Board of Land and Natural Resources
State of Hawaii
Honolulu, Hawaii

REGARDING: Unauthorized construction of a masonry rock wall in the Conservation District Resource Subzone

PERMITTEE/LANDOWNER: Michael and Nancy Carlson

LOCATION: Waialua, North Shore, Island of Oahu, Hawaii

TMK: (1) 6-8-010:010

AREA OF PARCEL: 0.179 acres

AREA OF USE: 250 ft²

SUBZONE: RESOURCE

DESCRIPTION OF AREA:

The subject parcel is located on Ho’omana Place, in Waialua, on the north shore of the Island of Oahu. The parcel lies within a small subdivision which includes a number of shorefront single family residence structures and associated landscaping and property development (Exhibit 1; 2 pages). While the parcel is not located in the Conservation District, this property borders the shoreline in which the area makai of the shoreline is entirely within the Conservation District Resource Subzone. The property currently contains a single family residence structure, built in 1961 and is in use as a vacation rental. The majority of the parcel area contains the SFR with moderate landscaping, which is similar to the surrounding parcels. A review of the erosion maps for the Waialua Coast reveals a trend towards erosion for this area (Exhibit 2) and staff notes that this property is one of several properties on this coastline that is experiencing coastal erosion.

ALLEGED UNAUTHORIZED LAND USES:

April, 2012: A complaint was received by the Department of Land and Natural Resources (DLNR) regarding the alleged unauthorized construction of a masonry rock wall on the subject parcel. A site investigation and a permit review by the Office of Conservation and Coastal Lands (OCCL) revealed that there was a masonry rock wall located on the
seaward side of the property (Exhibit 3; 2 pages) and that no authorization for this land use was provided by DLNR for this use.

ANALYSIS:

The department and Board of Land and Natural Resources has jurisdiction over land lying makai (seaward) of the shoreline as evidenced by the upper reaches of the wash of the waves other than storm and seismic waves, at high tide during the season of the year in which the highest wash of the waves occurs, usually evidenced by the edge of vegetation growth, or the upper limits of debris left by the wash of the waves, pursuant to §205A-1, Hawaii Revised Statutes (HRS).

Staff believes that the unauthorized land uses occurred within the Conservation District based upon the location of the wall. The OCCL believes there is sufficient cause to bring this matter to the board since it is evident that the unauthorized land uses are within the Conservation District pursuant to the Hawaii Administrative Rules (HAR) §15-15-20 Standards for Determining “C” Conservation District boundaries:

- It shall include lands having an elevation below the shoreline as stated by §205A-1, HRS, marine waters, fishponds, and tidepools of the State, and accreted portions of lands pursuant to §501-33 HRS, unless otherwise designated on the district maps. All offshore and outlying islands of the State are classified conservation unless otherwise designated on the land use district maps.

Chapter 13-5, HAR and Chapter 183C, HRS, regulate land uses in the Conservation District by identifying a list of uses that may be allowed by a Conservation District Use Permit (CDUP). The chapters also provide for penalties, collection of administrative costs and damages to state land for uses that are not allowed or for which no permit had been obtained. HAR §13-5-2 defines land uses as follows:

- The placement or erection of any solid material on land if that material remains on the land for more than thirty days, or which causes a permanent change in the land area on which it occurs.

The penalty range for the unauthorized land use will be substantially determined based on the type of permit that would have been required, had the landowner applied to the DLNR to conduct the identified land use.

Pursuant to Hawaii Administrative Rules (HAR) §13-5-22, P-15, SHORELINE EROSION CONTROL (D-1) Seawall, revetment, groin, or other coastal erosion control structure or device, including sand placement, to control erosion of land or inland area by coastal waters, provided that the applicant shows that (1) the applicant would be deprived of all reasonable use of the land or building with the permit; (2) the use would not adversely affect beach processes or lateral public access along the shoreline, without adequately compensating the State for its loss; or (3) public facilities (e.g., public roads) critical to public health, safety, and welfare would be severely
damaged or destroyed without a shoreline erosion control structure, and there are no reasonable alternatives (e.g., relocation). Requires a shoreline certification.

Under the Penalty Guideline Framework (Exhibit 4) this action is considered “Major” since the identified land use would require a Board Permit under the permit prefix “D”. This violation follows a penalty range of $10,000 to $15,000.

Therefore under the Penalty Guideline Framework this unauthorized land use is considered a Major harm to resource or potential harm to resource.

DISCUSSION:

Coastal erosion occurs as a result of the following phenomena: 1) Seasonal changes in waves and currents that shift sand within the littoral cell; 2) Long-term (chronic) erosion due to natural deficits in sand supply or oceanographic processes such as sea level rise; and 3) Human impacts to sand availability through sand impoundment and supply disruption as a result of shoreline modifications including revetments and seawalls.

