Appendix A – Public Information and Outreach

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Draft EA Distribution

| Name                 | Title/Role                          | Affiliation   | Mailing Address  |
|----------------------|-------------------------------------|---|--|
|                      |                                     | Elected Officials - Federal   |  |
| Donald S. Beyer, Jr. | Representative in Congress          | US House of<br>Representatives  | 1119 Longworth House Office Building Washington, DC 20515  |
| Mark R. Warner       | Senator of Virginia                 | US Senate   | 703 Hart Senate office Building Washington, DC 20510   |
| Timothy M. Kaine     | Senator of Virginia                 | US Senate   | 231 Russell Senate Office Building Washington, D.C. 20510  |
| Gerald E. Connolly   | Representative in<br>Congress       | US House of<br>Representatives  | 424 Cannon House Office Building<br>Washington, DC 20515   |
|                      |                                     | Elected Officials - State   |  |
| Ralph Northam        | Governor of<br>Virginia             | Office of the Governor  | P.O. Box 1475<br>Richmond, VA 23218  |
| Mark D. Sickles      | State<br>Representative             | Virginia House of<br>Delegates  | P.O. Box 10628<br>Franconia, VA 22310  |
| Scott A. Surovell    | State Senator                       | Virginia Senate   | P.O. Box 289<br>Mount Vernon, VA 22121   |
|                      |                                     | Elected Officials - County  | ·  |
| Sharon Bulova        | Chairman                            | Fairfax County Board of<br>Supervisors  | Fairfax County Government Center<br>12000 Government Center Parkway,<br>Suite 530<br>Fairfax, VA 22035 |
| Dan Storck           | Mount Vernon<br>District Supervisor | Fairfax County Board of Supervisors   | Mount Vernon Governmental Center<br>2511 Parkers Lane<br>Mt. Vernon, VA 22306                          |
|                      |                                     | Federal Agencies  |  |
| Rob Tomiak           | Director                            | US Environmental<br>Protection Agency<br>Office of Federal<br>Activities                          | Ariel Rios Building<br>1200 Pennsylvania Avenue, NW<br>Mail code: 2251A<br>Washington, DC 20460        |
| Barbara Rudnick      | NEPA Team<br>Leader                 | US Environmental<br>Protection Agency,<br>Region 3<br>Office of Environmental<br>Programs (3EA30) | 1650 Arch Street<br>Philadelphia, PA 19103-2029  |
| John A. Bricker      | State<br>Conservationist            | US Department of<br>Agriculture<br>Natural Resources<br>Conservation Service                      | 1606 Santa Rosa Road, Suite 209<br>Richmond, VA 23229-5014   |

| Name                  | Title/Role  | Affiliation   | Mailing Address  |
|-----------------------|---|---|--|
| Dave Morrow           | Deputy District<br>Engineer for<br>Program and<br>Project<br>Management             | US Army Corps of<br>Engineers<br>Baltimore District   | 2 Hopkins Plaza<br>Baltimore, MD 21201   |
| Sharon Glasgow        | Senior Airport<br>Planning Specialist   | Federal Aviation<br>Administration<br>Airport Planning and<br>Environmental Division<br>(APP-400) | 800 Independence Avenue, SW<br>Washington, DC 20591                                      |
| Frank Smigelski       | Senior<br>Environmental<br>Specialist   | Federal Aviation<br>Administration<br>Airport Planning and<br>Environmental Division<br>(APP-400) | 800 Independence Avenue, SW<br>Washington, DC 20591                                      |
| Jeffrey Breeden       | Community<br>Planner  | Federal Aviation<br>Administration<br>Washington Airports<br>District Office                      | 23723 Air Freight Lane, Suite 210<br>Dulles, VA 20166                                    |
| Amanda<br>Ciampolillo | Regional<br>Environmental<br>Officer  | Federal Emergency<br>Management Agency<br>Environmental Planning<br>& Historic Preservation       | 615 Chestnut Street<br>One Independence Mall, Sixth Floor<br>Philadelphia, PA 19106-4404 |
| Cindy Schulz          | Supervisor  | US Fish and Wildlife<br>Service<br>Virginia Field Office  | 6669 Short Lane<br>Gloucester, VA 23061  |
| Genevieve<br>LaRouche | Supervisor  | US Fish and Wildlife<br>Service<br>Chesapeake Bay Field<br>Office                                 | 117 Admiral Cochrane Drive<br>Annapolis, MD 21401-7307                                   |
| Marcel C. Acosta      | Executive Director  | National Capital<br>Planning Commission   | 401 9th Street, NW<br>North Lobby, Suite 500<br>Washington, DC 20004                     |
| Diane Sullivan        | Director, Urban<br>Design and Plan<br>Review Division                               | National Capital<br>Planning Commission   | 401 9th Street, NW<br>North Lobby, Suite 500<br>Washington, DC 20004                     |
| Lee Webb              | Historic<br>Preservation<br>Specialist, Urban<br>Design and Plan<br>Review Division | National Capital<br>Planning Commission   | 401 9th Street, NW<br>North Lobby, Suite 500<br>Washington, DC 20004                     |

| Name                | Title/Role                                 | Affiliation  | Mailing Address   |
|---------------------|--|--|---|
| Reid Nelson         | Director                                   | Advisory Council on<br>Historic Preservation<br>Office of Federal Agency<br>Programs | 401 F Street, NW, Suite 308<br>Washington, DC 20001-2637                      |
| Katry Harris        | Program Analyst                            | Advisory Council on<br>Historic Preservation<br>Office of Federal Agency<br>Programs | 401 F Street, NW, Suite 308<br>Washington, DC 20001-2637                      |
| Michael Weil        |  | National Capital<br>Planning Commission  | 401 9th Street, NW<br>North Lobby, Suite 500<br>Washington, DC 20004          |
|                     |  | Native American Tribes   |   |
| Neil Patterson, Jr. | Director                                   | Tuscarora Nation<br>Tuscarora<br>Environmental Program                               | 5226 E Walmore Road<br>Lewiston, NY 14092                                     |
| Lisa LaRue-Baker    | Tribal Historic<br>Preservation<br>Officer | United Keetoowah Band<br>of Cherokee Indians in<br>Oklahoma                          | P.O. Box 746<br>Tahlequah, OK 74465   |
| Caitlin Totherow    | Tribal Historic<br>Preservation<br>Officer | Catawba Indian Nation<br>Tribal Historic<br>Preservation Office                      | 1536 Tom Steven Road<br>Rock Hill, SC 29730                                   |
| Russell Townsend    | Tribal Historic<br>Preservation<br>Officer | Eastern Band of<br>Cherokee Indians  | Qualla Boundary<br>P.O. Box 455<br>Cherokee, NC 28719                         |
| Robert Gray         | Chief                                      | Pamunkey Indian Tribe  | Pamunkey Indian Reservation<br>191 Lay Landing Road<br>King William, VA 23086 |
| Stephen R. Adkins   | Chief                                      | Chickahominy Indian<br>Tribe   | 8200 Lott Cary Road<br>Providence Forge, VA 23140                             |
| Gerald Stewart      | Assistant Chief                            | Chickahominy Indian<br>Tribe, Eastern Division                                       | 2895 Mount Pleasant Rd<br>Providence Forge, Virginia                          |
| Frank Adams         | Chief                                      | Upper Mattaponi Tribe  | P.O. Box 184<br>King William, VA 23086  |
| Anne Richardson     | Chief                                      | Rappahannock Tribe   | 5036 Indian Neck Road<br>Indian Neck, VA 23148                                |
| Dean Branham        | Chief                                      | Monacan Indian Nation  | P.O. Box 1136<br>Madison Heights, VA 24572                                    |

| Name               | Title/Role                             | Affiliation  | Mailing Address   |
|--------------------|--|--|---|
| Samuel Bass        | Chief                                  | Nansemond Indian<br>Nation   | 1001 Pembroke Lane<br>Suffolk, VA 23434                         |
|                    | ·                                      | State Agencies   |   |
| Helen Cuervo, P.E. | District Engineer                      | Virginia Department of<br>Transportation<br>Northern Virginia<br>District                      | 4975 Alliance Drive<br>Fairfax, VA 22030                        |
| Kate Mattice       | Executive Director                     | Northern Virginia<br>Transportation<br>Commission  | 2300 Wilson Boulevard, Suite 620<br>Arlington, VA 22201         |
| René Hypes         | Environmental<br>Review<br>Coordinator | Virginia Department of<br>Conservation and<br>Recreation<br>Natural Heritage<br>Program        | 600 E. Main Street, 24th Floor<br>Richmond, VA 23219            |
| Ray Fernald        | Manager                                | Virginia Department of<br>Game and Inland<br>Fisheries<br>Environmental Services<br>Section    | P.O. Box 90778<br>Richmond, VA 23228                            |
| Bettina Rayfield   | Program Manager                        | Virginia Department of<br>Environmental Quality<br>Office of Environmental<br>Impact Review    | 629 East Main Street<br>P.O. Box 1105<br>Richmond, VA 23219     |
| Laura McKay        | Program Manager                        | Virginia Department of<br>Environmental Quality<br>Virginia Coastal Zone<br>Management Program | 629 E. Main Street<br>P.O. Box 1105<br>Richmond, VA 23219       |
| Marc E. Holma      | Architectural<br>Historian             | Virginia Department of<br>Historic Resources<br>Office of Review and<br>Compliance             | 2801 Kensington Avenue<br>Richmond, VA 23221                    |
| Rahul Trivedi      | Planning Manager                       | Virginia Department of Transportation  | 4975 Alliance Drive<br>Fairfax, VA 22030                        |
|                    |  | <b>Regional Agencies</b>   |   |
| Chuck Bean         | Executive Director                     | Metropolitan<br>Washington Council of<br>Governments   | 777 North Capitol Street, NE, Suite 300<br>Washington, DC 20002 |

| Name                    | Title/Role                              | Affiliation  | Mailing Address   |  |
|-------------------------|---|--|---|--|
| Stephen Walz            | Director                                | Metropolitan<br>Washington Council of<br>Governments<br>Department of<br>Environmental Programs  | 777 North Capitol Street, NE, Suite 300<br>Washington, DC 20002                         |  |
| Robert W. Lazaro        | Executive Director                      | Northern Virginia<br>Regional Commission   | 3040 Williams Drive, Suite 200<br>Fairfax, VA 22031                                     |  |
| Jim Corcoran            | President & CEO                         | Northern Virginia<br>Chamber of Commerce   | 7900 Westpark Drive, Suite A550<br>Tysons, VA 22102-3853                                |  |
| Kanathur Srikanth       | Director                                | Metropolitan<br>Washington Council of<br>Governments<br>Department of<br>Transportation Planning | 777 North Capitol Street, NE, Suite 300<br>Washington, DC 20002                         |  |
| Todd Hafner             | Planning and<br>Development<br>Director | Northern Virginia<br>Regional Park Authority   | 5400 Ox Road<br>Fairfax Station, VA 22039   |  |
| Local Agencies          |   |  |   |  |
| Bryan Hill              | County Executive                        | Fairfax County   | Government Center<br>12000 Government Center Parkway,<br>Suite 551<br>Fairfax, VA 22035 |  |
| Tom Biesiadny           | Director                                | Fairfax County<br>Department of<br>Transportation  | Centerpointe 1 Office Building<br>4050 Legato Road, Suite 400<br>Fairfax, VA 22033-2867 |  |
| Peter F. Murphy,<br>Jr. | Chairman                                | Fairfax County Planning<br>Commission  | Government Center<br>12000 Government Center Parkway,<br>Suite 330<br>Fairfax, VA 22035 |  |
| Fred R. Selden          | Director                                | Fairfax County<br>Department of Planning<br>and Zoning   | 12055 Government Center Parkway<br>Fairfax, VA 22035-5505                               |  |
| Marianne Gardner        | Director                                | Fairfax County<br>Department of Planning<br>and Zoning<br>Planning Division                      | 12055 Government Center Parkway,<br>Suite 730<br>Fairfax, VA 22035-5505                 |  |

| Name                       | Title/Role  | Affiliation   | Mailing Address   |
|----------------------------|---|---|---|
| Mary Ann Welton            | (blank)   | Fairfax County<br>Department of Planning<br>and Zoning<br>Fairfax County Wetlands<br>Board  | 12055 Government Center Parkway<br>Fairfax, VA 22035-5505                               |
| James Patterson            | Chief   | Fairfax County<br>Department of Public<br>Works and<br>Environmental Services<br>Stormwater Planning<br>Division<br>Watershed Planning and<br>Assessment Branch | Government Center<br>12000 Government Center Parkway,<br>Suite 449<br>Fairfax, VA 22035 |
| Richard R. Bowers,<br>Jr.  | Chief   | Fairfax County Fire and<br>Rescue Department  | 4100 Chain Bridge Road, 7th Floor<br>Fairfax, VA 22030                                  |
| Edwin C. Roessler,<br>Jr.  | Chief of Police   | Fairfax County Police<br>Department   | 4100 Chain Bridge Road<br>Fairfax, Virginia 22030                                       |
| David Bowden               | Director  | Fairfax County Park<br>Authority<br>Planning and<br>Development Division  | 12055 Government Center Parkway,<br>Suite 406<br>Fairfax, VA 22035                      |
| Gerald L. Gordon,<br>Ph.D. | President and CEO   | Fairfax County Economic<br>Development Authority  | 8300 Boone Boulevard, Suite 450<br>Tysons Corner, Virginia 22182                        |
| Elizabeth Crowell          | Branch Manager  | Fairfax County Cultural<br>Resources Management<br>and Protection Branch  | James Lee Center<br>2855 Annandale Road<br>Fairfax, VA 22042                            |
| Linda Cornish<br>Blank     | Historic<br>Preservation<br>Planner and<br>Architectural<br>Review Board<br>Administrator | Fairfax County<br>Department of Planning<br>and Zoning  | 12055 Government Center Parkway,<br>Suite 730<br>Fairfax, VA 22035-5505                 |
| Kevin Munroe               | N/A   | Huntley Meadows Park<br>Fairfax County Parks<br>Authority   | 3701 Lockheed Boulevard<br>Alexandria, VA 22306   |
| Laura Arseneau             | Historic<br>Preservation<br>Planner   | Fairfax County<br>Government  | 12055 Government Center Parkway<br>Fairfax, VA 22035                                    |

| Name                          | Title/Role   | Affiliation  | Mailing Address   |
|-------------------------------|--|--|---|
| Robert Pikora                 | Senior<br>Transportation<br>Planner                                | Fairfax County<br>Department of<br>Transportation        | 4050 Legato Road, Suite 400<br>Fairfax, VA 22033            |
|                               | No   | on-Governmental Organizat                                | ions  |
| Mary Rafferty <sup>1</sup>    | Executive Director   | Virginia Conservation<br>Network                         | 409 East Main Street, Suite 201<br>Richmond, VA 23219       |
| Martha Wingfield <sup>1</sup> | Board Member   | Virginia Conservation<br>Network                         | 409 East Main Street, Suite 201<br>Richmond, VA 23219       |
| Bob Elwood <sup>1</sup>       | President  | Potomac River<br>Association, Inc.                       | P.O. Box 76<br>Valley Lee, MD 20692                         |
| Dean Naujoks                  | Potomac<br>Riverkeeper   | Potomac Riverkeepers                                     | 1100 15th Street, NW, 11th Floor<br>Washington, DC 20005    |
| Alan Rowsome                  | Executive Director   | The Northern Virginia<br>Conservation Trust              | 4022-A Hummer Road<br>Annandale, VA 22003                   |
| Walter C. Clarke              | President  | Southeast Fairfax<br>Development<br>Corporation          | 6677 Richmond Highway, Second Floor<br>Alexandria, VA 22306 |
| Tim Thompson                  | President  | Fairfax County<br>Federation of Citizens<br>Associations | P.O. Box 3913<br>Merrifield, VA 22116-3913                  |
| Ken Gaffey                    | President  | Inlet Cove Board of<br>Directors                         | 7035 Regional Inlet Drive<br>Fort Belvoir, VA 22060         |
| Joe DeCola                    | Executive Director   | The Fairfax  | 9140 Belvoir Woods Pkwy<br>Fort Belvoir, VA 22060           |
| Hillary Clawson               | President  | Mason Neck Citizens<br>Association                       | P.O. Box 505<br>Mason Neck, VA 22199                        |
| Patricia Soriano              | Chapter Delegate,<br>Political Chair,<br>Parks and Public<br>Lands | Mount Vernon Group,<br>Sierra Club                       | 5405 Barrister Place<br>Alexandria, VA 22304                |
| Judy Riggin                   | Director   | Alexandria Friends<br>Meeting at Woodlawn                | 8990 Woodlawn Road<br>Fort Belvoir, VA 22060                |
| Kathy Pohorylo                | Chairman,<br>Environment &<br>Recreation                           | Mount Vernon Council<br>of Citizens' Associations        | P.O. Box 203<br>Mount Vernon, VA 22121-0203                 |

