

**NOTICE OF CLEAN WATER BRANCH RECOMMENDATIONS FOR  
WATER POLLUTION CONTROL PERMIT FOR  
THIRTY METER TELESCOPE INTERNATIONAL OBSERVATORY  
NPDES PERMIT NO. HI S000431**

**DOCKET NO. HI S000431**

**April 8, 2021**

The Hawaii Department of Health (DOH), Clean Water Branch (CWB) tentatively recommends to the Director of Health (Director) to renew a National Pollutant Discharge Elimination System (NPDES) permit to discharge storm water associated with construction activity from the Thirty Meter Telescope (TMT) International Observatory project site to receiving State waters, subject to special conditions, to:

**TMT INTERNATIONAL OBSERVATORY LLC  
137 W. WALNUT AVENUE  
MONROVIA, CALIFORNIA 91016**

A permit for such discharge would expire five (5) years from the date of issuance.

The project is located at TMT International Observatory, Mauna Kea Loop Road Area E, Mauna Kea, Island of Hawaii, Hawaii, TMK: (3) 4-4-015:009 (por.) and 012 (por.).

The proposed project is to construct the TMT International Observatory and access way road. The observatory will consist of the dome, which will be roughly 180 feet tall, and a support building, which will be roughly 18,000 square feet in size. The access way road will be roughly 0.65 miles long and asphalt paved. TMT International Observatory LLC requests to discharge storm water runoff from the proposed construction site. Best Management Practices (BMPs) for storm water runoff and non-storm water sources will be implemented to minimize the discharge of erosion and other pollutants from entering receiving State waters.

The receiving waters, Kemole Gulch, Kuupahaa Gulch, Puupohakuloa Gulch Pohakuloa Gulch, and Wailuku River, are classified by the DOH as Class 2, Inland Waters. Under Hawaii Administrative Rules (HAR) Section 11-54-3(b)(2), the objective for Class 2 waters is to protect their use for recreational purposes, the support and propagation of aquatic life, agricultural and industrial water supplies, shipping, and navigation. The uses to be protected in this class of waters are all uses compatible with the protection and propagation of fish, shellfish, and wildlife, and with recreation in and on these waters. These waters shall not act as receiving waters for any discharge which has not received the best degree of treatment or control compatible with the criteria established for this class.

Persons wishing to comment upon or object to the CWB recommendations with respect to an NPDES permit or to request a public hearing should submit their comments or requests in writing no later than 30 calendar days after the date of this notice, either through E-mail at: [cleanwaterbranch@doh.hawaii.gov](mailto:cleanwaterbranch@doh.hawaii.gov) or by mail at P.O. BOX 3378, Honolulu, Hawaii 96801-3378.

Copies of the public notice permit recommended by CWB and other information are available for public inspection, Monday through Friday (excluding holidays) from 7:45 a.m. until 4:15 p.m., at the DOH Clean Water Branch office located at 2827 Waimano Home Road, Room 225, Pearl City, Hawaii 96782, as well as the DOH Hawaii District Health Offices at 1582 Kamehameha Avenue, Hilo, Hawaii 96720, and 79-1015 Haukapila Street, Kealahou, Hawaii 96750. Copies may be bought. The public notice permit and rationale are also available on the internet at: <https://health.hawaii.gov/cwb/clean-water-branch-home-page/public-notices-and-updates/>. For more information or if you have special needs that will aid you in inspecting and/or commenting on the public notice permit and related information due to disability, please contact Mr. Darryl Lum, Supervisor of the Engineering Section, Clean Water Branch, at the above address or (808) 586-4309 (Voice) at least seven (7) calendar days before the comment deadline. For those who use a TTY/TDD, please call through Sprint Relay Hawaii, at 1-711 or 1-877-447-5991.

All written comments and requests received on time will be considered. If the Director determines that there is significant public interest, a public hearing may be held after at least 30 calendar days of public notice.

If CWB believes, after considering all timely written comments and all oral comments at any public hearing that may be held, that no changes to the conditions of the public notice permit are necessary or warranted, then CWB may recommend to the Director that the NPDES permit be issued.

Please notify anyone you know who would be interested in this matter.

