

---

## **Appendix E3**

### Stormwater Quality Management Plan Peer Review



## TECHNICAL MEMORANDUM

**To:** Peter Eichar, AICP Program Manager, Climate and sustainability, Port of San Diego  
**cc.** Matthew Valerio, Dudek Principal/Coastal Services Manager  
**From:** Dudek Engineering Team, Shannon Brown. Project Manager  
**Subject:** SWQMP Concept Skycharger Zero-Emission Truck Charging Facility  
**Date:** October 13, 2025  
**Attachment:** 1 – SWQMP Concept with comments

---

### Introduction

This memorandum transmits the findings of a peer review of the Storm Water Quality Management Plan (SWQMP) Concept (technical documents) for the Tidelands Avenue Electric Truck Hub prepared by Burns McDonnell (August 2025). Based on our experience preparing documents for energy storage systems, along with expertise in storm water quality requirements, we have provided recommended edits, clarifications, and appropriate response, as applicable.

This peer review focuses on the adequacy of the documents' analyses and findings with respect to a complete analysis in accordance with the applicable State and local stormwater standards and requirements for development projects. In addition to this memorandum, comments have also been provided within the aforementioned documents.

### Project Description

The Tidelands Avenue Electric Truck Hub Project includes the construction of a drayage truck stop consisting of 70 electric vehicle (EV) charging positions; electrical infrastructure for the chargers; carport solar [three canopies]; a convenience store/restrooms; and a battery energy storage system. The BESS is anticipated to have an up to 2.8-MW capacity and could store up to 6.8-MWh in a containerized storage system. The container is expected to include a battery, power and battery management system, and a power conditioning system for conversion of AC to DC. No external fire protection would be included.<sup>1</sup> [Note: The BESS is an outdoor installation with non-occupiable cabinets.]

The project will remove and replace more than 5,000 square feet of existing impervious area, and therefore, is subject to the Priority Development Project (PDP) Storm Water Management Plan (SWQMP) requirements as administered by the Port of San Diego (Port).

---

<sup>1</sup> San Diego Unified Port District, National City Zero Emissions Truck Stop Project, Project No. 172466, June 13, 2024

## Location

The Project would be constructed on approximately 4.8 acres of an approximately 8.2-acre paved site located at 1640 Tidelands Avenue in the city of National City in San Diego County, California (CA). The site is immediately south of the Port’s General Services building located at 1400 Tidelands Ave, National City, CA. The site is bound by Tidelands Avenue on the east, W 19<sup>th</sup> Street on the south, and Military areas on the west.<sup>2</sup>

## Peer Review of the Storm Water Quality Management Plan

The SWQMP was prepared to “summarize the review and findings regarding the stormwater quality design”<sup>3</sup> for the Project.

The following codes and standards are applicable for energy storage systems (see HMA Sec. 1.2 and App. E):

- *Port of San Diego BMP Design Manual, 2025 Edition*
- *National Pollutant Discharge Elimination System permit (Municipal Separate Storm Sewer Systems [MS4] Permit) to San Diego area municipal Copermittees (Order No. R9-2015-0100)*

The SWQMP plan must:

- *Document that all permanent source control and site design BMPs have been considered for the project and implemented where feasible.*<sup>4</sup>
- *Document the planning process and the decisions that led to the selection of structural BMPs.*<sup>4</sup>
- *Provide the calculations for design of structural BMPs to demonstrate that applicable performance standards are met by the structural BMP design.*<sup>4</sup>
- *Identify O&M requirements of the selected structural BMPs; and identify the maintenance mechanism for long term O&M of structural BMPs.*<sup>4</sup>
- *Use the PDP SWQMP Template provided in Appendix A, which will include forms and/or checklists included in Appendix I of this manual as well as checklists for documentation of pollutant control and hydromodification management structural BMP design.*<sup>4</sup>
- *Include copies of the relevant plan sheets showing site design, source control, and structural BMPs, and structural BMP maintenance requirements.*<sup>4</sup>

**Table 1. Peer Review of the SWQMP**

| Topic/Regulatory Section                          | Report Section(s)/Page | Issue/Excerpt                                                            | Recommended Action                                                                                                                 |
|---------------------------------------------------|------------------------|--------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| Port of San Diego BMP Design Manual, 2025 Edition | General Comment        | Report shall be prepared using the Port of San Diego PDP SWQMP Template. | Prepare SWQMP using Port of San Diego PDP SWQMP template. This will be required for permitting and final engineering but providing |

