# North Coast Regional Water Quality Control Board

## INSPECTION MEMO

**Name and Location of Facility Inspected**
BoDean Co Inc. Santa Rosa Hot Plant, 1060 Maxwell Drive, Santa Rosa, Sonoma County

**Industrial General Permit**
**WDID #:** 1 49I017446

**Inspection Date**
March 18, 2021

**Inspection Time**
11:00 AM

**Names & Titles of Site Representative**
Josh Leask, Operation manager
Masele Poueu, BoDean staff

**Consent for inspection Provided?**
Yes, by Josh Leask

**Notified of Inspection?**
No, conducted an unannounced wet-weather inspection

**Inspector Name & Affiliation**
Farzad Kasmaei, Regional Water Board

**Weather Conditions at the Time of the Inspection:** Rainy

**Facility Receiving Water Name(s):** Public storm drain system that outfalls to College Creek, which discharges to the Laguna de Santa Rosa, and then to the Russian River

**Inspection Memo Prepared By:** Farzad Kasmaei

## A. Background

The BoDean Co., Inc. Santa Rosa Hot Plant is a 6-acre asphalt batch and material processing plant located at 1060 Maxwell Drive (Facility), in Santa Rosa, on the west side of Highway 101. The Facility is located at a latitude and longitude of 38°26'42.9"N and 122°43'45.0"W. The Facility produces road base, asphalt concrete, and concrete aggregate. According to Storm Water Multiple Application and Report Tracking System (SMARTS), the Facility, Santa Rosa Hot Plant (Discharger) first obtained stormwater permit coverage in 2002, and enrolled under the new General Permit in 2015 for Storm Water Discharges Associated with Industrial Activities, State Water Resources Control Board Order 2014-0057-DWQ, NPDES Order No. CAS000001 (Industrial General Permit).

Runoff from the Facility drains through existing private on-site drop inlets throughout the Facility. The on-site storm drain system connects to the public storm drain system at MH 12562 in Maxwell Drive. Per the attached site map prepared by the Facility's consultant, and as shown in the City of Santa Rosa's GIS mapping, runoff conveyed in this manhole is exclusively made up of discharge from the Facility. Runoff from the public street enters the public storm drain system downstream of MH 12562. The Facility's Storm Water Pollution Prevention Plan (SWPPP) identifies one stormwater sampling point in MH 12562, where samples are collected from the discharge pipe from the Facility into the manhole using a dipper pole.

Per Table 2-Sampling Results Provided by Facility via SMARTs, below, the Operator of the Facility has documented multiple exceedances of Numeric Action Levels (NALs) for Total Suspended Solids (TSS) in stormwater discharges from the Facility, causing it to meet the definition of, and to be subject to the requirements for a Level 2 site for TSS under the Industrial General Permit. The Level 2 status indicates that the Facility poses a high risk for sediment discharges. As a Level 2 site, the Facility is required to take corrective action to address elevated TSS.

Runoff from the site is conveyed through the public storm drain system and discharges to College Creek which is a tributary of the Russian River and a Waters of the United States. The Russian River is identified as impaired on the Clean Water Act Section 303(d) list for both sediment and temperature.

On December 5, 2019, Regional Water Board staff inspected the Facility in response to a complaint received. Rain was not actively falling during the inspection, but a low volume of highly turbid discharge was observed leaving the Facility, likely due to the previous rainfall event between December 1, 2019 to December 4, 2019. The rain event produced approximately 0.34" on December 4, 2019.[1]

[1] Local Climatological Data Station Details: SANTA ROSA SONOMA CO AIRPORT, CA US, WBAN:23213 | Climate Data Online (CDO) | National Climatic Data Center (NCDC) (noaa.gov)

Staff issued a Notice of Violation (NOV) on June 1, 2020, and transmitted the inspection report for the December 5, 2019 inspection, and citing multiple BMP deficiencies and failure to maintain both minimum and advanced BMPs. On August 4, 2020, the Facility's attorney submitted a report of corrective actions taken in response to the Regional Water Board NOV via email.

