

DOCKETED

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2022 FIRST SEMIANNUAL
BIOREMEDIATION MONITORING REPORT
SEGS III – VII KRAMER JUNCTION
Board Order No. 6-95-102

July 14, 2022

Prepared for:
Luz Solar Partners III - VII Ltd. c/o
NextEra Energy Operating Services, LLC
41100 Highway 395
Boron, California 93516

Prepared By:
Northstar Environmental Remediation
26225 Enterprise Court
Lake Forest, California 92630

SIGNATURE PAGE

2022 FIRST SEMIANNUAL BIOREMEDIATION MONITORING REPORT

SEGS III - VII KRAMER JUNCTION

BORON, CALIFORNIA

PROFESSIONAL STATEMENT

I declare under the penalty of law that I have personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment for knowing violations.

I further certify that this report has been reviewed by the appropriate authority at NextEra Energy Resources and is being submitted with their written consent.



Arlin W. Brewster

Professional Geologist 9207

July 14, 2022

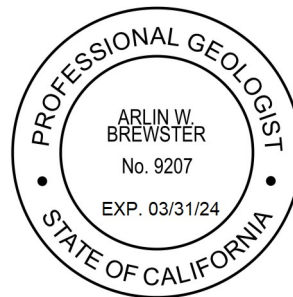


Table of Contents

1.0 INTRODUCTION	1
1.1 Facility Information	1
1.2 Soil Treatment Units	1
2.0 HEAT TRANSFER FLUID RELEASES	2
3.0 TREATMENT AND MONITORING.....	2
4.0 SAMPLING AND ANALYTICAL SUMMARY.....	2

List of Figures

Figure 1 – Site Location and Vicinity Map

Figure 2 – Former Bioremediation Unit Layout Schematic

1.0 INTRODUCTION

Northstar Environmental Remediation (Northstar) of Lake Forest, California has prepared this 2022 First Semiannual Bioremediation Monitoring Report for the Solar Electric Generating Station (SEGS) III – VII facility on behalf of NextEra Energy Operating Services, LLC (NextEra) and Luz Solar Partners III - VII Ltd. This report presents environmental data required under California Regional Water Quality Control Board - Lahontan Region (RWQCB) Order No. 6-95-102 Waste Discharge Requirements and Monitoring and Reporting Program. This report summarizes all bioremediation activity that occurred during the reporting period. Northstar historically conducted soil sampling associated with the bioremediation unit. A site vicinity map of SEGS III – VII is included in **Figure 1**.

1.1 Facility Information

Facility Name:

Solar Electric Generating Station (SEGS) III – VII

Facility Location:

41100 Highway 395
Boron, California 92347

Facility Contact:

Ms. Maria Lopez
Senior PGD Environmental Specialist
NextEra Energy Operating Services, LLC
(760) 921-1401

Monitoring and Reporting Program:

RWQCB Order No. 6-95-102 (6-90-24 rescinded)

Waste Discharge Identification Number:

6B368909005

1.2 Soil Treatment Units

As part of the redevelopment of the Kramer Junction facility, both the bioremediation unit and the landfarm unit were decommissioned in the first quarter of 2022. The bioremediation unit was designed to treat soil contaminated with the heat transfer fluid (HTF) Therminol, which was used in the processes of the solar trough technology formerly employed at the site. Onsite treatment of contaminated soils was accomplished through two soil treatment units onsite: the bioremediation unit (formerly located between SEGS VI and VII), which was used for storage and treatment of HTF-impacted soils; and, the landfarm unit (formerly located between SEGS III and IV), which was used for treatment by natural attenuation and for

storage of remediated soils, which was staged for future use at the facility. The former location of both units are shown on **Figure 1**.

2.0 HEAT TRANSFER FLUID RELEASES

All equipment utilizing heat transfer fluid was decommissioned by the end of the first quarter of 2022. As a result, there were no spills of heat transfer fluid during the reporting period.

3.0 TREATMENT AND MONITORING

The bioremediation unit was divided into a north and south half by a concrete divider (see **Figure 2**). The North half was designated for soil treatment, and the south half for HTF-impacted soil storage. The impacted soils were treated in smaller cells by mixing with a urea fertilizer (containing nitrogen, phosphorous, and potassium), adding moisture, and by aerating the soils on a weekly to bi-weekly basis. This activity enhanced biodegradation of the HTF.

Monitoring was performed by visually inspecting the condition of the concrete divider and leakage detection sumps (performed by NextEra) and by collecting periodic, representative samples of the treated soil media (performed by Northstar). When HTF compounds were demonstrated to be below 1,000 parts per million (ppm) by an analytical laboratory, the treated soils were then staged in the landfarm unit where natural attenuation occurred. Once the HTF compounds were below 100 parts per million, they were staged for future use within the facility.