ALEC WONG, P.E.  
Clean Water Branch Chief

03033PCTM.21a

**AUTHORIZATION TO DISCHARGE UNDER THE  
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM**

In compliance with the provisions of the Clean Water Act, as amended, (33 U.S.C. §1251 et seq.; the Act); Hawaii Revised Statutes (HRS) Chapter 342D; and Hawaii Administrative Rules (HAR) Chapters 11-54 and 11-55;

**TMT INTERNATIONAL OBSERVATORY LLC  
137 W. WALNUT AVENUE  
MONROVIA, CALIFORNIA 91016**

(Permittee),

is authorized to discharge storm water associated with construction activities from the Thirty Meter Telescope (TMT) International Observatory project site located at Mauna Kea Summit Loop Road, Area E, Mauna Kea, Island of Hawaii, Hawaii, TMK: (3) 4-004-015:009 and (3) 4-004-015:012, to the receiving State waters identified in the table below,

Discharge Point No.	Receiving State Water	Classification	Latitude (N)	Longitude (W)
1	Kemole Gulch	Class 2, Inland	19.8460134363°	155.5002144513°
2	Kuupahaa Gulch	Class 2, Inland	19.860556°	155.497500°
3	Puupohakuloa Gulch	Class 2, Inland	19.8097689473°	155.5093025875°
4	Pohakuloa Gulch	Class 2, Inland	19.875692°	155.496944°
5	Wailuku River	Class 2, Inland	19.711944°	155.307500°

in accordance with the general requirements, discharge monitoring requirements, and other conditions set forth herein, and in the attached DOH "Standard NPDES Permit Conditions," that is available on the DOH, Clean Water Branch (CWB) website at <http://health.hawaii.gov/cwb/site-map/home/standard-npdes-permit-conditions/>.

All references to Title 40 of the Code of Federal Regulations (CFR) are to regulations that are in effect on July 1, 2020, except as otherwise specified. Unless otherwise specified herein, all terms are defined as provided in the applicable regulations in Title 40 of the CFR.

Failure to comply with any condition, requirement, and/or limitation in this permit is an enforceable violation and this NPDES permit may be terminated. Examples of enforceable violations include, but are not limited to: unauthorized discharges where a pollutant was not disclosed in the NPDES application, but was detected by monitoring only requirements in this NPDES permit or by other means determined by the DOH; failure to sample, analyze, or submit water quality results as required in this NPDES permit; and discharging pollutants in locations that are not authorized in this NPDES permit. If Permittee violates HRS Chapter 342D, Permittee may be subject to penalties of up to \$25,000 per violation per day and up to two (2) years in jail. Falsification of

information, including providing information in the NPDES application that does not match what is actually occurring at the project site/facility, may result in criminal penalties for Permittee and its authorized representative as provided in Section 309 of the Act and HRS Section 342D-35.

This permit will become effective on \_\_\_\_\_, **2021**.

This permit and the authorization to discharge will expire at midnight, \_\_\_\_\_, **2026**.

Signed this \_\_\_th day of \_\_\_\_\_, 2021.

\_\_\_\_\_  
(For) Director of Health

**TABLE OF CONTENTS**

<u>Part</u>	<u>Description</u>	<u>Page</u>
A.	GENERAL REQUIREMENTS .....	4
B.	REPORTING REQUIREMENTS .....	6
C.	BEST MANAGEMENT PRACTICES (BMPs).....	8
D.	MAPS.....	11

**ATTACHMENT:**

**STANDARD NPDES PERMIT CONDITIONS (VERSION 15)**

**A. GENERAL REQUIREMENTS**

Permittee shall:

1. Comply with all materials submitted in and with the renewal application dated November 16, 2018.
2. Retain a copy of this permit and the renewal application, including other related materials, at the job site or at a nearby field office.
3. Design, operate, implement, and maintain the project Storm Water Pollution Prevention Plan (SWPPP) to ensure that storm water discharges associated with construction activities will not cause or contribute to a violation of applicable State water quality standards.
4. Implement the project SWPPP as often as needed to improve the quality of storm water discharges or when instructed by the Director of Health (Director).
5. Not cause or contribute to a violation of the basic water quality criteria as specified in HAR Section 11-54-4.
6. Inspect, at a minimum of once per week, the receiving State waters, storm water runoff and control measures, and BMPs to detect violations of and conditions which may cause or contribute to a violation of the basic water quality criteria as specified in HAR Section 11-54-4 (e.g., Permittee shall look at storm water discharges and receiving State waters for turbidity, color, floating oil and grease, floating debris and scum, materials that will settle, substances that will produce taste in the water or detectable off-flavor in fish, and inspect for items that may be toxic or harmful to human or other life).
7. Immediately stop, reduce, or modify construction, or implement new or revised BMPs as needed, to stop or prevent a violation of the basic water quality criteria as specified in HAR Section 11-54-4.
8. Review the effectiveness and adequacy of the implemented SWPPP and Erosion and Sediment Control (ESC) Plan at a minimum of once per week and update each plan as often as necessary. Any changes to the SWPPP and/or ESC Plan or correction to information already on file with the CWB shall be maintained onsite and be available upon request.