On August 12, 2020, the Regional Water Board staff conducted a follow-up inspection to ensure that the BMP deficiencies identified in the NOV had been addressed. During that inspection staff observed that inlet protection BMPs, linear sediment control BMPs, bioswale and settling ponds and tanks were present and appeared to be adequately maintained for the dry weather conditions observed at the time of inspection. Facility staff present during the inspection noted that they would deploy more sediment/erosion control BMPs prior to a Qualifying Storm Event (QSE).

Regional Water Board staff advised Facility staff that the multiple uncovered aggregate and asphalt waste stockpiles throughout the Facility and the overall site condition, and the BMPs implemented (including the bioswale, settling pond and tanks) were largely the same as the site conditions and BMPs in place previously that proved to be inadequate in past rain events[2], that is was likely that future rain events would overwhelm the sediment control and treatment BMPs, which would likely result in further TSS exceedances in stormwater discharge.

## B. Inspection Narrative and Findings

On March 18, 2021 staff again inspected this Facility, this time during a QSE. I walked through the Facility with Josh Leask, Operation Manager, and Masele Poueu, BoDean staff. During this inspection, I observed two asphalt stockpiles that were covered; the remaining numerous aggregate and asphalt waste stockpiles were uncovered (see attached photos 5, 8, 9, 12, and 13). I observed that some of the fiber rolls that had been deployed as sediment control BMPs were saggy and appeared to be old and some had not been appropriately installed (see attached photos 4, 6, and 7). With the exception of two covered asphalt stockpiles, the remaining aggregate and asphalt waste material stockpiles were exposed to rain. I reminded Facility staff that source control needed to be implemented effectively to minimize the high level of sedimentation downstream in the stormwater discharged from the Facility.

During the inspection, I also observed turbid water discharging into the storm drain drop inlets throughout the Facility. I also observed that all advanced BMPs, including the existing bioswale, settling tanks, and settling pond, were full of turbid water that was overflowing and draining into a drop inlet which is connected to the discharge point via the storm drain system (see attached photos 1, 2, 3, 4, and 6). I also discussed with Facility staff that the existing minimum and advanced BMPs appeared to be inadequate, based on the observed condition of the BMPs and the turbid discharge.

[2] Post rain event inspection conducted on December 5, 2019, and annual NAL exceedances for TSS in Table 2.

After I completed the on-site inspection, I met with City of Santa Rosa personnel, Patrick Pulis and Scott Mullin, to collect samples from the Facility's sampling point which is located in the public right of way. The City staff removed the manhole cover so that we could observe and access the sampling point. We observed turbid water discharging from the 18-inch pipe from the Facility and Regional Water Board and City staff cooperatively collected samples and took field measurements. Facility's operation manager, Josh Leask, came out at the beginning of the sampling event and produced two empty sampling bottles and requested that the City staff collect samples for him. City staff complied and filled the two bottles and gave them to him. He then left and returned to Facility. City staff and I completed our sampling from the manhole.

Field measurements showed a turbidity level of 488 NTU, indicating a high level of sedimentation in the facility's runoff (see attached photos 14, 15, and 16), and the pH value of 7.96, which is within the acceptable range. Samples were collected for lab analysis, chain of custody was completed, and the samples were delivered to the FedEx office by me, Farzad Kasmaei, to be transported to Babcock Laboratories the same day.

C. Post-Inspection Findings and Lab Results

Regional Water Board received lab results on April 2, 2021 from the samples collected on March 18, 2021, as summarized in Table 1 below. The lab reports are attached for reference as attachment 3 to this report.