During this reporting period, no soil was treated and no leaks were detected in the slab or the sumps because the structures no longer exist.

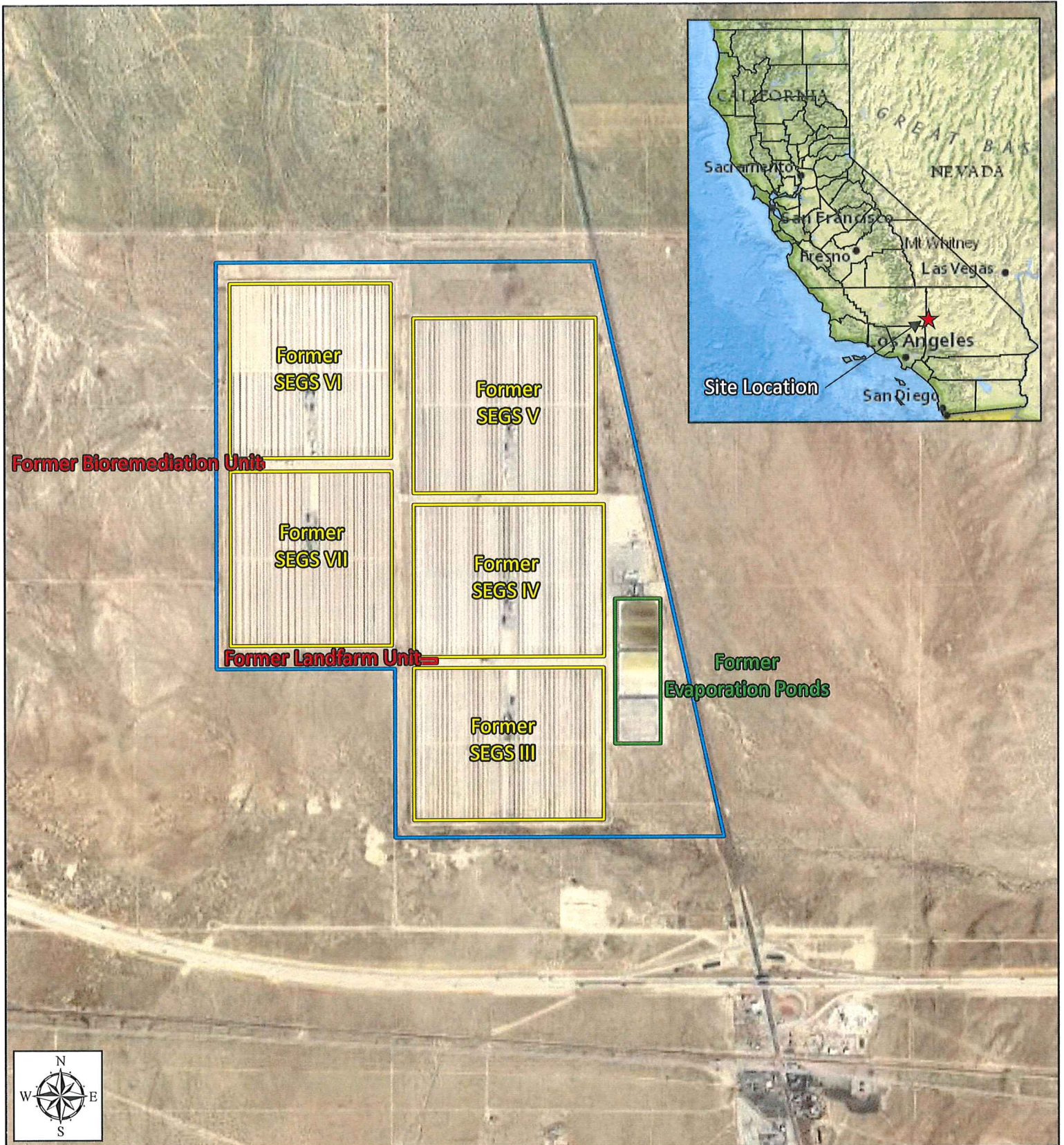
4.0 SAMPLING AND ANALYTICAL SUMMARY

When required, soil samples were collected from four random, discrete locations within the soil stockpiles and transferred to a clean 5-gallon bucket with a clean stainless-steel trowel. All sampling apparatus were cleaned with non-phosphate detergent (typically Alconox, Liquinox, or equivalent) and triple-rinsed with deionized water prior to collecting all soil samples. The composited soil was then homogenized and transferred to laboratory-supplied, certified clean sample containers. The samples were labelled, sealed, and placed on ice to preserve the volatile compounds.

