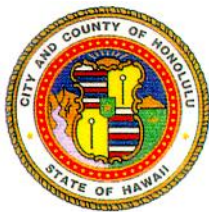


**100% Draft Annual Compliance Report
AOC Year 2: May 2018 to April 2019**

**National Pollutant Discharge Elimination System
and Stormwater Reporting and Training Project
Contract No. SC-DDC-1700031
April 27, 2019**

Prepared For:



**The City and County of Honolulu
Department of Design and Construction, and
Department of Environmental Services,
Division of Wastewater Engineering and Construction
650 South King Street
Honolulu, Hawaii 96813**

Prepared By:



**The Limtiaco Consulting Group
Civil Engineering and Environmental Consultants
1622 Kananui Street
Honolulu, Hawaii 96817**

**100% Annual Compliance Report
AOC Year 2: May 2018 to April 2019**

**NATIONAL POLLUTANT DISCHARGE ELIMINATION
SYSTEM AND STORMWATER REPORTING AND
TRAINING PROJECT**

Honolulu, Oahu, Hawaii

Prepared For:

**City and County of Honolulu
Department of Design and Construction
and
Department of Environmental Services
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April 27, 2019

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LIST OF ABBREVIATIONS

<u>Abbreviation</u>	<u>Definition</u>
%	Percent
Annual Report	Annual Compliance Report
AOC	<i>Administrative Order on Consent</i>
BMPs	Best Management Practices
City	City and County of Honolulu
CE	Compliance Evaluation
DDC	Department of Design and Construction
DDC-CD	Department of Design and Construction, Civil Division
DDC-FD	Department of Design and Construction, Facilities Division
DDC-MED	Department of Design and Construction, Mechanical and Electrical Division
DMRs	Discharge Monitoring Reports
DOH	State of Hawaii, Department of Health
DOH-CWB	State of Hawaii, Department of Health, Clean Water Branch
DPP	City and County of Honolulu, Department of Planning and Permitting
ENV	Department of Environmental Services
ENV-WEC	Department of Environmental Services, Division of Wastewater Engineering and Construction
ESCP	Erosion and Sediment Control Plan
KPTF	Kaneohe Partial Treatment Facility
KRWWTP	Kailua Regional Wastewater Treatment Plant
MCBH	Marine Corps Base Hawaii
MS4	Municipal Separate Storm Sewer System
NGPC	Notice of General Permit Coverage
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
NPDES Project	NPDES and Stormwater Reporting and Training Project
PCCM	Project Control and Contract Management
PM	Project Manager
Resource Website	Interactive Resource Website
<i>RRTWQ</i>	<i>Rules Relating to Water Quality</i>
SOP	Standard Operating Procedure
SU	Standard Units

Abbreviation

SWPPP

TLCG

WSP

Definition

Storm Water Pollution Prevention Plan

The Limtiaco Consulting Group

WSP USA, Inc.

EXECUTIVE SUMMARY

This annual compliance report (Annual Report) covers progress made from May 2018 through April 2019 by the City and County of Honolulu (City), Department of Design and Construction (DDC) and Department of Environmental Services (ENV), Division of Wastewater Engineering and Construction (ENV-WEC), in its *Administrative Order on Consent (AOC)* with the State of Hawaii, Department of Health, Clean Water Branch (DOH-CWB). The Annual Report has three objectives:

1. List and discuss incomplete and in-progress AOC action items;
2. Track the progress and compliance status of DDC and ENV-WEC projects with National Pollutant Discharge Elimination System (NPDES) construction dewatering permits; *and*
3. Summarize “lessons learned” to create feedback loops for future improvements to DDC and ENV-WEC’s compliance program.

In AOC Year 2, DDC and ENV-WEC submitted a report that summarized findings of an internal review and gap analysis along with prescribed recommendations. DDC and ENV-WEC developed and initiated a training program aimed at further educating staff and developing a robust compliance program. There were no incomplete activities or provisions required by the AOC.

All active DDC and ENV-WEC projects, either in the design or construction phase, were tracked for NPDES construction dewatering permit coverage and compliance status. However, there were no projects at DDC and ENV-WEC with active NPDES construction dewatering permit coverage during AOC Year 2. The sole DDC and ENV-WEC project with dewatering permit coverage in AOC Year 1, the Kaneohe/Kailua Sewer Tunnel Project (Permit No. HI0021853), completed construction and submitted a notice of cessation to DOH-CWB on April 26, 2018.

Per the requirements of the AOC, DDC and ENV-WEC implemented program changes to improve compliance with NPDES construction dewatering permits and, although not mandated by the AOC, construction stormwater permits. These changes include:

1. Performing outreach to promote awareness and general knowledge of stormwater and dewatering issues;
2. Developing and implementing compliance tools (also referred to as corrective actions in the Gap Analysis Report);
3. Meeting with staff quarterly to discuss regulatory requirements and design or construction compliance work; *and*
4. Meeting quarterly with leadership to provide and gather feedback and consider effective methods of supporting staff’s compliance efforts.

The intention of all program changes is to develop a robust compliance program by providing information to staff and utilizing feedback to move forward. Details of the program changes are discussed further in this report.

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1. INTRODUCTION

In April 2017, DDC and ENV-WEC entered into an AOC with the DOH-CWB with the intention to improve DDC and ENV-WEC's compliance with NPDES construction stormwater and construction dewatering permits. DDC and ENV-WEC also committed to improving compliance with construction stormwater permits, although it was not required by the AOC.

The AOC prescribes five actions:

1. Contract a third-party consultant;
2. Conduct an internal review of DDC and ENV-WEC's existing compliance program;
3. Submit a report that summarizes weaknesses in DDC and ENV-WEC's compliance processes and prescribes recommendations;
4. Develop a training program that provides staff with continuing education; *and*
5. Prepare an annual report summarizing DDC and ENV-WEC's AOC progress and NPDES construction dewatering permit performance.

These actions continue to be developed under a project entitled, "The NPDES and Stormwater Reporting and Training Project" (NPDES Project). The NPDES Project was initiated and is being operated by DDC, ENV-WEC, and its consultant, The Limtiaco Consulting Group (TLCG).

The AOC, effective on April 27, 2017, requires DDC and ENV-WEC to submit annual reports while the AOC is in effect. Once DDC and ENV-WEC have fully complied with all AOC requirements, they may submit written notice to DOH-CWB, at which point, the DOH-CWB may determine if DDC and ENV-WEC's obligations have been fulfilled and the AOC may be terminated no sooner than July 1, 2019.

The Annual Report has three objectives as required by the AOC:

1. List and discuss incomplete and in-progress AOC action items;
2. Track the progress and compliance status of DDC and ENV-WEC projects with NPDES construction dewatering permits; *and*
3. Summarize "lessons learned" to create feedback loops for future improvements to DDC and ENV-WEC's compliance program.

The Annual Report follows the anniversary of the effective date of the AOC. Thus, the 2nd Annual Report covers May 2018 through April 2019, which will be hereafter referred to as AOC Year 2.

