FISCAL YEAR 2018 – 2019

OFFICE OF PLANNING

REPORT TO THE THIRTIETH LEGISLATURE
REGULAR SESSION OF 2020

Prepared by

OFFICE OF PLANNING
DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT & TOURISM
STATE OF HAWAIʻI

This report satisfies Sections 205A-3(4), (7), and (10) Hawaiʻi Revised Statutes, 201-18(e) Hawaiʻi Revised Statutes, and Act 100, Session Laws of Hawaii 1999

Honolulu, Hawaiʻi
December 2019

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*This report is available at the Hawaiʻi DBEDT website: http://dbedt.hawaii.gov/overview/annual-reports-reports-to-the-legislature/

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I. PURPOSE AND HIGHLIGHTS

Hawai‘i Revised Statutes (HRS) Sections 205A-3(4), (7), and (10) and Section 201-18(e) requires the preparation of an annual report on the Hawai‘i Coastal Zone Management (CZM) Program and the Hawai‘i Brownfields Cleanup Revolving Loan Fund (HBCRLF) for submittal to the Governor and the Legislature. Due to the integrated nature of statewide planning, this report describes the CZM Program, the HBCRLF and OP's office wide activities and accomplishments for the period July 1, 2018 to June 30, 2019.

OP's mission is to provide central direction and cohesion in the allocation of resources and effectuation of State activities and programs, and effectively address current or emerging issues and opportunities. The following are highlights of how we achieved our mission for the period July 1, 2018 to June 30, 2019.

OP by the Numbers	Reports Published: 3
	Activities and Accomplishments: 21
	Federal Consistency reviews: 38
	GIS Agency Users: 500+

The following further details the highlights for the period July 1, 2018 to June 30, 2019.

Reports Published:

- *Revised State Strategic Plan for Transit-Oriented Development (TOD), August 2018*
- *Building Code Amendments to Reduce Existing and Future Building Stock Vulnerability To Coastal Hazards and Climate Impacts In the City and County of Honolulu, October 2018*
- *Assessing the Feasibility and Implications of Managed Retreat Strategies for Vulnerable Coastal Areas in Hawai‘i, February 2019*
- *Waipahu Transit-Oriented Development Collaboration, August 2019*

Activities and Accomplishments:

CZM Program

- Participated and supported the Hawai‘i Association of County Building Officials (HACBO) annual conference.
- Continuation as lead for the Ocean Resources Management Plan (ORMP) coordination for implementation, including legislative briefing in January 2019.
- As Co-chair with DLNR, participated and supported the Climate Change Mitigation & Adaptation Commission (meetings and Climate conference).
- Organized the formation and Chaired the statewide Greenhouse Gas Sequestration Task Force (GHGSTF) meeting on 2/28/19.
- Continued support of the Marine and Coastal Zone Advocacy Council (MACZAC).

Geographic Information Systems (GIS) Program

- Developed a mobile application to enable the Division of Conservation and Resources Enforcement (DOCARE) officers to identify relevant location-based information in the field to facilitate identification of encroachments or land use violations.
- Increased the use of GIS data, tools, and resources in the Hawai‘i Emergency Management Agency (HI-EMA) following the 2018 hurricanes and the Kīlauea eruption event.
- Managed the Esri Enterprise Agreement, funded by Office of Enterprise Technology Services (ETS), which provides unlimited desktop and server GIS software licenses to state employees, and an online mapping platform, ArcGIS Online (AGOL)
- Managed the State's online mapping platforms with over 600 state agency users
- Maintained the State GIS database, which contains over 300 data layers

Special Plans Branch: State Sustainability Coordinator

- Participated in the United Nations Sustainable Development Summit and "High-Level Local and Regional Governments' Forum"
- Hosted, managed, and coordinated the State of Hawai‘i's Carbon Offset Symposium, held at the Hawai‘i State Capitol Auditorium on April 10, 2019, to inform the investigation of the *Feasibility and Implications of Establishing a Carbon Offset Program for the State of Hawai‘i*, pursuant to Act 16, Session Laws of Hawai‘i (SLH) 2018
- Launched the State of Hawai‘i's sustainability webpage, hosted on the OP website (http://planning.hawaii.gov/sustainability/)
- Presented Hawai‘i sustainability goals, targets, and laws to the Pacific Building Trade Expo, the U.S. Green Building Council's International Greenbuild Conference and Expo, the State Land Use Commission, the State Procurement Office's annual procurement conference
- Provided public presentations and updates on the investigation of the Carbon Offset Program to the GHGSTF and the Hawai‘i Climate Change Mitigation and Adaptation Commission
- Significant progress towards development of *Feasibility and Implications of Establishing a Carbon Offset Program for the State of Hawai‘i* report, on track to be finalized December 2019 per legislative mandate