| Name                     | Title/Role                         | Affiliation   | Mailing Address  |
|--------------------------|------------------------------------|---|--|
| Cathy Ledec              | President                          | Friends of Huntley<br>Meadows   | c/o Huntley Meadows Park<br>3701 Lockheed Blvd.<br>Alexandria, VA 22306                  |
| Carl Kikuchi             | President                          | Audubon Society of<br>Northern Virginia                               | 11100 Wildlife Center Drive, Suite 100<br>Reston, VA 20190                               |
| Hedrick Belin            | President                          | Potomac Conservancy   | 8403 Colesville Road, Suite 805<br>Silver Spring, MD 20910                               |
| Nissa Dean               | Virginia State<br>Director         | Alliance for the<br>Chesapeake Bay                                    | 612 Hull Street, Suite 101C<br>Richmond, VA 23224  |
| Rebecca Leprell          | Virginia Executive<br>Director     | Chesapeake Bay<br>Foundation  | Capitol Place<br>1108 E. Main Street, Suite 1600<br>Richmond, VA 23219                   |
| Sonja Caison             | Chairman                           | Mount Vernon Lee<br>Chamber of Commerce                               | Chamber of Commerce Building<br>6821 Richmond Highway<br>Alexandria, VA 22306            |
| Dale Rumberger           | President                          | South County Federation   | P.O. Box 442<br>Mason Neck, VA 22199-0442  |
| Chris Soule <sup>1</sup> | Chairman                           | Lee District Association of Civic Organizations                       | P.O. Box 10413<br>Alexandria, Virginia 22310   |
| Kris Unger               | Primary<br>Conservator             | Friends of Accotink<br>Creek  | 127 Poplar Road<br>Fredericksburg, VA 22406-5022   |
| Philip Latasa            | Chronicler                         | Friends of Accotink<br>Creek  | 127 Poplar Road<br>Fredericksburg, VA 22406-5022   |
| Lori Arguelles           | Executive Director                 | Alice Ferguson<br>Foundation  | 2001 Bryan Point Road<br>Accokeek, MD 20607  |
| Rentz Hilyer             | Land<br>Conservation<br>Specialist | Northern Virginia<br>Conservation Trust                               | 4022-A Hummer Road<br>Annandale, VA 22003  |
| Stephanie K.<br>Meeks    | President and CEO                  | National Trust for<br>Historic Preservation                           | Watergate Office Building<br>2600 Virginia Avenue NW, Suite 1100<br>Washington, DC 20037 |
| Laurie Ossman            | Executive Director                 | Woodlawn Plantation<br>and Frank Lloyd Wright's<br>Pope Leighey House | 9000 Richmond Highway<br>Alexandria, VA 22309  |
| Scott Stroh              | Director                           | Gunston Hall Plantation   | 10709 Gunston Road<br>Mason Neck, VA 22079   |

| Name                          | Title/Role                   | Affiliation   | Mailing Address                                       |
|-------------------------------|------------------------------|---|---|
| Paul Kohlenberger             | President                    | Historical Society of<br>Fairfax County, Virginia             | P.O. Box 415<br>Fairfax, Virginia 22038               |
| Brian Collison                | Pastor                       | Pillar Church of<br>Woodlawn                                  | 9001 Richmond Highway<br>Alexandria, Virginia 22309   |
| Fred Crawford                 | Representative               | Pohick Episcopal Church                                       | Frcrawford205@comcast.net                             |
| Dick Hamly                    | Representative               | Pohick Episcopal Church                                       | dickhamly@aol.com                                     |
| Alan McCall                   | Representative               | Pohick Episcopal Church                                       | Photoguy53@comcast.net                                |
| Ross M. Bradford <sup>1</sup> | Associate General<br>Counsel | Law Department<br>National Trust for<br>Historic Preservation | 1785 Massachusetts Avenue, NW<br>Washington, DC 20036 |
|                               |                              | Other Interested Parties                                      |   |
| Charlie Harmon                | N/A                          | Nuke Digest   | nukedigest@gmail.com                                  |
|                               |                              | Libraries   |   |
| Fort Belvoir MWR<br>Library   | N/A                          | Fort Belvoir MWR  | 9800 Belvoir Rd, Bldg. 200<br>Fort Belvoir, VA 22060  |
| Kingstowne Library            | N/A                          | Fairfax County Public<br>Library                              | 6500 Landsdowne Centre<br>Alexandria, VA 22315-5011   |
| Lorton Library                | N/A                          | Fairfax County Public<br>Library                              | 9520 Richmond Highway<br>Lorton, VA 22079-2124        |

Note:

1. Draft EA notification letters sent to these recipients were returned to sender by the U.S. Postal Service as undeliverable. USACE has updated the SM-1 EA mailing list accordingly.

**Draft EA Agency Comments** 



## County of Fairfax, Virginia

To protect and enrich the quality of life for the people, neighborhoods and diverse communities of Fairfax County

January 31, 2020

Brenda M. Barber, P.E.
Baltimore District Project Manager
U.S. Army Corps of Engineers, Environmental and Munitions Design Center
ATTN: CENAB-ENE-C
2 Hopkins Plaza
09-A-10 (Cube)
Baltimore, MD 21201

RE: Environmental Analysis: Draft Environmental Assessment - Fort Belvoir Deactivated SM-1 Nuclear Reactor Facility Decommissioning and Dismantlement

Dear Ms. Barber:

This memorandum provides comments from Fairfax County regarding the Draft Environmental Assessment (EA), the Draft Finding of No Significant Impact (FONSI), and the Draft Finding of No Practicable Alternative (FONPA) for the proposed decommissioning and dismantlement of the Deactivated Stationary Medium Power Model 1 (SM-1) Nuclear Reactor Facility at United States Army Garrison Fort Belvoir (Fort Belvoir).

### **PROPOSED ACTION**

The EA analyzes two alternatives to the Proposed Action: i) the Proposed Action Alternative, which would execute the Deactivated SM-1 Nuclear Reactor Facility Decommissioning Plan; and ii) the No Action Alternative, which would allow the continued maintenance of the Deactivated SM-1 Nuclear Reactor Facility in a safe storage condition and which would allow future Reactor Possession Permit extensions.

The Deactivated SM-1 Nuclear Reactor Facility is located on Fort Belvoir's South Post within the secured 300 Area, on an approximately 3.6-acre site along the shoreline of Gunston Cove, a tidal embayment of the Potomac River. The SM-1 site contains the reactor building, an inactive wastewater lift station, a small warehouse, a water intake pier and pump house, a concrete discharge pipe, and outfall structure. The water intake pier and pump house, concrete discharge pipe, and outfall structure are located in the 100-year floodplain and tidal wetlands associated with Gunston Cove. More importantly, Gunston Cove converges with the Potomac River less than one mile downstream (southeast) of the SM-1 site. The Potomac River discharges to the Chesapeake Bay approximately 64 miles (in a straight line) downstream from Fort Belvoir and is one of the Bay's major tributaries. Due to the proximity of these surface water features, resource protection areas (RPAs) associated with the Gunston Cover shoreline and 100-year floodplain



Excellence \* Innovation \* Stewardship Integrity \* Teamwork\* Public Service Department of Planning and Development Planning Division 12055 Government Center Parkway, Suite 730 Fairfax, Virginia 22035-5507 Phone 703-324-1380 Fax 703-653-9447 www.fairfaxcounty.gov/planning-development Brenda M. Barber Fort Belvoir Deactivated SM-1 Nuclear Reactor Facility Decommissioning and Dismantlement Page 2

cover approximately 45 percent (2.2 acres) of the 3.6 acres SM-1 site. It is also noted the SM-1 Reactor Facility has been determined eligible for listing in the National Register of Historic Places (NRHP) based on its age and exceptional historic importance.

It is staff's understanding that under the Proposed Action Alternative, the Deactivated SM-1 Nuclear Reactor Facility would be decommissioned and dismantled. All radioactive and nonradioactive materials and equipment and remnant structures, including the intake pier and pump house, concrete discharge pipe, and outfall structure, would be removed from the SM-1 site. Removal of in-water structures would require work in the 100-year floodplain and tidal wetlands associated with Gunston Cove. All radioactive and non-radioactive materials and waste associated with the site would be packaged, transported, and disposed of in accordance with applicable laws and regulations. The EA indicates that Fort Belvoir's existing road network would be used to access the SM-1 site, and to transport materials and waste off-post for disposal or recycling. Following decommissioning, the site would be restored, including the placement of clean fill soils and grading to mimic the site's current elevation and topography, and released for unrestricted use. The EA further notes that the 100-year floodplain and tidal wetlands would return to a pre-disturbance condition following the removal of the remnant in-water structures.

The EA and FONSI indicate that implementing the Proposed Action would reduce costs associated with maintaining the Deactivated SM-1 Nuclear Reactor Facility, and would allow the U.S. Army Corps of Engineers (USACE) to meet mission objectives to decommission SM-1 and terminate their possession permit. Upon its completion, the Proposed Action would transfer the responsibility for the site to Fort Belvoir. The No Action Alternative would require USACE to continue bearing the cost of maintenance and would not allow the site to be restored or returned to a natural state.

Fairfax County supports the proposed decommissioning and removal of the facility in order to allow the site to be restored to a more natural state. However, staff from multiple agencies offer the following comments:

### Radiation

The Proposed Action would result in the removal of low-level radioactive waste, which would include contaminated concrete, steel, tile, utility pipes, plastic, materials and equipment, soils, and mixed waste. The majority of radioactive material is found in the Vapor Container (VC). The remaining residual contamination is contained in various secondary and waste system components and outside soils. A total of approximately 7,424 cubic yards of radioactive waste would be removed under the Proposed Action.

Staff understands that decommissioning would occur in a controlled manner to minimize both public and occupational radiation exposure. A decommissioning contractor would implement a Radiation Safety Program, an Environmental Monitoring and Control Program, and a Waste Management Program to ensure the safe removal of activated and/or contaminated components in an effort to reduce the risk of potential release to the environment. Given the extent of the contamination, nearly all of the site would be disturbed as the affected soils and building materials are removed. Sampling would occur throughout the process to ensure that the contamination has been removed. County staff appreciates the efforts to remove the

Brenda M. Barber Fort Belvoir Deactivated SM-1 Nuclear Reactor Facility Decommissioning and Dismantlement Page 3

contamination and recommends that all stakeholder agencies be kept aware of the decommissioning process, as it proceeds.

#### Water, Soil, and Forest Resources

The intake pier, pump house, and wastewater outfall pipe are all located in tidal wetlands and waters. Thus, activities to facilitate removal must occur in tidal wetlands and the 100-year floodplain. Removal of the intake pier/pump house, concrete discharge pipe, and outfall structure would disturb approximately 1.4 acres of tidal wetlands in Gunston Cove, and 0.6-acre of freshwater wetlands immediately inland of Gunston Cove. Activities within the floodplain and wetlands would cease after all remnant structures have been removed.

The EA describes the removal of the water intake pump house and pier, which extends approximately 100 feet from the shoreline into Gunston Cove. Removal would likely require the use of a barge-mounted crane and other vessels to give the dismantlement crew and equipment access to the structure. Superstructures would be removed first, followed by the piles. The piles would be cut at the mudline and the portions below the cut would be left in place. Containment booms and sediment curtains would be used during in-water and nearshore work associated with the removal of the intake pier/pump house, concrete discharge pipe, and outfall structure to contain debris that could inadvertently enter the water column, prevent the migration of disturbed sediment into the water column, minimize turbidity, and ensure disturbed sediments settle near their original location. Disturbance of subaqueous bottomlands during in-water activities would also be minimized to the extent practicable. Spill kits would be kept nearby during all in-water and nearshore work to prevent or reduce the risk from the migration of hazardous substances into receiving water bodies, in the event that an accidental spill occurs. Staff concurs with this approach.

For the more upland areas, vegetation clearing and/or soil disturbance would be necessary to facilitate the removal of existing structures and abandoned utility lines, provide maneuvering and operational space for vehicles and equipment, and create storage and staging space for materials and containerized waste.

As part of site remediation, a loamy top soil seeded with native grasses and shrubs would be applied across the site to promote revegetation. Additionally, in accordance with Policy Memorandum #27, *Tree Removal and Protection*, Fort Belvoir requires the planting of two new trees between 1.5 and 2.5 inches diameter at breast height (dbh) for every tree or sapling 4 inches dbh or greater removed from RPAs during project-related activities. At minimum, the number of trees replanted in the RPA must equal those removed from the RPA during the project; additional trees may be planted outside the RPA to meet this requirement. Additionally, trees and shrubs less than 4 inches dbh that are removed from the RPA during the project must be replaced one-for-one within the RPA in accordance with VDCR's *Riparian Buffers Modification and Mitigation Guidance Manual*. Staff concurs with this remediation proposal.

It should be noted that, as a federal entity, Fort Belvoir is not subject to the provisions of the Fairfax County Chesapeake Bay Preservation Ordinance. As a result, Fort Belvoir does not use RPA maps produced by Fairfax County. Instead, the Army delineates the RPAs on the installation.

Brenda M. Barber Fort Belvoir Deactivated SM-1 Nuclear Reactor Facility Decommissioning and Dismantlement Page 4

Although the site would be restored and maintained in a vegetated condition by Fort Belvoir, given the adjacency of the site to Gunston Cove, the presence of steep slopes, the required removal of nearly all surface soils and site vegetation, and the anticipated exposure of subsoils for an extended period to accommodate the required sampling for radioactive contamination, county staff recommends that a robust erosion and sediment control plan and replanting plan be developed and incorporated throughout all phases of the decommissioning process. Such plans are recommended to preclude the washing of sediment into the adjacent waters, to stabilize the site, and to facilitate the revegetation and regeneration of the site. Further, staff recommends that the project staff consult and coordinate with the Northern Virginia Soil and Water Conservation District and the county Department of Public Works and Environmental Services regarding mitigation procedures. Staff recommends that any mitigation plan consider the following:

- Erosion Control: In addition to straw, which should be used to provide immediate protection of exposed soil, matting and/or netting made of natural materials, such as jute or coir, should be spread across all exposed soil surfaces. Together, these materials would help dissipate the erosive energy of rainwater. At the perimeter of the site, silt fences should be erected to filter sediment from runoff before it flows off-site.
- <u>Steep Slopes</u>: Special erosion control provisions should be incorporated on slopes, such as earthen diversion dikes and coir "logs," placed parallel to steep slopes and perpendicular to rainwater flows.
- <u>Compaction</u>: Exposed subsoils are expected to be compacted by heavy equipment. All subsoils should be decompacted prior to covering with topsoils.
- <u>Soil Horizons</u>: The surface of remnant subsoils should be "roughed up" to create irregular surfaces, to facilitate mixing with the topsoil fill materials, and to ultimately facilitate the growth of plant roots from the topsoils into the subsoils.
- <u>Replanting</u>: Planting should be accomplished through all phases of site disturbance with a combination of native forbs, grasses, shrubs, and trees to minimize exposed soil. Seed mixes and plantings should include a mixture of fast-growing annuals and cover crops for quick surface stabilization and slower-growing but longer-lived perennials for continued stabilization. While plants that require full sun would be appropriate at the beginning of the project, shade-loving species should be considered later in the process, once larger plants have started to create shade. Various species should be included in planting plans to both create vegetative coverage of the soil surface and fill in gaps below the surface through various rooting habits. Unless a new climax vegetative community is desired, the site's existing vegetation should be used to guide the species selection.
- <u>Deer Protection</u>: Deer protection, such as tubes, should be used for woody plantings. Geese
  protection, such as a network of strings, should be used for plantings of forbs and grasses.
- <u>Invasive Species Control</u>: Weeding and other maintenance should be performed to prevent invasive species from overgrowing the site and outcompeting the desired native species.

Additionally, staff recommends that USACE schedule a briefing before the Fairfax County Wetlands Board regarding any proposed actions affecting tidal wetlands, freshwater wetlands, and floodplains, to include project impacts and remediation measures.

County staff notes that Gunston Cove is part of a long-term on-going aquatic monitoring program conducted by the Potomac Environmental Research and Education Center (PEREC) at

Fort Belvoir Deactivated SM-1 Nuclear Reactor Facility Decommissioning and Dismantlement Page 5

George Mason University and Fairfax County's Environmental Monitoring Branch. The study is a continuation of work which originated in 1984 at the request of the county's Environmental Quality Advisory Council and the Department of Public Works. The original study design utilized monitoring stations in Gunston Cove, the Potomac mainstem, and Dogue Creek. The same stations at Gunston Cove have been tested for more than 25 years, leading to conclusions regarding the present ecological status of the area and recommendations for future needs. Staff notes that some of the sampling locations are proximate to the water intake associated with SM-1. Staff recommends that decommissioning activities be coordinated with the Potomac Environmental Research and Education Center of George Mason University, to ensure that decommissioning activities do not conflict with research activities.

### Flora and Fauna

Gunston Cove borders the SM-1 site. This cove contains shallow water with various types of submerged aquatic vegetation (SAV). SAV contributes to the health of estuary systems by providing habitat for many fish and shellfish species, food for waterfowl, erosion control, and excess nutrient absorption.

Two hundred seventy-eight (278) bird species have been documented at Fort Belvoir. Vegetation on the SM-1 site could provide habitat for any number of Fort Belvoir's resident and migrant bird species, particularly those that prefer forested and wooded areas. Additionally, active osprey (*Pandion haliaetus*) nests exist on Building 372, on the intake pier, and in other areas of the SM-1 site. Ospreys typically mate for life and return to the same nesting area each year.

The Proposed Action Alternative would alter existing wildlife habitat at the SM-1 site from proposed site preparation, dismantlement, and restoration activities. Wildlife at and near the SM-1 site would likely be disturbed by construction related noise. Wildlife species that occupy the SM-1 site are those generally tolerant of human activities and presence. These species would be expected to avoid the SM-1 site during decommissioning activities and relocate to undisturbed habitat areas in the vicinity. To prevent or minimize impacts on migratory birds known or having potential to occur on or near the SM-1 site, vegetation clearing would be prohibited between April 1 and July 15 of any year in accordance with Fort Belvoir Policy Memorandum #78, *Conservation of Migratory Birds*. Surveys for birds and/or active nests would be conducted prior to vegetation clearing if such activities could not be avoided during that time period.

The EA notes that active osprey nests (e.g., on Building 372 and the intake pier) would be relocated according to VDGIF's *Removal or Relocation of Osprey Nests in Virginia: A Guideline for Landowners* (VDGIF, 2010). In accordance with Fort Belvoir's Policy Memorandum #78, *Conservation of Migratory Birds*, the nest would be relocated during the period between September 15 and April 16. Relocation of these nests could cause potentially adverse impacts on an active osprey breeding pair.