Development on beaches and dunes has contributed to serious erosion of these areas, resulting in loss of recreational areas, habitat, and the storm protection that healthy beaches and dunes provide. Beach narrowing and loss, and shoreline erosion control structures (i.e., the construction of vertical seawalls, revetments) can also severely restrict public access to State Conservation Land and the natural resources these coastal regions provide. In heavily “armored” areas, sand impoundment landward of shoreline erosion control structures can lead to a reduction in localized sand supply which can increase regional coastal erosion trends.

Unfortunately, many of Hawai‘i’s beaches have been degraded or lost from a combination of natural erosion and inappropriate coastal development including shoreline “armoring”, shallow beachfront lot subdivisions, and development too close to the shoreline. In Romine and Fletcher, 2012 it was shown that 70% of all beaches measured in the Hawaiian Islands (24 km total) indicated a trend of beach erosion. More than 21 km or 9% of the total length of beaches studied have been lost to erosion. In nearly all the cases reviewed, the beaches had been replaced by permanent shoreline erosion control structures.

**Hawai‘i Coastal Erosion Management Plan**

On August 27, 1999, the BLNR adopted the Hawai‘i Coastal Erosion Management Plan (COEMAP) as an internal policy for managing shoreline issues including erosion and coastal development in Hawai‘i. COEMAP still serves as the primary shoreline policy for the DLNR and recommends a number of strategies to improve our State’s management of coastal erosion and beach resources.

However, COEMAP’s scope is of a general nature, more focused on broader government policy than erosion management practices. The COEMAP effort is guided by the doctrine of sustainability promoting the conservation, sustainability, and restoration of Hawai‘i’s
beaches for future generations. When assessing cases involving unauthorized shoreline structures the Department has implemented a “no tolerance” policy concerning unauthorized shoreline structures constructed after the adoption of COEMAP. Based on this policy the removal of the unauthorized structure is a mandatory recommendation from the OCCL.

Staff would like to note that while the landowner allegedly constructed an illegal erosion control device seaward of the parcel, it was in direct response to the erosion trends in this area (Exhibit 2). A review of the site and surrounding parcels reveals that a number of properties west of the site have been protected by hard shoreline erosion control structures (i.e., revetments and rock seawalls) starting in the early 1970’s and continuing into today (Exhibit 5). Current science suggests that high erosion rates may be accelerated at the periphery (i.e., flanking) and seaward of shoreline armoring thus compounding the loss of beach the structure was trying to protect. This area in particular was extensively studied in Romine and Fletcher, (2012) who found an almost near complete beach loss in 2006 along this particular shoreline segment. While armoring is a typical response to shoreline erosion, it was discovered that increased flanking erosion can occur as a result of shoreline armoring.

FINDINGS:

1. That the landowners did in fact, authorize, cause or allow the construction of a masonry rock wall to occur; and

2. That the unauthorized land use occurred within the State Land Use Conservation District, Resource Subzone.

AS SUCH, STAFF RECOMMENDS AS FOLLOWS:

That, pursuant to §183C-7, HRS, the Board finds the landowner in violation of §183C-7, HRS and §13-5-6 HAR, and is subject to the following:

1. The landowners are fined $10,000 in one instance for violating the provisions of §183C-7, HRS, and §13-5-6, HAR, for the unauthorized construction of a masonry rock wall by failing to obtain the appropriate approvals within the Conservation District;

2. The landowner is fined an additional $500.00 for administrative costs associated with the subject violations;

3. The landowner shall pay all designated fines and administrative costs (total $10,500) within ninety (90) days of the date of the Board’s action;

4. The landowner shall completely remove the unauthorized masonry rock wall structure and return the land to a condition as prescribed by the Chairperson within one-hundred and eighty (180) days of the date of the Board’s action; and
5. That in the event of failure of the landowner to comply with any order herein, the matter shall be turned over to the Attorney General for disposition, including all administrative costs.

Respectfully submitted,

Alex J. Roy, M.Sc., Planner
Office of Conservation and Coastal Lands

Approved for submittal:

WILLIAM J. AILA, Jr., Chairperson
Board of Land and Natural Resources

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EXHIBIT 2

Average Erosion Rate = -0.5 ft/yr

Carlson, TMK (T) 6-8-010:010
EXHIBIT 3
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EXHIBIT 4
1 INTRODUCTION

Hawaii Revised Statutes (HRS) §183C-7 was amended on July 7, 2008 to increase the maximum penalty for a Conservation District violation to up to $15,000 per violation, in addition to administrative costs, costs associated with land or habitat restoration, and damage to public land or natural resources, or any combination thereof.