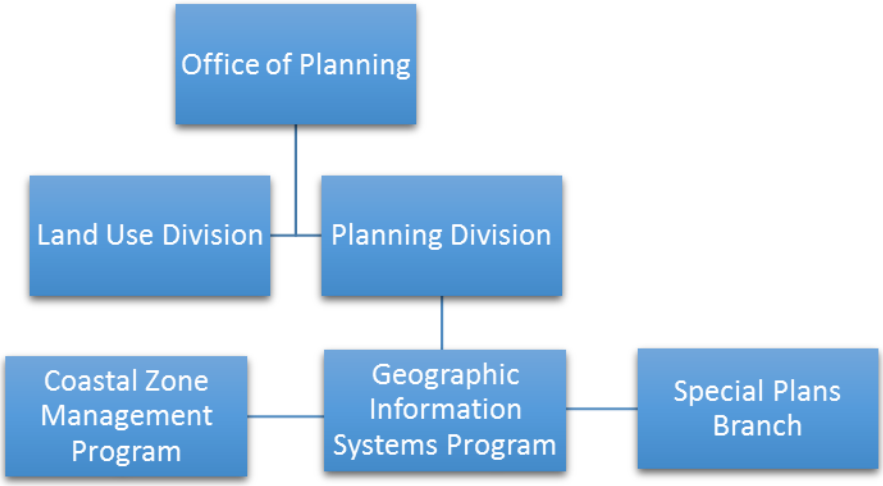
Land Use Division

- Provided review and State's position/comment on matters related to Land Use Commission (LUC) dockets
- Provided staff support to the Hawai‘i Interagency Council for Transit-Oriented Development (TOD Council) which includes State and county agencies and community, business, and development representatives
- Conducted a Public-Private Partnership Work with ULI Hawai‘i to provide State and county agencies with education and training on development planning and financing.
- Coordinated the work of the master planning consultant team undertaking the State TOD Planning and Implementation Project to develop preferred land use scenarios, infrastructure assessments and costs, and financing programs for TOD priority areas.

- Prepared staff support for inquiries and program activities related to the Hawai‘i Brownfields Cleanup Revolving Loan Fund (HBCRLF) Program and its State and county partners.

II. INTRODUCTION

OP gathers, analyzes, and provides information to the Governor to assist in the overall analysis and formulation of state policies and strategies. The purpose of OP is to (1) provide central direction and cohesion in the allocation of resources and effectuation of State activities and programs, and (2) effectively address current or emerging issues and opportunities. OP works closely with county, state, and federal governmental agencies; the University of Hawai‘i; and various community stakeholders to achieve these objectives.



OP is divided into two divisions, the Land Use Division (LUD) and Planning Division, with programs within each division interacting extensively and relying upon the expertise of each program to provide a comprehensive bank of resources and an integrated statewide planning system. This integrated collaboration concept is necessary for expediency and consistency in meeting OP’s mission and responsibilities. In a comprehensive planning manner, all programs within OP share the responsibility of preparing legislation and testimony on bills and resolutions, ensuring program integration within OP and the State; coordinating with local, state, and federal governments and community stakeholders; and providing the administration with planning expertise.

A. Program Administration

OP provides guidance in the development of Hawai‘i through a continuous process of comprehensive, long-range, and strategic planning. The purpose of this planning process is to meet the physical, economic, and social needs of Hawai‘i’s people, and provide for the wise use of Hawai‘i’s resources in a coordinated, efficient, and economical manner. This includes the conservation of natural, environmental, recreational, scenic, historic, and other limited and irreplaceable resources which are required for future generations. The statutory authority of the OP is derived from HRS Chapters 205, 205A, 225M and 226. HRS Chapters 225M and 226 are summarized below, with HRS Chapters 205 and 205A summarized under the LUD and CZM Program sections, respectively.