1.1. Annual Compliance Report Checklist

Table 1-1 shows the requirements of the Annual Report and the pages and sections in which those requirements are discussed.

Table 1-1. AOC and Annual Report checklist

Required Conditions	AOC Reference	Annual Report Section & Page Number
1. Prepare an Annual AOC Compliance Report and submit to DOH-CWB 2. Summary of inspections conducted pursuant to this AOC 3. The number of reported & unreported non-compliances with NPDES construction dewatering permits 4. Report on the compliance status of DDC and ENV-WEC construction projects with NPDES construction dewatering permit coverage	V.47.a	<ul style="list-style-type: none"> Section 3, page 3-1
5. Summary of program changes made as a result of "lessons learned" or as a result of the feedback loop associated with the improved compliance program by this AOC 6. Detailed discussion if no changes were made during the year	V.47.b	<ul style="list-style-type: none"> Section 3, page 3-1 Section 4, page 4-1
7. Document incomplete activities or provisions required by this AOC, which were actionable during the previous year 8. Itemized list of in-progress or upcoming requirements 9. Detailed discussion pertaining to incomplete activities or provisions	V.47.c	<ul style="list-style-type: none"> Section 2.2, page 2-8 Section 2.3, page 2-8

2. AOC REQUIREMENTS IN AOC YEAR 2

During AOC Year 2, the AOC required the completion of an internal review and gap analysis of DDC and ENV-WEC's existing NPDES compliance program, the submittal of a report documenting the findings, and the submittal of a Training Program Plan to address weaknesses found in the existing program. DDC and ENV-WEC completed all AOC requirements for AOC Year 2. Table 2-1 details all AOC requirements and provides submittal and completion dates. Additional details of the requirements are discussed in Section 2.1.

In-progress activities are discussed in Section 2.2 and although DDC and ENV-WEC have no incomplete or overdue AOC requirements in AOC Year 2, they are covered in Section 2.3.

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Table 2-1. AOC requirements and status updates including an itemized list of in-progress requirements.

AOC Requirement	AOC Conditions	AOC Reference	Status Update	AOC Due Date
Contract a Third-Party Consultant	1. The City shall contract a third-party firm (e.g. environmental planning or engineering firm) to conduct an internal review of the City's NPDES construction dewatering permit processes.	V.36	Completed January 16, 2017	April 1, 2017
Penalty Payment	1. The City shall pay a monetary penalty of one hundred and forty thousand dollars (\$140,000.00).	V.49	Completed June 21, 2017	June 26, 2017
Internal Review	1. Review DDC and ENV-WEC's processes and procedures to ensure NPDES Compliance, such as: <ul style="list-style-type: none"> • Scoping for permits; • Budgets for permit compliance; • Sets qualifications for construction/project management services; • Reviews water pollution prevention Best Management Practices (BMP) designs; • Obligates methods used to comply with NPDES construction dewatering permits; • Ensures environmental compliance from contractors to contracted professional services; • Completes internal compliance feedback loops to "learn from mistakes"; • Analysis of design consultant contract language and standard specifications; <i>and</i> • Identify any contractual language or specifications that are barriers to permit compliance. 	V.36/ V.39.a	Completed June 4, 2018	June 4, 2018
Gap Analysis and Report	1. Identify gaps and weaknesses in DDC and ENV-WEC's compliance processes, such as: <ul style="list-style-type: none"> • Lack of standard practice between divisions, units, and sections; • Lack of oversight or record keeping; • Lack of staff training; • Incomplete assignment of internal roles and responsibilities; <i>and</i> • Missing necessary standard specifications in: <ul style="list-style-type: none"> ○ Design contracts; ○ Bid documents; ○ Construction contracts; ○ Plan design; <i>and</i> ○ Internal feedback and communication. 2. Prescribe corrective actions to address deficiencies and weaknesses that could potentially lead to NPDES non-compliance and include implementation schedules. 3. Provide detailed NPDES construction dewatering permit compliance procedures, such as the following: <ul style="list-style-type: none"> • Standard Operating Procedures (SOPs); • Design review flow charts and checklists for consistent practices; <i>and</i> • Ensure that the above are approved by divisions to ensure usefulness. 4. Provide templates and documents necessary to implement a robust compliance program: <ul style="list-style-type: none"> • Self-inspection report templates; • Non-compliance reporting forms; • Flow charts; <i>and</i> • Project evaluations. 5. Detail how DDC and ENV-WEC will create a "feedback loop" to modify and improve future design, bid, and construction processes to prevent re-encountering problems and repeating mistakes. Feedback loop shall include: <ul style="list-style-type: none"> • Root cause analyses for permit compliance problems encountered during the construction process; <i>and</i> • Constructability or compliance issues found and addressed during the construction phase will be provided to the design sections to be used as the basis to improve future designs and processes. 	V.39.a V.39.b V.39.c V.39.d V.39.e V.39.f	Completed Draft submitted on June 4, 2018 DOH-CWB accepted draft and a final was submitted on August 16, 2018	June 4, 2018
Training Program Plan	1. Dewatering compliance training program plan. 2. Develop and submit to DOH-CWB within 120 days of finalizing the Internal Review and Gap Analysis Report a Training Program Plan that: <ul style="list-style-type: none"> • Establishes an annual training program; • Provides continuing education for DDC personnel involved in preparation, management, or supervision of construction projects that include NPDES construction dewatering permits; • Addresses results from the internal review; • Addresses any workflow changes or standardization of practices resulting from the Internal Review; • Provides information on specific roles and responsibilities; • Provides multiple case studies on NPDES construction dewatering compliance; <i>and</i> • Includes: <ul style="list-style-type: none"> ○ General NPDES construction dewatering training; ○ Resolution of dewatering problems; ○ Mitigation structures, pollution prevention devices, treatment equipment; ○ Compliance methods; ○ BMPs; ○ Developing required management plans; <i>and</i> ○ Developing protocols for non-compliance reporting. 3. Submit a personnel list of specific positions to be trained. 4. Schedule all new DDC and ENV-WEC employees to attend first available session. 5. Track all DDC and ENV-WEC personnel required to take the training in an electronic database. 6. Invite DOH-CWB to training sessions.	V.42.a V.42.b V.43 V.44 V.45 V.46	Report Completed December 14, 2018 DOH-CWB accepted the plan on January 25, 2019 Training in-progress	December 14, 2018

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2.1. Completed AOC Requirements

To fully illustrate DDC and ENV-WEC's actions in complying with the requirements of the AOC, a summary of the completed AOC requirements is included below.

2.1.1. AOC Parts V.36 and V.39: Submit an Internal Review and Gap Analysis Report That Summarizes Weaknesses and Prescribes Recommendations

The Final Internal Review and Gap Analysis Report was submitted to DOH-CWB for a technical review on June 4, 2018. DDC and ENV-WEC received a letter from DOH-CWB on July 18, 2018 stating that they had no comments on the draft; DDC and ENV-WEC then finalized the Gap Analysis Report and submitted it on August 16, 2018 within the 60-day timeframe allotted by the AOC.