This document, Conservation District Violation Penalties Schedule Guidelines and Assessment of Damage to Public Land and Natural Resources, is intended to provide the Office of Conservation and Coastal Lands (OCCL) with a framework to systematically carry out its enforcement powers, in the determination and adjudication of civil and administrative penalties. These guidelines are to be used for internal staff guidance, and should be periodically reviewed to determine their effectiveness and whether refinements are needed. These guidelines are consistent with HRS §13-I, Subchapter 7, Civil Resource Violation System (CRVS).

2 CONSERVATION DISTRICT VIOLATION PENALTIES SCHEDULE GUIDELINES

The charging and collecting of penalties is an enforcement tool that may be used to ensure future compliance, by the responsible party and similar situations. The penalty amount(s) shall be enough to ensure compliance with HRS §13-I and HAR §13-5, and cessation of illegal activities. Penalties will be assessed for each action committed by an individual(s) that conducts an unauthorized land use and that impairs or destroys natural resources protected under Chapter §183C, HRS.

The Staff will treat each case individually when assigning conservation district penalties using the following framework and additional considerations and factors for upward or downward adjustments. The Staff will use these penalty schedule guidelines to issue violation notices and to make recommendations to the Board of Land and Natural Resources (Board), Chairperson of the Board of Land and Natural Resources (Chairperson), or Presiding Officer, whom may ultimately adjudicate the Conservation District penalties. These guidelines presume that all cases in which a violation has occurred, the Chairperson, Board, or Presiding Officer may also assess administrative costs, damage to public land or natural resources, and costs associated with land or habitat restoration.

2.1 PENALTY CALCULATION

The penalty range for these actions will be substantially determined based on the type of permit that would have been required if the individual(s) had applied to the Department of Land and Natural Resources (Department) or Board for pre-authorization to conduct the identified use, under Hawaii Administrative Rules (HAR) §13-5-22, 23, 24, 25. The assessment of penalties according to the Conservation District permit type accounts for the level of review or scrutiny the unauthorized use would have received by the Department or Board in order to avoid damage to the natural resource. This graduated permit review framework corresponds to the level of actual or potential "harm to the resource" caused by the violation. Once the baseline for the penalty range has been established according to the required permit, the penalty may be adjusted appropriately upward or downward according to the "harm to resource" caused or potentially caused by the violator's action and additional considerations and factors (See 2.14).

Where Staff was unable to associate the unauthorized use with a typical land use identified in BAR §13-5, Staff may try to associate the action with the most similar identified land use in BAR §13-5, or according to the "harm to the resource" caused by the violation. Table I shows how the Staff will treat each case individually when assigning conservation district penalties using the following framework and additional considerations and factors for upward or downward adjustments.
was created to demonstrate the penalty ranges for the type of required permit and harm to resource (See 2.1.1 or Appendix A).

The first two of the following sections explain the identified and non-identified land use for a network. Then, the next four sections: Tree Removal, Additional Considerations and Factors, Continuing Violations and Permit Non-compliance, and Site Kind Penalties, provide guidance for the upward or downward adjustment of penalties based on the initial framework discussed in Section 2.1.1, identified land use penalties.

2.1.1 Identified Land Use Penalties

The violation penalty range associated with each required permit will be assessed in accordance with the following harm to resource indices in this graduated framework.

Table 1: Penalty Guide

<table>
<thead>
<tr>
<th>Harm to Resource</th>
<th>Board Permit</th>
<th>Departmental Permit</th>
<th>Site Plan Approval</th>
<th>Site Kind Permit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Minor Harm</td>
<td>Upto $1,000</td>
<td>$1,000-$2,000</td>
<td>$2,000-$5,000</td>
<td>$5,000-$10,000</td>
</tr>
<tr>
<td>Minor Harm</td>
<td>$2,000-$5,000</td>
<td>$5,000-$10,000</td>
<td>$10,000-$20,000</td>
<td>$20,000-$50,000</td>
</tr>
<tr>
<td>Moderate Harm</td>
<td>$5,000-$10,000</td>
<td>$10,000-$20,000</td>
<td>$20,000-$50,000</td>
<td>$50,000-$100,000</td>
</tr>
<tr>
<td>Major Harm</td>
<td>$10,000-$20,000</td>
<td>$20,000-$50,000</td>
<td>$50,000-$100,000</td>
<td>$100,000-$200,000</td>
</tr>
</tbody>
</table>

Violations identified with the required permit prefix (D) may incur a penalty in the range of $10,000-$15,000 as a Board permit would have been required to minimize the possibility of causing "major harm to the resource." Examples of "major harm(s) to the resource" may include actions that cause substantial adverse impacts to existing natural resources within the surrounding area, community, ecosystem, or region, or damage to the existing physical and environmental aspects of the land, such as natural beauty and open space.