HRS Chapter 225M, State Planning. This statute spells out the core functions of OP. The OP is charged by the legislature with ten specific activities: (1) state comprehensive planning and program coordination, (2) strategic planning, (3) planning coordination and cooperation, (4) statewide planning and geographic information system, (5) land use planning, (6) coastal and ocean policy management, (7) regional planning and studies, (8) regional, national, and international planning, (9) climate adaptation planning, and (10) smart growth and transit-oriented development.

HRS Chapter 226, Hawai‘i State Planning Act. Under this Act, OP is charged with providing technical assistance in administering the Act. The Hawai‘i State Planning Act was adopted in 1978 for the following purposes: (1) improve the planning process in the State, (2) increase the effectiveness of government and private actions, (3) improve coordination among different agencies and levels of government, (4) provide for wise use of Hawai‘i's resources, and (5) guide the future development of the State.

B. Funding and Management

OP manages federal and state funds in order to implement its statutory requirements. Due to the reduction of general funds and general funded staff overtime, OP has not been able to leverage additional federal grant opportunities without additional general fund appropriations or in-kind contributions from third-party, non-federally-funded partners. During this reporting period, approximately 60 percent of the funds appropriated to OP in the General Appropriations Act of 2018 for FY 2019 came from federal sources.

National Oceanic and Atmospheric Administration (NOAA)

The CZM Program receives Coastal Zone Management Act of 1972 (CZMA) funds which are dispersed annually through federal cooperative agreement awards from the National Oceanic and Atmospheric Administration (NOAA) for basic program administration.

- **Section 306 - Program Administration:** During this reporting period OP received approximately $2,308,651.00 in NOAA Section 306 grant funds. These funds require a one-to-one non-federal match and supports State and county CZM Program personnel and important projects. A limited amount of State general funds to help match the federal funds is provided in the State budget. These funds are primarily utilized to underwrite most Hawai‘i CZM Program administrative costs. However, due to the significant reductions in State general funds, Hawai‘i requires the use of other non-federal funds and services-in-kind to meet the match requirement. The decline in State matching general funds has been raised as a concern by the federal government. The State's reliance on federal funds for State civil service positions is a major federal concern because it detracts from using federal CZM funds for priority Program-related projects.

- **Section 309 - Coastal Zone Enhancement Grants:** During this reporting period, OP received approximately $151,000 in NOAA Section 309 enhancement grants. This grant program encourages states to develop program changes in one or more of the nine designated coastal zone enhancement areas to achieve certain national objectives. The

enhancement areas include wetlands, public access, coastal hazards, cumulative and secondary impacts, energy and government facility siting, marine debris, ocean resources, special management planning, and aquaculture. Although Section 309 funds do not require a state match, they must be used for activities that enhance specified CZMA objectives which result in a measurable program change (i.e., amendment of rules, laws, etc.).

- **Section 310 - Technical Assistance:** Through the Section 310 Technical Assistance grant, Congress appropriates 1:1 matching funds to help state CZM Programs gain approval and implement their Coastal Nonpoint Pollution Control Program (CNPCP). Since 2009, Congress has not appropriated funds to this federal program, however, the CZM Program continued to expend Section 306 funds to obtain approval of the federally-approved management measures of the State's CNPCP.

In addition to the NOAA CZM federal funds, OP managed additional Section 309 - Coastal Zone Enhancement Grants. These Section 309 grants are competitively funded Projects of Special Merit (PSM) which support innovative projects that further local enhancement area strategies and focus on national priorities.

- **Section 309 – Enhancement Grant funds for the Development of High Resolution Probabilistic Tsunami Design Zone Maps:** During this reporting period, OP continued management of an award for $245,000 from NOAA to develop high resolution probabilistic Tsunami Design Zone maps for the City and County of Honolulu to use in accordance with the International Building Code (IBC) 2018 / American Society of Civil Engineers (ASCE) 7-16 tsunami loads and effects design standards. The award, for a multi-phase and multi–year endeavor, will result in maps covering the City and County of Honolulu to mitigate tsunami risk to coastal zone construction and define the coastal zones where structures of greater importance will be designed for tsunami resistance and community resilience, leading to better consideration of siting and design of critical facilities and infrastructure.

