis at (804) 698-4195.

Sincerely,

  
for Ellie Irons, Program Manager  
Environmental Impact Review

Enclosures

Ec: Dell Cheatham, DEQ-NRO  
G. Stephen Coe, DEQ-DLPR  
Kotur S. Narasimhan, DEQ-DAPC  
Tony Watkinson, VMRC  
Amy Ewing, DGIF  
Robbie Rhur, DCR  
Keith R. Tignor, VDACS  
Barry Matthews, VDH  
Marc E. Holma, DHR  
Pamela Mason, VIMS  
Scott Denny, DoAv

Cc: Tim Ware, GWRC  
Travis Quesenberry, King George County

## Fisher, John (DEQ)

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**From:** Ewing, Amy (DGIF)  
**Sent:** Wednesday, September 26, 2012 12:32 PM  
**To:** Fisher, John (DEQ)  
**Cc:** Cason, Gladys (DGIF); Cooper, Jeff (DGIF); Greenlee, Bob (DGIF)  
**Subject:** ESSLog# 25464\_12-152F\_Outdoor Research, Development, Test and Evaluation Activities\_Dahlgren

We have reviewed the subject project that proposes to perform increased training, research, and testing activities within the Potomac River Test Range and Explosives Experimental Area complexes, the Mission Area, and special-use airspace at Naval Support Facility Dahlgren (Dahlgren).

According to our records and as reflected in the EIS, a number of state Threatened bald eagle nests are known from Dahlgren. In addition, the shoreline of the Potomac River upstream of Dahlgren has been designated a bald eagle concentration zone. We recommend coordination with us and the USFWS for any activities resulting in bald eagle habitat alterations within 660ft of any active bald eagle nest or within the designated concentration zone. Although increased activities generating more frequent loud noise may temporarily impact nesting, roosting, or foraging eagles, the eagles occupying territory at Dahlgren are likely to be habituated to loud noise emanating from Dahlgren. We recommend adherence to the currently approved Integrated Natural Resources Management Plan (INRMP) for Dahlgren, including adherence to protective measures for bald eagles and their habitats.

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The Potomac River, Upper Machodoc Creek, Gambo Creek, and Williams Creek have been designated Anadromous Fish Use Areas. We recommend that any construction, restoration, or relocation activities within these waters be coordinated with us and NOAA Fisheries. We recommend adherence to the currently approved Integrated Natural Resources Management Plan (INRMP) for Dahlgren, including adherence to protective measures for Anadromous fishes and their habitats.

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Assuming adherence to all necessary BMP's, we find this project consistent with the Fisheries Management Section of the CZMA.

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Thanks, Amy

**Amy Ewing | Environmental Services Biologist | VDGIF - Richmond HQ | 4010 West Broad St. Richmond, VA 23230 | 804-367-2211 | [www.dgif.virginia.gov](http://www.dgif.virginia.gov)**

## **Fisher, John (DEQ)**

---

**From:** Forsgren, Diedre (VDH)  
**Sent:** Friday, September 21, 2012 3:47 PM  
**To:** Fisher, John (DEQ)  
**Subject:** (12-152F) CD: Outdoor Research, Development, Test, and Evaluation Activities, Naval Surface Warfare Center Dahlgren

**DEQ Project #:** 12-152F  
**Name:** Outdoor Research, Development, Test, and Evaluation Activities, Naval Surface Warfare Center Dahlgren  
**Sponsor:** DOD/Department of the Navy  
**Location:** King George County

The Department of Health-Office of Drinking Water has reviewed the above captioned project and the information provided.

Proximity to public water supplies are limited to NSF Dahlgren and are as noted in the project documentation. Potential impacts to public water distribution systems or sanitary sewage collection systems must be verified by the NSF Dahlgren.

Drinking water resources are unlikely to be impacted by this project.