9. Know that Dr. Fengchuan Liu of TMT International Observatory LLC is recognized as the duly authorized representative to submit all information/documents for compliance with the NPDES conditions. A new authorized representative may be appointed in accordance with Part B.6.

**B. REPORTING REQUIREMENTS**

Permittee shall:

1. Locate BMPs used for land disturbance activities upland and treat all upland pollutants prior to any discharge. These BMPs shall be designed and implemented to ensure all upland pollutants are prevented from discharging to State waters. BMPs for in-water work shall be designed and implemented to ensure compliance with all applicable WQS.
2. Notify the Director of the construction start date in accordance with Part B.6. within seven (7) calendar days before the start of construction activities.
3. Submit any changes to information on the CWB Individual NPDES Form in accordance with Part B.6. as soon as changes arise. Permittee shall properly address all related concerns and/or comments to the CWB's satisfaction.
4. Immediately notify the Director of all incidences of noncompliance and identify the pollutant(s) source(s) and the proposed and implemented control or mitigative measures as required in Section 16 of the "Standard NPDES Permit Conditions."
5. Complete and submit the Notice of Cessation in accordance with Part B.6. within 14 calendar days of completion of the subject project.
6. Submit all reports, notifications, and updates to information on file through the CWB Compliance Submittal Form for Individual NPDES Permits and Notice of General Permit Coverages (NGPCs). This form is accessible through the e-Permitting Portal website at: <https://eha-cloud.doh.hawaii.gov/epermit>. All submissions shall include a CD or DVD containing the downloaded e-Permitting submission and a completed Transmittal Requirements and Certification Statement for e-Permitting NPDES/NGPC Compliance Submissions Form, with original signature and date.
7. Include the following certification statement, NPDES permit number, and original signature on each submittal in accordance with HAR Section 11-55-07(b). Failure to provide this information on future correspondence or submittals may be a basis for delay of the processing of the document(s).



**"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment for knowing violations."**

8. Develop and submit a facility-specific waste load allocation (WLA) implementation and monitoring plan to the Director when a Total Maximum Daily Load, which specifies WLAs applicable to the Permittee's discharge, is approved by the EPA within one (1) year of notification of the approval date.