They were then transported under chain-of-custody protocols to Eurofins Calscience, a state- and federally-accredited laboratory located in Tustin, California. The soil samples were analyzed by Environmental Protection Agency Method 8015M for 1,1-Biphenyl and 1,1-Oxybisbenzene, which are volatile organic compounds characteristic of the HTF Therminol. The laboratory reports were then submitted directly to NextEra and Northstar personnel.

As previously mentioned, no sampling occurred during the reporting period because the bioremediation and landfarm units no longer exist.

FIGURES



Legend

- Facility Boundary
- Former Solar Fields
- Former Land Treatment Units
- Former Evaporation Ponds

SEGS III - VII Kramer Junction
Boron, California

Figure 1
Site Location
and Vicinity Map

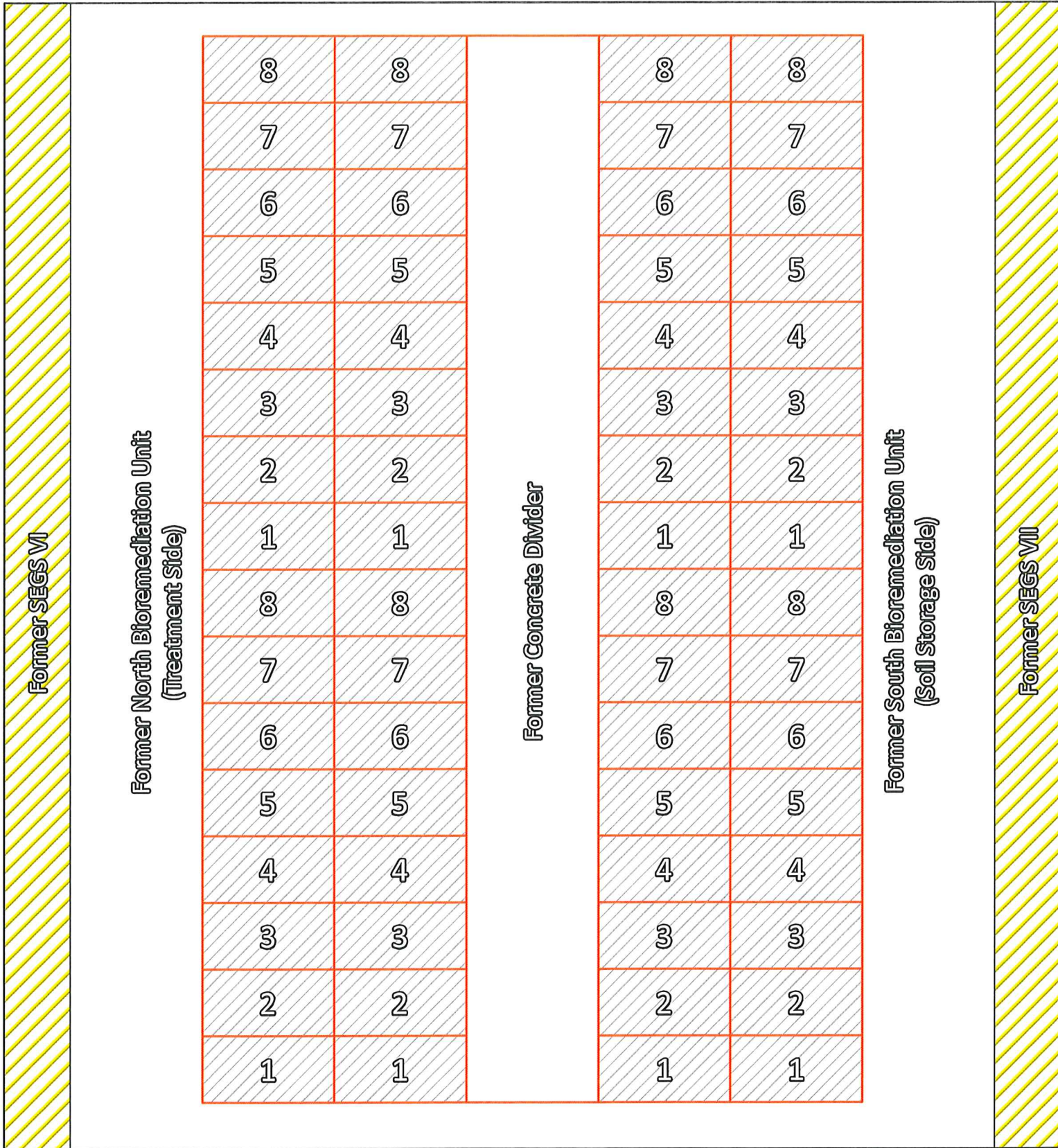


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Legend



Former Bioremediation Unit



Former Solar Field

SEGS III - VII Kramer Junction
Boron, California

Figure 2
Former Bioremediation Unit
Layout Schematic



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