The Internal Review and Gap Analysis Report was comprised of three sections: an internal review, a gap analysis, and recommended corrective actions.

The internal review consisted of presentations, discussions, and one-on-one interviews with design project managers (PMs), construction PMs, and construction inspectors. There was an average participation rate of 83% and 41 employees were interviewed from February 2017 to November 2017. The internal review included an extensive review of documents that influence NPDES compliance:

1. Bid packages,
2. Bid packages for "multi-step" bid process,
3. Special provisions,
4. BMP inspection checklists,
5. Process flowcharts and construction checklists, *and*
6. SOPs.

The internal review identified nine processes and procedures within the planning, design, and construction phases that affect NPDES compliance at DDC and ENV-WEC:

1. Project budget estimation,
2. Design consultant selection,
3. Permit scoping and applying for NPDES permits,
4. Development of construction documents,
5. Development of the construction bid package,
6. Bid advertisement and contractor selection,
7. Transition to construction,
8. Overseeing construction, *and*
9. Project turnover to operating agency and contract closeout.

The data gathered during the internal review was used to perform the gap analysis, which identified the weaknesses in DDC and ENV-WEC's compliance program that increased the risk of non-compliances. The Internal Review and Gap Analysis Report defined five interdependent elements that constitute the compliance program at DDC and ENV-WEC:

1. Environmental directive from leadership,
2. Design preparations,
3. Design guidance and oversight,
4. Construction oversight, *and*
5. Information sharing and feedback loops.

For each division, performance evaluations were conducted with respect to the five elements of the compliance program. Performance evaluations identified weaknesses, gaps, and competencies. Corrective actions were recommended for each identified weakness and gap.

As shown in Table 2-2, the Internal Review and Gap Analysis Report described and recommended 15 types of corrective actions. Pre-existing and in-development resources were included in the appendices of the Internal Review and Gap Analysis Report. Both pre-existing and in-development resources would be utilized to further develop corrective actions.

An implementation schedule for corrective actions was included in the Internal Review and Gap Analysis Report. The implementation schedule prioritized corrective actions due in AOC Year 2 and AOC Year 3. DOH-CWB accepted the plan to submit corrective actions in the Annual Report, due on the anniversary dates of the AOC: April 27, 2019 and April 27, 2020. (Note: Section 4.2 summarizes and discusses the development and implementation of corrective actions for AOC Year 2. Completed corrective actions are attached in Appendix B.)

Table 2-2. Implementation schedule for corrective actions and associated tools.

Program Element	Corrective Actions and Associated Tools	Implementation AOC Year
1. Environmental Directive from Leadership	a. Outreach Materials <ul style="list-style-type: none"> • Branding Message • Posters • Emails 	AOC Year 2
2. Design Preparations	b. Design Process Flowchart & Revision of SOPs	AOC Year 2
	c. Requirement for Designer Qualifications	AOC Year 3
3. Design Guidance and Supervision	d. Design Review Checklist	AOC Year 2
	e. Permit Scoping Tool	AOC Year 2
	f. BMP Plan & Storm Water Pollution Prevention Plan (SWPPP) Templates	AOC Year 2
	g. Line Item, Force Account, and Allowance Guide	AOC Year 3
	h. Special Provisions for NPDES and <i>Rules Relating to Water Quality (RRTWQ)</i> Requirements	AOC Year 3
4. Construction Guidance and Supervision	i. Construction Stormwater Tools <ul style="list-style-type: none"> • Flowchart • Inspection Checklist • Non-Compliance Reporting Template • E-Permitting Portal Guides 	AOC Year 2
	j. Construction Site Water Pollution Control Meeting/Discussion <ul style="list-style-type: none"> • Sample Agenda with Topics 	AOC Year 3
	k. Construction Dewatering Tools <ul style="list-style-type: none"> • Flowchart • Monthly Compliance Check • Non-Compliance Reporting Guide 	AOC Year 3
	l. Enforcement Process <ul style="list-style-type: none"> • Flowchart • Applicable Templates • Contract Language (if applicable) 	AOC Year 3
5. Information Sharing and Feedback Loops	m. Feedback Surveys	AOC Year 2
	n. Interactive Resource Website (Resource Website)	AOC Year 3
	o. Assignment of Environmental Compliance Duties	AOC Year 3

AOC Year 2
AOC Year 3

2.1.2. AOC Parts V.42-V.46: Develop a Training Program Aimed at Further Educating and Developing a Robust Compliance Program

As mentioned in Table 2-1, the Final Training Program Plan was submitted to DOH-CWB on December 14, 2018, within 120 days of finalizing the Internal Review and Gap Analysis Report, as required by the AOC.

The Training Program Plan was created to support the implementation of the corrective actions recommended in the Internal Review and Gap Analysis Report. The Training Program Plan has three primary goals:

1. Provide staff with the information and assistance necessary to integrate water pollution regulation compliance into their jobs,
2. Increase DDC and ENV-WEC's compliance with NPDES construction stormwater and dewatering permits, *and*
3. Prevent water pollution from DDC and ENV-WEC's construction sites.

The Training Program Plan had proposed various methods to increase awareness and knowledge of NPDES compliance requirements, ranging from outreach materials to quarterly classroom training sessions. The proposed training was customized for three target audiences: all design and construction staff, design staff, and construction staff. Design staff consisted of design PMs and construction staff consisted of construction PMs and construction inspectors.

The Training Program Plan proposed job-specific and division-specific training and also included personal assistance to support the development and implementation of corrective actions. Personal assistance would also encourage communication between divisions, branches, and staff.

The Training Program Plan proposed to measure effectiveness and adapt training through the examination of the performance of compliance tasks over time, staff feedback, and direct communication with staff.

2.2. In-Progress AOC Requirements

In AOC Year 2, there are no in-progress activities or provisions required by the AOC. The implementation of corrective actions and training sessions during AOC Year 2 are considered to be program changes and are discussed in Section 4.2 and Section 4.2.1, respectively.

2.3. Incomplete AOC Requirements

In AOC Year 2, there are no incomplete activities or provisions required by the AOC.

3. COMPLIANCE STATUS FOR DEWATERING PROJECTS ACTIVE DURING AOC YEAR 2

The AOC was signed on April 27, 2017, effectively defining AOC Year 2 from May 2018 to April 2019. During this time period, all active DDC and ENV-WEC projects, either in design or construction phases, with NPDES construction dewatering permit coverage, were tracked for compliance status.

During AOC Year 2, there were no projects at DDC and ENV-WEC with active NPDES construction dewatering permit coverage.

3.1. Permit No. HI0021853 – ENV-WEC Kaneohe/Kailua Sewer Tunnel Project

The Kaneohe/Kailua Sewer Tunnel's status of compliance was evaluated for AOC Year 1, from April 28, 2017 to April 27, 2018. The project received a "Good" status due to its vigorous treatment system and ability to avoid discharges to State waters by directing treated effluent to the Kailua Regional Wastewater Treatment Plant (KRWWTP).

