



**PROTECT
OUR WATER**

MĀLAMA I KA WAI
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION

Lessons Learned: Compliance Audit of HDOT's Construction Site Runoff Control Program

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TOPICS FOR TODAY

- Compliance Audit
 - HDOT NPDES MS4 Permits
 - Audit Work Plan and Program Element Audit Report (PEAR)
- PEAR 2
 - Schedule, Records Request and Review, and On-Site Evaluations
- PEAR 2 Findings
- PEAR 2 Corrective Actions
- PEAR 2 Positive Findings
- Lessons Learned

ACRONYMS

- CM – Construction Manager
- HDOT - State of Hawaii, Department of Transportation
- IDDE – Illicit Discharge Detection and Elimination
- MCM – Minimum Control Measure
- MS4 - Municipal Separate Storm Sewer System
- NPDES - National Pollutant Discharge Elimination System
- PEAR - Program Element Audit Report



COMPLIANCE AUDIT

HDOT NPDES MS4 PERMITS

- Airports Division has NPDES Small MS4 Permits at:
 - Kahului Airport Small MS4 General Permit HI 14KE349
 - Daniel K. Inouye Airport Small MS4 Individual Permit HI S000005
- Harbors Division has NPDES Small MS4 Permits at:
 - Honolulu Harbor Small MS4 General Permit HI 03KB482
 - Kaleloa Harbor Small MS4 General Permit HI 03KB488
- Highways Division Maui District has a NPDES Small MS4 General Permit HI 15KE674
- Highways Division Oahu District has a NPDES MS4 Individual Permit HI S000001



COMPLIANCE AUDIT

- Reason for Compliance Audit
 - 2014 Consent Decree between HDOT, State of Hawaii Department of Health, and Environmental Protection Agency
- Purpose:
 - Determine compliance with the federal and state regulations, MS4 permits, and the Consent Decree
 - Identify deficiencies and potential violations and allow for timely self-correction
 - Evaluate six MCMs of the MS4 program
- Audit of the six HDOT MS4 Permits both on Oahu and Maui
- HDOT hired an Independent Third-Party Auditor for this task

AUDIT WORK PLAN

- Audit Work Plan
 - Developed in November 2016
 - Audit started in March 2017 and is scheduled to be completed in March 2020
 - Six PEARS
 - Focus today is on PEAR 2: Construction Runoff Control Program