] S012.1

### **Diedre Forsgren**

Office Services Specialist  
VIRGINIA DEPARTMENT OF HEALTH  
Office of Drinking Water, Room 622-A  
109 Governor Street  
Richmond, VA 23219  
Phone: (804) 864-7241  
email: [diedre.forsgren@vdh.virginia.gov](mailto:diedre.forsgren@vdh.virginia.gov)

**Fisher, John (DEQ)**

---

**From:** Holma, Marc (DHR)  
**Sent:** Friday, September 21, 2012 11:53 AM  
**To:** Fisher, John (DEQ)  
**Subject:** Outdoor Research, Development, Test, and Evaluation Activities, Naval Surface Warfare Center Dahlgren, King George Co., (DHR #2009-0099; DEQ #12-152F)

John,

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The Navy has already consulted with DHR on this undertaking pursuant to Section 106 of the National Historic Preservation Act, as amended, and its implementing regulation 36 CFR Part 800. We believe that the undertaking will have No Adverse Effect to historic properties listed in or eligible for the National Register of Historic Places and the Virginia Landmarks Register. ]

Sincerely,

Marc Holma





COMMONWEALTH of VIRGINIA  
DEPARTMENT OF CONSERVATION AND RECREATION

203 Governor Street  
Richmond, Virginia 23219-2010  
(804) 786-1712

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MEMORANDUM

DATE: September 21, 2012  
TO: John Fisher, DEQ  
FROM: Roberta Rhur, Environmental Impact Review Coordinator  
SUBJECT: DEQ 12-152F, Outdoor Research and Testing Activities, Naval Surface Warfare Center Dahlgren

Division of Natural Heritage

The Department of Conservation and Recreation's Division of Natural Heritage (DCR) has searched its Biotics Data System for occurrences of natural heritage resources from the area outlined on the submitted map. Natural heritage resources are defined as the habitat of rare, threatened, or endangered plant and animal species, unique or exemplary natural communities, and significant geologic formations.

According to the information currently in our files, the Little Ferry, Gambo Creek, Gambo Creek South and Tetotum Flats Conservation Sites are located within the project area. Conservation sites are tools for representing key areas of the landscape that warrant further review for possible conservation action because of the natural heritage resources and habitat they support. Conservation sites are polygons built around one or more rare plant, animal, or natural community designed to include the element and, where possible, its associated habitat, and buffer or other adjacent land thought necessary for the element's conservation. Conservation sites are given a biodiversity significance ranking based on the rarity, quality, and number of element occurrences they contain; on a scale of 1-5, 1 being most significant. The Little Ferry, Gambo Creek, Gambo Creek South and Tetotum Flats Conservation Sites have all been given a biodiversity significance ranking of B5, which represents a site of general significance. The natural heritage resource of concern at these sites is:

*Haliaeetus leucocephalus*

Bald eagle

G5/S2S3B,S3N/NL/LT

The Bald eagle breeds from Alaska eastward through Canada and the Great Lakes region, along coastal areas off the Pacific and Atlantic Oceans, and the Gulf of Mexico, and in pockets throughout the western United States (NatureServe, 2009). In Virginia, it primarily breeds along the large Atlantic slope rivers (James, Rappahannock, Potomac, etc) with a few records at inland sites near large reservoirs (Byrd, 1991). Bald eagle nest sites are often found in the midst of large wooded areas near marshes or other bodies of water (Byrd, 1991). Bald eagles feed on fish, waterfowl, seabirds (Campbell et. al., 1990), various mammals and carrion (Terres, 1980). Please note that this species is currently classified as threatened by the Virginia Department of Game and Inland Fisheries (VDGIF).

State Parks • Soil and Water Conservation • Natural Heritage • Outdoor Recreation Planning  
Chesapeake Bay Local Assistance • Dam Safety and Floodplain Management • Land Conservation

Threats to this species include human disturbance of nest sites (Byrd, 1991), habitat loss, biocide contamination, decreasing food supply and illegal shooting (Herkert, 1992).

Due to the legal status of the Bald eagle, DCR recommends coordination with Virginia's regulatory authority for the management and protection of this species, the VDGIF, to ensure compliance with the Virginia Endangered Species Act (VA ST §§ 29.1-563 – 570).

There are no State Natural Area Preserves under DCR's jurisdiction in the project vicinity.

Under a Memorandum of Agreement established between the Virginia Department of Agriculture and Consumer Services (VDACS) and the DCR, DCR represents VDACS in comments regarding potential impacts on state-listed threatened and endangered plant and insect species. The current activity will not affect any documented state-listed plants or insects.

New and updated information is continually added to Biotics. Please contact DCR for an update on this natural heritage information if a significant amount of time passes before it is utilized.

The Virginia Department of Game and Inland Fisheries (VDGIF) maintains a database of wildlife locations, including threatened and endangered species, trout streams, and anadromous fish waters that may contain information not documented in this letter. Their database may be accessed from <http://vafwis.org/fwis/> or contact Gladys Cason (804-367-0909 or [Gladys.Cason@dgif.virginia.gov](mailto:Gladys.Cason@dgif.virginia.gov)).