**C. BEST MANAGEMENT PRACTICES (BMPs)**

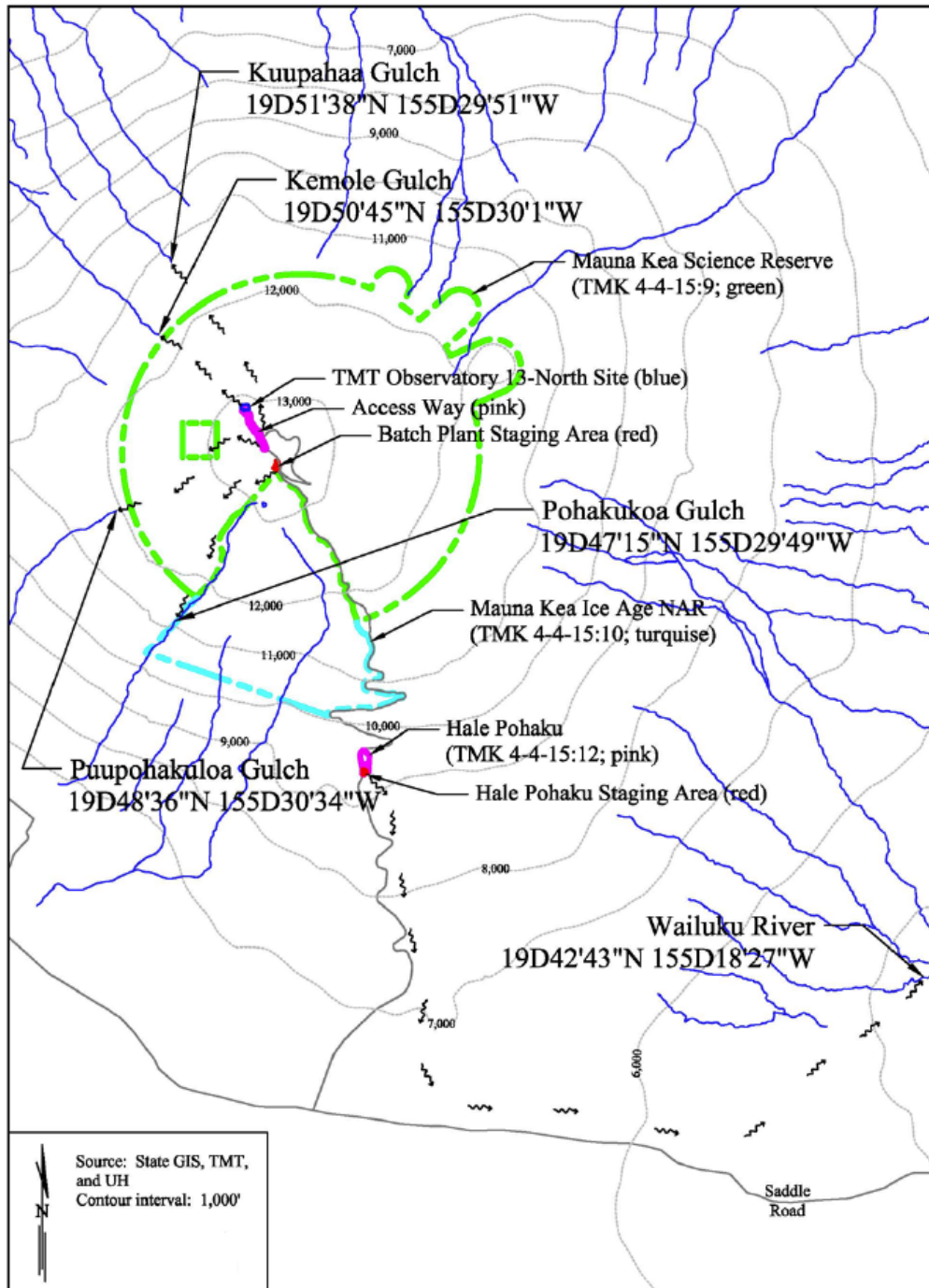
1. Permittee shall:
  - a. Refrain from performing any work during heavy rainstorms.
  - b. Prevent loose particles, sand, soil, silt, and other construction debris at the project site from being washed away by storm water runoff to drainage systems and to State waters.
  - c. Remove the excavated material as soon as possible or at the end of each workday. The excavated material shall be disposed in a State and/or County-approved landfill site.
  - d. Not discharge water used for dust control to State waters.
  - e. Not discharge water used for irrigation to State waters.
  - f. Not discharge hydrotesting effluent to State waters without an appropriate NPDES permit.
  - g. Not discharge dewatering effluent to State waters without an appropriate NPDES permit.
  - h. Not stockpile unprotected materials on-site without implementing the appropriate BMPs for the stockpile(s).
  - i. Wash-down vehicles and/or equipment and concrete truck drums only at designated areas and not discharge the wash waters to State waters. The concrete wash water shall not be allowed to infiltrate into the ground.
  - j. Ensure that the implemented BMPs are effective and the discharge effluent is in compliance with the basic State water quality standards.
2. The following special conditions apply to all land disturbance work conducted under this permit:
  - a. Construction Management Techniques
    - (1) Clearing and grubbing shall be held to the minimum necessary for grading and equipment operation.
    - (2) Construction shall be sequenced to minimize the exposure time of the cleared surface area.

- (3) Construction shall be staged or phased for large projects. Areas of one phase shall be stabilized before another phase is initiated. Stabilization shall be accomplished by temporarily or permanently protecting the disturbed soil surface from rainfall impacts and runoff.
  - (4) Erosion and Sediment Control Measures shall be in place and functional before earth moving operations begin. These measures shall be properly constructed and maintained throughout the construction period.
  - (5) All control measures shall be checked and repaired as necessary, for example, weekly in dry periods and within 24 hours after any rainfall of 0.5 inches or greater within a 24-hour period. During continuing rainfall, daily checking is necessary. The Permittee shall maintain records of checks and repairs.
  - (6) Permittee shall maintain records of the duration and estimated volume of storm water discharge(s).
  - (7) A specific individual shall be designated to be responsible for erosion and sediment controls on each project site.
- b. Vegetation Controls
- (1) Pre-construction vegetative ground cover shall not be destroyed, removed, or disturbed more than 20 calendar days prior to land disturbance.
  - (2) Temporary soil stabilization with appropriate vegetation shall be applied on areas that will remain unfinished for more than 30 calendar days.
  - (3) Permanent soil stabilization with perennial vegetation or pavement shall be applied as soon as practical after final grading. Irrigation and maintenance of the perennial vegetation shall be provided for 30 calendar days or until the vegetation takes root, whichever is shorter.
- c. Structural Controls
- (1) Storm water flowing toward the construction area shall be diverted by using appropriate control measures, as practical.