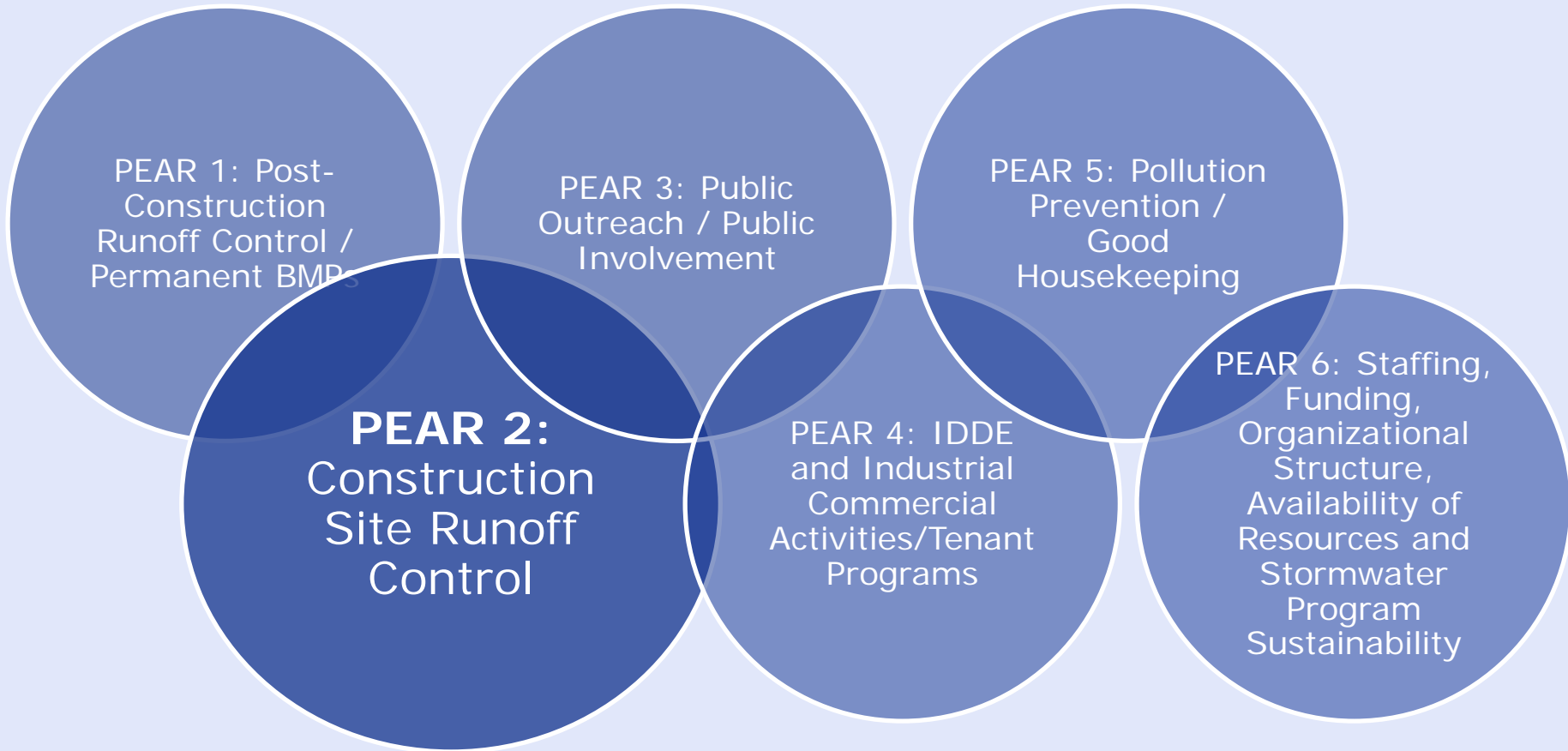
**State of Hawaii Department of Transportation
Office of Environmental Compliance**



**Revised Audit Work Plan
State Project No. OSC-15-01**

November 2016

AUDIT WORK PLAN PEARS



AUDIT WORK PLAN

- Potential Violation - area where the evaluation found the permittee not in compliance with a specific permit requirement or SWMPP commitment
- Deficiency - item which, if not corrected, will lead to potential violation



PEAR 2: HDOT's Construction Site Runoff Control Program

PEAR 2 SCHEDULE & STEPS

- PEAR 2 Schedule: September 2017 – March 2018 (7 months)
- Notice of Audit
 - Key Documents, Schedule, and Construction Projects
- Records Request
- Records Review
- Pre-onsite Evaluation Conference Call
- Onsite Evaluation
- Draft PEAR
- HDOT Review
- Final PEAR

KEY DOCUMENTS

Key documents were provided to and reviewed by the Auditor.

- Kahului Airport: 9 documents
- Daniel K. Inouye Airport: 16 documents
- Honolulu Harbor: 17 documents
- Kalaeloa Harbor: 27 documents
- Highways Maui: 27 documents
- Highways Oahu: 41 documents

RECORDS REQUEST

Based on the review of the Key Documents, the Auditor requested records and documentation from HDOT for verification of compliance.