The Annual Report for AOC Year 1 was due on April 27, 2018. Discharge Monitoring Reports (DMRs) are due on the 28th of the month following the sampling period. Therefore, the AOC Year 1 Annual Report could only evaluate the project's DMRs for operations through February 2018.

On April 26, 2018, ENV-WEC submitted a notice of cessation to DOH-CWB and permit coverage was terminated for ENV-WEC's Kaneohe/Kailua Sewer Tunnel Project, Permit No. HI0021853. Therefore, for AOC Year 2 (April 28, 2018 – April 27, 2019), the only NPDES conditions applicable to the project were related to the submittal of DMRs for March and April of 2018.

A compliance evaluation (CE) form covering just the DMRs for March and April 2018 is included in Appendix A. Scoring on the form is based on project performance in three categories: Submittals and Reports, DMRs, and Quality of Dewatering Effluent. Categories that did not apply to the project were not utilized.

Utilizing the CE form, the overall status of NPDES Construction dewatering permit compliance was found to be "Poor". This is because DMRs for March 2018 and April 2018 were not submitted.

The lack of DMR submittals followed a continuing trend of late submittals, which occurred after the change in permit ownership from DDC to ENV. The ENV signatory was located in Kapolei while ENV-WEC is located in Honolulu. As such, it appeared that access to the signatory increased the risk for late submittals to DOH-CWB. Further, many DDC and ENV-WEC staff have reported heavy workloads affecting their ability to make timely submittals.

While the overall compliance status for Permit No. HI0021853 was "Poor", the project was not discharging dewatering effluent to State waters in March and April 2018 and had no potential to cause water pollution.

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4. SUMMARY OF PROGRAM CHANGES

The AOC requires a summary of program changes made as a result of “lessons learned” or feedback loops associated with the improved compliance procedures, pursuant to completing the AOC requirements.

Program changes under the AOC were initiated subsequent to research and staff interviews conducted during the internal review and gap analysis. The internal review identified construction stormwater tools that originated from the City’s MS4 program. Additionally, DDC and ENV-WEC staff provided tools, processes and lessons learned. Institutional knowledge shared by staff across the divisions shaped the program changes to be discussed in this section.

Prior to AOC, DDC-CD enlisted a consultant, WSP USA, Inc. (WSP), to develop a robust water pollution program. During the internal review, DDC-CD proved to be a concentrated source of tools and knowledge.

During AOC Year 2, four major program changes at DDC and ENV-WEC were implemented based off lessons learned during the internal review and gap analysis:

1. Meeting quarterly with leadership;
2. Developing and implementing corrective actions;
3. Training staff on regulatory requirements and overseeing compliance work during design or construction; *and*
4. Promoting communication of compliance related information amongst staff during training sessions.

Although still in an early phase, the program changes further develop DDC and ENV-WEC’s compliance program by executing the requirements of the Internal Review and Gap Analysis Report and the Training Program Plan.

4.1. Program Change 1: Quarterly Meetings with Leadership

In AOC Year 2, quarterly meetings with leadership were implemented. The first of the quarterly meetings occurred on April 16, 2019 and was attended by the following parties:

1. DDC and ENV Department Directors;
2. ENV Deputy Directors;
3. DDC Mechanical and Electrical Division (DDC-MED) Chief;
4. DDC Facilities Division (DDC-FD) Chief;
5. DDC Civil Division (DDC-CD) Chief and Assistant Chief;
6. ENV-WEC Chief; *and*
7. DDC Project Control and Contract Management (PCCM) Group¹.

During the quarterly summary meeting, the department directors and division chiefs were briefed on the status of the AOC items, development and implementation of

¹ At the conclusion of the AOC, DDC-PCCM will continue to coordinate NPDES programs for DDC and is therefore currently participating in a majority of AOC activities.

corrective actions, and completed and in-progress training sessions. Staff feedback gathered throughout the AOC compliance activities was also provided to leaders. Content presented during the meeting is included in Appendix B.

4.2. Program Change 2: Developing and Implementing Corrective Actions

The completion of corrective actions prescribed in the Internal Review and Gap Analysis Report is provided through this Annual Report. Table 4-1 shows the Internal Review and Gap Analysis Report's five (5) program elements, and their associated corrective actions and tools, due in AOC Year 2. All corrective actions were completed on time.

Tools are included in Appendix C. These tools are constantly evolving, therefore all tools included in Appendix C are working versions current to April 2019. As they are updated, the final tools will be made available to DDC and ENV-WEC through an NPDES Project resource website (Resource Website) located at npdes.tlcghawaii.com.

The Resource Website is a corrective action originating from the Internal Review and Gap Analysis Report, due on April 27, 2020. An easily navigable, user-friendly Resource Website is being launched so staff have a central location for any necessary NPDES-related resources. Tools will populate the Resource Website as they are developed. Prior to the conclusion of the AOC, the Resource Website will be placed under City jurisdiction for updates and web management.

Table 4-1. Corrective action elements and associated tools developed and implemented in AOC Year 2.
Note: Missing letters in the second column are AOC Year 3 tasks that can be viewed in Table 2-2.

Program Element	Corrective Actions and Associated Tools	Implementation AOC Year
1. Environmental Directive from Leadership	a. Outreach Materials <ul style="list-style-type: none"> • Branding Message • Posters • Emails 	AOC Year 2
2. Design Preparations	b. Design Process Flowchart & Revision of SOPs	AOC Year 2
3. Design Guidance and Supervision	d. Design Review Checklist	AOC Year 2
	e. Permit Scoping Tool	AOC Year 2
	f. BMP Plan & SWPPP Templates	AOC Year 2
4. Construction Guidance and Supervision	i. Construction Stormwater Tools <ul style="list-style-type: none"> • Flowchart • Inspection Checklist • Non-Compliance Reporting Template • E-Permitting Guides 	AOC Year 2
5. Information Sharing and Feedback Loops	m. Feedback Surveys	AOC Year 2

4.2.1. Corrective Actions and Associated Tools

The completion of corrective actions will be driven by a series of tools that provide the divisions with strategies to better implement stormwater protection practices.

As discussed in Tables 2-2 and 4-1, seven corrective actions have been implemented during AOC year 2. These tools can be viewed in Appendix C and are discussed below.

As mentioned previously, DDC-CD began to develop a compliance process and tools prior to the establishment of the AOC. The accomplishments of DDC-CD were considered during the gap analysis and influenced many of the tools in this section; however, the approach of the AOC differs from the compliance program developed by WSP. Consequently, a more comprehensive examination of DDC-CD's compliance program is provided in Appendix D. While this section includes a brief synopsis of DDC-CD's work in relation to the required corrective actions, Appendix D is a broader summary of DDC-CD's program methods and accomplishments that are analogous to the corrective actions described below.

a. *Outreach Materials:* Outreach materials such as newsletters and flyers from the Director promote a general awareness of stormwater compliance processes, and to create a culture that appreciates environmental stewardship.

Newsletters were emailed by Director Kroning on October 30, 2018 and March 25, 2019, and by Director Kahikina on March 7, 2019 and March 27, 2019.