Violations identified with the required permit prefix (C) may incur a penalty in the range of $15,000-$25,000 as a Departmental permit would have been required to minimize the possibility of causing "moderate harm to the resource." Examples of "moderate harm(s) to the resource" may include actions that degrade water resources, degrade native ecosystem and habitats, and/or alter the structure or function of a terrestrial, littoral, or marine ecosystem. Such actions may include, but are not limited to, unauthorized landscaping causing ground disturbance, unauthorized alteration, renovation, or demolition of existing structures or facilities, such as buildings and shoreline structures, maintenance dredging, agriculture, and animal husbandry, etc.

Violations identified with the required permit prefix (B) may incur a penalty in the range of $2,000-$5,000 as a Site Plan Approval would have been required to minimize the possibility of causing "minor harm(s) to the resource." Examples of "minor harm(s) to the resource" may include actions causing limited to short-term direct impacts including, but not limited to, small-scale construction, construction of accessory structures, installation of temporary or minor shoreline activities, etc.

Violations identified with the required permit prefix (A) may incur a penalty in the range of $500-$1,000 as a Site Kind Permit would have been required to minimize the possibility of causing "very minor harm(s) to the resource." Examples of "very minor harm(s) to the resource" may include actions causing temporary or insignificant harm to the water resource or terrestrial, littoral or marine ecosystem, which was not of a substantial nature either individually or cumulatively.

2.1.2 Non-Identified Land Use Penalties

Violations in which an unauthorized use is not identified in BAR §13-5-22, 23, 24, 25, Staff may attempt to associate the action with the most similar identified land use in HAR.

Minor Harm

Violations with the required permit prefix (B) may incur a penalty in the range of $1,000-$2,000 as a Site Plan Approval would have been required to minimize the possibility of causing "minor harm(s) to the resource." Examples of "minor harm(s) to the resource" may include actions causing limited to short-term direct impacts including, but not limited to, small-scale construction, construction of accessory structures, installation of temporary or minor shoreline activities, etc.

Very Minor Harm

Violations with the required permit prefix (A) may incur a penalty in the range of $500-$1,000 as a Site Kind Permit would have been required to minimize the possibility of causing "very minor harm(s) to the resource." Examples of "very minor harm(s) to the resource" may include actions causing temporary or insignificant harm to the water resource or terrestrial, littoral or marine ecosystem, which was not of a substantial nature either individually or cumulatively.

The violation penalty range associated with each required permit will be assessed in accordance with the following harm to resource indices in this graduated framework.
"...and the enforcement of the Conservation District laws. If the Department finds that a violation has occurred, it may impose penalties as provided in the schedules contained in HAR §13-1-72. Staff will refer to Table 3 Vegetation Removal and to the definitions of the four violation types of "harm to resource" (See Appendix B: Definitions).

2.1.3 Tree Removal
Violation penalties for the removal of any federal or state listed threatened, endangered, or commercially valuable tree may incur a fine of up to $15,000 per tree. Removal of any native tree may incur a fine of up to $1,000 per tree. The removal of any invasive tree shall be considered as removal/clearing of vegetation.

The Board, Department, or Presiding Official may also consider the removal of more than one tree as a single violation, similar to the removal/clearing of vegetation. If the violation is considered as one violation, a fine amount of up to $15,000 may be incurred, utilizing the guidelines for major, moderate, minor, and very minor outlined in this schedule. However, the removal of any federal or state listed threatened or endangered tree shall be considered on a one-violation-per-tree basis, with a maximum penalty of up to $15,000 per tree.

2.1.4 Vegetation Removal/Vegetation Clearing
Past Staff recommendations and Board decisions have treated some cases of tree or vegetation removal as one citation of vegetation clearing/vegetation removal, and this practice may be continued in violations resulting in minor or very minor harm to the resource. In accordance with the identified land uses within HAR §13-5, the assessment of vegetation removal has been based on a single citation of removal/clearing determined by the square footage of vegetation removed (See Table 3 Vegetation Removal). However, the Department of Conservation Removal (see Table 3 Vegetation Removal) may consider the removal of any vegetation or the clearing of any vegetation in accordance with the guidelines contained in HAR §13-2. The assessment of vegetation removal in connection with the removal of vegetation in connection with any other violation, such as the removal of vegetation as a result of development or non-compliance, shall be considered on a case-by-case basis, with penalties assessed as provided in the schedules contained in HAR §13-1-72. The final determination of the Department of Conservation Removal shall be based on the Department's review of the violation and the assessment of the violation.

