

## CALIFORNIA ENVIRONMENTAL QUALITY ACT NOTICE OF EXEMPTION

To: Office of Planning and Research  
State Clearinghouse  
P.O. Box 3044, 1400 Tenth Street, Room 212  
Sacramento, CA 95812-3044

From: Department of Toxic Substances Control  
Site Mitigation and Environmental Restoration  
8800 Cal Center Drive  
Sacramento, CA 95826

**Project Title:** Areas I, II and III - Corrective Measures Study Report

**Project Location:** 11222 Flintkote Avenue, San Diego, California 92121

**County:** San Diego

**Project Applicant:** General Atomics

**Approval Action Under Consideration by DTSC:** Other Corrective Measures Study Report

**Statutory Authority:** California Health and Safety Code, Chapter 6.5

**Project Description:** The Department of Toxic Substances Control (DTSC) is approving a document titled Areas I, II and III - Corrective Measures Study Report (CMS Report) pursuant to regulatory authority granted under Chapter 6.5, Division 20, California Health and Safety Code (H&SC) on the General Atomics site (Site). Project activities address volatile organic compounds (VOCs) in soil, soil vapor and groundwater at the Site. The VOCs in soil are due to historical operations at the Site, which included energy and defense-related projects, a machine shop used in support of various nuclear energy-related projects, and fuel process research and development between 1962 and 1995. The primary chemicals used were VOCs, with trichloroethylene and tetrachloroethylene being the most prevalent.

The project will allow General Atomics and their consultants to implement Remedial Alternative 4 of the CMS Report, which includes In-situ Chemical Oxidation System (ISCO), continued operation and expansion of the existing Soil Vapor Extraction system, recording of a Land Use Covenant to restrict the General Atomics site to commercial/industrial property, and groundwater monitoring activities to verify that the frequency of ISCO injections is appropriate both on-site and off-site. Installation of the proposed project will take 1 to 2 months, with operation and maintenance of the proposed project estimated to take at least four to six years.

Please note that all ground disturbing remedial activities will take place at 11222 Flintkote Avenue. While monitoring will take place at existing monitoring wells in offsite areas to verify the efficacy of the remedy over time, no physical equipment to implement the proposed remedy will be needed in offsite areas during implementation or operation and maintenance activities. Thus, there are no potential impacts to areas offsite.

**Background:** To clarify an issue concerning the remediation area of the proposed project: two similar words are defined differently when discussing the General Atomics site and the components of the proposed remedy: "Property" and "Site". 'Property' refers to the General Atomics property at 11222 Flintkote Avenue and all associated buildings. Site, however, refers to the Property and two additional offsite areas which are part of the characterization activities and the planned remedy. Thus, the Site is comprised of three Areas: Area I, also known as the General Atomics Property at 11222 Flintkote Avenue; Area II, which is the hydraulically downgradient office complex across from 11222 Flintkote Avenue to the east; and Area III, which is the area north and east of the Property that is at the southern edge of a riparian habitat owned and operated by the California State Coastal Conservancy. These areas are depicted in Figure 1. All work, other than monitoring, will occur in Area I.

Prior to General Atomics' (GA's) occupation of the Property in the 1960s, the Property was undeveloped. The Property is currently an active commercial/industrial research and development facility and will be used in this fashion for the foreseeable future. VOCs were used during historical operations, primarily from the early 1960s through the mid 1980's. Chloroform was previously used as an extractant in industrial research being conducted at the Property. With the exception of the southern portion of Building 37, facilities and structures associated with VOC use have been removed.

Within the Property, impacted soil and groundwater is covered by paved parking lots and roadways, storage areas, a magnetic levitation test track, above-ground plastic-lined biodiesel (algae) test ponds, Building 39-1, the southern portion of Building 37 and narrow strips of landscaping. The northern portions of Building 37 (former Building 37N) and former Building 39 were removed during 1993-1994 and 1995-1996, respectively. Building 37 was the most prevalent area of VOC handling and use. Former Building 37N was used for energy and defense-related projects between 1962 and 1989, and the southern portion (the current Building 37) was used as a machine shop to support various nuclear energy-related projects. Former Building 39 housed fuel process research and development from 1964 to 1995.

In 1993 and 1994, Building 37N was demolished. During demolition activities, impacted soil was removed under the oversight of the U.S. Nuclear Regulatory Commission (NRC) and the California Department of Health Services (DOHS) Radiologic Health Branch (DOHS-RHB). In 1995, the Property was released by the NRC and the DOHS-RHB for unrestricted industrial use. In 1997, the former Building 37N area was graded, then partially asphalted and landscaped. Landscaping has largely been replaced with above-ground plastic-lined biodiesel test ponds that are currently being removed from the Property in preparation for site remediation activities. Former Building 39 was decontaminated, demolished and properly disposed of in 1995 and 1996, under NRC and DOHS-RHB overview. In 2000, the NRC released the building location for general unrestricted industrial use, as did the DOHS-RHB in 2001. San Diego County provided regulatory oversight from 1994 to 1999, followed by DTSC oversight from 1999 to the present.