Flyers advertising the NPDES Project and a BMPs expo were posted at the DDC divisions and ENV-WEC on March 21, 2019 near the elevators so they would be highly visible to staff. A general awareness flyer has also been designed and its release is planned for late April or early May.

b. *Design Process Flowchart & Revision of SOPs:* NPDES compliance is initiated during the design phase of a project. Therefore, a design process flowchart has been created to help PMs navigate the tasks that establish compliance with NPDES permits.

Design process flow charts have been prepared with the input of design personnel from DDC-MED, DDC-FD, and ENV-WEC. Flow chart development meetings have also prompted productive discussions on proper branch handling of compliance related processes.

DDC-CD and WSP have developed planning and design processes that help design staff prepare a project for compliance. The improvement of leadership commitment and staff communication, along with the personal assistance provided by WSP, has circumvented the need for design flow charts. That

being said, the design process flow charts developed under the NPDES Project are available to all of DDC and ENV-WEC.

Design process flowcharts are intended to magnify influential parts of the design process; SOPs serve a similar purpose. DDC has developed SOPs that are also utilized by ENV-WEC which incorporate water pollution prevention and permits into design and construction. Consultation with DDC-PCCM and ENV-WEC PCCM has identified existing SOPs that memorialize compliance-related tasks or resources: Design Phase, Bid Package Preparation, Professional Services Evaluation, Construction Phase, Construction Submittals, and Construction Contractor Evaluation. The PCCM groups also identified new SOPs which could incorporate both feedback loops and environmental protection into the design and construction process.

d. *Design Review Checklist.* In the Gap Analysis Report, consideration was made for an integrated checklist of *RRTWQ* and NPDES requirements that have been adapted into project BMPs or Erosion and Sediment Control Plans (ESCPs). A cursory review indicated existing checklists provided by the City's Municipal Separate Storm Sewer System (MS4) Program did not offer background information necessary to evaluate checklist items and therefore did not ensure compliance.

The City's MS4 Program and DDC-PCCM each have checklists that provide reminders of water pollution requirements; the NPDES Project has also developed accompanying design guidance documents that expand on pertinent *RRTWQ* and NPDES requirements. The design guidance documents have been posted on the Resource Website so staff may easily access them.

e. *Permit Scoping Tool:* The permit scoping tool is a web-based application that guides the user through a series of questions that identify the appropriate NPDES permits and *RRTWQ* categories for a specific project. The application documents all decisions, providing a final map of answers that lead to the project categories and required permits. The final map can be saved into the respective project file and reviewed by the design PM. The Permit Scoping Tool is hosted on the Resource Website and can be accessed at <http://npdes.tlchawaii.com/tools/app/>.

f. *BMP Plan & SWPPP Templates:* Templates for BMP Plans and SWPPPs create consistency throughout all projects and any gratuitous requirements will be excluded.

Templates developed by the City's MS4 Program are being promoted as a resource to DDC and ENV-WEC and have been posted on the Resource Website. The City has created two templates: one for projects with less than one acre of ground disturbance, another for projects with one acre or more.

DDC-CD has been using their own SWPPP template since 2016 to create consistent expectations and practices within the division. DDC-CD's SWPPP template is published and easily accessed at DDC-CD's webpage for boilerplate special provisions (<https://www.honolulu.gov/cms-ddc-menu/site-ddc-sitearticles/6393-boilerplate-special-provisions.html>).

Both the MS4 Program's and DDC-CD's templates cover NPDES construction stormwater requirements, however, the templates differ in formatting. The MS4 templates also reference the City's *Storm Water Best Management Practice Manual – Construction*. The three templates have been presented to DDC and ENV-WEC design and project management staff to promote awareness of these resources.

i. *Construction Stormwater Tools*: Tools such as a construction process flowchart, non-compliance reporting template, inspection checklist, and an e-permitting guide were prepared and made available for construction personnel. These tools are designed for better NPDES construction stormwater permit and City MS4 permit compliance.

The construction process flowchart was tailored for DDC-MED, DDC-FD, and ENV-WEC with input solicited from construction staff. Topics included in the flow charts are being introduced to staff at meetings and skill sessions. DDC-CD also has construction process flowcharts that incorporate staff responsibility within workflows. The workflows reflect discharges, inspections, BMP maintenance, corrective actions with timeframes, SWPPP processes like amendments, and utilizing the DOH-CWB's E-permitting portal. Training and personal assistance have been provided to DDC-CD construction staff since 2016 to promote the processes and associated flow charts. DDC-CD and WSP are also considering revisions like utilizing swim lanes in the work flows and updating the e-permitting information in response to the updated DOH-CWB E-Permitting Portal and Construction Stormwater General Permit.

A discharge reporting template was developed for DDC and ENV-WEC, in addition to a template previously developed by DDC-CD. To ensure the reporting template's accessibility, DDC-CD's template is incorporated into its SWPPP template and are available on the Resource Website. The discharge reporting templates have been discussed in skill sessions with construction staff. WSP has also provided training and personal assistance to DDC-CD staff on reporting discharges and utilizing the template since 2016. In addition, DDC-CD discusses the discharge reporting templates in a Water Pollution, Dust, and Erosion Control Meeting² that is a preconstruction requirement for contractors in their boilerplate special provisions, *Section SP 195 – Environmental Pollution Control*.

² A similar corrective action has been prescribed for DDC's divisions and ENV-WEC for AOC Year 3: the Construction Site Water Pollution Control Meeting/Discussion.

Inspection checklists have also been provided and promoted to DDC and ENV-WEC staff. The checklists ensure that inspections performed by the divisions meet both *RRTWQ* and NPDES requirements, and identify pertinent water pollution concerns. The MS4 Program has a checklist for projects with one acre or more of disturbance, and another checklist for smaller projects disturbing less than an acre. DDC-CD has also developed a checklist tailored to their projects. The MS4 Program and DDC-CD checklists have already been utilized by some divisions, but have been made available on the Resource Website or in the DDC-CD SWPPP template, respectively.

Lastly, guides for DOH-CWB's E-Permitting Portal have been developed to assist the divisions with making submittals properly and efficiently. The guides are intended to provide answers to common questions about the submittal process, prevent incomplete submittals, and give staff confidence when executing submittal tasks. Both the NPDES Project and WSP have prepared guides for DDC and ENV-WEC staff; the guides continually undergo review and are revised as necessary, particularly if there are changes to regulations or the DOH-CWB E-Permitting Portal itself.

m. *Feedback Surveys*: Training and tools are scrutinized and are routinely altered and improved based on recommendations and feedback by staff. Surveys assist in measuring the effectiveness of tools and empowering personnel to promote feedback loops.

Staff were asked to fill out surveys at the conclusion of the first and second skill sessions. Feedback was gathered on the effectiveness of the training itself, the Directors' e-newsletters, and what topics interest staff.