Staff encourages coordination with appropriate agencies and implementation of management or protection measures to minimize adverse impacts. In order to mitigate the impacts to osprey nests, staff recommends that Fort Belvoir staff consider the construction of alternative osprey nesting platforms in the vicinity of the existing nests and the relocation of those nests to the new

Fort Belvoir Deactivated SM-1 Nuclear Reactor Facility Decommissioning and Dismantlement Page 6

platforms. County staff appreciates the consideration given to the species endemic to the site and the surrounding areas.

#### Heritage Resources

A previous archaeological survey in 1987 identified one archaeological site (44FX1331) within the project area. A subsequent survey in 2018 was conducted to determine if potentially significant archaeological resources were present. However, the archaeological survey determined that extensive ground disturbance associated with construction of SM-1 severely impacted the landform and may have destroyed much of the site's subsurface integrity. As a result, the site was determined not eligible for listing in the National Register of Historic Places (NRHP) and no further archaeological study of the SM-1 site was recommended. The State Historic Preservation Officer (SHPO) concurred with the findings and recommendations of the Phase I archaeological survey that no further archaeological work at the SM-1 site was required. Fairfax County Park Authority staff concurs with the Virginia Department of Historic Resources (VDHR) that site 44FX1331 is not significant or eligible for inclusion on the NRHP (see attachment).

In 1996, the SM-1 Reactor Facility was evaluated for listing on the NRHP. The study determined that the facility was eligible for listing in NRHP under Criterion A on the national level, with a period of significance between 1955 and 1973 (US Army Package Power Reactor; VDHR ID #029-0193). Because the facility was less than 50 years old at the time, NRHP Criterion Consideration G (for resources less than 50 years old) applied, as the facility met the threshold for "exceptional importance" according to this criterion.

SM-1 was the Army's first nuclear-powered, electricity-generating station and the first pressurized water reactor to be connected to an electrical grid in the United States. It was used to train military nuclear power plant operators and to perform nuclear research and development tasks. As the Army's first prototype nuclear power generating plant, the SM-1 Reactor Facility represented an important step in the use of atomic power. SM-1 operated from 1957 to 1973 and was deactivated between 1973 and 1974. It was placed in a safe storage configuration in 1974. The Deactivated SM-1 Nuclear Reactor Facility is maintained under Reactor Possession Permit Number SM1-1-19 issued by the US Army Nuclear and Countering Weapons of Mass Destruction Agency (USANCA). The Deactivated SM-1 Nuclear Reactor Facility has been part of a routine monitoring program that is implemented by the U.S. Army Corps of Engineers (USACE).

USACE has determined that the Proposed Action Alternative would have an adverse effect on the NRHP-eligible SM-1 Reactor Facility and Fairfax County agrees with this determination. To ensure this adverse effect remains less than significant, USACE has developed mitigation and minimization measures in consultation with VDHR, the Advisory Council on Historic Preservation (ACHP), and other consulting parties, including the Fairfax County Department of Planning and Development. These measures would be detailed in a Memorandum of Agreement (MOA) and finalized once consultation is complete. The current stipulations, although they are subject to change due to comments from consulting parties, are summarized as follows:

 USACE will produce a modified Historic American Engineering Record (HAER) for the SM-1 Reactor Facility, which will document SM-1 operations within its historical context as

Fort Belvoir Deactivated SM-1 Nuclear Reactor Facility Decommissioning and Dismantlement Page 7

a nationally significant nuclear energy resource. This documentation will include information such as location and address, owner, operational and decommissioning narratives, and architectural details, supported by a complete bibliography and electronic repository, including motion picture film, photographs, and documents, as appropriate. Due to the loss of original as-built drawings, the HAER documentation will include a 3-dimensional rendering of the facility using Light Detection and Ranging (LIDAR) scans. Fairfax County Heritage Resources has asked via Section 106 Consultation for further detail on why this level of documentation was chosen and if the National Park Service was involved in the decision, as required, and has asked for further detail on how the information will be made available to the public.

- USACE will conduct interviews with personnel who were closely associated with the construction, operation, and initial closure of the SM-1 Reactor Facility. These interviews will be conducted, recorded, and transcribed in accordance with applicable standards. In addition, research will be conducted at Fort Belvoir, and at repositories elsewhere in Virginia and Washington, DC, including review of historic photographs, training videos, aerials, maps, documents, plans, newspapers, and scientific journals. Digital images will be saved and labeled in accordance with SHPO standards for architectural surveys.
- All field work, photography, and research necessary to produce the HAER of the SM-1 Reactor Facility will be carried out by or under the direct supervision of a Secretary of the Interior-qualified architectural historian, who meets the appropriate Secretary of the Interior's Professional Qualification Standards (SOI Standards; 48 Federal Register 44738-9, Sept. 29, 1983). All work will be conducted in accordance with Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation (36 CFR Part 61); and Secretary of the Interior's Standards for the Treatment of Historic Properties (36 CFR Part 68).
- USACE will provide the SHPO with a thirty (30)-day period to review and comment on the HAER documentation.
- USACE will implement other mitigation measures identified in the MOA, such as moving the commemorative plaque affixed to Building 372 to a facility for restoration and display; salvaging historical items to be placed on loan for traveling exhibits; and erecting a historical marker commemorating the SM-1 Reactor Facility.
- USACE will complete the HAER and other mitigation measures identified in the MOA within six months after completion of the decommissioning and demolition of the SM-1 Reactor Facility.

Fairfax County concurs with the measures outlined above and looks forward to continuing Section 106 Consultation and finalizing the MOA.

### Air Quality, Fugitive Emissions

County staff notes that the metropolitan Washington, D.C. area is designated by the U.S. Environmental Protection Agency as a marginal non-attainment area for the 2015 eight-hour ozone standard. High ozone concentrations can adversely affect human health. These concentrations result from the interactions of oxides of nitrogen (NOx) and volatile organic compounds (VOCs) with sunlight. Major sources of NOx emissions include motor vehicles,

Fort Belvoir Deactivated SM-1 Nuclear Reactor Facility Decommissioning and Dismantlement Page 8

utilities and other stationary sources, and non-road construction vehicles. Major sources of emissions of VOCs include motor vehicles.

The EA proposes implementation of the following management measures and/or Best Management Practices to further reduce the anticipated less-than-significant, adverse effects:

- Truck beds would be covered while in transit to limit fugitive dust emissions;
- Water would be sprayed on any unpaved roads or stockpiles to limit fugitive dust emissions;
- Ultra-low sulfur diesel would be used as a fuel source where appropriate to minimize oxides
  of sulfur emissions;
- Clean diesel would be used in construction equipment and vehicles through the implementation of add-on control technologies such as diesel particulate filters and diesel oxidation catalysts, repowers, and/or newer and cleaner equipment. When feasible, electricpowered equipment would be used in lieu of diesel-powered equipment;
- Control measures for heavy construction equipment and vehicles, such as minimizing operating and idling time, would be implemented to limit criteria pollutant emissions; and
- Air quality permits would be obtained for the Proposed Action Alternative, as necessary, in compliance with federal, state, and local standards.

County staff appreciates the consideration of air quality and concurs with the proposed measures to reduce adverse impacts.

### Transportation

The Proposed Action Alternative would generate additional vehicle trips on and in the vicinity of Fort Belvoir during the decommissioning process. Vehicle trips would include workers' commuting vehicles as well as heavy trucks hauling materials and equipment needed during decommissioning activities, transporting waste from the SM-1 site, and bringing fill soils to the site during restoration activities. The number of additional trips generated by workers' commuting vehicles on Fort Belvoir roads during the Proposed Action Alternative is anticipated to remain low. It is estimated that the proposed decommissioning would generate 1,150 heavy truck trips over the 5-year on-site decommissioning period, comprising approximately 650 waste shipments from the site and 500 trips to the site to deliver clean fill soils during restoration activities. The number of heavy truck trips equates to approximately 4.4 trips per week during the 5-year decommissioning period. However, it is anticipated that approximately 50 percent of waste shipments would occur during the middle 12 months (i.e., months 19 through 30) of the project, which equates to approximately 11 heavy truck trips per week during that 12-month period.

The EA proposes the following management measures to minimize impacts on the transportation network and/or from the transport of low-level radioactive waste and other waste:

- A project-specific transportation management plan would be implemented identifying approved travel routes to and from the site for decommissioning personnel and heavy trucks transporting materials, equipment, and debris;
- During spill and emergency response planning for the Proposed Action Alternative, the decommissioning contractor would notify on- and off-post emergency responders of the

Fort Belvoir Deactivated SM-1 Nuclear Reactor Facility Decommissioning and Dismantlement Page 9

types of shipments that would be transported to support preparation for potential transportation-related accidents;

- In coordination with Fort Belvoir and other affected organizations, decommissioning-related traffic would be scheduled for off-peak hours to minimize roadway congestion; and
- All radioactive waste and other debris generated at the SM-1 site would be packaged and shipped in accordance with a written Waste Management Plan that is consistent with Nuclear Regulatory Commission and U.S. Department of Transportation regulatory requirements.

County staff agrees with the finding that the transportation impacts would be less than significant. Staff requests that Fort Belvoir include the Virginia Department of Transportation, the Fairfax County Department of Transportation, and the Fairfax County Fire and Rescue Department when notifying local agencies about the movement of materials and the intended transportation routes.

Thank you for the opportunity to comment on this project. If you have any questions regarding these comments, please contact Joseph Gorney at 703-324-1380.

Sincerely,

Jeanna H ODonnell

Leanna O'Donnell, Director, Planning Division Department of Planning and Development

Attachment: Fairfax County Park Authority Memorandum, dated January 15, 2020.

cc: Board of Supervisors

Bryan Hill, County Executive
Rachel Flynn, Deputy County Executive
Barbara Byron, Director, DPD
Tom Biesiadny, Director, FCDOT
Denise James, Chief, Environment & Development Review Branch, DPD
Joseph Gorney, Senior Environmental Planner, Planning Division, DPD
Catherine Torgersen, Stormwater Planning Division, DPWES
Andrea Dorlester, Fairfax County Park Authority
Nicole Brannan, Heritage Resources Planner, Planning Division, DPD
Felix M. Marini, Chief of Environmental and Natural Resources Division, Fort Belvoir

LO: JCG



| TO:   | Denise James, Chief                                  |  |  |
|-------|--|--|--|
|       | Environment and Development Review Branch            |  |  |
|       | Department of Planning and Development               |  |  |
| FROM: | Andrea L. Dorlester, Development Review Section Chie |  |  |
|       | Park Planning Branch, PDD                            |  |  |
| DATE: | January 15, 2020                                     |  |  |

SUBJECT: EA-USACE SM 1 Reactor Facility; Fort Belvoir Deactivated Nuclear Reactor

The Park Authority staff has reviewed the project update dated December 20, 2019 for the EA-USACE SM-1 Reactor Facility; Fort Belvoir Deactivated Nuclear Reactor Environmental Assessment and has reviewed the Draft Environmental Assessment and concurs with the VDHR that site 44FX1331 is not significant nor Eligible for inclusion onto the National Register of Historic Places. Several structures, however, appear to be eligible or listed onto the National Register of Historic Places. Due to the nature of these structures, Park Authority staff recommends review by Fairfax County's Heritage Resources staff in the Department of Planning and Development.

There are no further archaeological issues and no additional archaeological work is warranted, however architectural comments may be forthcoming.

eCopy: Liz Crowell, Manager, Archaeology & Collections Branch File Copy

| Original Message            |  |
|-----------------------------|--|
| From: Rudnick, Barbara      | ]  |
| Sent: Friday, January 31, 2 | 2020 12:38 PM  |
| To: Corporate Communica     | ation Office-NAB <cenab-cc@usace.army.mil></cenab-cc@usace.army.mil> |
| Cc: Traver, Carrie          |  |
| Subject: [Non-DoD Source    | ] SM-1 Decommissioning Draft EA Comment Submission                   |

Re: EPA comments on Deactivated Stationary Medium Power Model 1 (SM-1) Reactor Facility on Fort Belvoir in Fairfax County, Virginia

Thank you for the opportunity to review the Draft Environmental Assessment (EA or Study) for the Decommissioning and Dismantlement of the Deactivated SM-1 Nuclear Reactor Facility at U.S. Army Garrison Fort Belvoir, dated December 2019. The U.S. Army Corps of Engineers (USACE) prepared the EA to evaluate the Proposed Action of completing the decommissioning of SM - 1 to a standard that allows for release of the site for unrestricted future use. The Proposed Action would remove all radioactive and non - radioactive materials (e.g., buildings, underground utility lines, contaminated soil) from the SM - 1 site.

EPA reviewed the EA and is providing comments 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 EA states that the SM-1 Reactor Facility was determined to be eligible for listing in the National Register of Historic Places and its removal is an adverse effect. The EA indicates that a Memorandum of Agreement (MOA) will be developed with the State Historic Preservation Office (SHPO) to minimize the adverse effect and ensure it remains less than significant. The current status of the MOA is unclear in the EA. We encourage you to continue working with SHPO and other consulting parties to finalize the MOA, take appropriate mitigative measures, and document this coordination prior to moving forward with the Proposed Action.

There are several overlapping time-of-year restrictions for tree clearing and other disturbances to avoid or reduce impacts to species of special concern, including impacts on the northern long-eared bat, migratory birds, and bald eagle nesting and concentration. Removal of osprey nests and in-water work also have associated time of year restrictions. It may be helpful to consider and present how the range of overlapping and potentially conflicting time of year restrictions for the site will be integrated into the plans and how activities may be phased to accommodate these restrictions.

The extent of wetlands onsite has not yet been delineated, but Section 3.3.3.3.3 indicates that removal of the intake pier, pump house, concrete discharge pipe, and outfall structure would disturb an estimated 1.4 acres of tidal wetlands and 0.6-acre of freshwater wetlands. We encourage you to explore ways to avoid potential impacts prior to submitting a joint permit application. As indicated, the wetlands should be delineated, the areal extent of wetland disturbance should be minimized where possible, and best management practices (BMPs) be evaluated to limit disturbances (such as mats, pads, erosion control, timing, etc.). As the extent of resources are identified, we recommend continued coordination with the USACE Regulatory Branch and applicable state regulatory agencies.

Restoration via grading, soils management, or replanting may be needed to ensure that impacts are temporary; some vegetation management during and following construction may be needed to prevent the colonization or spread of invasive species. Best management practices to avoid the introduction and spread of invasive species in wetland areas should be evaluated.

The EA notes that submerged aquatic vegetation (SAV) adjacent to the project area could be damaged or destroyed during the in-water work (removal of the concrete discharge pipe, outfall structure, and pier/pump house.) The SAV identified in the area includes both native and nonnative plants. If native SAV is disturbed, invasive species could become more prevalent; therefore, we recommend that the potential spread of aquatic invasive species also be evaluated.

The EA indicates that noise generated under the Proposed Action would result in minor, short-term, intermittent adverse impacts on water-dependent recreation in Gunston Cove, but these impacts would be minimized by the contractor implementing standard construction-related BMPs for noise control. The EA would benefit from briefly addressing specific examples of the type of BMPs that would be employed.

Site restoration would include the placement of clean fill and soils to backfill excavated areas. Given the potentially large amount of soils required to be replaced, and the need to support suitable vegetation, including trees, we recommend creating a specific plan for soil placement, including segregation, necessary amendments, and depth of topsoil. As part of this plan, potential sources of backfill and topsoil should be evaluated. We suggest the plan address the need for appropriate topsoil depth and amendments including organic matter to assist tree transplant success, as some vegetation may require significant topsoil to survive. We support consideration of native species in the site restoration effort. Please contact us if we could provide additional information.

Again, thank you for providing us with notice to review the EA. The contact for the project is Ms. Carrie Traver, traver.carrie@epa.gov. If you have any questions or would like to discuss these comments, please don't hesitate to contact me or Carrie.

Barbara Rudnick, P.G. NEPA Program Coordinator U.S. EPA Region III Office of Communities, Tribes & Environmental Assessment

CLASSIFICATION: UNCLASSIFIED

-----Original Message-----From: Warren, Arlene Sent: Tuesday, January 28, 2020 5:08 PM To: Corporate Communication Office-NAB <CENAB-CC@usace.army.mil>

Subject: [Non-DoD Source] SM-1 Project Update

Project Name: SM-1 Project Update

Project #: N/A

UPC #: N/A

Location: Fairfax Co.

VDH – Office of Drinking Water has reviewed the above project. Below are our comments as they relate to proximity to public drinking water sources (groundwater wells, springs and surface water intakes). Potential impacts to public water distribution systems or sanitary sewage collection systems must be verified by the local utility.

There are no public groundwater wells within a 1-mile radius of the project site.

There are no surface water intakes located within a 5-mile radius of the project site.

The project is not within the watershed of any public surface water intakes.

There are no apparent impacts on public drinking water sources due to this project.

No other comments were received.

Virginia Department of Health – Office of Drinking Water appreciates the opportunity to provide comments. If you have any questions, please let me know.

Best Regards,

Arlene Fields Warren GIS Program Support Technician Office of Drinking Water Virginia Department of Health **Draft EA Public Comments** 

-----Original Message-----From: Lee Hamblin Sent: Wednesday, January 29, 2020 12:40 AM To: Corporate Communication Office-NAB <CENAB-CC@usace.army.mil> Subject: [Non-DoD Source] Comments on SM-1 Decommissioning and Building 7304 Vault

Brenda,

"CABRERA designed and performed a characterization survey of the Vault and areas outside of the Vault in the first half of 2003.

Results of the characterization survey radiological analyses indicated the presence of potentially elevated tritium, Carbon-14, Cesium-137, Promethium-147, Americium-241, and Thorium-232. Elevated levels of radioactivity were detected at the interior Vault floor, at wall storage vaults, at floor storage vaults, and the soil beneath floor storage vaults. The highest contamination exceedance of action levels encompasses Cs-137 on the Vault floor and in the soil under the floor storage vaults and also H-3 inside the wall storage vaults.