2.1.5 Additional Considerations and Factors
After Staff applies the Conservation District violation graduated penalty framework to identify the violation penalty range (1, 2, and 3 found above), Staff may incorporate several considerations into the final assessed conservation district penalty including but not limited to, those factors identified in HAR §13-1-70 Administrative Sanctions Schedule; Factors to be Considered.

2.1.6 Continuing Violations and Permit Non-Compliance
Each day during which a party continues to work or otherwise continues to violate conservation district laws, and after the Department has informed the violator of the offense by verbal or written notification, the party may be penalized up to $15,000 per day (penalties for every day illegal actions continue) by the Department for each separate offense.
Violation of existing approved Conservation District Use Permit (CDUP) conditions will be assessed on a case-by-case basis. Existing permit violations, in which deadlines are not met, may be individually assessed by Staff as to prior violator conduct, knowledge, and compliance. Violation of permit conditions involving initiation and/or completion of project construction, notification of start and completion dates, failure to file project documents, etc., may be considered very minor within the existing framework, although it should be noted that such actions may result in permit revocation. Failure to perform proper cultural, archeological, or environmental studies or failure to implement proper best management practices as identified in the standard permit conditions may be assessed more severely by Staff, as a moderate or major harm to the resource, due to the potential of greater adverse impacts from the violator's failure to comply with the permit conditions, may have occurred.

2.1.7 In-Kind Penalties

Once the penalty amount has been established through the framework above, the Department may determine that the full payment or some portion of the penalty may be paid as an in-kind penalty project. This would not serve as a way to avoid payment but as a way to reduce the cash amount owed while allowing the Department to consistently enforce its rules. The in-kind penalty project is not designed to credit the violator for restoration or remediation efforts that may be already required, but to offset a portion of the cash penalty assessed. The in-kind penalty should be used to ensure future compliance with HAR §13-5 and HRS §183C by the violator and to deter other potential violators from non-compliance.

In-kind penalties will only be considered if (1) the responsible party is a government entity, such as a federal agency, state agency, county agency, city agency, university, or school board, or (2) the responsible party is a private party proposing an environmental restoration, enhancement, information, or education project. In-kind penalties are limited to the following specific options:

a. Material and/or labor support for environmental enhancement projects. The Department will give preference to in-kind projects benefitting proposed government-sponsored environmental projects. For shoreline violations, this may include state beach nourishment projects and dune restoration projects.

b. Environmental Information and Environmental Education projects. Any information or education project proposed must demonstrate how the information or education project will directly enhance the Department's and/or the public's use, access, or ecological value of the conservation property.

c. Capital or Facility improvements. Any capital or facility improvement project proposed must demonstrate how the improvement will directly enhance the Department's and/or public use of the conservation property.

Property. A responsible party may propose to donate land to the Department as an in-kind penalty. Donations will be handled by the Department's Legacy Lands Program or a similar program.
2.1.8 Penalty Adjudication

Assessment of Damage to Public Land or Natural Resources

Violation penalties may be adjudicated similarly to the harm to resource indices in the penalty guideline framework.

<table>
<thead>
<tr>
<th>Harm to Resource</th>
<th>Penalty Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major</td>
<td>$15,000 - $25,000</td>
</tr>
<tr>
<td>Moderate</td>
<td>$10,000 - $15,000</td>
</tr>
<tr>
<td>Minor</td>
<td>$5,000 - $10,000</td>
</tr>
<tr>
<td>Very Minor</td>
<td>$2,000 - $5,000</td>
</tr>
</tbody>
</table>

The Board may adjudicate penalties to violations categorized as causing or potentially causing major or moderate harm(s) to the resource. The Board may also adjudicate cases in which repeat violations, repeat violators, or egregious behavior were involved, or moderate to significant actual harm to the resource occurred.

The Board may require the payment of part or all of the penalty as part of an in-kind penalty.

Penalties for minor or very minor harm to the resource may be assessed in addition to Conservation District violation penalties assessed by the aforementioned guidelines. The assessed total value of the initial and interim natural resource(s) damaged or lost (compensatory damages) and the cost of restoration or replacement of the damaged resource(s) (primary restoration cost) along with other appropriate factors, including those named in HAR §13-1.70, may be adjudicated by the Board. The total value may be estimated on a per annum basis, and then be used to calculate the net present value of the initial and interim losses of the resource.