Table 1- Sample Results for March 18, 2021 from Regional Water Board samples analyzed by Babcock Labs:

| **Sample point** | **Parameter** | **Test Method** | **Sample Results (mg/L)** |
|---|---|---|---|
| Facility discharge point (BoDean-1) | Total Suspended Solids (TSS) | SM 2540D | 200 |
| | Total Dissolved Solids (TDS) | SM 2540C | 180 |
| | Biochemical Oxygen Demand (BOD) | SM 5210B | ND |
| | Chemical Oxygen Demand (COD) | SM 5220D | 90 |
| | Magnesium | EPA 200.7 | 13 |
| | Aluminum | EPA 200.7 | 13 |

| Sample point | Parameter | Test Method | Sample Results (mg/L) |
|---|---|---|---|
| | Arsenic | EPA 200.8 | $1.9 \times 10^{-3}$ |
| | Cadmium (H)[3] | EPA 200.8 | ND |
| | Total Chromium | EPA 200.8 | 0.027 |
| | Copper (H) | EPA 200.8 | 0.013 |
| | Iron | EPA 200.7 | 18 |
| | Nickel (H) | EPA 200.8 | 0.028 |
| | Lead (H) | EPA 200.8 | 0.0043 |
| | Zinc (H) | EPA 200.8 | 0.053 |
| Receiving water sampling from College Creek (BoDean-2) | Hardness | SM 2340B/EPA 200.7 | 24 |

**D. Conclusions**

This Facility has exceeded the annual NAL for TSS since 2015, and thus been classified as a Level 2 facility in SMARTS in 2017 for this parameter. Being a Level 2 facility meant that the facility must complete an Exceedance Response Action (ERA), and implement corrective actions to reduce TSS in the discharge.

ERAs are designed to assist Dischargers in complying with the Industrial General Permit. Dischargers subject to ERAs must evaluate the effectiveness of their BMPs being implemented to ensure they are adequate to achieve compliance with the Industrial General Permit.

As demonstrated by the Facility's self-reported sampling results in Table 2 below, and by the sampling results collected by Regional Water Board staff summarized in Table 1 above, the TSS issues have not adequality been addressed to reduce TSS levels in the discharge.

Per SMARTS and the Facility's ERA Level 2 technical report that was prepared on October 1, 2019, six sample sets were being collected during the 2018-19 reporting year; however, only four samples were certified and submitted via SMARTS without any explanation.

[3] (H) – Hardness dependent

Also, according to Table 2, the Discharger has collected only one sample during the first half and one sample during the second half of 2019-20 reporting year. Per the 2019-20 annual report that was submitted via SMARTS, the Discharger has failed to collect the minimum of four samples during this reporting year for the following reasons:
"Only two QSEs were sampled, one each half season, due to below average rainfall and Facility closure due to Shelter-in-Place COVID-19 precautions."

However, per the NOAA database, multiple QSEs had occurred prior to the COVID-19 emergency but only one sample was taken by Discharger on December 18, 2019. Also, per updated Water Board website (https://www.waterboards.ca.gov/resources/covid-19_updates/#compliance) all essential tasks including sampling collection requirements must be performed during the COVID-19 emergency. Collecting only one sample within the second half of reporting year 2019-20 is not acceptable.

Table 2 - Sampling Results Provided by Facility via SMARTs:

| Reporting year | Date of sample | TSS (mg/L) | Reported Annual NAL for TSS (mg/L) | Threshold Annual NAL value for TSS (mg/L) |
|---|---|---|---|---|
| 2015-16 Annual report | 12/3/2015 | 350 | 270 | 100 |
| | 12/21/2015 | 450 | | |
| | 3/11/2016 | 12 | | |
| 2016-17 Annual report | 12/8/2016 | 62 | 235 | 100 |
| | 11/19/2016 | 270 | | |
| | 3/24/2017 | 240 | | |
| | 2/2/2017 | 370 | | |
| 2017-18 Annual report | 11/13/2017 | 14 | 288 | 100 |
| | 1/8/2018 | 190 | | |
| | 1/24/2018 | 660 | | |
| 2018-19 Annual report | 12/5/2018 | 140 | 143 | 100 |
| | 12/15/2018 | 25 | | |
| | 2/25/2019 | 210 | | |
| | 3/20/2019 | 200 | | |
| 2019-20 Annual report | 12/18/2019 | 8 | 124 | 100 |
| | 5/11/2020 | 240 | | |

Consistent with my observations during the inspection, past monitoring results submitted to SMARTs, field data collected, and the attached sampling results, the Facility continues to have difficulty controlling sediment on the site and TSS levels in the discharge.