Contamination exceeding action levels outside the Vault is minimal and is concentrated on the north wall and floor just outside the Vault doorway."

Was there any relationship between the operation of SM-1 and Building

7304 (Vault) and the presence of elevated tritium, Carbon-14, Cesium-137, Promethium-147, Americium-241, and Thorium-232 in the Vault ? Was radiological waste from SM-1 stored in the Vault?

SM-1 was referenced in Cabrerra's 2004 Building 7304 characterization survey report and I wonder why SM-1 was mentioned in the Cabrerra report.

Looking forward to your response.

Regards, Lee Hamblin

CLASSIFICATION: UNCLASSIFIED



- 3. Please print your comments and place in the box on the comment table.

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**Draft EA Public Meeting Materials** 

# WELCOME

# SM-1 DECOMMISSIONING PROJECT

# **Schedule**

**Draft Environmental Assessment Public Meeting** 

### 1:00 p.m. – 2:00 p.m.

- Open House
- Meet and interact with U.S. Army **Corps of Engineers and Fort Belvoir personnel**

### 2:00 p.m. – 3:00 p.m.

- **Formal Presentation**
- **Question & Answer Session**
- **Poster Availability**

# **January 7, 2020**

Public review period began on December 20, 2019 and ends on January 31, 2020





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# WELCOME

# SM-1 DECOMMISSIONING PROJECT

# **Schedule**

**Draft Environmental Assessment Public Meeting** 

### 6:30 p.m. – 7:30 p.m.

- Open House
- Meet and interact with U.S. Army **Corps of Engineers and Fort Belvoir personnel**

### 7:30 p.m. – 8:30 p.m.

- **Formal Presentation**
- **Question & Answer Session**
- **Poster Availability**

# **January 7, 2020**

Public review period began on December 20, 2019 and ends on January 31, 2020

A-32







# WELCOME

# **SM-1** DECOMMISSIONING PROJECT

# **Schedule**

**Draft Environmental Assessment Public Meeting** 

### 6:30 p.m. – 7:30 p.m.

- Open House
- Meet and interact with U.S. Army **Corps of Engineers and Fort Belvoir personnel**

### 7:30 p.m. – 8:30 p.m.

- **Formal Presentation**
- **Question & Answer Session**
- **Poster Availability**

# **January 8, 2020**

Public review period began on December 20, 2019 and ends on January 31, 2020





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# WELCOME SM-1

DECOMMISSIONING

PROJECT

# **Brief History**

The Deactivated SM-1 Nuclear Reactor Facility is situated within the boundaries of Fort Belvoir in Fairfax County, Virginia. After construction completion in 1957, SM-1 was used to train Department of Defense (DOD) power plant operators and was capable of delivering a net 1,750 kilowatts of electrical power. It was the first nuclear power reactor to provide electricity to a commercial power grid in the United States. In 1973, SM-1 was deactivated (shut down). Deactivation included removal of the nuclear fuel and sealing of the reactor pressure vessel, decontamination of building areas to the extent possible, and off-site disposal of radioactive wastes. The site is now referred to as the Deactivated SM-1 Nuclear Reactor Facility. For more than 45 years, the site has been monitored and maintained while the accessible portions of the facility have been used as a museum and storage space.





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# NATIONAL ENVIRONMENTAL POLICY ACT (NEPA)

- The Army has prepared a Draft Environmental Assessment (EA) to analyze this action in compliance with NEPA
- NEPA is the national charter for protection of the environment (42 U.S.C. Part 4321 et seq.)
- NEPA requires federal agencies to analyze the impacts of their proposed actions
- NEPA requires opportunities for public involvement (e.g., Draft EA public comment period, this meeting)

## Resources analyzed in the Draft EA:

Water resources



Air quality



**Biological resources** 



Radiological safety and health



Occupational safety and health



Cultural resources



Transportation and traffic



Non-radiological hazardous materials and non-hazardous solid waste



Geological resources





# **DRAFT ENVIRONMENTAL ASSESSMENT ALTERNATIVES**

A-36

# **1. PROPOSED ACTION ALTERNATIVE**

Complete decommissioning and dismantlement of the Deactivated SM-1 Nuclear Reactor Facility. This alternative includes:

- Removal of the Deactivated SM-1 Nuclear Reactor Facility and associated buildings and structures
- Removal of residual radioactive contamination exceeding regulatory levels
- Restoration of the SM-1 site to a vegetated condition and return of the site to Fort Belvoir for future use
- Termination of U.S. Army Corps of Engineers Decommissioning Permit

## **2. NO ACTION ALTERNATIVE**

Decommissioning would not be completed and the Deactivated SM-1 Nuclear Reactor Facility would be maintained as it currently is for the foreseeable future.




- The Proposed Action would have no significant impacts on resources analyzed in the Draft Environmental Assessment
- Most adverse impacts would be short-term and temporary, occurring during decommissioning / dismantling activities

- The Army and/or its contractors would implement management practices and measures to minimize adverse impacts to the extent possible
- Removal of the Deactivated SM-1
  Nuclear Reactor Facility would have
  **long-term beneficial impacts** on
  some resources

The National Environmental Policy Act (NEPA) process will conclude when the Army issues a Finding of No Significant Impact (FNSI).



## **NATIONAL HISTORIC PRESERVATION ACT – SECTION 106**

- Section 106 of the National Historic Preservation Act requires federal agencies to consider the effects of their actions on properties listed, or eligible for listing, in the National Register of Historic Places
- The SM-1 Reactor Facility is eligible for listing in the National Register due to its historic significance
- Under Section 106, the Proposed Action would have an <u>adverse effect</u> on the SM-1 Reactor Facility
- The Army is mitigating the Section 106 adverse effect by preparing a modified Historic American Engineering Record document to record SM-1's historic significance, and will implement other measures in consultation with the Virginia Department of Historic Resources







# **FLOODPLAIN MANAGEMENT**

- Executive Order 11988 requires federal agencies to consider the effects of their actions on floodplains
- The former water intake pier and discharge pipe must be removed as part of the Proposed Action
- Removal of these structures will allow the shoreline to return to a natural condition, resulting in a beneficial long-term impact
- No practicable alternative exists to remove the pier and discharge pipe that would avoid disturbance of floodplains
- The Army has prepared a Draft Finding of No Practicable Alternative (FONPA) to address floodplain disturbance





# **FEDERAL OVERSIGHT**

- The U.S. Army Corps of Engineers will provide quality assurance over the contractor and their quality control program
- Corps of Engineers National Environmental Center of Expertise
- Army Reactor Office and Reactor Council
- Oak Ridge Associated Universities Independent Review



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## **DECOMMISSIONING RISKS AND HOW WE REDUCE THEM**

- Safety is the Army's number one priority the safety and health of the community and our workers are paramount to the success of our project
- Trained professionals will use proven techniques and precautions to ensure the safety of the workers and the public
- To the greatest extent possible, work will be completed using appropriate engineering controls
- All wastes will be properly packaged in compliance with U.S. Department of Transportation and Nuclear Regulatory Commission requirements
- Wastes will be disposed of at licensed / permitted affepost facilities





# **QUESTIONS AND HOW TO LEARN MORE**

# Learn more about the SM-1 Project online at: <u>www.nab.usace.army.mil/SM-1/</u>

Sign up for the SM-1 stakeholder update e-mail list by e-mailing: <u>CENAB-CC@usace.army.mil</u>

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# **HOW TO COMMENT**

**Tonight:** Fill out a comment form or dictate your comment to the stenographer

#### Send written comments to:

U.S. Mail: Brenda Barber, P.E. USACE Project Manager c/o AECOM 4840 Cox Road Glen Allen, Virginia 23060

E-mail: <u>cenab-cc@usace.army.mil</u>

Written comments must be postmarked by January 31, 2020







# DEACTIVATED SM-1 NUCLEAR REACTOR FACILITY DECOMMISSIONING AND DISMANTLEMENT

## DRAFT ENVIRONMENTAL ASSESSMENT PUBLIC MEETING

Brenda Barber, P.E. Hans Honerlah, CHMM U.S. Army Corps of Engineers, Baltimore District

January 7 and 8, 2020

"The views, opinions and findings contained in this report are those of the authors(s) and should not be construed as an official Department of the Army position, policy or decision, unless so designated by other official documentation."

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US Army Corps of Engineers <sup>®</sup>



## TOPICS

- Introduction
- History of the Deactivated SM-1 Nuclear Reactor Facility
- Residual Radiation and Radiation Fundamentals
- Proposed Action
- National Environmental Policy Act (NEPA)
- Draft Environmental Assessment Findings and Conclusions
- National Historic Preservation Act Section 106
- Executive Orders (EO) 11988 and 11990
- Questions and Opportunities to Comment



#### **INTRODUCTION**

- The U.S. Army Corps of Engineers (USACE) has made the Draft Environmental Assessment (EA), Draft Finding of No Significant Impact (FNSI), and Draft Finding of No Practicable Alternative (FONPA) available for a 6-week public review
- The 6-week public review period began on December 20, 2019 and will end on January 31, 2020
- This meeting is your opportunity to learn about the Proposed Action and how to provide feedback
- You may comment orally or in writing at this meeting or submit written comments via email or U.S. Mail



#### Your participation in this process is highly encouraged!





#### **HISTORIC USE**

- SM-1 provided partial power to Fort Belvoir (first reactor to power a commercial electric grid in U.S.)
- Primarily used to train nuclear operators/technicians (approximately 800 personnel trained over the 16-year lifespan)
- Served as the prototype for the rest of the reactors designed by the Army
- After deactivation, facility operated as a museum highlighting the Army Nuclear Power Program



Service members from the Army, Air Force and Navy are pictured in the control room of SM-1, which was used for training nuclear technicians from all branches.







## **1973-74 PARTIAL DECOMMISSIONING ACTIVITIES AND SAFSTOR**

- Removal of the nuclear fuel
- Shipment of the radioactive waste
- Minor decontamination
- Sealing of the reactor containment vessel (which includes the Reactor Pressure Vessel, Steam Generator, Pressurizer, Reactor Coolant Pumps and primary system piping)
- Installing appropriate security, warning signs and monitoring devices
- Remaining radioactivity was contained and has been sealed in safe storage (SAFSTOR) mode for the past 40-plus years
  - Safe storage is a radiological industry practice where radioactive materials are safely stored to allow the shorter-lived radionuclides to decay
- USACE conducts quarterly environmental monitoring to ensure the site does not pose any hazards to the surrounding installation tenants, the community or the environment



#### Proposed Action & Environmental Assessment



## **DRAFT EA ANALYZES TWO ALTERNATIVES**

#### **Proposed Action Alternative:**

Complete decommissioning and dismantlement of the Deactivated SM-1 Nuclear Reactor Facility. This alternative includes:

- Removal of the Deactivated SM-1 Nuclear Reactor Facility and associated buildings and structures
- Removal of residual radioactive contamination exceeding regulatory levels
- Restoration of the SM-1 site to a vegetated condition and return of the site to Fort Belvoir for future use
- Termination of USACE's Decommissioning Permit

#### No Action Alternative:

Decommissioning would not be completed and the Deactivated SM-1 Nuclear Reactor Facility would be maintained as it currently is for the foreseeable future



## NATIONAL ENVIRONMENTAL POLICY ACT OF 1969 (NEPA)

- USACE has prepared a Draft EA to analyze this action in compliance with NEPA
- NEPA is the national charter for protection of the environment (42 U.S.C. Part 4321 et seq.)
- NEPA requires federal agencies to analyze the impacts of their proposed actions
- NEPA requires opportunities for public involvement (e.g., Draft EA public comment period, this meeting)









#### NATIONAL ENVIRONMENTAL POLICY ACT OF 1969 (NEPA)

- In parallel with NEPA, federal agencies are also required to analyze the effects of their actions on:
  - Wetlands and floodplains
  - Threatened and endangered species
  - Cultural resources







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## DRAFT EA ANALYZES THE FOLLOWING RESOURCES



#### **SUMMARY OF DRAFT EA FINDINGS**

- The Proposed Action would have no significant impacts on resources analyzed in the Draft EA
- Most adverse impacts would be short-term and temporary, occur during decommissioning / dismantling activities
- The Army and/or its contractors would implement management practices and measures to minimize adverse impacts to the extent possible
- Removal of the Deactivated SM-1 Nuclear Reactor Facility would have long-term beneficial impacts on some resources

The NEPA process will conclude when the Army issues a Finding of No Significant Impact (FNSI).



#### Water Resources

- <u>Short-term adverse impacts</u> from stormwater runoff, increased sedimentation, and/or decommissioning-related disturbances
- Adverse impacts would be minimized through adherence to appropriate management measures and practices
  - Erosion & Sediment Control Plan
  - Stormwater Pollution Prevention Plan









#### Water Resources (continued)

- The Proposed Action would have <u>long-term</u> *beneficial impacts* on water resources by restoring the site to a vegetated condition
- USACE has prepared a Draft FONPA in accordance with EOs 11988 and 11990 to address proposed activities affecting floodplains and wetlands









- <u>Short-term adverse impacts</u> from pollutant emissions by construction vehicles and equipment. Emissions would vary throughout the project and be comparable to similar types of construction and demolition projects
- Temporary emissions would not degrade regional air quality
- No long-term impacts











- <u>Short-term adverse impacts</u> from clearing of vegetation and displacement of common wildlife species. Wildlife would relocate to nearby areas offering similar habitat
- Best management practices would be used to minimize impacts on vegetation and wildlife
- <u>Long-term beneficial impacts</u> on vegetation and wildlife from site restoration









**Biological Resources** (continued)

The Proposed Action:

- is <u>not likely to adversely affect</u> federally listed threatened and endangered terrestrial species
- may affect, but is <u>unlikely to</u> <u>adversely affect</u> federally listed fish species
- would have <u>no effect</u> on critical habitat



Atlantic sturgeon (Acipenser oxyrinchus oxyrinchus)

Northern long-eared bat (Myotis septentrionalis)









#### **Biological Resources** (continued)

- The Proposed Action *may affect, but is unlikely to adversely affect* Essential Fish Habitat
- USACE has consulted with the U.S. Fish & Wildlife Service and National Marine Fisheries Service









#### **Radiological Safety and Health**

<u>Short-term adverse impacts</u> from potential exposure to low levels of residual radiation, and the generation of debris containing low levels of residual radiation

- Current levels of radioactivity at the Deactivated SM-1
  Nuclear Reactor Facility are very low
- Radioactive waste and debris generated by the Proposed Action would be classified as Low Level Radioactive Waste (LLRW)
- All LLRW would be packaged and transported for disposal in compliance with U.S. Department of Transportation (USDOT) and Nuclear Regulatory Commission (NRC) regulatory requirements









#### Radiological Safety and Health (continued)

- A Radiation Safety Program, an Environmental Monitoring and Control Program, and a Waste Management Program would ensure the safe removal of contaminated components and reduce the risk of release to the environment
- Appropriate monitoring of occupational radiation exposure would be provided to staff entering and working in the restricted area
- A Waste Management Plan (WMP) would safely guide the handling and management of LLRW
- Removal of the facility would have a <u>long-term beneficial</u> <u>impact</u>









#### **Occupational Safety and Health**

- <u>Short-term adverse impacts</u> from decommissioning activities
- Long-term adverse impacts from ongoing site maintenance
- The contractor would prepare, implement, and adhere to an Accident Prevention Plan (APP) before performing work. The APP would be reviewed and updated throughout the project as phases and/or conditions change
  - USACE would provide continuous oversight of the APP
- USACE would enter into agreements with on- and off-post first response services and hospitals to ensure any needed support is available.