The cost of a full-scale damage assessment by the Department would be an administrative cost, which may be recouped by the Board from the landowner or lessee. In some cases, the damage to public lands or natural resources may occur on more than one ecosystem or habitat (e.g., sandy beaches, seagrass beds, and coral reefs). In such instances, damages to all impacted ecosystems will be handled cumulatively.

Since all the ecosystem services provided by the ecosystem in question cannot be quantified (e.g., the aesthetic value), the values obtained are lower bound estimates, and may be applied to systems similar to the referenced ecosystem using the benefit transfer method. These evaluations, to account for the loss of ecosystem services and the cost to restore them, may be obtained from the referenced ecosystems using the benefit transfer method.
economicecosystemvaluations,andotherpublishedenvironmentalvaluationsto estimateandassessdamagesonsmallerscales.(forvaluationsandpublicationexamples seeAppendixC:ReferencesandAppendixD:DamagesExamples).Usingthebenefit transfermethodtoapplypastprecedentsandpublishedvaluationsinsomesituations wouldallowthedepartmenttofocusitsadministrativedutiesandtimemonetizedonremediation andrestorationefforts.However,asecologicalvaluationandresearchcontinue,more comprehensiveestimatesmaybeproducedandutilized.

TheBoardmayallowrestorationactivitiessnddamagepenaltiestobeconductedandlor appliedtoasitedifferentfromthelocationofthedamagedarea.wheresimilarphysical, biologicalandforculturalfunctionsexist.Theseassesseddamagesareindependentof other,city,county,stateandfederalregulatorydecisionsandadjudications.Thus,themoneyremediesprovidedinHRS§183C-7arecumulativeandinadditiontoanyother remediesallowedbylaw.

3.1 PRIMARY RESTORATION DAMAGES


3.3 COMPENSATORY DAMAGE CALCULATION

Compensatory damagesshouldbeassessedandchargedtosupporttherestorationof damagedecosystemsandhabitatssupportingaregionalecosystemservicebalance. TheBoardmayallowrestorationactivitiessnddamagepenaltiestobeconductedandlor appliedtoasitedifferentfromthelocationofthedamagedarea.wheresimilarphysical, biologicalandforculturalfunctionsexist.Theseassesseddamagesareindependentof other,city,county,stateandfederalregulatorydecisionsandadjudications.Thus,themoneyremediesprovidedinHRS§183C-7arecumulativeandinadditiontoanyother remediesallowedbylaw.

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estimated as thenumber of years for the damaged natural resource or ecosystem to reach maturity and/or the ecosystem structure and function to be restored similar to the pre-violation state. The discount of future losses and accrued benefits may be used in the valuation of mitigation efforts performed by the violator. For example, restoration conducted immediately after damage occurred may be calculated to have a higher present benefit worth than the benefit of restoration activities undertaken a year or two later.

In other instances, a habitat equivalency analysis (H-EA) or a resource equivalency analysis (R-EA) may be used to scale equivalent habitat or wildlife losses for estimating both ecosystem damage penalties and restoration efforts.

3.3 ADJUDICATION OF DAMAGES

The adjudication of primary restoration damages and compensatory damages will be adjudicated by the Board due to the complexity of the assessment process and to assure proper checks and balances, including adequate public notice and a public hearing. In addition to the damages and penalties assessed, the Department is allowed to recoup all administrative costs associated with the alleged violation pursuant to FIRS §183C-7(b). All penalties assessed will be in compliance with FIRS §183C-7(e) and will not prohibit any person from exercising native Hawaiian gathering rights or traditional cultural practices.
APPENDIX B: Definitions

Definitions:

(I) "Baseline" means the original level of services provided by the damaged resource.

(2) "Benefit Transfer Method" estimates economic values by transferring existing benefit estimates from studies already completed for another location or issue.

(3) "Board" means the Board of Land and Natural Resources.

(4) "Board Permit" means a permit approved by the Board of Land and Natural Resources.

(5) "Chairperson" means the chairperson of the board of land and natural resources.

(6) "Civil Resource Violations System" or "CRVS" means a system of administrative law proceedings as authorized under chapter 199D, HRS, and further prescribed in Subchapter 7, 13-I, HAR, for the purpose of processing civil resource violations.

(7) "Compensatory Damages" means damages for compensation for the interim loss of ecosystem services to the public prior to their recovery.

(8) "Contested Case" means a proceeding in which the legal rights, duties, or privileges of specific parties are required by law to be determined after an opportunity for an agency hearing.

(9) "Department" means the Department of Land and Natural Resources.

(10) "Departmental Permit" means a permit approved by the Chairperson.