4.3. Program Changes 3 and 4: Training Staff on Regulatory Requirements and Overseeing Compliance Work During Design or Construction and Promoting Communication Through Training

The Training Program Plan included a variety of strategies to promote awareness and the dissemination of compliance-related information:

1. Skill Sessions,
2. Site Visits,
3. Personal Assistance, *and*
4. New Employee Training.

The above training strategies were conducted in AOC Year 2. An additional, unplanned, training opportunity arose when staff requested personal assistance and/or posed questions to the NPDES Project team, as those opportunities led to discussions and information sharing. All aspects of training had the ability to gather feedback from staff regarding their compliance-related work and the effectiveness of the NPDES Project.

Each training effort is discussed further in this section.

Documentation related to training is included in Appendix E, including training materials, staff attendance lists, and records of invitations to the Department of Health (DOH) for DDC and ENV-WEC's skill sessions.

4.3.1. Skill Sessions

Two separate skill sessions were conducted for MED, DDC-FD Project Management Branch, DDC-FD Construction Branch, ENV-WEC Plant Engineering Branch, ENV-WEC Collection System Engineering Branch, and ENV-WEC Construction Branch. Table 4-2 details the topics covered by the NPDES Project skill sessions.

The skill sessions served multiple purposes:

1. Provided general construction stormwater and dewatering information to staff that is applicable to their jobs;
2. Promoted communication amongst staff within a branch or section;
3. Provided opportunities to gather feedback to develop and modify future training and tools; *and*
4. Allowed the introduction and discussion of tools developed to fulfill corrective actions prescribed under the Internal Review and Gap Analysis Report.

Interactive activities were included to provide a hands-on method for learning the topics presented in each skill session.

WSP has provided scheduled and as-needed assistance in both group and one-on-one settings since 2016. Additionally, DDC-CD has requested a staff skill session from the NPDES Project team since content has been prepared. This session is planned for mid-May and will supplement the compliance-related assistance that WSP provides. It was determined that DDC-CD did not have a strong need for the regularly scheduled NPDES Project quarterly skill sessions, thus sessions will be provided if requested. DDC-CD's learning efforts are described further in Appendix D.

DDC-CD has provided its own compliance training under consultant contract since 2016. Topics covered by WSP, include (but have not been limited to), utilizing inspection checklists, inspection requirements, corrective actions, the DOH-CWB's E-Permitting Portal, reporting non-compliance, and dewatering requirements.

Table 4-2. Quarterly stormwater and dewatering skill sessions for DDC and ENV-WEC staff.

2018 - 4 th Quarter Skill Sessions				
Date	Division or Branch	Topics Covered	Tools Introduced	Attendance
November 11, 2018	DDC-MED	<ul style="list-style-type: none"> • Good MED BMP Example: Limiting Traffic Patterns • Utilizing feedback to improve processes • Untangling the Regulations: RRTWQ, NPDES, City's MS4 Program • Identifying construction site discharges • Reporting discharges to DOH-CWB 	--Non-Compliance Reporting Guide	09/09
November 26, 2018	DDC-FD, Project Management Branch	<ul style="list-style-type: none"> • Example Site: BMPs in waterways, Phasing • What kinds of BMPs would you write in? • Untangling the Regulations: RRTWQ, NPDES, City's MS4 Program 	--Design Review Checklist --ESCP Requirements Table	12/12
November 13, 2018	DDC-FD Construction Branch	<ul style="list-style-type: none"> • Untangling the Regulations: RRTWQ, NPDES, City's MS4 Program • Identifying construction site discharges • Reporting discharges to DOH-CWB 	--Non-Compliance Reporting Guide	04/13
December 06, 2018	ENV-WEC Collection System Engineering	<ul style="list-style-type: none"> • Example Site: Concrete waste management when trenching • What kinds of BMPs would you write in? • Untangling the Regulations: RRTWQ, NPDES, City's MS4 Program 	--Design Review Checklist --ESCP Requirements Table	10/13
December 11, 2018	ENV-WEC Plant Engineering Branch	<ul style="list-style-type: none"> • Example Site: BMPs in waterways, Phasing • What kinds of BMPs would you write in? • Untangling the Regulations: RRTWQ, NPDES, City's MS4 Program 	--Design Review Checklist --ESCP Requirements Table	08/09
January 09, 2019	ENV-WEC Construction Branch	<ul style="list-style-type: none"> • Untangling the Regulations: RRTWQ, NPDES, City's MS4 Program • Identifying construction site discharges • Reporting discharges to DOH-CWB 	--none	27/28

2019 - 1 st Quarter Skill Sessions				
March 18, 2019	DDC-FD Project Management Branch	<ul style="list-style-type: none"> • Determining your project's <i>RRTWQ</i> Category • What to expect in Department of Planning and Permitting's (DPP's) review process (Minor Development & Small Projects) 	--Applicability Checklist --Table of Requirements --Appendix A --Minor Trenching Template --Minor Development Notes --ESCP Template Appendix B --Example Small Project	08/10
April 03, 2019	ENV-WEC Plant Engineering Branch	<ul style="list-style-type: none"> • Determining your project's <i>RRTWQ</i> Category • Getting Familiar with Category Requirements • What to expect in DPP's review process of your project's ESCP (or Trenching Plan with Erosion and Sediment Control Notes) 	--Applicability Checklist --Table of Requirements --Appendix A --Example Trenching Plan --Minor Trenching Template --Minor Development Notes --ESCP Template Appendix B --Example Small Project --Example Large Project	10/10
April 04, 2019	ENV-WEC Collection System Engineering	<ul style="list-style-type: none"> • Determining your project's <i>RRTWQ</i> Category • Getting Familiar with Category Requirements • What to expect in DPP's review process of your project's ESCP (or Trenching Plan with Erosion and Sediment Control Notes) 	--Applicability Checklist --Table of Requirements --Appendix A --Example Trenching Plan --Minor Trenching Template --Minor Development Notes --ESCP Template Appendix B --Example Small Project --Example Large Project	08/10

4.3.2. Site Visits

Site visits conducted under the NPDES Project are listed in Table 4-3 and site visits performed by WSP are listed in Appendix D, Table 1. The site visits provided excellent opportunities to discuss questions on BMPs and observe good practices that can be shared with other divisions.

In addition to site visits, DDC-CD construction supervisors have access to project-specific assistance from WSP that also provides opportunities for discussion about pollution prevention.

Table 4-3. Site visits conducted during AOC Year 2.