#### **Cultural Resources**

- The SM-1 Reactor Facility is eligible for listing in the National Register of Historic Places due to its historic significance
- USACE is consulting with the Virginia Department of Historic Resources to record the history and operation of SM-1
- Adherence to mitigation measures will ensure that effects on this National Register-eligible resource remain *less than significant*
- No effects on traditional cultural resources









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#### Transportation and Traffic

- <u>Short-term adverse impacts</u> on the on- and off-post transportation networks
- The Proposed Action would generate an estimated 1,150 truck trips over the 5-year project to remove debris and deliver clean fill soils during site restoration
- All debris would be packaged and transported in accordance with USDOT and NRC requirements



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#### Non-Radiological Hazardous Materials / Non-Hazardous Solid Waste

- <u>Short-term adverse impacts</u> from waste generated during decommissioning activities
- All waste generated by the Proposed Action would be managed, handled responsibly
- <u>No long-term impacts</u>









#### Geology, topography, and soils

- <u>Short-term adverse impacts</u> on topography, soils, bathymetry, and sediments
- <u>Long-term beneficial impacts</u> from site restoration and removal of soils with low levels of residual contaminants









#### **SECTION 106**

- Section 106 of the National Historic Preservation Act (NHPA) requires federal agencies to consider the effects of their actions on properties listed, or eligible for listing, in the National Register of Historic Places
- The SM-1 Reactor Facility is eligible for listing in the National Register due to its historic significance
- Under Section 106, the Proposed Action would have an <u>adverse effect</u> on the SM-1 Reactor Facility
- USACE is mitigating the Section 106 adverse effect by preparing a modified Historical American Engineering Record (HAER) document to record SM-1's historic significance, and will implement other measures in consultation with Virginia Department of Historic Resources (VDHR)



#### FLOODPLAIN MANAGEMENT AND PROTECTION OF WETLANDS

- The former water intake pier and discharge pipe must be removed as part of the Proposed Action
- Removal of these structures will allow the shoreline to return to a natural condition, resulting in a beneficial long-term impact
- No practicable alternative exists to remove the pier and discharge pipe that would avoid disturbance of floodplains and wetlands
- USACE has prepared a Draft Finding of No Practicable Alternative (FONPA) to address floodplain disturbance





## DECOMMISSIONING RISKS AND HOW WE REDUCE THEM

- Safety is the Army's number one priority—the safety and health of the community and our workers are paramount to the success of our project
- Trained professionals will use proven techniques and precautions to ensure the safety of the workers and the public
- Work will be completed using appropriate engineering controls
- All wastes will be properly packaged in compliance with USDOT and NRC requirements
- Wastes will be disposed of at permitted off-post facilities with adequate capacity to handle and manage them









#### **FEDERAL OVERSIGHT**



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- U.S. Army Corps of Engineers will provide quality assurance over the contractor and their quality control program
- Corps of Engineers National Environmental Center of Expertise
- Army Reactor Office and Reactor Council
- Oak Ridge Associated Universities Independent Review




## **QUESTIONS AND HOW TO LEARN MORE**

Learn more about the SM-1 Project online at: www.nab.usace.army.mil/SM-1/ Sign up for the SM-1 stakeholder update e-mail list by e-mailing: CENAB-CC@usace.army.mil

#### Stay engaged with us online:



https://www.facebook.com/USACEBaltimore













## HOW TO COMMENT ON THE DRAFT EA, DRAFT FNSI, AND DRAFT FONPA

**Tonight:** Fill out a comment form or dictate your comment to the stenographer

#### Send written comments to:

U.S. Mail: Brenda Barber, P.E. USACE Project Manager c/o AECOM 4840 Cox Road Glen Allen, Virginia 23060 E-mail: <u>cenab-cc@usace.army.mil</u>

## Written comments must be postmarked by January 31, 2020







Notice of Availability and Public Meeting for Draft EA, Draft FNSI, and Draft FONPA



20 December 2019

SUBJECT: Notice of Availability and Public Meeting for the Draft Environmental Assessment, Draft Finding of No Significant Impact, and Draft Finding of No Practicable Alternative for the Proposed Decommissioning and Dismantlement of the Deactivated SM-1 Nuclear Reactor Facility, US Army Garrison Fort Belvoir, Fairfax County, Virginia

Dear Sir or Madam:

The US Army Corps of Engineers (USACE) announces the availability of the Draft Environmental Assessment (EA) and Draft Finding of No Significant Impact (FNSI) for the proposed decommissioning and dismantlement of the Deactivated Stationary Medium Power Model 1 (SM-1) Nuclear Reactor Facility at US Army Garrison Fort Belvoir in Fairfax County, Virginia for public review and comment. This notice also announces the availability of the Draft Finding of No Practicable Alternative (FONPA) in accordance with Executive Order (EO) 11988, *Floodplain Management*. This notice is being issued to all interested parties in accordance with the National Environmental Policy Act (NEPA), Council on Environmental Quality NEPA implementing regulations (40 Code of Federal Regulations [CFR] Parts 1500-1508), and Army NEPA regulations (32 CFR Part 651).

USACE proposes to decommission the Deactivated SM-1 Nuclear Reactor Facility to a standard that allows for release of the site for unrestricted use (proposed action). Under the proposed action, USACE would implement an Army Reactor Office-approved Decommissioning Plan to safely remove, transport, and dispose of remaining structures, equipment, and media from the SM-1 site; validate that site conditions meet applicable cleanup standards; restore the site to a vegetated condition; and return the site to Fort Belvoir for future use. The Draft EA analyzes the potential environmental impacts of the proposed action and concludes that there would be no significant adverse impacts on the physical, cultural, and natural environment.

Printed copies of the Draft EA, Draft FNSI, and Draft FONPA are available for review at the following local libraries:

| Fort Belvoir Library      | Kingstowne Library        | Lorton Library         |
|---------------------------|---------------------------|------------------------|
| 9800 Belvoir Rd, Bldg 200 | 6500 Landsdowne Centre    | 9520 Richmond Highway  |
| Fort Belvoir, VA 22060    | Alexandria, VA 22315-5011 | Lorton, VA, 22079-2124 |

The Draft EA, Draft FNSI, and Draft FONPA are available for view or download online or by request, as follows:

## Online www.nab.usace.army.mil/SM-1 https://home.army.mil/belvoir/index.php/about/Garrison/direc torate-public-works/environmental-division Compact Disc Request by email to: cenab-cc@usace.army.mil Request by mail to: Brenda Barber, P.E.

USACE Project Manager c/o AECOM 4840 Cox Road, Glen Allen, VA 23060

USACE invites public agencies and members of the public to participate in its decision-making process. Your comments on the proposed action and environmental review are requested. In accordance with 32 CFR Part 651.14, the Draft EA, Draft FNSI, and Draft FONPA will be available for a 6-week public review and comment period starting 20 December 2019 and ending 31 January 2020. Written comments on the Draft EA, Draft FNSI, and Draft FONPA, or requests for additional information about the proposed action and environmental review, should be sent to USACE at the email or postal mail addresses noted above.

USACE invites interested parties to attend **public meetings** for the Draft EA to learn more about the proposed action and environmental review. The public meetings will be held on January 7 and 8, 2020. Each meeting will be conducted in an open house format to include a short presentation followed by questions and answers from the audience. The public meeting schedule will be:

#### Tuesday, January 7, 2020 (On-Post\*)

Thurman Hall, Building 247, 270 Kuhn Road, Fort Belvoir, VA 22060 (\* Due to Fort Belvoir security requirements, attendance at the on-post meetings is limited to Department of Defense military and civilian personnel, Fort Belvoir residents, and Fort Belvoir contractors/civilian employees.)

- Afternoon Meeting: Open House/Poster Session 1:00 PM 2:00 PM, Formal Presentation and Audience Questions 2:00 PM – 3:00 PM
- Evening Meeting: Open House/Poster Session 6:30 PM 7:30 PM, Formal Presentation and Audience Questions 7:30 PM - 8:30 PM

#### Wednesday, January 8, 2020 (Off-Post – Open to the General Public)

Fairfax South County Office, Room 221, 8350 Richmond Highway, Alexandria, VA 22309

 Open House/Poster Session 6:30 PM – 7:30 PM, Formal Presentation and Audience Questions 7:30 PM - 8:30 PM Interested parties are encouraged to provide written or oral comments at the public meetings. Updates on the SM-1 Decommissioning project and public meeting are available on the USACE project website at: <u>https://www.nab.usace.army.mil/Missions/Environmental/SM-1/.</u>

Should you require special assistance due to a disability, have limited English proficiency, or have other questions or concerns about the public meeting, please contact the USACE Corporate Communication team at 410-962-2809 in advance of the event.

Sincerely,

Sianda M. Barber P.E.

Brenda M. Barber, P.E. Project Manager USACE – Baltimore District



US Army Corps of Engineers Baltimore District Website

#### Announcements

#### **Draft Environmental Assessment Release**

The US Army Corps of Engineers (USACE), Baltimore District proposes to fully decommission and dismantle the Deactivated Stationary Medium Power Model 1 (SM-1) Reactor Facility on Fort Belvoir in Fairfax County, Virginia to a standard that allows for release of the site for unrestricted use (proposed action). Under the proposed action, USACE would implement an Army Reactor Office-approved Decommissioning Plan to safely remove, transport, and dispose of remaining structures, equipment, and media from the Deactivated SM-1 site; validate that site conditions meet applicable cleanup standards; restore the site to a vegetated condition; and return the site to Fort Belvoir for future use. Through analysis and evaluation of the proposed action's potential environmental impacts, USACE concludes that there would be no significant adverse impacts on the physical, cultural, and natural environment.

USACE has prepared a Draft Environmental Assessment (EA) and Draft Finding of No Significant Impact (FNSI) regarding the proposed action as well as a Draft Finding of No Practicable Alternative (FONPA), prepared by USACE to comply with Executive Order (EO) 11988, Floodplain Management.

These documents are available online here for review and USACE is accepting comments from the public through January 31st (which includes extra time to account for the holiday time being in the middle of the comment period). Comments can be submitted via e-mail to <u>cenab-cc@usace.army.mil</u> or by written mail to:

Brenda Barber, P.E. USACE Project Manager c/o AECOM 4840 Cox Road, Glen Allen, VA 23060

#### Draft EA, FNSI, FONPA and associated documents:

- Notice of Availability and Public Meeting
- Draft Environmental Assessment (EA)
- Draft Environmental Assessment Compiled Appendices
  - <u>Appendix A Public Information and Outreach</u>
  - Appendix B Agency Correspondence
  - Appendix C Draft Finding of No Practicable Alternative (FONPA)
  - Appendix D Federal Consistency Determination
  - Appendix E Record of Non-Applicability (RONA) and Air Quality Emissions Estimates
- Draft Finding of No Significant Impact (FNSI)

#### **Upcoming Public Information Sessions Regarding Draft EA**





#### **Contact Information**

To join our stakeholder list and receive email updates, please call or email us:

Phone: 410-962-2809 E-mail: <u>cenab-cc@usace.army.mil</u>

Or if you have questions, please don't hesitate to reach out to us.

Please direct any inquiries regarding contracting opportunities to Brian Richardson via email to Brian.L.Richardson@usace.army.mil.

#### **Project Documents**

This section includes the project documents to date.

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Documents
Project Fact Sheet

NRC EIS Executive Summary

#### Presentations



#### <u>- Article - Pioneer in military use of nuclear</u> power provides insight on facility... - Video - Army Nuclear Power Program (1963)

#### SM-1: January 7, 2020 Stakeholder Update

Dear Stakeholders,

Due to impending inclement weather in the Fort Belvoir area and the associated Office of Personnel Management-dictated closure of offices on post, we are postponing both on-post Deactivated SM-1 Nuclear Reactor public meetings scheduled for today, Jan. 7, and will be holding them the afternoon and evening of Thursday, Jan. 9 in Wood Theater.

We appreciate your understanding of this change. The safety of the public and our team is paramount in everything we do.

The new schedule for the on-post meetings will be as follows:

- Thursday, January 9, 2020 (On-Post\*) – Wood Theater (Bldg. 2120), 6050 Abbot Road, Fort Belvoir, VA 22060

(\* Due to Fort Belvoir security requirements, attendance at the on-post meetings is limited to Department of Defense military and civilian personnel, Fort Belvoir residents, and Fort Belvoir contractors/civilian employees.)

- Afternoon Meeting: Open House/Poster Session 1:00 PM 2:00 PM, Formal Presentation and Audience Questions 2:00 PM – 3:00 PM
- Evening Meeting: Open House/Poster Session 6:30 PM 7:30 PM, Formal Presentation and Audience Questions 7:30 PM - 8:30 PM

Tomorrow evening's off-post public meeting is not impacted by this announcement. Stakeholders that planned to attend today's on-post meetings are welcome to attend tomorrow evening's meeting. Tomorrow's meeting schedule is as follows:

- Wednesday, January 8, 2020 (Off-Post – Open to the General Public) – Gerry Hyland Government Center (formerly known as the Fairfax South County Office), Room 221, 8350 Richmond Highway, Alexandria, VA 22309

 Open House/Poster Session 6:30 PM – 7:30 PM, Formal Presentation and Audience Questions 7:30 PM - 8:30 PM

Thank you for your continued support and participation as we continue through the planning phase of the deactivated SM-1 decommissioning and dismantling.

If you have any questions, feedback or information you'd like to share with us, please feel free to a mail or call our Corporate Communication team at 410-962-2809. Skip to main content (Press Enter). A-80



US Army Corps of Engineers Baltimore District Website

#### Join Our Stakeholder List

SM-1 Stakeholder List

Receive the latest updates regarding the former SM-1 Nuclear Power Plant by entering your information below to join our stakeholder list.

| Your Name First Last | Suffix                       |  |
|----------------------|------------------------------|--|
| Your Email           | Confirm                      |  |
| l'm not a robot      | reCAPTCHA<br>Privacy - Terms |  |
| Submit               |                              |  |

#### **SM-1 Former Nuclear Power Plant Overview**

The SM-1 Former Nuclear Power Plant is located on the western shore of the Potomac River within the boundaries of Fort Belvoir in Fairfax County, Virginia. It is approximately 17 miles south by southwest from the center of Washington D.C.

The construction of the SM-1 at Fort Belvoir was completed in 1957, and it achieved its first criticality in April 1957. The SM-1 was a single-loop 10 megawatt-thermal (MWt) pressurized water reactor delivering a net 1,750 kilowatts of electrical power. It was the first nuclear power reactor to provide electricity to a commercial power grid in the United States. The SM-1 Reactor operated from April 1957 to March 1973. Fort Belvoir was home to the U.S. Army Engineer Reactors Group (USAERG), and the SM-1 was used for training the multi-service crews that would operate the various plants in the program. The reactor was stationary with a medium power range, which was between 1,000 and 10,000 kilowatt-electric (kWe).

Deactivation was performed on the SM-1 Reactor from 1973-1974, in accordance with the SM-1 Decommissioning and Conversion Plan as approved by the Army Reactor Systems Health and Safety Review Committee (ARCHS). This consisted of removal of the nuclear fuel, minor decontamination, shipment of necessary radioactive waste, sealing the pressure vessel, and installing appropriate warning signs and monitoring devices.

After the completion of the facility deactivation and conversion, a third party radiological survey by the U.S. Army Environmental Hygiene Agency verified that known areas of radioactive contamination had been decontaminated to acceptable levels or were properly controlled. The ARCHS approved the SM-1 Post-Decommissioning Environmental Monitoring Plan, which has been used to provide on-going surveillance of the decommissioned facility.

In October 1996, the U.S. Army Center for Health Promotion and Preventive Medicine (USACHPPM) took extensive surveys of the SM-1 and surrounding environment to determine the radiological status of the facility at that time. In 2005, a Historical Site Assessment was developed using operational records and data collected from the 1996 USACHPPM Surveys. In 2009/2010 Characterization Surveys were completed and the Report was finalized in 2013.

The Historical Site Assessment and Characterization Surveys support the decommissioning study process outlined in Army Regulation 50-7. This process is performed by USACE, at the direction of the Army Reactor Office, to better define disposal activity costs.

The decommissioning strategy that was developed in the 1970's recommended that the deactivated reactors be placed into a safe storage mode that would allow the shorter-lived radionuclides to decay. It was expected that delaying decommissioning would reduce radioactive waste volumes and worker exposures. However, subsequent studies indicated that the levels of contamination present within the reactors would not be reduced by decay sufficiently to allow for release of the facilities without significant decontamination being performed. Additionally, concern regarding the increasing cost and



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USACE developed a management plan for conducting an All Hazards Assessment, which contained provisions for four phases of work to be performed. Phase I included a Historical Records Review and Disposal Alternatives Investigation. Phase II, included performing a characterization survey and decommissioning cost estimate. Phases III and IV deal with decommissioning planning, design, and execution.

#### **Our Mission**

The mission of the U.S. Army Corps of Engineers is to deliver vital public and military engineering services; partnering in peace and war to strengthen our nation's security, energize the economy and reduce risks from disasters.

#### About the Baltimore District Website

The official public website of the Baltimore District, U.S. Army Corps of Engineers. For website corrections, write to cenab-pa@usace.army.mil.

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**NOA Proof of Publication** 

#### NOTICE OF AVAILABILITY AND PUBLIC MEETING DRAFT

Notice of Availability and Public Meeting

Draft Environmental Assessment, Draft Finding of No Significant Impact, and Draft Finding of No Practicable Alternative for the

Decommissioning and Dismantlement of the Deactivated SM-1 Nuclear Reactor Facility Fort Belvoir, Fairfax County, Virginia

**Proposed Action.** The US Army Corps of Engineers (USACE), Baltimore District proposes to fully decommission and dismantle the Deactivated Stationary Medium Power Model 1 (SM-1) Reactor Facility on Fort Belvoir in Fairfax County, Virginia to a standard that allows for release of the site for unrestricted use (proposed action). Under the proposed action, USACE would implement an Army Reactor Office-approved Decommissioning Plan to safely remove, transport, and dispose of remaining structures, equipment, and media from the Deactivated SM-1 site; validate that site conditions meet applicable cleanup standards; restore the site to a vegetated condition; and return the site to Fort Belvoir for future use. Through analysis and evaluation of the proposed action's potential environmental impacts, USACE concludes that there would be no significant adverse impacts on the physical, cultural, and natural environment.

**Public Notice**. Interested parties are hereby notified that USACE has prepared a Draft Environmental Assessment (EA) and Draft Finding of No Significant Impact (FNSI) regarding the proposed action. Notice is also made for a Draft Finding of No Practicable Alternative (FONPA), prepared by USACE to comply with Executive Order (EO) 11988, Floodplain Management.

**Statutory Authority**. This notice is being issued to all interested parties in accordance with the National Environmental Policy Act (NEPA), Council on Environmental Quality NEPA implementing regulations (40 Code of Federal Regulations [CFR] Parts 1500-1508), and Army NEPA regulations (32 CFR Part 651).

**Public Review.** In accordance with 32 CFR Part 651.14, the Draft EA, Draft FNSI, and Draft FONPA will be available for a six-week public review and comment period starting December 20, 2019 and concluding on January 31, 2020. The public may submit comments on these documents during this time.

Printed copies of the Draft EA, Draft FNSI, and Draft FONPA are available for review at the following local libraries:

Fort Belvoir Library Kingstowne Library Lorton Library 9800 Belvoir Rd, Bldg 200 6500 Landsdowne Centre 9520 Richmond Highway Fort Belvoir, VA 22060 Alexandria, VA 22315-5011 Lorton, VA, 22079-2124

The Draft EA, Draft FNSI, and Draft FONPA are available for view or download online or by request, as follows:

Online www.nab.usace.army.mil/SM-1

https://<u>home.army.mil/belvoir/index.php/about/Garrison/directorate-public-works/</u>environmental-division

Compact Disc **Request by email to:** cenab-cc@<u>usace.army.mil</u> **Request by mail to:** Brenda Barber, P.E. USACE Project Manager c/o AECOM 4840 Cox Road, Glen Allen, VA 23060

**Comments.** Written comments on the Draft EA, Draft FNSI, and Draft FONPA, or requests for additional information about the proposed action and environmental review, should be sent to USACE at the email or postal mail addresses noted above.