Per the attached sampling results and my observations during the inspection, the Facility needs to implement further source controls and install adequate sediment and erosion control BMPs throughout the Facility to effectively control the discharge of sediment and other pollutants of concern including Magnesium, Aluminum and Iron for the Facility in order to comply with the Industrial General Permit.
Also, the Industrial General Permit requires the Facility to ensure that the existing advanced BMPs including settling pond, tanks and the bioswale are adequate and appropriately maintained. Since this Facility remains in active operation during QSEs, source control implementation, and adequate minimum and advanced BMPs are critical.

The lab results included in Table 1 indicate a TSS level of 200 mg/L which exceeds the Annual NAL value (threshold) for TSS of 100 mg/L. This demonstrates that the BMPs being used on site are inadequate and shows the Facility's continued issue with controlling TSS levels in the Facilities discharge.

Furthermore, Table 1 shows a Magnesium level of 13 mg/L, Aluminum level of 13 mg/L and Iron level of 18 mg/L which exceeds their Annual NAL values of 0.064 mg/L, 0.75 mg/L and 1.0 mg/L respectively.

Per the sampling requirements section of the existing SWPPP, no additional parameters were identified through the required pollutant source evaluation process. However, the metal exceedances for Magnesium, Aluminum, and Iron indicate high levels of additional pollutant concentrations present in Facility's run-off. As such, the Discharger is required to analyze the samples for these additional parameters in addition to the standard mandatory analytical parameters (TSS, pH and Oil and Grease). The additional parameters will be added to SMARTS by Regional Water Board staff.

Also, the applicable sections of the SWPPP such as sampling requirements and assessment of potential pollutant sources must be revised accordingly to include these additional parameters.

**Attachment(s)**:

1. Photos
2. Facility Site map
3. Lab result

**Photos:**


Picture 1- View of the existing bioswale full of turbid water along the southwest corner of the facility (refer to the attached site map). Picture taken by Farzad Kasmaei.


Picture 2- View of the location of a couple of existing settling tanks that were submerged. Picture taken by Farzad Kasmaei.


Picture 3- View of the drain inlet No. 11 that receives runoff from the bioswale and the settling tanks once they overflow.


Picture 4- View of an existing settling pond full of turbid water, located on the southwest corner of the facility.


Picture 5- View of uncovered stockpiles exposed to rain. Picture taken by Farzad Kasmaei.


Picture 6- View of installed fiber rolls used as a sediment control BMPs. Some of the fiber rolls need to be maintained and some are not appropriately installed. Picture taken by Farzad Kasmaei.


Picture 7- View of a turbid water runoff flow toward the inlet that is not shown in the photo. Picture taken by Farzad Kasmaei.


Picture 8- View of the uncovered asphalt waste material stockpile all exposed to rain and lacking perimeter control BMPs. Picture taken by Farzad Kasmaei.


Picture 9 - View of the uncovered asphalt recycling waste stockpile. Only a small piece of fiber roll (shown on the photo close by the white K-rail) has been used as a perimeter control BMP. Obviously, this fiber roll is not installed properly, and it is not adequate for such a large asphalt waste material stockpile. Picture taken by Farzad Kasmaei.


Picture 10 - View of drain inlet protection BMPs. Picture taken by Farzad Kasmaei.


Pictures 11 – View of another drain inlet located on the east side of the facility. Picture taken by Farzad Kasmaei.


Pictures 12 – View of an uncovered aggregate stockpile lacking perimeter control BMPs and turbid water around it. Picture taken by Farzad Kasmaei


Pictures 13 – View of covered and uncovered stockpiles. Only two asphalt stockpiles were covered, and the rest of the aggregate material stockpiles along with the asphalt recycling stockpiles were uncovered. Picture taken by Farzad Kasmaei