- Kahului Airport: 2 questions
- Daniel K. Inouye Airport: 4 questions
- Honolulu Harbor: 7 questions
- Kalaeloa Harbor: 7 questions
- Highways Maui: 2 questions
- Highways Oahu: 3 questions

HDOT provided clarifications for additional questions from the Auditor based on Records Review

CONSTRUCTION PROJECTS

All MS4s selected two construction projects each for the Onsite Evaluations

- Kahului Airport: 2 projects but only one active at the time of the Audit
- Daniel K. Inouye Airport: 2 projects
- Honolulu Harbor: No onsite evaluation
- Kalaeloa Harbor: 1 project
- Highways Maui: 2 projects have not broken ground – no onsite evaluation
- Highways Oahu: 2 projects

ONSITE EVALUATIONS



ONSITE EVALUATIONS



ONSITE EVALUATIONS





PEAR 2 FINDINGS

POTENTIAL VIOLATIONS

NONE

DEFICIENCIES

- PEAR 2 yielded four deficiencies for HDOT
 - Two of the deficiencies were related to documentation inconsistencies
 - Two of the deficiencies were related to items that were not identified during the inspection of the construction sites

DEFICIENCIES



DEFICIENCIES





PEAR 2 CORRECTIVE ACTIONS

CORRECTIVE ACTIONS

HDOT implemented the following corrective actions for the deficiencies from PEAR 2

- Conducted additional training for relevant staff
- Updated Construction and Inspection Enforcement Standard Operating Procedure and Inspection Checklist to ensure proper documentation
- Developed Construction Inspection Corrective Action Report and Monthly Construction Inspection Summary Table to track deficiencies and implementation of corrective actions



PEAR 2 POSITIVE FINDINGS

POSITIVE FINDINGS

- All three divisions collaborate on the annual Protect Our Waters Conference
- Though not mandated by their permits, Airports Division and Harbors Division have developed program requirements for projects that disturb less than 1 acre
- Highways Division maintains a publicly-available online map of current and future construction projects

POSITIVE FINDINGS

- Highways Oahu District's ERP Table 2-1 is an effective presentation of the timeframes required for contractors to address specific instances of non-compliance
- Highways Oahu District's construction stormwater independent inspection form allows for a high level of specificity regarding the exact location of particular BMPs (such as reference to mileposts)
- Highways Oahu District's asset management system
 - Prompts inspectors to specify a date when deficiency follow-up is expected from a contractor
 - Can dynamically add and track site-specific BMPs

POSITIVE FINDINGS

- Several of the construction sites visited during the MS4 Permit Audit utilized “live” BMP plans which were updated daily or weekly
- HDOT inspectors communicated well with contractors during inspections
 - Used inspection time as opportunity to educate contractors
- Airports Division will soon be exercising the option afforded in their permit to reduce inspection frequency at sites with few deficiencies



LESSONS LEARNED

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- **Documentation** is critical to show that the Permittees are meeting the requirements
 - Maintain records
 - Ensure inspections are closed out (Document corrective actions implemented including any time extensions)

LESSONS LEARNED

- **Education through training or certification** can provide consistent level of expertise for inspectors (HDOT, CM, Contractor, & Third-Party)
 - Inspectors can train/share their experience from other projects, BMPs that worked or did not work
 - Began consolidating required construction-related training of HDOT staff, consultants, and contractors through the annual Protect Our Water Conference
 - Consider requiring stormwater inspectors to obtain relevant certifications to maintain a consistent level of expertise

LESSONS LEARNED

- **Finally, good documentation and adequate training can help you**
 - Identify small items that can easily overlooked
 - Communicate requirements and expectations clearly
 - Prepare for an EPA/DOH Audit
 - Share ideas and concerns related to the Construction Site Runoff Control Program

FINAL THOUGHTS

- We are all on the same team, everyone has a role to play in operating a good construction site runoff control program
- HDOT is trying to help Construction Projects be in compliance with the Permits, avoid enforcement, and improve water quality
- HDOT is open to ideas and suggestions to improve their Construction Site Runoff Control Program



THANK YOU

HDOT would like to thank you for diligently working to protect water quality in Hawaii



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