**Public Meetings.** USACE invites interested parties and the local community to attend public meetings for the Draft EA to learn more about the proposed action and environmental review. The public meetings will be held on January 7 and 8, 2020. Each meeting will be conducted in an open house format to include a short presentation followed by questions and answers from the audience. In accordance with NEPA, the participation of military personnel, federal, state, and local agencies, federally recognized tribes, organizations, and individuals with an interest in the proposed action is strongly encouraged.

The public meeting schedule will be:

Tuesday, January 7, 2020 (On-Post\*)

Thurman Hall, Building 247, 270 Kuhn Road, Fort Belvoir, VA 22060 (\* Due to Fort Belvoir security requirements, attendance at the on-post meetings is limited to Department of Defense military and civilian personnel, Fort Belvoir residents, and Fort Belvoir contractors/civilian employees.)

#### 12/20/2019

#### Legal Notices

• Afternoon Meeting: Open House/Poster Session 1:00 PM - 2:00 PM, Formal Presentation and Audience Questions 2:00 PM - 3:00 PM

• Evening Meeting: Open House/Poster Session 6:30 PM - 7:30 PM, Formal Presentation and Audience Questions 7:30 PM - 8:30 PM

#### Wednesday, January 8, 2020 (Off-Post - Open to the General Public)

Fairfax South County Office, Room 221, 8350 Richmond Highway, Alexandria, VA 22309

 $\bullet$  Open House/Poster Session 6:30 PM - 7:30 PM, Formal Presentation and Audience Questions 7:30 PM - 8:30 PM

Interested parties are encouraged to provide written or oral comments at the meetings. Should you require special assistance due to a disability, have limited English proficiency, or have other questions or concerns about the public meeting, please contact the USACE Corporate Communication team at 410-962-2809 in advance of the event. Please note that presentations at the different sessions will all be the same and will be shared online following the meetings.

Updates regarding the Deactivated SM-1 Decommissioning project, how to join the stakeholder updates list and public meeting information are available on the USACE project website at: <u>www.nab.us</u>ace.army.mil/SM-1/.

Appeared in: Washington Post on Friday, 12/20/2019

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#### PROOF OF PUBLICATION

District of Columbia, ss., Personally appeared before me, a Notary Public in and for the said District, Sandra Broadstone well known to me to be ASSISTANT MANAGER BILLING of The Washington Post, a daily newspaper published in the City of Washington, District of Columbia, and making oath in due form of law that an advertisement containing the language annexed hereto was published in said newspaper on the dates mentioned in the certificate herein.

I Hereby Certify that the attached advertisement was published in The Washington Post, a daily newspaper, upon the following date(s) at a cost of \$3,415.80 and was circulated in the Washington metropolitan area.

Published 1 time(s). Date(s):20 of December 2019

MITC Account 2010263154 10 ilssia SIG EXEMPS Witness my hand and official seal this day of 2020 OFCOLU Service COP-P My commission expires 24 2

Notice of Availability and Public Meeting Draft Environmental Assessment, Draft Finding of No Significant Impact, and Draft Finding of No Practicable Alternative for the Decommissioning and Dismantlement of the Deactivated SM-1 Nuclear Reactor Facility Fort Belvoir, Fairfax County, Virginia Proposed Action. The US Army Corps of Engineers (USACE), Baltimore District proposes to fully decommission and dismantle the Deactivated Stationary Medium Power Model 1 (SM-1) Reactor Facility on Fort Belvoir in Fairfax County, Virginia to a standard that allows for release of the site for unrestricted use (proposed action). Under the proposed action, USACE would implement an Army Reactor Office-approved Decommissioning Plan to safely remove, transport, and dispose of remaining structures, equipment, and media from the Deactivated SM-1 site; validate that site conditions meet applicable cleanup standards; restore the site to a vegetated condition; and return

the site to Fort Belvoir for future use. Through analysis and evaluation of the proposed action's potential environmental impacts, USACE concludes that there would be no significant adverse impacts

on the physical, cultural, and natural environment. Public Notice. Interested parties are hereby

notified that USACE has prepared a Draft Environmental Assessment (EA) and Draft Finding of No Significant Impact (FNSI) regarding the proposed action. Notice is also made for a Draft Finding of

No Practicable Alternative (FONPA), prepared by USACE to comply with Executive Order (EO) 11988, Floodplain Management. Statutory Authority. This notice is being issued to all interested parties

in accordance with the National Environmental Policy Act (NEPA), Council on Environmental Quality NEPA implementing regulations (40 Code of Federal Regulations [CFR] Parts 1500-1508), and Army NEPA

regulations (32 CFR Part 651). Public Review. In accordance with 32 CFR Part 651.14, the Draft EA,

Draft FNSI, and Draft FONPA will be available for a six-week public review and comment period starting December 20, 2019 and concluding on January 31, 2020. The public may submit comments on these documents during this time. Printed copies of the Draft EA, Draft FNSI, and Draft FONPA are

available for review at the following local libraries: Fort Belvoir Library Kingstowne Library Lorton Library Ad # 12290720 Name AECOM Class 820 PO#

9800 Belvoir Rd, Bldg 200

9520 Richmond Highway Fort Belvoir, VA 22060

Size 285 Lines T0002

Account 2010263154 6500 Landsdowne Centre

Alexandria, VA 22315-5011 Lorton, VA, 22079-2124 The Draft EA, Draft FNSI, and Draft FONPA are available for view or download online or by request, as follows: Online www.nab.usace.army.mil/SM-1 https://home.army.mil/belvoir/index.php/about/Garrison/ directorate-public-works/ environmental-division Compact Disc Request by email to: cenab-cc@usace.army.mil Request by mail to: Brenda Barber, P.E. USACE Project Manager c/o AECOM 4840 Cox Road, Glen Allen, VA 23060 Comments. Written comments on the Draft EA, Draft FNSI, and Draft FONPA, or requests for additional information about the proposed action and environmental review, should be sent to USACE at the email or postal mail addresses noted above. Public Meetings. USACE invites interested parties and the local community to attend public meetings for the Draft EA to learn more about the proposed action and environmental review. The public meetings will be held on January 7 and 8, 2020. Each meeting will be conducted in an open house format to include a short presentation followed by questions and answers from the audience. In accordance with NEPA, the participation of military personnel, federal, state, and local agencies, federally recognized tribes, organizations, and individuals with an interest in the proposed action is strongly encouraged. The public meeting schedule will be: Tuesday, January 7, 2020 (On-Post\*) Thurman Hall, Building 247, 270 Kuhn Road, Fort Belvoir, VA 22060 (\* Due to Fort Belvoir security requirements, attendance at the on-post meetings is limited to Department of Defense military and civilian personnel, Fort Belvoir residents, and Fort Belvoir contractors/civilian # Afternoon Meeting: Open House/Poster Session 1:00 PM # 2:00 PM, Formal employees.) Presentation and Audience Questions 2:00 PM # 3:00 PM # Evening Meeting: Open House/Poster Session 6:30 PM # 7:30 PM, Formal Presentation and Audience Questions 7:30 PM - 8:30 PM Wednesday, January 8, 2020 (Off-Post # Open to the General Public) Fairfax South County Office, Room 221, 8350 Richmond Highway, Alexandria, VA 22309 # Open House/Poster Session 6:30 PM # 7:30 PM, Formal Presentation and Audience Questions 7:30 PM - 8:30 PM Interested parties are encouraged to provide written or oral comments at the meetings. Should you require special assistance due to a disability, have limited English proficiency, or have other questions or concerns about the public meeting, please contact the USACE Corporate Communication team at 410-962-2809 in advance of the event. Please note that presentations at the different sessions will all be the same and will be shared online following the meetings. Updates regarding the Deactivated SM-1 Decommissioning project, how to join

Authorized by

the stakeholder updates list and public meeting information are available on the USACE project website at: www.nab.usace.army.mil/SM-1/.





**Kathryn Rutherford** 



**Evelyn Ipsen** 



www.ConnectionNewspapers.com

cenab-cc@usace.army.mi

Request by mail to:

Brenda Barber, P.E. USACE Project Manager c/o AECOM 4840 Cox Road, Glen Allen, VA 23060

Comments. Written comments on the Draft EA, Draft FNSI, and Draft FONPA, or requests for additional information about the proposed action and environmental review, should be sent to USACE at the email or postal mail addresses noted above.

Public Meetings. USACE invites Interested parties and the local community to attend public meetings for the Draft EA to learn more about the proposed action and environmental review. The public meetings will be held on January 7 and 8, 2020. Each meeting will be conducted in an open-house format to Include a short presentation followed by questions and answers from the audience. In accordance with NEPA, the participation of military personnel, tederal, state, and local agencies, federally recognized tribes, organizations, and individuals with an interest in the proposed action is strongly encouraged.

The public meeting schedule will be:

Tuesday, January 7, 2020 (On-Post\*)

Thurman Hall, Building 247, 270 Kuhn Road, Fort Belvoir, VA 22060 (\* Due to Fort Belvoir security requirements, attendance at the on-post meetings is limited to Department of Defense military and civilian personnel, Fort Belvoir residents, and Fort Belvoir contractors/civilian employees.)

Atternoon Meeting: Open House/Poster Session 1:00 PM – 2:00 PM, Formal Presentation and Audience Questions 2:00 PM – 3:00 PM

Evening Meeting: Open House/Poster Session 6:30 PM – 7:30 PM, Formal Presentation and Audience Questions 7:30 PM - 8:30 PM

Wednesday, January 8, 2020 (Off-Post - Open to the General Public) Fairfax South County Office, Room 221, 8350 Richmond Highway, Alexandria, VA 22309

Open House/Poster Session 6:30 PM – 7:30 PM, Formal Presentation and Audience
 Questions 7:30 PM - 8:30 PM

Interested parties are encouraged to provide written or oral comments at the, meetings. Should you require special assistance due to a disability, have limited English proficiency, or have other questions or concerns about the public meeting, please contact the USACE Corporate Communication team at 410-962-2809 in advance of the event. Please note that presentations at the different sessions will all be the same and will be shared online following the meetings.

Updates' regarding the Deactivated SM-1 Decommissioning project, how to join the stakeholder updates list and public meeting information are available on the USACE project website at: www.nab.usace.army.miVSM-1/.



MOUNT VERNON GAZETTE & CHILDREN'S & TEENS' CONNECTION 20



## Notice of Availability, Public Meeting: SM-1 Nuclear Reactor Facility Decommissioning, Dismantle

December 20, 2019 Contributor

Notice of Availability and Public Meeting

Draft Environmental Assessment, Draft Finding of No Significant Impact, and Draft Finding of No Practicable Alternative for the Decommissioning and Dismantlement of the Deactivated SM-1 Nuclear Reactor Facility, Fort Belvoir, Fairfax County, Virginia

**Proposed Action.** The US Army Corps of Engineers (USACE), Baltimore District proposes to fully decommission and dismantle the Deactivated Stationary Medium Power Model 1 (SM-1) Reactor Facility on Fort Belvoir in Fairfax County, Virginia to a standard that allows for release of the site for unrestricted use (proposed action). Under the proposed action, USACE would implement an Army Reactor Office-approved Decommissioning Plan to safely remove, transport, and dispose of remaining structures, equipment, and media from the Deactivated SM-1 site; validate that site conditions meet applicable cleanup standards; restore the site to a vegetated condition; and return

the site to Fort Belvoir for future use. Through analysis and evaluation of the proposed action's potential environmental impacts, USACE concludes that there would be no significant adverse impacts on the physical, cultural, and natural environment.

**Public Notice.** Interested parties are hereby notified that USACE has prepared a Draft Environmental Assessment (EA) and Draft Finding of No Significant Impact (FNSI) regarding the proposed action. Notice is also made for a Draft Finding of No Practicable Alternative (FONPA), prepared by USACE to comply with Executive Order (EO) 11988, *Floodplain Management*.

**Statutory Authority.** This notice is being issued to all interested parties in accordance with the National Environmental Policy Act (NEPA), Council on Environmental Quality NEPA implementing regulations (40 Code of Federal Regulations [CFR] Parts 1500-1508), and Army NEPA regulations (32 CFR Part 651).

**Public Review.** In accordance with 32 CFR Part 651.14, the Draft EA, Draft FNSI, and Draft FONPA will be available for a six-week public review and comment period starting December 20, 2019 and concluding on January 31, 2020. The public may submit comments on these documents during this time.

Printed copies of the Draft EA, Draft FNSI, and Draft FONPA are available for review at the following local libraries:

Fort Belvoir Library 9800 Belvoir Rd, Bldg 200 Fort Belvoir, VA 22060

Kingstowne Library 6500 Landsdowne Centre Alexandria, VA 22315-5011

Lorton Library 9520 Richmond Highway Lorton, VA, 22079-2124

The Draft EA, Draft FNSI, and Draft FONPA are available for view or download online or by request, as follows:

#### Online

#### nab.usace.army.mil/SM-1

#### <u>home.army.mil/belvoir/index.php/about/Garrison/directorate-public-works/environmental-</u> <u>division</u>

**Compact Disc** 

#### Request by email to: cenab-cc@usace.army.mil

#### Request by mail to:

Brenda Barber, P.E. USACE Project Manager c/o AECOM 4840 Cox Road, Glen Allen, VA 23060 **Comments.** Written comments on the Draft EA, Draft FNSI, and Draft FONPA, or requests for additional information about the proposed action and environmental review, should be sent to USACE at the email or postal mail addresses noted above.

**Public Meetings.** USACE invites interested parties and the local community to attend public meetings for the Draft EA to learn more about the proposed action and environmental review. The public meetings will be held on January 7 and 8, 2020. Each meeting will be conducted in an open house format to include a short presentation followed by questions and answers from the audience. In accordance with NEPA, the participation of military personnel, federal, state, and local agencies, federally recognized tribes, organizations, and individuals with an interest in the proposed action is strongly encouraged.

The public meeting schedule will be:

#### Tuesday, January 7, 2020 (On-Post\*)

Thurman Hall, Building 247, 270 Kuhn Road, Fort Belvoir, VA 22060 (\* Due to Fort Belvoir security requirements, attendance at the on-post meetings is limited to Department of Defense military and civilian personnel, Fort Belvoir residents, and Fort Belvoir contractors/civilian employees.)

- Afternoon Meeting: Open House/Poster Session 1–2 PM, Formal Presentation and Audience Questions 2–3 PM
- Evening Meeting: Open House/Poster Session 6:30–7:30 PM Formal Presentation and Audience Questions 7:30–8:30 PM

#### Wednesday, January 8, 2020 (Off-Post – Open to the General Public)

Fairfax South County Office, Room 221, 8350 Richmond Highway, Alexandria, VA 22309

 Open House/Poster Session 6:30–7:30 PM, Formal Presentation and Audience Questions 7:30–8:30 PM

Interested parties are encouraged to provide written or oral comments at the meetings. Should you require special assistance due to a disability, have limited English proficiency, or have other questions or concerns about the public meeting, please contact the USACE Corporate Communication team at 410-962-2809 in advance of the event. Please note that presentations at the different sessions will all be the same and will be shared online following the meetings.

Updates regarding the Deactivated SM-1 Decommissioning project, how to join the stakeholder updates list and public meeting information are available on the USACE project website at: <u>nab.usace.army.mil/SM-1</u>.

Notices Fort Belvoir, SM-1, U.S. Army Corps of Engineers permalink Edit

# HEART OF THE MOUNT VERNON REGION FORT HUNT HERALD



## Updated on SM-1 decommissioning, dismantlement project public meetings

□ January 8, 2020 □ Fort Hunt Herald

The inclement weather on Tuesday, Jan. 7, 2020, caused the U.S. Army to postpone its on-post public meeting at Fort Belvoir regarding the decommissioning and dismantlement of the local deactivated SM-1 nuclear reactor facility to Thursday, Jan. 9. But the separate, off-post Wednesday, Jan. 8, session at the Gerry Hyland Government Center on Richmond Highway will go ahead as planned.

The on-post meeting to review and comment on the SM-1 decommissioning and dismantlement project's recently released draft environmental assessment is limited to Defense Department military and civilian personnel, as well as Fort Belvoir residents, contractors and civilian employees. The rescheduled meeting will still take place at the Wood Theater (Building 2120), 6050 Abbot Road, Fort Belvoir, on Jan. 9, with an afternoon meeting from 1-3 p.m. and an evening session from 6:30 p.m. to 8:30 p.m.

"Due to impending inclement weather in the Fort Belvoir area and the associated Office of Personnel Management-dictated closure of offices on post, we are postponing both on-post deactivated SM-1 nuclear reactor public meetings scheduled for today, Jan. 7, and will instead be holding them the afternoon and evening of Thursday, Jan. 9 in the Wood Theater," the U.S. Army Corps of Engineers, Baltimore District, project manager at the environmental and munitions design center said in an email.

"We appreciate your understanding of this change. The safety of the public and our team is paramount in everything we do."

According to the project manager, the Jan. 8 off-post public meeting at Room 221 of the Gerry Hyland Government Center, 8350 Richmond Highway, Alexandria, is not impacted and will go ahead as planned.

"Stakeholders that planned to attend today's on-post meetings are welcome to attend tomorrow evening's meeting," the project manager said. "Thank you for your continued support and participation as we continue through the planning phase of the deactivated SM-1 decommissioning and dismantling."

The Jan. 8 open house and poster session will take place from 6:30 p.m. to 7:30 p.m. followed by a presentation and audience question and answer session from 7:30 p.m. to 8:30 p.m.