- (2) Erosion Control Measures shall be designed according to the size of disturbed or drainage areas to detain runoff and trap sediment.
- (3) Water shall only be discharged in a manner that does not cause or contribute to a violation of the basic water quality criteria as specified in HAR Section 11-54-4.

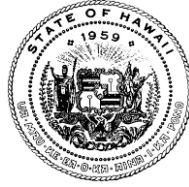
03033PCTM.21b

D. MAPS



Location & Outfall Map

DAVID Y. IGE  
GOVERNOR OF HAWAII



ELIZABETH A. CHAR, M.D.  
DIRECTOR OF HEALTH

STATE OF HAWAII  
DEPARTMENT OF HEALTH  
P. O. BOX 3378  
HONOLULU, HI 96801-3378

In reply, please refer to:  
EMD/CWB

**030330PCTM.21c**  
**DATE: April 8, 2021**  
**NPDES PERMIT NO.: HI S000431**

**PERMIT RATIONALE: NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT TO DISCHARGE TO THE WATERS OF THE UNITED STATES**

**PERMITTEE: TMT INTERNATIONAL OBSERVATORY LLC**

**PROJECT: THIRTY METER TELESCOPE INTERNATIONAL OBSERVATORY**

**PROJECT LOCATION**

Mauna Kea Loop Road  
Area E  
Mauna Kea, Hawaii 96720  
TMK: (3) 4-4-015:009 (por.)  
(3) 4-4-015:012 (por.)

**PERMITTEE MAILING ADDRESS**

TMT International Observatory LLC  
137 W. Walnut Avenue  
Monrovia, California 91016  
Contact: Edward C. Stone, Ph.D.  
Manager and Executive Director  
Phone No.: (626) 395-8321  
E-mail: [ecs@srl.caltech.edu](mailto:ecs@srl.caltech.edu)

**DULY AUTHORIZED REPRESENTATIVE**

TMT International Observatory LLC  
137 W. Walnut Avenue  
Monrovia, California 91016  
Contact: Fengchuan Liu, Ph.D.  
Phone No.: (808) 319-2234  
E-mail: [fliu@tmt.org](mailto:fliu@tmt.org)

**PERMIT STATUS**

NPDES Permit No. HI S000431 became effective June 12, 2014, and expired at midnight June 11, 2019. Permittee applied to renew an individual NPDES permit on November 16, 2018, for discharges of storm water associated with construction activities. The Department of Health (DOH), Clean Water Branch (CWB) administratively extended the NPDES permit on May 28, 2019. CWB has reviewed the renewal Individual NPDES Permit application and considers it to be complete.

CWB tentatively recommends to the Director of Health (Director) to renew the permit to discharge to State waters and has included in the proposed draft permit those terms and conditions which CWB recommends are necessary to carry out the provisions of the Federal Clean Water Act of 1977 (PL 95-217) (CWA) and Hawaii Revised Statutes (HRS) Chapter 342D.

The NPDES Permit would expire at midnight, five (5) years from the date of renewal.

**SCOPE OF THE CONSTRUCTION ACTIVITY AND LOCATION OF THE PROJECT**

The purpose of the project is to construct the Thirty Meter Telescope Observatory and access way road. The observatory will consist of the dome, which will be roughly 180 feet tall, and a support building, which will be roughly 18,000 square feet in size. The access way road will be roughly 0.65 miles long and asphalt paved. Construction will consist of mass grading with the installation of project BMPs and staging areas; subsurface utility installation; construction of the roadway and building; and site stabilization.