- **Section 309 – Enhancement Grant funds for update the Hawai‘i Historical Shoreline Database: Modeling Past Present and Future Shoreline Change in Order to Empower Coastal Zone Management Agencies to Assess and Analyze Shoreline Management Policies for Greater Coastal Resilience**: During this reporting period, OP continued management of an award for $225,000 from NOAA to perform two phases of work: 1) use current aerial imagery to update the Hawai‘i historical shoreline database and model updated historical rates of change in support of existing policies, and; 2) apply the updated rates to developing revised projections of future erosion probability for the major sandy portions of shoreline on Maui, O‘ahu, and Kaua‘i. These products will form the basis for discussions, planning, and potential new policies in recognition of rising sea level and the need for adaptation, hazard avoidance, and improved community resilience.

In addition to the CZM and NOAA federal funds, OP managed federal monies for economic development and general monies for capital improvement projects.

Economic Development Administration (EDA)

- **Economic Adjustment Assistance - Integration of Innovation Industries into the State Transit-Oriented Development (TOD) Plans:** OP continued activities for management of the $130,000 EDA grant to support the targeted emerging growth cluster industries identified in the 2016-2020 Hawai‘i Statewide CEDS.

Capital Improvement Projects (CIP)

- In FY 2016-17, the Legislature appropriated $500,000 in CIP funds to OP for TOD projects on O‘ahu providing funding for site master planning for State lands in TOD areas that have TOD potential, infrastructure assessments, and planning for infrastructure improvements in areas where multiple agencies are involved. During 2019, OP continued to coordinate and manage the delegation of the funds with DAGS/Stadium Authority, DLNR and UH. The UH TOD study for Honolulu Community College was completed in April 2019.

- In FY 2017-18, the Legislature appropriated $250,000 in CIP funds to OP for a project that will deliver proof of concept plans and design for collaboration and coordination which may be implemented at other rail station sites. During 2019, OP continued to manage the Memorandum of Understanding (MOU) with the University of Hawai‘i Community Design Center (UHCDC) to complete a study of the TOD interagency communication, community engagement, research, planning, design, and funding process as well as an in-depth, multi-scalar, and multi-disciplinary study of the Waipahu TOD area itself. The Waipahu TOD area acts as a pilot region and problem field to establish an applied research and design framework that support a macro to micro level system-based approach that better informs the funding of capital improvement projects moving forward.

- In FY 2017-18, the Legislature appropriated $250,000 in CIP funds to OP for a project that will deliver proof of concept plans and design for resilience and connectivity study of the urban coastal area of the south shore of O‘ahu from Diamond Head to Pearl Harbor. During 2019, OP continued to manage the MOU with UHCDC to identify three catalytic project sites. For these sites, the project team would develop urban-design-scale site research, planning, and proof of concept designs for proposed interventions.

- In FY 2017-18, the Legislature appropriated $1,000,000 in CIP funds to OP for master planning, site planning and infrastructure assessments for State agency transit-oriented development projects near proposed rail stations. During 2019, OP coordinated consultant work on the development of a State TOD Master Plan for TOD project implementation and investments on State lands along the Honolulu Rail Transit Project’s rail line on O‘ahu.

Other Appropriations

- On June 4, 2018, Governor David Ige signed into law Act 15, SLH 2018, establishing the Greenhouse Gas Sequestration Task Force appropriating $150,000 to fund the task force and its related efforts. During 2018, OP managed the expenditures for the Task Force.

- On June 4, 2018, Governor David Ige signed into law Act 16, SLH 2018, requiring the OP in partnership with the GHGSTF to establish a framework for a carbon offset program, report to the Legislature with an appropriation of $150,000 to investigate and establish the carbon offset program. During 2018, OP managed the expenditures for the development of the carbon offset program.

- In 2005, the U.S. EPA established the Hawai‘i Brownfield Cleanup Revolving Loan Fund (HBCRLF) to facilitate assessment, cleanup, and redevelopment of contaminated property. OP staff continues to provide program and administrative support to manage the $2 million fund that provides low and no interest loans to cleanup brownfields properties.