(11) "Discounting" means an economic procedure that weights past and future benefits or costs such that they are comparable with present benefits and costs.

(12) "Ecosystem Services" means natural resources and ecosystem processes, which may be valued according to their benefits to humankind.

For example: carbon sequestration, climate regulation, nutrient cycling, plant and/or wildlife habitat, biodiversity, air and water purification, erosion control, coastal protection, the loss of benefit to tourism, recreation, scientific discovery, fisheries, society, cultural practices, and any other services which may be valued.

(13) "Grossly Negligent" violation means conscious and voluntary acts or omissions characterized by the failure to perform a manifest duty in reckless disregard of the consequences.

(14) "Harm to Resource" means an actual or potential impact, whether direct or indirect, short or long term, acting on a natural, cultural, or social resource, which is expected to occur as a result of unauthorized acts of construction, shoreline alteration, or landscape alteration, as defined as follows:

(a) "Major Harm to Resource" means a significant adverse impact(s), which can cause substantial adverse impact to existing natural resources within the surrounding area or community or region, or damage the existing physical and environmental aspects of the land, which are natural, cultural, or social resources.

(b) "Moderate Harm to Resource" means an adverse impact(s), which can degrade water resources, degrade native ecosystems and habitats, and/or reduce the structure or function of a terrestrial, littoral, or marine system (but not to the extent of those previously defined as those in (a)).

(c) "Minor Harm to Resource" means limited to short-term direct impacts from small-scale construction or shoreline or vegetation alteration activities.

(d) "Very Minor Harm to Resource" means an action in which the impact on the water resource or terrestrial, littoral, or marine ecosystem was insignificant, and was not of a magnitude or extent of a substantial nature either individually or cumulatively.

For example: "major harm to the resource(s)" would be associated with a major land use violation that would likely require a Board Permit, such as building a house, while a "minor harm to the resource(s)" might be the illegal dumping of waste.

Definitions adapted from Florida Department of Environmental Protection.

section (2) Inspection Director, pursuant to the provisions of law and rules, shall authorize inspection of any green building project located within the jurisdiction of the Board.

section (3) Homeowner or developer, upon request, may be required to provide the Board with information related to the project.

section (4) Homeowner or developer, upon request, may be required to provide the Board with information related to the project.

section (5) Homeowner or developer, upon request, may be required to provide the Board with information related to the project.

section (6) Homeowner or developer, upon request, may be required to provide the Board with information related to the project.

section (7) Homeowner or developer, upon request, may be required to provide the Board with information related to the project.

section (8) Homeowner or developer, upon request, may be required to provide the Board with information related to the project.

section (9) Homeowner or developer, upon request, may be required to provide the Board with information related to the project.

section (10) Homeowner or developer, upon request, may be required to provide the Board with information related to the project.

section (11) Homeowner or developer, upon request, may be required to provide the Board with information related to the project.

section (12) Homeowner or developer, upon request, may be required to provide the Board with information related to the project.

section (13) Homeowner or developer, upon request, may be required to provide the Board with information related to the project.

section (14) Homeowner or developer, upon request, may be required to provide the Board with information related to the project.
(15) "Knowing" violation means an actor or omission done with awareness of the nature of the conduct.

(16) "Net Present Value" means the total present value (PV) of a time series of cash flows.

(17) "OCCL Administrator" means the Administrator of the Office of Conservation and Coastal Lands.

(18) "Party" means each person or agency named or admitted as a party.

(19) "Person" means an appropriate individual, partnership, corporation, association, or public or private organization of any character other than agencies.

(20) "Presiding Officer" means the person conducting the hearing, which shall be the chairperson, or the chairperson's designated representative.

(21) "Primary Restoration Damages" means the cost to restore the damaged site to its prior baseline state.

(22) "Site Plan" means a plan drawn to scale, showing the actual dimensions and shape of the property, the size and location on the property of existing and proposed structures and open areas, including vegetation and landscaping.

(23) "Wilful violation" means an actor or omission which is voluntary, intentional, and with the specific intent to commit the act or omission which is prohibited, forbidden, or required by the law.

APPENDIX C: REFERENCES


APPENDIX B: DAMAGE EXAMPLES

Maine Land-Use Regulation Commission. 2007. 2008 Workshop Draft Comprehensive Examples of Damage Assessments and Possible Remedial Efforts. Land Use Plan; for areas within the jurisdiction, http://www.maine.gov/doc/iwrc/rwcl/rucl1uprev/CLUP_PWDraft/pg5.shtml. The following are only brief past estimates used in Hawaii and other states; they are by no means comprehensive or limiting. These are intended to be examples for possible assessments of natural resources and ecological, economic, and cultural impacts.