For information about the SM-1 decommissioning and dismantling project, visit: nab.usace.army.mil/Missions/Environmental/SM-1

In compliance with the law, stakeholders and the general public have six weeks to review and comment on the project's Draft Environmental Assessment, Draft Finding of No Significant Impact, and Draft Finding of No Practicable Alternative. That period started on Dec. 20, 2019, and concludes Jan. 31, 2020. For information, see the official notice of availability: forthuntherald.com/notice-of-availability-public-meeting-sm-1-nuclear-reactor-facility-decommissioning-dismantle



Visit us on Twitter, Facebook, YouTube, LinkedIn, Apple News and Google News.

Events Deactivated Nuclear Power Plant, Fairfax County, Fort Belvoir, SM-1, U.S. Army Corps of
 Engineers permalink

Attend West Potomac High School's girls basketball youth night on Jan. 17 Celebrate Black History Month Feb. 9 with 'the poetry and works of Langston Hughes'

## Road salt overuse can harm environment



Directorate of Public Works any of our local streams suffer the effects of too much salt. Road salt (sodium chloride) is most commonly used to remove ice from roads, parking lots, and sidewalks. As snow and ice melt,

road salt is carried into our lakes, streams, and wetlands, where just one teaspoon can permanently pollute five gallons of water. Chloride from road salt is a major threat to water quality in Accotink Creek, the Potomac River, and other areas of the country where de-icing occurs. Since chloride is not easily filtered from water in the natural environment, it builds up over time in the soil and water. Because of this, chloride levels in streams can remain elevated throughout the year – even in the summer.

Road salt provides benefits by preventing roadway accidents, but can also have negative impacts on the environment and drinking water sources. When large amounts of road salt get into our drinking water sources it can contaminate it so that we can't drink it. An excessive amount of salt is hard and expensive for water treatment facilities to remove.

With winter weather on its way, we will all be breaking out the road salt, so it is extremely important to control salt at the source by being strategic about when, where, and how salt is applied.

#### **Tips for Winter Snow Removal**

We can protect our drinking water resources, the environment, and local habitats by following these snow removal tips:



#### SHOVEL

#### Limit the Need for Salt

Salt works best when applied before the snow and should never be applied when rain is in the forecast. After the snow be sure to clear all snow from driveways and sidewalks before it turns into ice. Salt should only be applied after the snow is removed and only in areas needed for safety.



#### SPREAD Follow Salt Application Directions

1 lb of salt fits in a 12oz coffee mug and is enough to treat 10 sidewalk squares or 20 feet of driveway. The salt also needs to be spread a few inches apart and should not be laid down in piles or clumps.



#### More Salt Does Not Mean More Melting

Excess salt does not help melt ice! If you see leftover salt on the ground after the ice melts, then you have used too much. Sweep up any leftover salt to be reused and to keep it away from our rivers and streams



#### STORE Prevent Damage

Avoid storing salts outdoors to prevent direct contact with grass, plants, trees, stormwater, and even infrastructure. Salt can slow plant growth, contaminate water, produce rusting, and weaken the concrete, brick, and stone that make up our homes.

## **Deactivated SM-1 Nuclear Power Plant**

The draft Environmental Assessment for the decommissioning of the deactivated SM-1 nuclear power plant on Fort Belvoir is available for public review and comment.

## **Upcoming Public Meetings**

#### **On-Post**

Where: Thurman Hall (Building 247) When: 7 JAN, 2020 Afternoon Session: Posters/Open House - 1pm to 2pm Formal Presentation at 2pm Followed by Q&As and Posters Evening Session:

> Posters/Open House - 6:30pm to 7:30pm Formal Presentation at 7:30pm Followed by Q&As and Posters

### **Off-Post**

Where: Fairfax County's South County Government Center 8350 Richmond Hwy, Alexandria, Va.
When: 8 JAN, 2020
Evening Session: Posters/Open House - 6:30pm to 7:30pm Formal Presentation at 7:30pm Followed by Q&As and Posters

More info, including documents for review, available online at: www.nab.usace.army.mil/SM-1



Stakeholder Engagement Communications

#### Carver, Craig

| From:<br>Sent: | Barber, Brenda M CIV USARMY CENAB (USA)<br>Friday, January 03, 2020 10:51 AM  |
|----------------|---|
| Sent.          | Cardner, Christenher D. CIV / USADAV CENAR (USA): Mitchell Curthia M. CIV / USADAV CENAR (USA):   |
| СС:            | Falls, Eva E CIV (USA); Schuster, Michael J CIV USARMY CENAB (USA); Mitchell, Cynthia M CIV USARMY CENAB (USA);<br>Falls, Eva E CIV (USA); Schuster, Michael J CIV USARMY CENAB (US); Honerlah, Hans B CIV USARMY<br>CENAB (USA); Lazo, Carlos J CIV USARMY CENAB (USA); Roblyer, Griffin D K CIV USARMY CENAB<br>(USA) |
| Subject:       | SM-1 Project Update, January 3, 2020  |
| Importance:    | High  |

Happy New Year SM-1 Stakeholders,

Since our last stakeholder update was just before the holidays, I wanted to send a reminder that the Draft Environmental Assessment (EA) and Draft Finding of No Significant Impact (FNSI) for the proposed decommissioning and dismantling of the Deactivated SM-1 Nuclear Reactor Facility at Fort Belvoir is available for public review and comment.

You can review the documents online at https://urldefense.proofpoint.com/v2/url?u=http-

3A\_\_www.nab.usace.army.mil\_Missions\_Environmental\_SM-2D1\_&d=DwIGaQ&c=TQzoP61bYDBLzNd0XmHrw&r=Ilpvm9bVT1EdvFcKpRS4wpyohoTtoB6f2UJyGU6jBj8&m=I5gO4xNUBBisv2dCRAFxGGD1OnCRBImE WEI5nhYxBz4&s=5yjtsQsbKf1Mu4ZszEGC51OBXUZxR1fpiYnt2hTg88Y&e= along with the formal public notice regarding their availability. There are also details online about next week's public meetings as well January 7 and 8. We understand the release came just before the holiday season so we went ahead and extended the traditional 30-day window for public review and comment to 6 weeks, meaning stakeholders still have through the entire month of January to provide feedback.

The U.S. Army Corps of Engineers proposes to decommission the SM - 1 facility to a standard that allows for release of the site for unrestricted use (the proposed action in the Draft EA). Under the proposed action, USACE would implement an Army Reactor Office-approved Decommissioning Plan to safely remove, transport, and dispose of remaining structures, equipment, and media from the SM-1 site; validate that site conditions meet applicable cleanup standards; restore the site to a vegetated condition; and return the site to Fort Belvoir for future use. The Draft EA analyzes the potential environmental impacts of the proposed action and concludes that there would be no significant adverse impacts on the physical, cultural, and natural environment.

The team appreciates the feedback we have already received from members of the community, both on-post and offpost, during our outreach efforts over the course of last year. We have used your feedback to inform our planning efforts and the preparing of the documents available for review.

The project team invites stakeholders to attend public meetings for the Draft EA to learn more about the proposed action and environmental review. The public meetings will be held on January 7 and 8, 2020. Each meeting will be conducted in an open house format to include a short presentation followed by questions and answers from the audience. The public meeting schedule will be:

- Tuesday, January 7, 2020 (On-Post\*) - Thurman Hall, Building 247, 270 Kuhn Road, Fort Belvoir, VA 22060 (\* Due to Fort Belvoir security requirements, attendance at the on-post meetings is limited to Department of Defense military and civilian personnel, Fort Belvoir residents, and Fort Belvoir contractors/civilian employees.)

• Afternoon Meeting: Open House/Poster Session 1:00 PM – 2:00 PM, Formal Presentation and Audience Questions 2:00 PM – 3:00 PM

• Evening Meeting: Open House/Poster Session 6:30 PM – 7:30 PM, Formal Presentation and Audience Questions 7:30 PM - 8:30 PM

- Wednesday, January 8, 2020 (Off-Post – Open to the General Public) - Fairfax South County Office, Room 221, 8350 Richmond Highway, Alexandria, VA 22309

• Open House/Poster Session 6:30 PM – 7:30 PM, Formal Presentation and Audience Questions 7:30 PM - 8:30 PM

More information about the release of the Draft EA and associated documents, public meetings and the SM-1 decommissioning effort in general can all be found on the USACE project website at:

https://urldefense.proofpoint.com/v2/url?u=http-3A\_\_www.nab.usace.army.mil\_Missions\_Environmental\_SM-2D1\_&d=DwIGaQ&c=TQzoP61-

bYDBLzNd0XmHrw&r=llpvm9bVT1EdvFcKpRS4wpyohoTtoB6f2UJyGU6jBj8&m=l5gO4xNUBBisv2dCRAFxGGD1OnCRBImE WEI5nhYxBz4&s=5yjtsQsbKf1Mu4ZszEGC51OBXUZxR1fpiYnt2hTg88Y&e= .

Thank you all again for choosing to be a part of this process with us as we continue working through the planning phase of the decommissioning and dismantling of the deactivated SM-1. The team anticipates awarding a decommissioning contract for the work around summer 2020, with mobilization work on site beginning later in 2021.

If you have any questions, feedback or information you'd like to share with us, please feel free to e-mail me or call our Corporate Communication team at 410-962-2809.

Thanks

Brenda M. Barber, P.E.

U.S. Army Corps of Engineers - Baltimore District Project Manager - Environmental and Munitions Design Center ATTN: CENAB-ENE-C 2 Hopkins Plaza

09-A-10 (Cube) Baltimore, MD 21201



#### Carver, Craig

| From:       | Barber, Brenda M CIV USARMY CENAB (USA)  |
|-------------|--|
| Sent:       | Tuesday, January 07, 2020 12:53 PM   |
| Cc:         | Gardner, Christopher P CIV USARMY CENAB (USA); Mitchell, Cynthia M CIV USARMY CENAB (USA);<br>Falls, Eva E CIV (USA); Schuster, Michael J CIV USARMY CENAB (US); Honerlah, Hans B CIV USARMY<br>CENAB (USA); Lazo, Carlos J CIV USARMY CENAB (USA); Roblyer, Griffin D K CIV USARMY CENAB<br>(USA) |
| Subject:    | SM-1 Project Update for January 7, 2020  |
| Importance: | High   |

#### Dear Stakeholders,

Due to impending inclement weather in the Fort Belvoir area and the associated Office of Personnel Managementdictated closure of offices on post, we are postponing both on-post Deactivated SM-1 Nuclear Reactor public meetings scheduled for today, Jan. 7, and will be holding them the afternoon and evening of Thursday, Jan. 9 in Wood Theater.

We appreciate your understanding of this change. The safety of the public and our team is paramount in everything we do.

The new schedule for the on-post meetings will be as follows:

- Thursday, January 9, 2020 (On-Post\*) ? Wood Theater (Bldg. 2120), 6050 Abbot Road, Fort Belvoir, VA 22060 (\* Due to Fort Belvoir security requirements, attendance at the on-post meetings is limited to Department of Defense military and civilian personnel, Fort Belvoir residents, and Fort Belvoir contractors/civilian employees.)

? Afternoon Meeting: Open House/Poster Session 1:00 PM ? 2:00 PM, Formal Presentation and Audience Questions 2:00 PM ? 3:00 PM

? Evening Meeting: Open House/Poster Session 6:30 PM ? 7:30 PM, Formal Presentation and Audience Questions 7:30 PM - 8:30 PM

Tomorrow evening's off-post public meeting is not impacted by this announcement. Stakeholders that planned to attend today's on-post meetings are welcome to attend tomorrow evening's meeting. Tomorrow's meeting schedule is as follows:

- Wednesday, January 8, 2020 (Off-Post ? Open to the General Public) ? Gerry Hyland Government Center (formerly known as the Fairfax South County Office), Room 221, 8350 Richmond Highway, Alexandria, VA 22309

? Open House/Poster Session 6:30 PM ? 7:30 PM, Formal Presentation and Audience Questions 7:30 PM - 8:30 PM

Thank you for your continued support and participation as we continue through the planning phase of the deactivated SM-1 decommissioning and dismantling.

If you have any questions, feedback or information you'd like to share with us, please feel free to e-mail or call our Corporate Communication team at 410-962-2809.

Thanks

Brenda M. Barber, P.E. U.S. Army Corps of Engineers - Baltimore District Project Manager - Environmental and Munitions Design Center ATTN: CENAB-ENE-C 2 Hopkins Plaza 09-A-10 (Cube) Baltimore, MD 21201

#### SM-1 Project Update, January 10, 2018

#### Dear SM-1 Stakeholders,

Thank you for signing up to receive periodic updates regarding the ongoing efforts to decommission and dismantle the deactivated SM-1 former nuclear power plant at Fort Belvoir. This is the first of what will be several stakeholder updates that we'll be sending over the course of this project.

We are still in the early planning stages of this project, but as part of our commitment to open and transparent communication, we will be sending stakeholder updates as we reach major project milestones and especially when there are opportunities for stakeholders to interact with the project team and provide feedback.

Our first opportunity for stakeholders to meet with team members, ask questions and provide direct feedback will be later this month. We'll be hosting information sessions both on- and off-post and look forward to hearing from the community.

The project team will be on-post at Thurman Hall (Building 247) during the afternoon and evening of January 28 to discuss the project, get feedback and answer questions from interested members of the Fort Belvoir community who work and live on post. The afternoon session will consist of an open house period with information posters where the public can meet and interact with USACE and Fort Belvoir personnel working on the project from 1pm to 3pm, with a formal presentation scheduled to be given at 2pm followed by questions and answers. The evening session will begin with another open house session from 6:30pm to 7:30pm, which will be followed by a formal presentation about the SM-1's history and ongoing decommissioning planning and a subsequent question and answer session and additional poster availability from 7:30pm to 8:30pm.

The following evening, January 29, the project team will be hosting a similar information session off-post at Fairfax County's South County Government Center (8350 Richmond Hwy, Alexandria) for anyone onor off-post interested in providing feedback and learning more about the project. The session will consist of an open house period with information posters where the public can meet and interact with USACE and Fort Belvoir personnel working on the project from 6:30pm to 7:30pm, which will be followed by a formal presentation about the SM-1's history and ongoing decommissioning planning and a subsequent question and answer session and additional poster availability from 7:30pm to 8:30pm.

Our team wants to understand any concerns the community may have as we move forward with our planning, and also provide vital project information, as well.

The SM-1 project team is also committed to a fair, open and transparent contracting process. As part of that commitment, we are hosting an Industry Day on February 8, also at Fairfax County's South County Government Center. Contractors interested in more information regarding this Industry Day, including instructions on how to RSVP, can see the full official notice on FedBizOpps.gov at <a href="https://go.usa.gov/xEbrQ">https://go.usa.gov/xEbrQ</a>.

As a reminder, the deactivated SM-1 former nuclear power plant on Fort Belvoir has been deactivated since the early 1970s. The U.S. Army Corps of Engineers, Baltimore District is a Regional Radiological Center of Expertise and has been designated to carry the SM-1 decommissioning and dismantlement.

Completed in 1957, the SM-1 nuclear reactor at Fort Belvoir was the first nuclear power facility in the United States to be connected to a public utility grid. Over several years, it provided power primarily to Fort Belvoir and served as a training facility for nuclear technicians from all military branches before being deactivated and partially decommissioned in the early 1970s.

The initial dismantlement and decommissioning involved the removal of a majority of the radioactivity from the site, including the removal of the nuclear fuel and control rods, decontamination work around the facility, radioactive waste removal, and the sealing of the Reactor Containment Vessel which holds the Reactor Pressure Vessel and other reactor components.

USACE is working to develop and finalize the various planning documents for the final decommissioning and dismantling of the facility.

We want to take this opportunity to emphasize that safety is the team's number one priority for this project. The safety and health of the installation, the local community and our workers are paramount to the success of our project. We will be using proven controls and precautions to address safety and other engineering details during all stages of the decommissioning of the SM-1.

Just recently, the Baltimore District's expert team safely completed the decommissioning of another one of the Army's deactivated nuclear reactors – the MH-1A on the STURGIS barge in Galveston, Texas. We are excited to build on that record of success and safety as planning moves forward for the SM-1 decommissioning and dismantlement.

As the team continues through the planning phase, we have begun initial market research to assess what companies may be able to implement this large, unique and complex project. This is just the first of many steps our team will be taking to ensure a fair, open and transparent contracting process. We anticipate issuing a draft request for proposals for a decommissioning contract in the first half of calendar year 2019 to solicit industry feedback with a formal RFP later in the year and an anticipated contract award date around the middle of calendar year 2020.

You can read more about the project and the SM-1's unique history in this feature online that is also in the current edition of Fort Belvoir's garrison newspaper, the Belvoir Eagle - <a href="http://www.belvoireagleonline.com/">http://www.belvoireagleonline.com/</a>.

We have also recently launched a web site for the SM-1 project where additional information is available - <u>www.nab.usace.army.mil/Missions/Environmental/SM-1/</u>

And, as always, feel free to e-mail any questions or concerns you may have to Baltimore District's Corporate Communication Office at <u>CENAB-CC@usace.army.mil</u>.

The U.S. Army Corps of Engineers (USACE), Baltimore District, will hold an Industry Day on 8 February 2019 located at the Fairfax County's South County Government Center (Room 221). The Industry event will be hosted by USACE - Baltimore District for the purpose of discussing the plan for the Decommissioning and Disposal Activities for the SM-1 Deactivated Nuclear Power Plant Facility located at Fort Belvoir, Va. The Industry Day will be conducted in two parts, as described below:

**Part I** will consist of a presentation by USACE - Baltimore District in the morning from 0900-1100 hours. This presentation will focus specifically on the Decommissioning and Disposal Activities for the SM-1 Deactivated Nuclear Power Plant Facility located at Fort Belvoir, Va. Interested parties shall follow the RSVP instructions below if you are interested in attending this presentation

**Part II** will consist of one-on-one sessions for those companies interested in discussing alternatives, concerns, and suggestions relative to a future Request for Proposal (RFP) for this project. Sessions will be 30 minutes in length. Companies interested in participating in a one-on-one session shall notify James Greer, in their RSVP, as instructed below. The schedule for the one-on-one visits will be made available on 28 January 2019 and specific slots will be confirmed on a first come - first serve basis with all times being confirmed no later than 01 February 2019.