#### Division of Stormwater Management

A review of the project indicates that there is no construction proposed; therefore, this division has no comment.

The remaining DCR divisions have no comments regarding the scope of this project. Thank you for the opportunity to comment.

Cc: Amy Ewing, VDGIF

#### Literature Cited

- Byrd, M.A. 1991. Bald eagle. In *Virginia's Endangered Species: Proceedings of a Symposium*. K. Terwilliger ed. The McDonald and Woodward Publishing Company, Blacksburg, Virginia. Pp. 499-501.
- Campbell, R.W., N.K. Dawe, I. McTaggart-Cowan, J.M. Cooper, G.W. Kaiser, and M.C.E. McNall. 1990. *The Birds of British Columbia. Vol. 1. Nonpasserines: Introduction and loons through waterfowl*. Royal British Columbia Museum, Victoria, British Columbia, Canada.
- Herkert, J. R., editor. 1992. *Endangered and threatened species of Illinois: status and distribution. Vol. 2: Animals*. Illinois Endangered Species Protection Board. iv + 142 pp.
- NatureServe. 2009. NatureServe Explorer: An online encyclopedia of life [web application]. Version 7.1. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>. (Accessed: June 24, 2010)
- Terres, J.K. 1980. *The Audubon Society encyclopedia of North American birds*. Alfred A. Knopf, New York.





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## MEMORANDUM

**TO:** John Fisher, Environmental Program Planner

**FROM:** Steve Coe, DLPR EIR Review Coordinator

**DATE:** September 20, 2012

**COPIES:** Sanjay Thirunagari, Hazardous Waste Program Manager  
EIR File

**SUBJECT:** EIR Project – Outdoor Research, Development, Test and Evaluation Activities, Naval Surface Warfare Center Dahlgren – DOD/U.S. Navy – DEQ Project No. 12-152F – Review

Staff from the Division of Land Protection and Revitalization (DLPR) has completed its review of the EIR Project – Outdoor Research, Development, Test and Evaluation Activities, Naval Surface Warfare Center Dahlgren Division (NSWCDD), Virginia, under the Department of Defense / U.S. Navy. The project site is under the zip code areas 22448 and 22485. We have the following comments concerning the project, and possible related waste issues associated with this project:

The submittal addressed potential solid waste and/or hazardous waste issues. Specifically, the submittal states "NSF (Naval Support Facility) Dahlgren and NSWCDD have in place a number of programs, plans, and processes to safely use, transport, handle, store, and dispose of HM (hazardous material) and HW (hazardous waste). The submittal does not state that DEQ's databases were searched, nor do they indicate that information was obtained from the DEQ's DLPR files.

The DLPR staff has conducted a cursory review of its database files under zip codes 22448 and 22485 including a VEGIS database search (0.25 mile radius) of the project site and determined the information below:

A few waste facility sites were located within the same zip code of the proposed project under zip codes 22448 and 22485. However, the proximity of the identified waste sites to the project site and/or potential impact to the project should be further evaluated.

The staff's summary comments are as follows:

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### Hazardous Waste Facilities

Search of the RCRAInfo database found the following facility under large quantity generators (LQGs) and/or permitted treatment, storage, disposal facilities (TSDF):

- 1) Gautiers Autobody & Glass Inc., P.O. Box 1118 Hwy 206, Dahlgren, VA 22448. ID# VA0000464321. Contact: Bryan Gautier at 703-663-3439.
- 2) Mid-Atlantic Military Family Commission LLC MAMFC, Dahlgren Road #142 Housing, Dahlgren, VA 22448. ID# VAR000513457. Contact: R. Jarl Bliss at 703-834-1900.

- 3) U.S. Navy Dahlgren, Samson Road, Dahlgren, VA 22448. ID# VA7170024684. Contact: Heidi Morgan at 540-653-2035.
- 4) Walmart Supercenter #5779, 16375 Merchant Lane, King George, VA 22448. ID# VAR000520205. Contact: Chris Stewart at 479-204-0402.
- 5) Wa Wa Food Market, Rts 301 & 206, Dahlgren, VA 22448. ID# VAr000014209. Contact: Mathew Winters at 610-558-8345.

(See also: <http://www.epa.gov/enviro/facts/rcrainfo/search.html>).