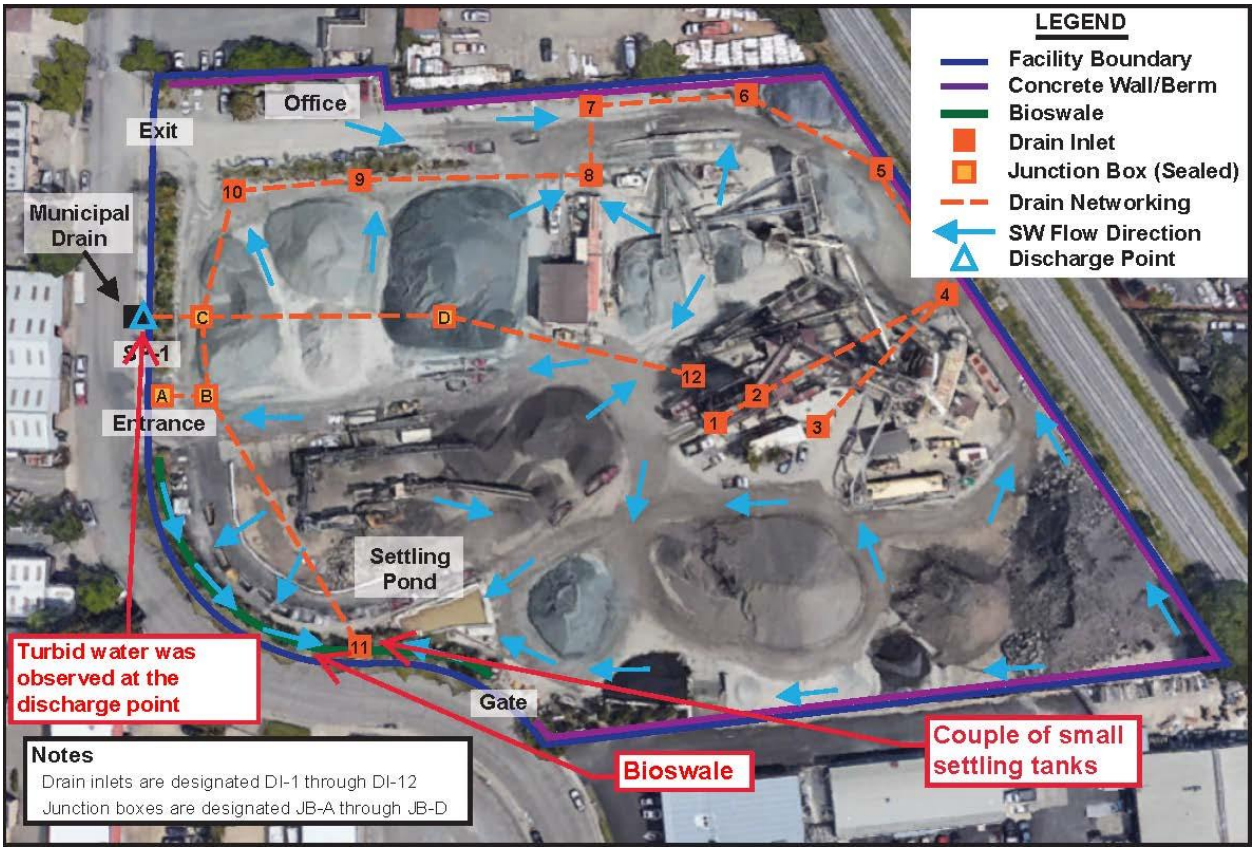

Pictures 14 – View inside the public storm drain system of the stormwater discharging from the facility. This location is the sampling point for the facility. The entire facility drains to this location and is the only source of the discharge. The discharged water is turbid. (Refer to the attached site map for location)


Pictures 15 – View of City of Santa Rosa representatives collecting samples from the discharge point. Picture taken by Farzad Kasmaei.


Pictures 16 – View of the sampling point and Santa Rosa representatives performing field measurements for turbidity and pH. Picture taken by Farzad Kasmaei.


Picture 17 – View of the sampling location off-site to measure the Hardness for receiving water (College Creek). Picture taken by Farzad Kasmaei.

**Site Map:**




Picture 18 – Site Map showing the locations of the discharge sampling point as well as the existing bioswale and settling pond. Base site map dated November 8, 2017, as submitted by EPS on behalf of Dean Soiland, via SMARTS. Text boxes with arrows added for clarity by Regional Water Board staff Farzad Kasmaei.

# Attachment 3: Lab results