Date	Staff	Lessons Learned
Location: Thomas Square Underground Utilities, Endo Electric		
7/3/18	<ul style="list-style-type: none"> No inspectors 	<ul style="list-style-type: none"> Dewatering concerns may arise when trenching; contractor provided recommendations Recognized cutting is a potential pollutant source for some MED projects
Location: Kahuku District Park Ball Field Lighting Improvements		
7/31/18	<ul style="list-style-type: none"> Edward Wong Jon Okimoto Clinton Ishida 	<ul style="list-style-type: none"> BMP requirements in construction documents may be useful (i.e. stockpile covering) Lighting projects may have different pollution risk than others. New trenching projects may have to meet RRTWQ
Location: West Loch Golf Course NPDES Improvements		
8/3/18	<ul style="list-style-type: none"> Loy Kuo Edilberto Agas, Sr. 	<ul style="list-style-type: none"> Adjustments in the field can lower stormwater pollution risks; PMs, inspectors and contractors are able to make these adjustments when working together. Adjustments made: <ul style="list-style-type: none"> Contractor "phasing" assisted in minimizing the BMPs needed for the site Contractor installed a silt fence to mitigate exposed soil at a bioswale Contractor, PM, and inspector may need to make adjustments caused by unexpected circumstances <ul style="list-style-type: none"> Had to wait for golf course personnel to install irrigation, causing delays in stabilizing some small areas of disturbed soil Irrigation may destabilize soils Contractor pride in project led to positive adjustments; this attitude should be fostered When there are problematic design issues, it is unclear how PMs/inspectors can rectify them
Location: 431 Kuwili Street		
8/31/18	<ul style="list-style-type: none"> Loy Kuo Terry Chan 	<ul style="list-style-type: none"> Utilize covered areas to decrease risk and need for BMPs Be aware of potential risks posed by downspouts causing flows into your project

4.3.3. Personal Assistance

DDC and ENV-WEC have provided staff with access to personal compliance assistance on projects as a consequence of the NPDES Project. DDC-CD has enriched their program as a result of a consultant contract with WSP.

Appendix D provides the processes and products that arose from personal assistance at DDC-CD. Personal assistance through the NPDES project took the form of questions posed and/or requests by staff to the NPDES Project team.

Requests for personal assistance have not only provided information to staff. The NPDES project team has gained insight on common stormwater issues faced by ENV-WEC staff, therefore shaping subsequent skill sessions and tool preparation. Table 4-4 details the information requests and insights provided.

Table 4-4. Questions or requests posed to the NPDES Project Team during AOC Year 2 and the insights they provided.

Division	Nature of Question or Request	Insights Provided
ENV-WEC	3 rd Party Inspection Findings	BMPs and recognizing deficiencies can be subjective; collaboration is necessary between PMs and inspectors to discuss BMPs and how to handle deficiencies on a site.
ENV-WEC	Does the Notice of General Permit Coverage (NGPC) cover a baseyard?	NGPC coverage may be difficult because contractors secure baseyards after the NGPC is issued. This process is complicated by DOH's policy. How can this situation be averted?
DDC-FD	Permanent BMPs (Parking lot project)	Staff face challenges with permanent BMPs with which training or resources can assist.
ENV-WEC	Dewatering Project Design Assistance	Projects with significant dewatering pose many risks. City staff could benefit from having assistance with reviewing Notices of Intent (NOIs), Dewatering Plans, and Dewatering BMPs.
ENV-WEC	When to name an ESCP Coordinator	More information regarding an ESCP Coordinator and associated duties will help to bridge design work and construction needs. Policy could be made to standardize when the ESCP Coordinator is named.
DDC-MED	Standard Erosion and Sediment Control Notes for their types of projects	Standardized resources can assist PMs with their work.
ENV-WEC	What happens when the DOH's NPDES Construction Stormwater General Permit is re-issued? Will I get a new NGPC?	Staff managing projects with extended NGPCs want to know the reissuance process to ensure they have done all they need to.

4.3.4. New Employee Training: Utilizing the City's Inquisiq Training

The City's MS4 Program requires all City employees to take annual stormwater awareness training using an on-line platform called Inquisiq. All City employees, including new employees, are required to take the training with its associated quizzes by June 30, 2019 (in order to be counted in an annual reporting to DOH).

While the Inquisiq stormwater training introduces stormwater concepts to City staff, there is concern that the training does not provide construction stormwater information pertinent to DDC and ENV-WEC staff.

Additional new employee training options will be evaluated to ensure that staff are getting position-appropriate compliance information. For example, the MS4 Program has developed on-line erosion and sediment control training and is currently developing training for ESCP. Furthermore, DDC-FD has had their PMs and inspectors utilize on-line training resources put forth by the City. DDC-FD design PMs have received certification through the Certified Water Pollution Plan Preparer training. DDC-FD construction PMs and inspectors have taken the ESCP Coordinator training and received certifications. Both trainings utilized by DDC-FD provide job-specific water pollution prevention information.

If an alternative is found, it will be presented to DOH to replace or supplement the Inquisiq training in new employee training.

5. APPENDICES

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Appendices B – E are included on the CD attached below.

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**Appendix A. Permit No. HI0021853 ENV-WEC Kaneohe/Kailua Sewer Tunnel
Project**

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Administrative Order on Consent, Docket No. 2015-CW-EO-57
Dewatering Compliance Evaluation Report

This CE was performed in accordance with requirements of the AOC between the DOH-CWB, the City, DDC, and ENV-WEC.

The purpose of the CE is to examine the DDC or ENV-WEC project's compliance with its NPDES construction dewatering permit over the course of the AOC year (April 28, 2018 – April 27, 2019). The CE does not examine compliance before the AOC year began.

Project: *Kaneohe Kailua Sewer Tunnel Project (Project)* Division: *ENV-WEC*

NPDES Permit: *HI0021853* Issuance - Expiration Dates: *8/12/13 – 8/11/18*

Date of Inspection/Review: *12/6/18*

Inspectors: *Codee Samala-Passos of TLCG*

Facility Representative: *None*

Background Information

The purpose of the Project is to construct a deep sewer tunnel servicing Kailua and Kaneohe, Oahu, Hawaii. The 3-mile long, 13-foot diameter tunnel extends from the Kaneohe Partial Treatment Facility (KPTF) to KRWWTP. Construction activities related to the Project include drilling and constructing the tunnel, building facilities to connect existing incoming sewer lines to the tunnel, building an influent pump station to get wastewater from the tunnel to KRWWTP, constructing a tunnel access shaft, and installation of related structures and appurtenances. The Project has sites at both ends of the tunnel, at KPTF and KRWWTP, and where the tunnel access shaft is being constructed.

The amount of ground water and process water released during tunnel drilling activities varied with ground water conditions during the course of the project, however the Project handled peak ground water flows up to two (2) million gallons per day. Both the KPTF and KRWWTP sites had dewatering treatment systems that treated the tunnel water before disposal.

The Project has an NPDES permit, Permit HI0021853, to discharge dewatering effluent associated with the construction of the tunnel to Kawa Stream (at Discharge Point 1) and Nuupia Pond (at Discharge Point 2). However, after realizing the dewatering effluent was not meeting permit limits, ENV-WEC explored alternate disposal options. The Project obtained approval from ENV to discharge the dewatering effluent to KRWWTP. ENV-WEC also had permission from the neighboring Marine Corps Base Hawaii (MCBH) at to irrigate a dry, vegetated area with the treated dewatering effluent from the tunnel's KRWWTP site.

The Project ceased all discharges to state waters by May 2015, and discharged to KRWWTP instead. The Project discharged treated dewatering effluent to the vegetated area at MCBH on six occasions for approximately two (2) hours at a time, when construction activities required the discharge valve to KRWWTP to be

temporarily closed. The treatment process documented in the Project's Water Treatment Plan included the following steps.