#### **Solid Waste Facilities** - none

#### **CERCLA Sites**

Search of the CERCLIS database found the following Superfund site:

<u>EPA ID #</u>	<u>Facility Name</u>	<u>Address</u>	<u>Status</u>
• VA7170024684	NAVAL SURFACE WARFARE CENTER - DAHLGREN	Dahlgren, VA, 22448	Final NPL – See link at: <a href="http://www.epa.gov/reg2hwmd/npl/va7170024684.htm">http://www.epa.gov/reg2hwmd/npl/va7170024684.htm</a>

The Federal Facilities Restoration Program recommends contacting Ms. Heidi Morgan of the installation at [heidia.morgan@navy.mil](mailto:heidia.morgan@navy.mil) for additional information concerning CERCLA obligations at this installation.

#### **FUDs Sites**

Search of the Formerly Used Defense Sites (FUDS) Inventory found the following facility:

<u>FUDS #</u>	<u>Federal Facilities (FF) ID</u>	<u>Facility Name</u>	<u>City / Zip</u>
• C03VA0999	VA9799F1723	NAVAL WEAPONS LAB	Dahlgren / 22485

If the above identified site is found to be in close proximity to the proposed project, then further information regarding the above identified site may be in order. For the location and further information regarding the above FUDS site, please contact Karen Sismour, Federal Facilities Program Manager, Office of Remediation Programs (ORP), DEQ (804-698-4421).

#### **VRP Sites**

No Voluntary Remediation Program (VRP) facilities were found during search of DEQ's VRP Site Inventory.

#### **Petroleum Release Sites**

The following petroleum release sites were found within 0.25 miles of the project site (from the DEQ's Virginia Environmental Geographic Information System (VEGIS)):

- 1) Dahlgren Marine Works, 17088 Ferry Dock Road, Dahlgren, VA 22448. PC# 19910850. Date: 3/7/2007. Status: Closed.
- 2) Turnure Robert L. residence, 17081 12<sup>th</sup> Street, Dahlgren, VA 22448. PC# 19973846. Date: 5/4/2007. Status: Closed.
- 3) Kelly John residence, 5282 N. Williams Creek Drive, Dahlgren, VA 22485. PC# 20033158. Date: 4/30/2007. Status: Closed.



- 4) Tran Tien Tung or Christine Duong residence, 16404 Dahlgren Road, King George, VA 22485. PC# 20113178. Date: 4/44/2011. Status: Closed.

(Note: Dates above are the latest PC database edit dates of the specific petroleum contamination sites identified above.)

Please note that the DEQ's petroleum contamination (PC) case files, within 0.25 miles of the proposed project, should be evaluated by the project engineer or manager to establish the exact location of the petroleum release, the nature and extent of the release, and the potential to impact the proposed project. The facility representative should contact the DEQ's NRO for further information on the administrative records of the PC cases which are in close proximity to the proposed project.

(NRO Pollution Response and Tank Program Contact: <http://www.deq.virginia.gov/regions/northern.html>.)

## **GENERAL COMMENTS**

### **Soil, Sediment, and Waste Management**

Any soil that is suspected of contamination or wastes that are generated must be tested and disposed of in accordance with applicable Federal, State, and local laws and regulations. Some of the applicable state laws and regulations are: Virginia Waste Management Act, Code of Virginia Section 10.1-1400 *et seq.*; Virginia Hazardous Waste Management Regulations (VHWMR) (9VAC 20-60); Virginia Solid Waste Management Regulations (VSWMR) (9VAC 20-81); Virginia Regulations for the Transportation of Hazardous Materials (9VAC 20-110). Some of the applicable Federal laws and regulations are: the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. Section 6901 *et seq.*, and the applicable regulations contained in Title 40 of the Code of Federal Regulations; and the U.S. Department of Transportation Rules for Transportation of Hazardous Materials, 49 CFR Part 107.

Please note that any contaminated media which is generated from the facility project site is the responsibility of the subject site facility which must ensure that contaminated media undergoes proper management, storage, treatment, and disposal in accordance with the above noted State Regulations.

### **Pollution Prevention – Reuse - Recycling**

S009.7

Please note that DEQ encourages all construction projects and facilities to implement pollution prevention principles, including the reduction, reuse, and recycling of all solid wastes generated. All generation of hazardous wastes should be minimized and handled appropriately.

If you have any questions or need further information, please contact Steve Coe at (804) 698-4029.