  The table below summarizes financial transactions for the HBCRLF Special Fund, Appropriation Symbol, S 359 B, for Fiscal Years 2018, 2019, and 2020 to date.

Table 1 - HBCRLF Special Fund Revenues and Expenditures

	FY 2018	FY 2019	FY 2020 (to date)
Beginning Cash Balance	$ 987,582.73	$ 1,535,246.47	$ 1,535,233.33
Fees	0	0	0
Repayment of Principal	547,675.42	0	0
Interest on loans	0	0	0
Interest	0	0	0
Expenditures	11.68	13.14	0
Ending Cash Balance	$ 1,535,246.47	$ 1,535,233.33	$ 1,535,233.33

III. PLANNING DIVISION

The Planning Division of OP includes the Coastal Zone Management (CZM) Program, Geographic Information Systems (GIS) Program, and the Special Plans Branch (SPB). A summary of each program, together with the program's activities and accomplishments for the reporting period is provided below.

A. Coastal Zone Management Program

Authority: HRS Chapter 205A, Coastal Zone Management
HRS Section 225M(2)(b)(6), Coastal and Ocean Policy Management.

The CZM Program was enacted as the State's policy umbrella for facilitating and assuring interrelated and comprehensive coastal resource management. The CZM Program is the guiding perspective for the design and implementation of allowable land and water uses and activities throughout the State.

OP is the lead agency under the federal Coastal Zone Management Act of 1972, as amended (CZMA). The CZM Program is funded through a cooperative agreement with the NOAA, Office for Coastal Management (OCM). The CZM Program provides guidance and funding to counties to support their administration of the special management area permitting process, prepares and updates the ORMP, and evaluates federal actions for compliance with the CZMA.

Federal Consistency Program

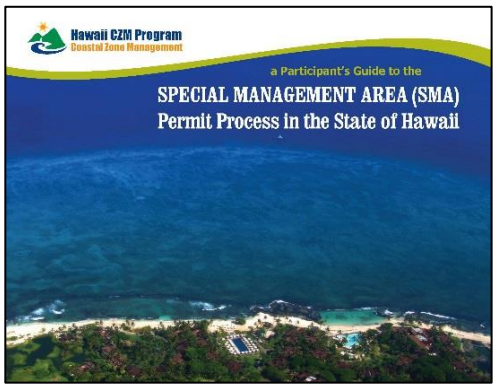
The CZMA requires federal agencies to conduct their planning, management, development, and regulatory activities in a manner consistent with federally-approved state CZM programs. The informational and procedural requirements for CZM federal consistency reviews are prescribed by federal regulations.

Major Federal Consistency Reviews
(July 2018 – June 2019)

- US Navy Hawai‘i-Southern California Training and Testing Activities within the Hawai‘i Range Complex (Federal Activity)
- Ala Wai Canal Dredging and Improvements (Federal Permit)
- O‘ahu Stream Maintenance Activities (Federal Permit)

Because there is a significant federal presence in Hawai‘i, federal consistency is a valuable State management tool. Federal planning, regulatory, and construction activities may have direct and significant effects on land and water environments statewide. The range of federal activities and permits reviewed is extensive and includes harbor projects, beach nourishment projects, military facilities and training exercises, fisheries management plans and regulations, open ocean aquaculture, and dredge and fill operations. In addition, projects funded by certain federal grant programs are reviewed for potential impacts to CZM resources and uses. During this reporting period the major Federal Consistency Reviews include the US Navy Hawai‘i-Southern California Training and Testing Activities within the Hawai‘i Range Complex (Federal Activity); the Ala Wai Canal Dredging and Improvements (Federal Permit); and O‘ahu Stream Maintenance Activities (Federal Permit).

Special Management Area (SMA) and Shoreline Area



The CZM Program is the lead agency in the administration and management of the SMA, and is responsible for monitoring and enforcing SMAs. The SMA permitting system is part of the CZM Program approved by NOAA and the State. Under Parts II and III of HRS Chapter 205A, the counties administer the SMA permit and shoreline setback variance (SSV) approval systems. Development in the SMA requires a permit from the county authority, except in a Community Development District (CDD) where the SMA Use Approval is administered by OP (Kakaʻako in urban Honolulu and Kalaeloa in West Oʻahu). The SMA Use Approval is a management tool used to ensure that development in geographically designated SMAs is designed and carried out in compliance with the CZM Program objectives and policies (HRS Section 205A-2) and SMA Guidance (HRS Section 205A-26).