<sup>2</sup> Ibid

<sup>3</sup> SWQMP Concept pg 1

<sup>4</sup> Port of San Diego BMP Design Manual Section 8.2.1

**Table 1. Peer Review of the SWQMP**

| Topic/Regulatory Section                          | Report Section(s)/Page | Issue/Excerpt                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Recommended Action                                                                                                                                                                                                                       |
|---------------------------------------------------|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                   |                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | appropriate report template at this stage will help ensure all requirements will be met as design progresses.                                                                                                                            |
| Port of San Diego BMP Design Manual, 2025 Edition | General Comment        | Agency Having Jurisdiction (AHJ) will be the Port of San Diego                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Update reports to reflect appropriate AHJ.                                                                                                                                                                                               |
| Port of San Diego BMP Design Manual, 2025 Edition | SWQMP Concept/Page 1   | Acreage of development is listed is 4.8 acres.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Clearly indicate the total parcel area, the total area of proposed improvements (limit of work), and the proposed new or replaced impervious area. Ensure values are consistent across all reports.                                      |
| Port of San Diego BMP Design Manual, 2025 Edition | SWQMP Concept/Page 1   | Address listed is 1400 Tidelands Ave                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Ensure address is accurate and consistent across all reports.                                                                                                                                                                            |
| Port of San Diego BMP Design Manual, 2025 Edition | SWQMP Concept/Page 1   | The final two paragraphs of the memo indicate that emergency firefighting water will discharge to the proposed biofiltration basin. Please note, in accordance with applicable source control BMPs, Fire sprinkler test water should be routed to sanitary sewer. If the site is to be designed so that emergency fire sprinkler water drains to the biofiltration basin, supporting information is not required to be included in the SWQMP report, however, analysis and justification may be required in a separate environmental report. | Indicate that fire sprinkler test water will be routed to sanitary sewer. Be prepared to provide justification and supporting data for emergency fire water discharging to proposed storm water BMPs in a separate environmental report. |
| Port of San Diego BMP Design Manual, 2025 Edition | SWQMP Concept/Page 3   | Overall Site Plan Exhibit does not provide enough detailed information to ensure that the proposed storm water management concept will meet PDP requirements.                                                                                                                                                                                                                                                                                                                                                                                | Please update exhibit to include all required information listed in Port of San Diego PDP Template and BMP Design Manual including surface drainage direction arrows, existing and proposed contours, existing and proposed              |

**Table 1. Peer Review of the SWQMP**

| Topic/Regulatory Section                          | Report Section(s)/Page | Issue/Excerpt                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Recommended Action                                                                                                                                                                                                                                                                                                                                          |
|---------------------------------------------------|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                   |                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | storm drain pipes and structures, proposed biofiltration basin section/detail.                                                                                                                                                                                                                                                                              |
| Port of San Diego BMP Design Manual, 2025 Edition | SWQMP Concept/Page 3   | Overall Site Plan Exhibit - Biofiltration basin is shown to have a footprint of ~7,996 square feet. Does the basin have side slopes or vertical walls around the perimeter? Does the footprint shown represent the bottom surface of the basin, exclusive of the side slopes?                                                                                                                                                                                                                       | Please provide a detail/section of proposed biofiltration BMP. Ensure that the proposed BMP footprint shown in plan is the effective bottom surface of the BMP exclusive of any side slopes.                                                                                                                                                                |
| Port of San Diego BMP Design Manual, 2025 Edition | SWQMP Concept/Page 3   | Overall Site Plan Exhibit - There are no existing or proposed elevations shown on the plan to demonstrate that the proposed BMP shown is in a feasible location to collect all site runoff and discharge to the existing storm drain infrastructure.                                                                                                                                                                                                                                                | Show existing and proposed grades on the plan, at least at all perimeter geometry points of the site and in the area of the proposed biofiltration BMPs. Indicate the elevation that storm water will enter the BMP, the elevation that storm water will exit the BMP, and the elevation of the connection point to the existing public storm drain system. |
| Port of San Diego BMP Design Manual, 2025 Edition | General Comment        | Concept storm water management approach has been provided, however, there are additional requirements in the PDP SWQMP which have not been described or addressed, including: detailed description of existing and proposed drainage patterns, identification of pollutants of concern and anticipated project pollutants, site design BMPs, source control BMPs, trash capture BMPs, hydromodification control BMPs (if applicable), geotechnical considerations, operation and maintenance plans. | Please utilize the Port of San Diego PDP SWQMP template and demonstrate how each of the applicable requirements will be met in accordance with the Port of San Diego BMP Design Manual.                                                                                                                                                                     |

## Conclusions

A concept storm water management approach has been provided, however, there are additional requirements in the applicable PDP SWQMP report template which have not been described or addressed. While it is not required for a final PDP SWQMP report to be provided at this stage in the project, a report in the appropriate format that includes all applicable sections would allow for confirmation that all required components have been considered and incorporated into the design approach. Detailed descriptions of the current report's deficiencies are noted in Table 1.

## References

Port of San Diego BMP Design Manual, 2025 Edition.

National Pollutant Discharge Elimination System permit (Municipal Separate Storm Sewer Systems [MS4] Permit) to San Diego area municipal Copermittees (Order No. R9-2015-0100).