## **Fisher, John (DEQ)**

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**From:** Cheatham, John (DEQ)  
**Sent:** Monday, September 17, 2012 3:31 PM  
**To:** Fisher, John (DEQ)  
**Subject:** 12-152F: Naval Surface Warfare Center Dahlgren

NRO comments regarding the Outdoor Research, Development, Test, and Evaluation Activities at Naval Surface Warfare Center Dahlgren are as follows:

**Land Protection Division** - If any solid or hazardous waste is generated/encountered during construction, the facility should follow applicable federal, state, and county regulations for their disposal.

**Air Compliance/Permitting** - The project manager is reminded that during any construction phases that occur with this project; the project is subject to the Fugitive Dust/Fugitive Emissions Rule 9 VAC 5-50-60 through 9 VAC 5-50-120. In addition, should the project install fuel burning equipment (Boilers, Generators, Compressors, etc...), or any other air pollution emitting equipment, the project may be subject to 9 VAC 5-80, Article 6, Permits for New and Modified sources and as such the project manager should contact the Air Permit Manager DEQ-NRO prior to installation or construction, and operation, of fuel burning or other air pollution emitting equipment for a permitting determination.

**Virginia Water Protection Permit (VWPP) Program** - The project does not currently propose impacts to surface waters; however a VWP permit from DEQ may be required should impacts to surface waters be necessary. DEQ VWP staff recommends that the project avoid and minimize impacts to the surface waters to the maximum extent practicable. Upon receipt of a Joint Permit Application for the proposed surface waters impacts, DEQ VWP Permit staff will review the proposed project in accordance with the VWP permit program regulations and guidance.

According to 9 VAC 25-210-60 B. 11.

S009.1

**Water Permitting/VPDES Program**: The plan indicates that all project alternatives will have negligible impacts on water resources. Because there would be no personnel or operational needs for additional water associated with any alternatives, there would be no increase in the production of wastewater. The Navy-owned municipal sewage treatment plant located at the southern end of Mainside would not be affected and would continue to meet current and future wastewater requirements.

As specific projects implemented under this plan advance, further review may be required. Specific projects should be initiated only after the environmental review has been completed and required permits are obtained.

**Dell Cheatham**

VWP Permit Writer - Virginia Department of Environmental Quality  
Northern Regional Office - 13901 Crown Court, Woodbridge, VA 22193  
703-583-3805

DEPARTMENT OF ENVIRONMENTAL QUALITY  
DIVISION OF AIR PROGRAM COORDINATION

RECEIVED

AUG 31 2012

DEQ-Office of Environmental  
Impact Review

ENVIRONMENTAL REVIEW COMMENTS APPLICABLE TO AIR QUALITY

TO: John E. Fisher

DEQ - OEIA PROJECT NUMBER: 12 - 152F

PROJECT TYPE: ☐ STATE EA / EIR ☒ FEDERAL EA / EIS ☐ SCC  
☐ CONSISTENCY DETERMINATION

PROJECT TITLE: OUTDOOR, RESEARCH, DEVELOPMENT, TEST, AND EVALUATION  
ACTIVITIES, NVAL CENTER WARFARE CENTER DAHLGREN

PROJECT SPONSOR: DOD / DEPARTMENT OF THE NAVY

PROJECT LOCATION: ☒ OZONE ATTAINMENT AREA

REGULATORY REQUIREMENTS MAY BE APPLICABLE TO: ☒ CONSTRUCTION  
☐ OPERATION

STATE AIR POLLUTION CONTROL BOARD REGULATIONS THAT MAY APPLY:

1. ☐ 9 VAC 5-40-5200 C & 9 VAC 5-40-5220 E - STAGE I
2. ☐ 9 VAC 5-40-5200 C & 9 VAC 5-40-5220 F - STAGE II Vapor Recovery
3. ☐ 9 VAC 5-40-5490 et seq. - Asphalt Paving operations
4. ☒ 9 VAC 5-130 et seq. - Open Burning
5. ☒ 9 VAC 5-50-60 et seq. Fugitive Dust Emissions
6. ☐ 9 VAC 5-50-130 et seq. - Odorous Emissions; Applicable to \_\_\_\_\_
7. ☐ 9 VAC 5-50-160 et seq. - Standards of Performance for Toxic Pollutants
8. ☐ 9 VAC 5-50-400 Subpart \_\_\_\_\_, Standards of Performance for New Stationary Sources, designates standards of performance for the \_\_\_\_\_
9. ☐ 9 VAC 5-80-1100 et seq. of the regulations - Permits for Stationary Sources
10. ☐ 9 VAC 5-80-1700 et seq. Of the regulations - Major or Modified Sources located in PSD areas. This rule may be applicable to the \_\_\_\_\_
11. ☐ 9 VAC 5-80-2000 et seq. of the regulations - New and modified sources located in non-attainment areas
12. ☐ 9 VAC 5-80-800 et seq. Of the regulations - Operating Permits and exemptions. This rule may be applicable to \_\_\_\_\_