INFORMATION PRESENTED DURING THE ABOVE SESSIONS IS FOR PLANNING PURPOSES ONLY, DOES **NOT** CONSTITUTE AN INVITATION FOR BID OR REQUEST FOR PROPOSAL, AND IS **NOT** A COMMITMENT BY THE GOVERNMENT TO PURCHASE DESIRED SERVICES.

USACE - Baltimore District requests that parties interested in attending SM-1 Deactivated Nuclear Power Plant Decommissioning and Disposal Activities Industry Day submit company names and attendee lists no later than **2 PM EST**, **25 January 2019** via e-mail to James Greer, Contract Specialist (james.a.greer@usace.army.mil). Parties are limited to no more than four attendees, including subcontractors. The subject line of the RSVP email shall be limited to: SM-1 Industry Day RSVP from (Company Name). The body of the email shall include each attendee's name, Position/Title, email address, phone number, and indicate whether they wish to participate in a one-on-one session. Parties are encouraged to submit any additional questions via email to James Greer no later than 31 January 2019, in order for the briefing to be as informative as possible. The project website with presentations can be found at: <a href="https://www.nab.usace.army.mil/Missions/Environmental/SM-1/">https://www.nab.usace.army.mil/Missions/Environmental/SM-1/</a>

The U.S. Army Corp of Engineers (USACE) holds the right to cancel and/or change the event time, date and location for any reason up to and including the day of the event. Circumstances for cancellation and/or rescheduling may include, but are not limited to: inclement weather, event venue cancellation or rescheduling, speaker cancellation or rescheduling, and insufficient number of participants for the event. In the event that the USACE must cancel or reschedule the event, the USACE will not be responsible for costs incurred in preparation. In the event of predicted inclement weather, a decision will be made by 5pm on the prior day. If the event is cancelled, an email will be sent to all registered participants.

This Special Notice does not constitute a Request for Proposal (RFP) and is not to be construed as a commitment by the Government to issue a contract or order.

#### Carver, Craig

| From:    | Barber, Brenda M CIV USARMY CENAB (US)   |
|----------|--|
| Sent:    | Sunday, August 25, 2019 12:02 PM   |
| Cc:      | Nappi, Rebecca (Becca) CIV USARMY CENAB (USA); Gardner, Christopher P CIV USARMY CENAB |
|          | (US); Honerlah, Hans B CIV USARMY CENAB (USA); Lazo, Carlos J CIV USARMY CENAB (USA);  |
|          | Bonomolo, Tamara C CIV USARMY CENAB (USA)  |
| Subject: | SM-1 Project Update, August 25, 2019   |

Dear SM-1 Stakeholders,

The U.S. Army Corps of Engineers released the Request for Proposal (RFP) notice earlier today for the contract for the decommissioning and dismantling of the SM-1 deactivated nuclear power plant at Fort Belvoir. With the release of the RFP, the team remains on schedule to award a contract for this work in the latter half of 2020.

A site visit will be held for all potential bidders on September 16, 2019. Additional information pertaining to this RFP and how potential bidders can participate in the site visit can be found on FedBizOpps at ? https://urldefense.proofpoint.com/v2/url?u=https-

3A\_\_www.fbo.gov\_spg\_USA\_COE\_DACA31\_W912DR18R0021\_listing.html&d=DwIGIw&c=TQzoP61bYDBLzNd0XmHrw&r=Ilpvm9bVT1EdvFcKpRS4wpyohoTtoB6f2UJyGU6jBj8&m=oxjNKY55hu0M2fXl2ld0ljVSbbZliVZ2V4W VQ3npEgw&s=jOlytqaQDyqdZiAi4uVlwanZznRUUK\_WK2UpIR8BNnk&e=

Additionally, the project team continues to work on the Decommissioning Planning documents, to include the Decommissioning Plan and the Environmental Assessment. The team appreciates the feedback we received from members of the community, both on-post and off-post, earlier this year. We anticipate publicly releasing the draft Environmental Assessment later this fall and having a public comment period to allow stakeholders to provide additional feedback.

Thank you all again for choosing to be a part of this process with us as we continue working through the planning phase of the decommissioning and dismantling of the deactivated SM-1.

As always, additional project information, historical photos, and previous stakeholder updates regarding the SM-1 project can be found on our website: https://urldefense.proofpoint.com/v2/url?u=http-

3A\_\_www.nab.usace.army.mil\_SM-2D1\_&d=DwIGIw&c=TQzoP61-

bYDBLzNd0XmHrw&r=Ilpvm9bVT1EdvFcKpRS4wpyohoTtoB6f2UJyGU6jBj8&m=oxjNKY55hu0M2fXl2ld0ljVSbbZliVZ2V4W VQ3npEgw&s=MBYKxD0nN05XaUPRmW2VTEVsNXGhK6QQT0vdTD-C9Vg&e= .

If you have any questions, feedback or information you'd like to share with us, please feel free to e-mail me or call our Corporate Communication team at 410-962-2809.

Thanks

Brenda M. Barber, P.E. U.S. Army Corps of Engineers - Baltimore District Project Manager - Environmental and Munitions Design Center ATTN: CENAB-ENE-C 2 Hopkins Plaza 09-A-10 (Cube) Baltimore, MD 21201 **General SM-1 Project Information Public Meetings** 

# WELCOME

## SM-1 DECOMMISSIONING PROJECT

## Schedule

## **Public Info Session**

#### 6:30 PM - 7:30 PM

- Open House
- Meet and interact with USACE and Fort Belvoir personnel

#### 7:30PM - 8:30 PM

- Formal Presentation
- Q/A Session
- Poster Availability

## <u>March 12, 2019</u>

Off-Post Fairfax County South County Government Center 8350 Richmond Hwy, Alexandria, VA *(Room 221)* 





US Army Corps of Engineers®

# SM-1 DECOMMISSIONING

PROJECT

## **Brief History**

The former SM-1 nuclear power plant is situated within the boundaries of Fort Belvoir in Fairfax County, Virginia. After construction completion in 1957, the SM-1 facility was used to train U.S Army power plant operators and was capable of delivering a net 1,750 kilowatts of electrical power. It was the first nuclear power reactor to provide electricity to a commercial power grid in the United States. In 1973, the reactor facility was deactivated (shutdown) and deactivation included removal of the nuclear fuel and sealing of the reactor pressure vessel, decontamination of building areas to the extent possible, and off-site disposal of radioactive wastes. The site is now referred to as the SM-1 Deactivated Nuclear Power Plant. For more than 45 years, the site has been monitored and maintained while the accessible portions of the SM-1 facility have been used as a museum and storage space.





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## **SM-1 TIMELINE/SCHEDULE**



## **TIMELINE FOR THE SM-1 REACTOR FACILITY**



## **WASTE SEGREGATION PROCESS**

#### WHERE DOES IT ALL GO?





#### TRUCKS and TRAINS TRANSPORT WASTE

#### CLEAN MATERIAL & EQUIPMENT AND DEMOLITION DEBRIS FOR DISPOSAL OR RECYCLING

- ELECTRICAL DISTRIBUTION EQUIPMENT
- CONTROL ROOM CONSOLES
- BUILDING DEBRIS
  - STEEL
  - CONCRETE



#### LOW-LEVEL RADIOACTIVE WASTE TO A LICENSED DISPOSAL FACILITY

- RADIOLOGICALLY ACTIVATED
  - REACTOR PRESSURE VESSEL (RPV)
  - OTHER REACTOR COMPONENTS
- RADIOLOGICALLY CONTAMINATED
  - PRIMARY and SECONDARY REACTOR SYSTEMS
  - LIQUID WASTE MANAGEMENT SYSTEM
  - CONTAMINATED SOIL AND DEBRIS



#### HAZARDOUS WASTE FORMS TO PERMITTED LANDFILLS

<25%

1010

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- SOIL AND DEBRIS CONTAMINATED WITH VERY LOW LEVELS OF RADIOACTIVITY
- ASBESTOS INSULATION, FLOOR TILES, ADHESIVES, ETC.
- LEAD-CONTAMINATED SOILS
- UNIVERSAL WASTE (fluorescent bulbs, mercury-containing equipment, etc.)





## RADIATION, RADIOACTIVITY, AND RISK

#### **ANNUAL RADIATION DOSES IN MILLIREM -**WHAT IS RADIOACTIVITY? WHAT IS RISK WHAT IS RADIATION? **VARIOUS EXPOSURES ASSESSMENT?** RADIOACTIVITY RISK ASSESMENT **US OCCUPATIONAL DOSE** - Spontaneous emission of radiation 5.000 mrem - Invisible energy moving through space Evaluating benefits versus risk LIMIT - Is reduced as radioactive atoms decay - Is a smoke detector worth its **RADIOACTIVE ATOMS** radiation risk? 2.000 mrem **TOBACCO SMOKING** - Light, sound, heat or infrared waves, - Are unstable microwaves, radio waves, low NO ANSWER TO THE QUESTION: - Change or decay until they become UNDERGROUND 1,500 mrem frequency power line radiation - What is a safe level of radiation stable **URANIUM MINES** exposure? - Give off surplus energy by emitting (What is a safe driving speed?) Alpha particles ( A ) radiation (fast moving helium nucleus) **APPROPRIATE QUESTION TO ASK** AVERAGE ANNUAL RADIATION HALF LIFE 620 mrem Beta particles **PUBLIC DOSE** - The time it takes for decay to half the (fast moving electron) - What is the risk associated with a previous radioactivity Neutrons 200 mrem **RADON IN THE AIR** given exposure? (What is the risk of WW, Gamma, X-ray **QUANTIFYING RADIACTIVITY** injury for this situation and speed?) - Disintegration per second (d/s) NUCLEAR REGULATORY 100 mrem - The number of atomic nuclei that **COMMISSION PUBLIC DOSE LIMIT** - REM (millirem - 1/1000 REM) decav each second Unit of absorbed dose in the body that 40 mrem **FOOD AND WATER** measures the impact of deposited HEALTH RISKS FROM RADIATION COMPARED energy. WITH OTHER SITUATIONS **Days Life Lost** SOME HALF LIVES Unmarried Male 3500 **TERRESTRIAL RADIATION - US** 26 mrem Smoke 20 cigarettes per day 2370 AVERAGE DIFFERENT TYPES OF RADIATION HAVE 5.27 Unmarried Female 1600 DIFFERENT PENETRATING POWERS 25 mrem **SM-1 SITE RELEASE CRITERIA** Cobalt-60 Overweight by 20%\_\_\_\_\_985 vears 10 mrem **CHEST X-RAY** Paper All accidents combined 435 Aluminum Auto Accidents 200 **SM-1 MATERIAL RELEASE** 1 mrem 100.1Cadmium **CRITERIA** Nickel-63 Alcohol Consumption Lead vears (U.S. averages) 130 1000 millirem per year for 30 mrem = years, calculated 30 MILLIREM=1/1000 REM. 4.5 UNIT OF ABSORBED DOSE IN THE Natural background Uranium-238 billion BODY THAT MEASURES THE radiation calculated 8 **IMPACT OF DEPOSITED ENERGY** Medical Diagnostic X-rays 6 vears Coffee drinker 6 A-112

## **USACE COMMITMENT – SM-1**

#### **RISKS?**

Safety is our number one priority. There will be minimal risk to the public as we implement this project. USACE will have a highly skilled team of engineers, scientists, and contractors dedicated to the project. SM-1's nuclear fuel was removed more than 40 years ago.





# SM-1 DECOMMISSIONING PROJECT

#### Schedule

#### **Public Info Session**

#### Afternoon Session 1:00 PM - 2:00 PM

- Open House
- Meet and interact with USACE and Fort Belvoir personnel

#### 2:00 PM - 3:00 PM

- Formal Presentation
- Q/A Session
- Poster Availability

## January 28, 2019

On-Post Thurman Hall Building 247 Fort Belvoir, VA





# WELCOME

## SM-1 DECOMMISSIONING PROJECT

### Schedule

#### **Public Info Session**

#### 6:30 PM - 7:30 PM

- Open House
- Meet and interact with USACE and Fort Belvoir personnel

#### 7:30PM - 8:30 PM

- Formal Presentation
- Q/A Session
- Poster Availability

## <u>January 29, 2019</u>

Off-Post Fairfax County South County Government Center 8350 Richmond Hwy, Alexandria, VA *(Room 221)* 





## DEACTIVATED NUCLEAR POWER PLANT PROGRAM SM-1, FT BELVOIR, VA

#### WM2018

Session 097b US Army Corps of Engineers - Deactivated NPP Program D&D Contracting Opportunities

Brenda Barber, P.E. Hans Honerlah, CHMM Baltimore District, CENAB-ENE

March 2018

"The views, opinions and findings contained in this report are those of the authors(s) and should not be construed as an official Department of the Army position, policy or decision, unless so designated by other official documentation."





#### TOPICS

- History
- Decommissioning Planning



U.S.ARM

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## SM-1 TIMELINE: DETAILS

- SM-1 Reactor Startup: April 1957
  - Core II installed, June 1961
  - Core III installed, July 1968
- Last operation: March 1973
- Minimal Decommissioning: 1973 November 1974
- USACHPPM Survey: October 1996
- Contractor Gamma Surveys: 1997 and 2009
- Core Component Activation Analysis: 2003
- Contractor Historical Site Assessment: 2003
- Contractor Characterization Survey Report: 2013
- Contractor Dap Gap Analysis: 2015
- Archeological Survey: 2016
- Supplemental Field Characterization: 2016







of Engineers ®











1956 Construction Photos





#### PRE-SHUTDOWN DECOMMISSIONING ACTIVITIES

- Cleaned out Diesel Building
- Cleaned up Retention Building and Waste Facility
- Cleaned up "Hot Maintenance Area"
- Cleaned up secondary system
- Dug up old piping not in use

   including discharge from retention sump
   (seal pit)
- Dug up selected "hot dirt areas"







#### **POST-SHUTDOWN DECOMMISSIONING ACTIVITIES**

- Laid up systems; generally drained of oil and filled with preservative or air dried
- Shipped absorbers, fuel, and neutron sources
- Drained and flushed primary systems, including spent fuel pit
- Cut and welded penetrations to Vapor Container
- Removed contaminated piping outside of the Vapor Container (VC), including decontamination of vent and blowdown systems
- Peeled out liner, decontaminated, welded shut spent chute, installed cover on Spent fuel pit





## **POST-SHUTDOWN DECOMMISSIONING ACTIVITIES**

- Conducted final survey of Gunston Cove
- Cleaned and sealed VC door with chain lock system
- Filled pipe pit with concrete
- Removed Waste Facility tanks, building, and pad
- **Removed Retention Building**
- Removed contaminated underground piping
- Secured and posted restricted areas: Modification (MOD) area, VC, primary make-up tank room, spent fuel pit area, demineralizer room, fan loft
- Demolished Guard House (Building 373)
- Demolished Flammable Storage Building (Building 376)
- Demolished Tree House Mockup (Building A390)
- Decontaminated underground liquid radioactive waste tanks outside  ${}^{\bullet}$ Training Building (Building 358) and filled them with concrete



US Army Corps



#### PRIOR CHARACTERIZATION EFFORTS TO SUPPORT DECOMMISSIONING PLANNING

- Gamma walkover surveys inside the fenced area
  - Completed in 2009; small area surveyed in 2016
- Biased and systematic soil sampling
  - Executed in 2010 and 2016
- In-plant survey to determine H-3 and alpha isotopic activity
  - Considered complete outside the VC
  - Additional samples for HTD isotopes (including H-3) collected in 2016
  - Alpha false-positive/radon analysis conducted in 2016
- Scoping surveys of buildings/sites associated with SM-1
  - Completed in 2010





### PRIOR CHARACTERIZATION EFFORTS TO SUPPORT DECOMMISSIONING PLANNING

- More extensive survey of Gunston Cove sediment
  - Completed in 2010 (20 samples collected between Whitestone Pt. and discharge pipe)
- Sampling of underground pipes
  - All pipe waste and outfall pipes assumed to be contaminated
  - Geophysical surveys to verify pipes present in 2010 and 2016
  - Investigation of sewer pipes still to be planned/executed
- Soil under SM-1 to be sampled
  - Soil is assumed to be impacted and require disposal as LLRW
  - Sampling not considered to have a significant impact on cost estimates or planning efforts





## DECOMMISSIONING PLANNING EFFORTS

- Decommissioning Planning is underway anticipate completion by 2019
  - Contract was awarded in 2014
  - Scope includes:
    - review historical documents associated with the All Hazards Analysis
    - prepare planning documents that will support the Army Reactor Office issuing the USACE a decommissioning permit for the SM-1 reactor
    - comply with other relevant Federal and State requirements that will support the long term decommissioning planning
    - Ensure adherence of project activities to NRC, Army, and Federal standards and guidance, as well as, other Federal standards and guidance where relevant, and
    - coordinate with appropriate federal, state, and public parties to support issuance of decommissioning permit and other NEPA requirements.





#### MAJOR DECOMMISSIONING PLANNING DOCUMENTS

- Final Disposal Plan, Schedule and Cost Estimate
- Waste Management Plan
- Environmental Assessment
- Section 106 Effects Assessment and agreement document
- Decommissioning Plan





#### **DECOMMISSIONING CHALLENGES**

- Site has a small footprint and limited area for infrastructure
- Limited transportation routes off installation
- Coordination with the installation staff
- Proximity to base housing
- Proximity to the U.S. Capital