- 1. Solids removal utilizing two (2) existing digester tanks awaiting demolition
 - a. Digester No. 2 (207,000 gallons capacity) for settling – 138 min. detention time for peak flow of 1,500 gpm*
 - b. Digester No. 1 (235,000 gallons) – additional 156 min. detention time at peak flow rate**
- 2. pH neutralization in Digester 1 (pH sensors at influent and effluent lines of the tank) with 30% HCl, controlled by a Hach SC200 controller to initiate acid feed at 8.0 Standard Units (Limit range is 5.5 – 8.0 Standard Units)
 - a. Recirculation of effluent will be triggered when outlet pH is detected at 8.5 Standard Units.**
- 3. Multimedia Filtration through manufacturer-specified layering of media
 - a. Backwash water to be recirculated back at Digester No. 2 or into the sanitary sewer in accordance with sewer discharge permit**
- 4. Metals reduction to be updated to incorporate additional information as required*
- 5. Bacteria, Nitrogen, and Phosphorous reduction through previous treatment units, like acid addition and solids removal; possible use of a cationic ion exchange medium (resin or clinoptilolite)*

The Project submitted a Notice of Cessation dated April 26, 2018. While the project was completed, TLCG performed a paperwork review of any requirements remaining in this AOC year (April 28, 2018 – April 27, 2019). The only requirements that remain are the submittal of DMRs for the months of March and April of 2018.

OVERALL STATUS OF NPDES CONSTRUCTION DEWATERING PERMIT COMPLIANCE
POOR

The status of NPDES construction dewatering permit compliance was determined by evaluating the following categories of permit requirements. The criteria for compliant and non-compliant categories are described below.

Overall Score: 5 / 11

Adjusted Scale: Poor: 0 – 5

Fair: 6 – 8

Good: 9 - 11

Category Scores:

Scores are based on how the project performed on the criteria evaluated below. Categories that involve direct threat to water quality have higher score potential.

Category:	1	2	3	4	5	6	Total
	2 / 2	n/a	0 / 4	3 / 5	n/a	n/a	5 / 11

Category 1: Submittals and Reports (Applicable only in first year of evaluation)

Score (2): 2

Reason for Score: *Plans had already been submitted; the only submittal required in this AOC Year was the Notice of Cessation, which was submitted on time.*

The following documents were submitted before dewatering activities began:

- n/a Notice of the Start of Dewatering Activities
- n/a General Contractor Info
- n/a Dewatering System Plan
- n/a BMP Plan or SWPPP
- n/a Dewatering System Maintenance Plan

Any other items required by permit conditions:

- n/a Dewatering and Treatment facilities designer info
- Notice of Cessation

Category 2: Documents - Adequacy + Availability On-SiteScore (4): *n/a*Reason for Score: *Since the project was done, this category is not applicable.*

The following documents were available on site as required by the NPDES permit:

<i>n/a</i> Dewatering System Plan	<i>n/a</i> Dewatering System Maintenance Plan
<i>n/a</i> BMP Plan or SWPPP	<i>n/a</i> NPDES Construction Dewatering NGPC/Permit
<i>n/a</i> DMRs	<i>n/a</i> NPDES Construction Stormwater NGPC/Permit
<i>n/a</i> Monitoring Lab Results	<i>n/a</i> Chains of Custody

Do the plans listed above meet the requirements of the permit?

*n/a***Category 3: Discharge Monitoring Reports (DMRs) – Proper Completion + Submittal + Exceedances of Permit Limits**Score (4): *0*Reason for Score: *Since the permit was terminated on April 26, 2018, DMRs were only required for March and April. The DMRs were not submitted. DMRs from the previous year had also been late, particularly after a change in signatory to the ENV director, who is located in a different city than ENV-WEC. Multiple staff from different divisions have expressed how difficult and time consuming it is to ensure all submittals are made and on time.*

Months (In AOC Year 2)	Submitted to DOH-CWB?	Submitted on time?	Met all permit limits?	Was certified by a signatory?	Included lab and QA/QC data?
March	<i>no</i>	<i>no</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>
April	<i>no</i>	<i>no</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>

Category 4: Quality of Dewatering Effluent/Meeting Permit Limits

Score (5): 3

Reason for Score: *The Project has been discharging its dewatering effluent to KRWWTW since May 2015. Therefore, the Project has no issues with exceeding permit limits. However, the score was lowered, as performance could not be evaluated with a lack of DMRs in March and April 2018.*

Months (In AOC Year 2)	# of exceedances	Verbally reported?	Written report to DOH- CWB?	Corrective action taken?	Did correction work?
May	0	n/a	n/a	n/a	n/a
June	0	n/a	n/a	n/a	n/a
July	0	n/a	n/a	n/a	n/a
August	0	n/a	n/a	n/a	n/a
September	0	n/a	n/a	n/a	n/a
October	0	n/a	n/a	n/a	n/a
November	0	n/a	n/a	n/a	n/a
December	0	n/a	n/a	n/a	n/a
January	0	n/a	n/a	n/a	n/a
February	0	n/a	n/a	n/a	n/a
March	No DMR	n/a	n/a	n/a	n/a
April	No DMR	n/a	n/a	n/a	n/a

Category 5: MaintenanceScore (5): *n/a*Reason for Score: *Since the project was done, this category is not applicable.*

Question/Requirement	Answer Yes, No, N/A, or date
When was the dewatering treatment system last maintained?	<i>n/a</i>
Has the dewatering treatment system been maintained as scheduled in the maintenance plan?	<i>n/a</i>
Does it appear that maintenance is being performed as needed (to maintain treatment performance at a level that meets permit limits)?	<i>n/a</i>
Have any unanticipated bypasses or upsets occurred?	<i>n/a</i>
Have the unanticipated bypasses or upsets been reported as required?	<i>n/a</i>

Category 6: Illicit or Unpermitted Discharges at the SiteScore (5): *n/a*Reason for Score: *n/a*

During the AOC year, have any illicit or unpermitted discharges of pollutants to State waters occurred from the Site? Fill out a box for each illicit or unpermitted discharge.

Date of discharge: -	Pollutants in discharge: -
Quantity (gallons of discharge, pounds of pollutants, etc.): -	
Was the discharge removed from State waters? -	
Corrective actions taken: -	
Was it reported to DOH-CWB (oral and written)? -	

Appendix B. Content of the Quarterly Meeting with Leadership

Powerpoint for the Quarterly Meeting With Leadership

Appendix C. Submittal of Corrective Actions

- Corrective Action 1: Outreach Materials
- Corrective Action 2: Design Process Flowcharts and Revision of SOPs
- Corrective Action 3: Design Review Checklist
- Corrective Action 4: BMP Plan and SWPPP Templates
- Corrective Action 5: Construction Stormwater Tools
- Corrective Action 6: Feedback Surveys

Appendix D. Discussion of DDC-CD's Compliance Program
Discussion of DDC-CD's Compliance Program

Appendix E. Documentation of Training Conducted During AOC Year 2

4th Quarter 2018 Skill Sessions
1st Quarter 2019 Skill Sessions
Skill Session Attendance Lists
Records of Invitations to DOH for Skill Sessions