COMMENTS SPECIFIC TO THE PROJECT:

*K. S. Narasimhan*

(Kotur S. Narasimhan)  
Office of Air Data Analysis

DATE: August 31, 2012



## Attachment 2

### Advisory Policies for Geographic Areas of Particular Concern

- a. Coastal Natural Resource Areas - These areas are vital to estuarine and marine ecosystems and/or are of great importance to areas immediately inland of the shoreline. Such areas receive special attention from the Commonwealth because of their conservation, recreational, ecological, and aesthetic values. These areas are worthy of special consideration in any planning or resources management process and include the following resources:
  - a) Wetlands
  - b) Aquatic Spawning, Nursery, and Feeding Grounds
  - c) Coastal Primary Sand Dunes
  - d) Barrier Islands
  - e) Significant Wildlife Habitat Areas
  - f) Public Recreation Areas
  - g) Sand and Gravel Resources
  - h) Underwater Historic Sites.
- b. Coastal Natural Hazard Areas - This policy covers areas vulnerable to continuing and severe erosion and areas susceptible to potential damage from wind, tidal, and storm related events including flooding. New buildings and other structures should be designed and sited to minimize the potential for property damage due to storms or shoreline erosion. The areas of concern are as follows:
  - i) Highly Erodible Areas
  - ii) Coastal High Hazard Areas, including flood plains.
- c. Waterfront Development Areas - These areas are vital to the Commonwealth because of the limited number of areas suitable for waterfront activities. The areas of concern are as follows:
  - i) Commercial Ports
  - ii) Commercial Fishing Piers
  - iii) Community Waterfronts

Although the management of such areas is the responsibility of local government and some regional authorities, designation of these areas as Waterfront Development Areas of Particular Concern (APC) under the VCRMP is encouraged. Designation will allow the use of federal CZMA funds to be used to assist planning for such areas and the implementation of such plans. The VCRMP recognizes two broad classes of priority uses for waterfront development APC:

- i) water access dependent activities;
- ii) activities significantly enhanced by the waterfront location and complementary to other existing and/or planned activities in a given waterfront area.

### Advisory Policies for Shorefront Access Planning and Protection

- a. Virginia Public Beaches - Approximately 25 miles of public beaches are located in the cities, counties, and towns of Virginia exclusive of public beaches on state and federal land. These public shoreline areas will be maintained to allow public access to recreational resources.
- b. Virginia Outdoors Plan - Planning for coastal access is provided by the Department of Conservation and Recreation in cooperation with other state and local government agencies. The Virginia Outdoors Plan (VOP), which is published by the Department, identifies recreational facilities in the Commonwealth that provide recreational access. The VOP also serves to identify future needs of the Commonwealth in relation to the provision of recreational opportunities and shoreline access. Prior to initiating any project, consideration should be given to the proximity of the project site to recreational resources identified in the VOP.
- c. Parks, Natural Areas, and Wildlife Management Areas - Parks, Wildlife Management Areas, and Natural Areas are provided for the recreational pleasure of the citizens of the Commonwealth and the nation by local, state, and federal agencies. The recreational values of these areas should be protected and maintained.
- d. Waterfront Recreational Land Acquisition - It is the policy of the Commonwealth to protect areas, properties, lands, or any estate or interest therein, of scenic beauty, recreational utility, historical interest, or unusual features which may be acquired, preserved, and maintained for the citizens of the Commonwealth.
- e. Waterfront Recreational Facilities - This policy applies to the provision of boat ramps, public landings, and bridges which provide water access to the citizens of the Commonwealth. These facilities shall be designed, constructed, and maintained to provide points of water access when and where practicable.
- f. Waterfront Historic Properties - The Commonwealth has a long history of settlement and development, and much of that history has involved both shorelines and near-shore areas. The protection and preservation of historic shorefront properties is primarily the responsibility of the Department of Historic Resources. Buildings, structures, and sites of historical, architectural, and/or archaeological interest are significant resources for the citizens of the Commonwealth. It is the policy of the Commonwealth and the VCRMP to enhance the protection of buildings, structures, and sites of historical, architectural, and archaeological significance from damage or destruction when practicable.



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