**Previous Investigations:** In 2001, General Atomics had VOC-contaminated soil excavated from within the footprint of the former Building 37N. GA had already enlisted consultants to perform investigations at the property in 2000 to determine nature and extent of remaining VOC contamination, which was found in soil, soil vapor, and groundwater. The bulk of these investigations terminated in 2006 and were submitted to DTSC as various phases of a Resource Conservation and Recovery Action (RCRA) Facility Investigation. In 2008, Brown and Caldwell prepared a Human Health and Ecological Risk Assessments Report to identify and calculate estimated risks and hazards for both the property and nearby and downgradient offsite areas. This was followed by a Corrective Measures Report submitted to DTSC in 2010 to propose a site-wide remedy, one that should have addressed offsite groundwater impacts caused by onsite groundwater migrating offsite. The components of this remedy did not include any technology to control the source zone in groundwater, and thus DTSC asked GA to revise the CMS Report. From 2011 to 2018 the following technologies were implemented to both protect human health and the environment and to try and reduce contaminants in groundwater from migrating offsite:

- In 2011, the phytoremediation proposed as part of the remedy was installed as a pilot study near the eastern edge of the GA property.
- In 2012, the Soil Vapor Extraction system was fully installed and began running under Building 37, with long-term indoor air monitoring occurring to verify the results of its operations.
- In 2015, GA proposed a permeable reactive barrier (PRB) to try to diminish VOCs in groundwater from migrating offsite, and the PRB was installed in 2015.

Based on GA's evaluation that the phytoremediation pilot study project and the PRB pilot project were both ineffective, GA proposed an approach for active remediation onsite (ISCO, as well as continued operation and expansion of the SVE system) with sufficient offsite groundwater monitoring during this process to verify decreasing contaminant concentrations. The CMS Report was prepared by GA to document this approach.

**Project Activities:** This project consists of the following components:

- In-Situ Chemical Oxidation (ISCO) injections of a solution of 5% Sodium Permanganate to treat VOCs in groundwater in Area I;
- Allowance for the oxidant to migrate offsite and destroy contaminants in Area II;
- Soil Vapor Extraction (SVE) to treat VOC contamination in the onsite soil and soil vapor in Area I;
- Installation of 10 SVE wells under and adjacent to Building 37 to expand the SVE system to protect receptors in Building 37 from vapor intrusion of VOCs from the subsurface into indoor air;
- Installation of an additional 15 SVE wells and 9 Soil Vapor Probes in an area approximately 180 feet north of Building 37 to expand the SVE system into two areas where historical soil vapor contamination was detected;
- Monitored Natural Attenuation to address off-site contamination in groundwater in Areas II and III;
- Continued use of Engineering Controls (ECs: enhancements to the Heating, Ventilation and Air Conditioning systems in Building 37) and Institutional Controls (ICs: requirements for workers in Building 37 when penetrating the building slab, including monitoring, documenting, and notification) in Area I;
- Monitoring of the ISCO and SVE system operations before and after implementation is complete in Area I; and
- A Land Use Covenant to restrict the General Atomics Flintkote property to commercial/industrial use for Area I.

Although not anticipated, in the event biological, cultural or historical resources are discovered in the course of project activities, work will be suspended while a qualified biologist, cultural or historical specialist makes an assessment of the area and arrangements are made to protect or preserve any resources that are discovered. If human remains are discovered, no further disturbance will occur in the location where the remains are found, and the County Coroner will be notified pursuant to the Health and Safety Code, Chapter 2, Section 7050.5.

**Name of Public Agency Approving Project:** Department of Toxic Substances Control

**Name of Person or Agency Carrying Out Project:** Department of Toxic Substances Control

**Exempt Status:** General Rule (Section 15061(b)(3))

**Reasons Why Project is Exempt:** DTSC has determined with certainty that there is no possibility the activities in question may have a significant effect on the environment because the project would not result in "a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance."

The administrative record for this project is available to the public by appointment at the following location:

Department of Toxic Substances Control  
Site Mitigation and Restoration Program  
8800 Cal Center Drive  
Sacramento, CA 95826

Additional project information is available on EnviroStor: [www.envirostor.dtsc.ca.gov/public/](http://www.envirostor.dtsc.ca.gov/public/)

Contact Person	Contact Title	Phone Number
John Bystra	Project Manager	916.255.3669

Approver's Signature:

Date:

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Click or tap to enter a date.