The following are organized by habitat type:

Coral

Florids Department of Environmental Protection (Civil Damages: The DEP can impose fines of up to $1,000 per m² of coral reef damaged and is dependent on the absence of extenuating circumstances such as weather conditions, disregard of safe boating practices, navigational error, whether the vessel operator was under the influence of drugs or alcohol, etc.).

Cespric 2002 (Ecosystem Service Valuation). Cesaretal. used a Simple Coral Reef Economic Model (SCREM) to assess the annual benefits of coral reefs in terms of recreation/tourism, property, and recreation. The annual benefits and total economic value could then be expressed in terms of the annual benefits of the coral reefs to recreation/environments. The following coral reef examples are based on the annual benefits of the coral reefs to recreation/environments.

Coral in Hanauma Bay (2007 Economic Assessment) (Economic Value)

The following are only brief past estimates used in Hawaii and other states; they are by no means comprehensive or limiting. These are intended to be examples for possible assessments and remedial efforts. As previously stated each case will be handled individually to account for unique ecological, economic, and cultural impacts.

Coral reef ecosystem damage was assessed for remediation activities according to Floridas guidelines, as $5,830,000 for 5,380 m² of coral reef damage. This calculation
Wassimilartotheestimatedcostofremediationefforts $390,000 to clean 5,000 yd^3 of beachesand. However between 30,000-50,000 yd^3 was estimated to be impacted, totaling $2,300,000 - $3,900,000. While cleaning these sediment was estimated to cost approximately $845,000 (for the 13 acres, or $65,000 for 10 m^2). This totaled between $3,100,000 and $4,700,000, and did not include coral colony re-establishment. An additional $630,000 was estimated for the 10-year monitoring period, (however studies by Cesare et al. 2003 estimated a 25-year period for recovery of ecological impacts).

Thus damage to corals may be calculated as follows:

\[
\text{Number of square meters of coral damaged} \times \frac{\text{Multiplied by $1,000 (or estimated value of coral on per/are basis)}}{\text{(or $1,000)}}
\]

\[\text{Plus estimated net present value of ecosystem services lost until recovery. (This may be more if damage to an area such as Hanauma Bay with increased recreational economic value.)}\]

\[\text{Pluses cost of Remediation}\]

\[\text{Plus cost of cleaning sediment from reef}\]

\[\text{Plus cost of cleaning sediment/mud from beach sand}\]

\[\text{Plus cost of coral reestablishment}\]

\[\text{Plus cost of Monitoring}\]

\[\text{Plus cost of Management}\]

Minimumpenaltycostofrestorationandpotentialnegativeecological,socialand
environmentalimpactsshouldbeincludedintheassessmentof damaged, degraded or lost sandy beaches. As one of Hawaii's greatest natural resources should be included in the minimumpenalty assessment, however, as ecological valuation and research continue, more comprehensive estimates may be produced. In KA-02-10 Pilaa, $390,000 was estimated to clean 5,000 yd^3 of beach.

The Florida DEP fines offenders $100/yd^2 of damaged seagrass beds for the first yd^2 damaged and $75/yd^2 of each additional yd^2 damaged.

\[\text{$100 for the first yard damaged}\]

\[+ \text{+$75 per each additional yard}\]

\[\text{Plus cost of lost revenue due to altered beach resources (compensatory)}\]

\[\text{Plus cost of beach nourishment (sand replacement)}\]

\[\text{Plus cost of native dune vegetation}\]

\[\text{(In some circumstances the loss of beach resources may be assessed in conjunction with other ecological impacts listed above, such as coral reefs and sea grass beds.)}\]
1. Did the violation result in economic or commercial gain through non-compliance?

2. Was the violation repetitive and exhibit a level of cooperation with the Department?

3. Does the violator have a history of violations?

4. Was the violation repetitive or of a long duration?

5. Was the violator Responsive and exhibit a level of cooperation with the Department?

6. Does the violator have a history of violations?

7. Actual environmental damage extent (onsite)

8. Actual environmental damage extent (offsite)

9. Potential Environment and Restrictions (agree rates applicable adjustments and

10. Penalty Total:

11. Penalty Adjustments and Descriptions (please attach additional adjustments and descriptions, including but not limited to those listed in §I:4-I:7)

12. Total adjustment:

13. Multi-day penalties

Number of days to multiply penalty:__

14. Totalmulti-days:

Part 1 - Penalty

Departments and Members

Date

Total

Appendix: Penalty Calculation Worksheet

APPENDIX E: PENALTY SHEET
All parcels have armored shorelines.

Subject Parcel