The project is located at Mauna Kea Loop Road, Area E, Mauna Kea, Island of Hawaii, Hawaii. Storm water runoff from the project site will discharge to the receiving State waters at:

<b>Discharge Point No.</b>	<b>Receiving State Water</b>	<b>Classification</b>	<b>Latitude (N)</b>	<b>Longitude (W)</b>
1	Kemole Gulch	Class 2, Inland	19.8460134363°	155.5002144513°
2	Kuupahaa Gulch	Class 2, Inland	19.860556°	155.497500°
3	Puupohakuloa Gulch	Class 2, Inland	19.8097689473°	155.5093025875°
4	Pohakuloa Gulch	Class 2, Inland	19.875692°	155.496944°
5	Wailuku River	Class 2, Inland	19.711944°	155.307500°

**RECEIVING WATER CLASSIFICATION**

The receiving waters, Kemole Gulch, Kuupahaa Gulch, Puupohakuloa Gulch, Pohakuloa Gulch, and Wailuku River are classified by the DOH as a Class 2, Inland Water. The objective of Class 2 waters is to protect their use for recreational purposes, the support and propagation of aquatic life, agricultural and industrial water supplies,

shipping, and navigation. The uses to be protected in this class of waters are all uses compatible with the protection and propagation of fish, shellfish, and wildlife, and with recreation in and on these waters.

CWA Section 303(d) requires states to identify specific water bodies where water quality standards are not expected to be met after implementation of technology-based effluent limitations on point sources. The DOH published 2018 State of Hawaii Water Quality Monitoring and Assessment Report on July 2018. The assessment report is prepared pursuant to CWA Sections 303(d) and 305(b).

According to the assessment report, Wailuku River has attained compliance with all water quality standards with the exception of nitrate + nitrite nitrogen (Dry). Wailuku River is designated as Category 2 (data show some uses attained), Category 3 (not enough data to evaluate), and Category 5 (data show at least one use not attained, TMDL needed). At present, no Total Maximum Daily Loads (TMDLs) have been established for this waterbody and it is a low priority for TMDL development.

The Kemole Gulch, Kuupahaa Gulch, Puupohakuloa Gulch and Pohakuloa Gulch are not listed in the assessment report. Currently, no TMDLs have been established for these waterbodies.

## **OCEAN DISCHARGE CRITERIA**

Regulations for Ocean Discharge Criteria were promulgated by the U.S. Environmental Protection Agency in 40 Code of Federal Regulations Part 125, Subpart M. CWB has considered the Ocean Discharge Criteria, established pursuant to CWA Section 403(c) for the discharge of pollutants into the territorial sea, the waters of the contiguous zone, or the oceans. Therefore, CWB believes that the discharge will not cause unreasonable degradation to the marine environment. Based on the current information, CWB tentatively recommends to the Director to renew the permit.

## **DESCRIPTION OF THE PROPOSED DISCHARGE**

Permittee requests to discharge storm water runoff from the proposed construction site. Best Management Practices (BMPs) for storm water runoff and non-storm water sources will be implemented to minimize the discharge of erosion and other pollutants from entering receiving State waters. Permittee has certified that it will comply with all BMP requirements in Hawaii Administrative Rules (HAR) Chapter 11-55, Appendix C, and that its Storm Water Pollution Prevention Plan (SWPPP) was prepared in accordance with HAR Chapter 11-55, Appendix C, Section 7.



## **PERMIT CONDITIONS**

CWB has considered the permit conditions to discharge storm water runoff associated with construction activity, established pursuant to the Federal Water Pollution Control Act, CWA, and HRS. CWB believes that the discharges will not cause unreasonable degradation to the receiving water environment when Permittee complies with the conditions of the permit. Therefore, based on the current information, CWB tentatively recommends to the Director to renew the permit.

## **CWB PROPOSED DETERMINATIONS**

1. The General Requirements as stated in Part A of the permit are necessary in preventing pollutants to be discharged with the storm water to the receiving State waters, in addition to the general BMP provisions proposed in the application.
2. The Reporting Requirements as stated in Part B of the permit are to inform Permittee of submittal and reporting requirements for compliance with the permit conditions.
3. The BMPs as stated in Part C of the permit are to emphasize pollution prevention measures that are applicable to the construction activities.

## **ANTI-BACKSLIDING AND ANTIDegradation**

CWB believes the proposed permit will meet anti-backsliding requirements because the proposed project is a new facility/construction activity and includes the permit requirements established by the DOH for the discharges of storm water associated with construction activities.

CWB believes the proposed permit will meet Hawaii's anti-degradation policy because it requires Permittee to apply the best degree of treatment or control to the discharge with the result that the residual soil reaching the receiving body of water from the project site will be of an acceptable level as provided under HAR Section 11-54-4(d).

## **PUBLIC COMMENT AND CONTACT INFORMATION**

Persons wishing to comment upon or object to the proposed Draft NPDES in accordance with HAR Sections 11-55-09(b) and 11-55-09(d) may submit their comments in writing either in person or by mail, to:

State of Hawaii  
Clean Water Branch  
2827 Waimano Home Road, #225  
Pearl City, Hawaii 96782