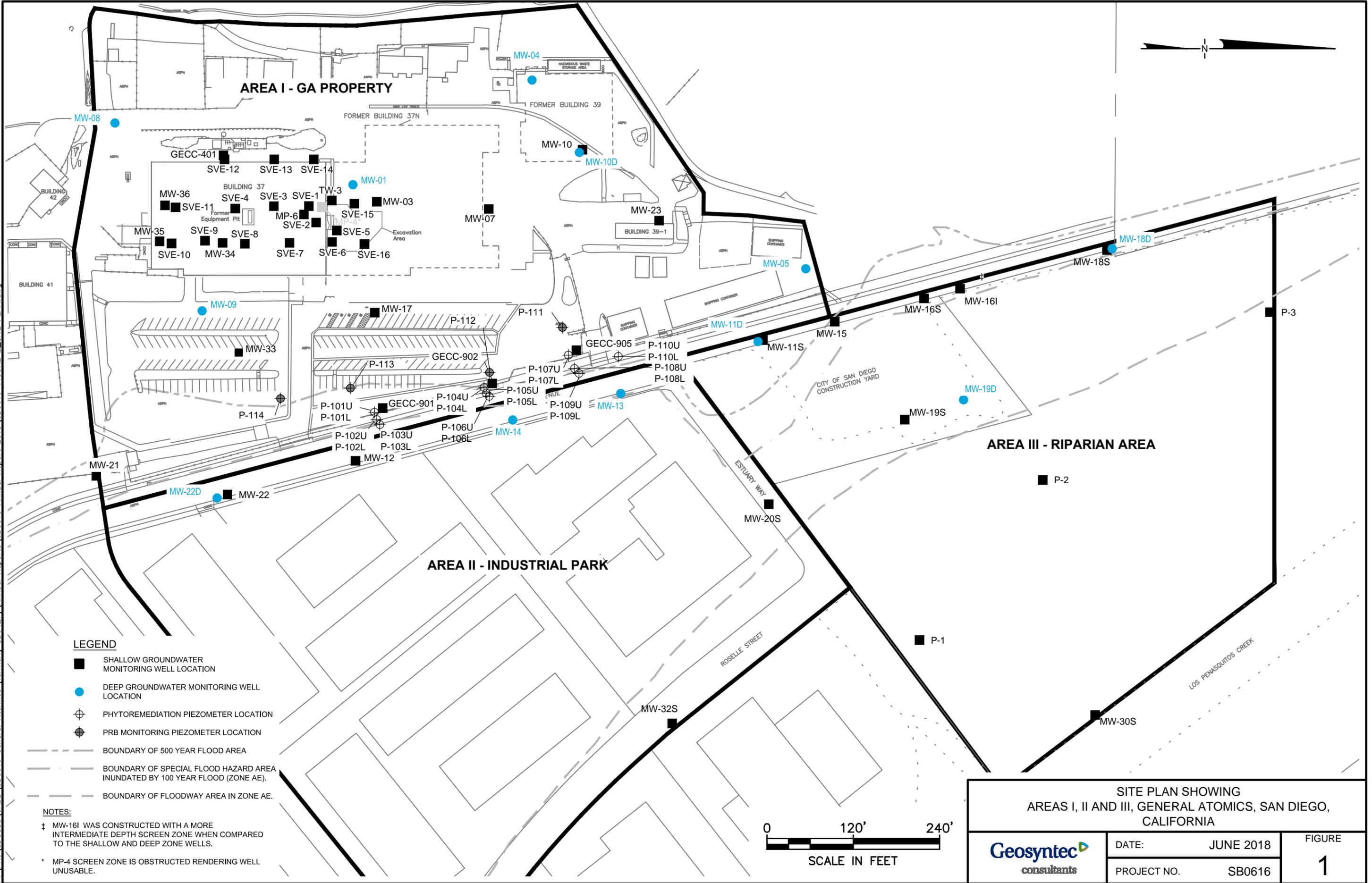
Approver's Name	Approver's Title	Approver's Phone Number
Charlie Ridenour	Branch Chief – Cleanup Program	916.255.6442

TO BE COMPLETED BY OPR ONLY

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Date Received for Filing and Posting at OPR:

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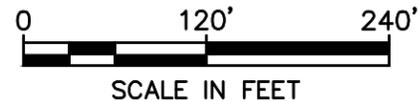


**LEGEND**

- SHALLOW GROUNDWATER MONITORING WELL LOCATION
- DEEP GROUNDWATER MONITORING WELL LOCATION
- ⊕ PHYTOREMEDIATION PIEZOMETER LOCATION
- ⊗ PRB MONITORING PIEZOMETER LOCATION
- - - BOUNDARY OF 500 YEAR FLOOD AREA
- - - BOUNDARY OF SPECIAL FLOOD HAZARD AREA INUNDATED BY 100 YEAR FLOOD (ZONE AE).
- - - BOUNDARY OF FLOODWAY AREA IN ZONE AE.

**NOTES:**

- ‡ MW-16I WAS CONSTRUCTED WITH A MORE INTERMEDIATE DEPTH SCREEN ZONE WHEN COMPARED TO THE SHALLOW AND DEEP ZONE WELLS.
- \* MP-4 SCREEN ZONE IS OBSTRUCTED RENDERING WELL UNUSABLE.



SITE PLAN SHOWING  
AREAS I, II AND III, GENERAL ATOMICS, SAN DIEGO,  
CALIFORNIA



DATE: JUNE 2018  
PROJECT NO. SB0616

FIGURE  
**1**