Citizen Participation

Public participation and outreach is an ongoing CZM Program activity. For example, participation in numerous organizations, events, and conferences continues to educate others of the CZM Program's perspective about public involvement in integrated ocean and coastal resource management. Citizen involvement is important because stewardship is essentially a community function, and success in resource planning and management is enhanced with community partnerships.

Office of Planning Website: The OP website (http://planning.hawaii.gov) is continually updated and provides important information and resources about OP's initiatives and projects. OP also has a Facebook page (OfficeofPlanning.HIgov). This social media tool is used for posting announcements about projects that OP is working on or documents that are available online.

Sponsorship and Participation: The CZM Program utilizes resources to sponsor and participate in various projects to enhance citizen participation and encourage compliance with the statutory mandates. The following projects were completed during this reporting period:

My Hawaiʻi Story Project 2019 - An Anthology – the CZM Program funded the printing of this annual publication of the Hawaiʻi Conservation Alliance Foundation. This collection of stories and poems about Hawaiʻi's environment is written by Hawaiʻi middle school students. The project promotes collaboration and stewardship by developing education and outreach programs to educate residents and visitors on natural and cultural resource values, and best practices.

Outreach, education, and presentations on the CZM Program and its initiatives were presented to a wide variety of audiences at various events, some of which include:

- Marine and Coastal Zone Advocacy Council (MACZAC)
- Coastal States Organization (CSO) Annual Membership meetings

Marine and Coastal Zone Advocacy Council: HRS Section 205A-3(6), established a formal public participation component in the CZM Program. To further this aim, MACZAC was established as a public advisory body to identify coastal management problems, and to provide advice and assistance to the CZM Program and OP.

Mandated under HRS Section 205A-3.5, MACZAC is to work toward implementing an integrated and comprehensive management system for marine and coastal zone resources. MACZAC is tasked with supporting OP by providing advice regarding marine and coastal zone management planning, coordination, and facilitation of functions of the CZM Program. MACZAC is statutorily charged with the following functions: evaluating the CZM Program, including activity of the network agencies, and making recommendations for improvements; advocating for the CZM Program to the public, and the executive and legislative branches of government; and advocating, providing for, and acting upon citizen input.

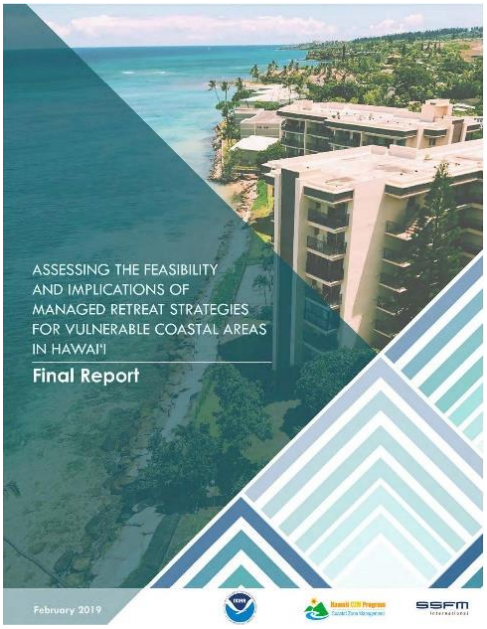
The MACZAC activities are coordinated by a project administrative assistant and CZM Program staff. The MACZAC meetings are held quarterly, while its working groups meet more often, as needed. MACZAC activities are governed by the State's Sunshine Law, HRS Chapter 92; consequently, MACZAC meetings are open to the public and follow the publicly noticed agenda. Members of the public along with employees of nongovernment organizations (NGO) and government agencies regularly attend MACZAC's meetings, and are provided the opportunity for public comment. MACZAC's meeting agendas and meeting minutes are posted on the MACZAC webpage of the CZM Program's webpage (http://planning.hawaii.gov/czm/maczac/maczac-agendas-and-minutes/), and are widely distributed in electronic and hardcopy form.

Ocean Resources Management Plan (ORMP)

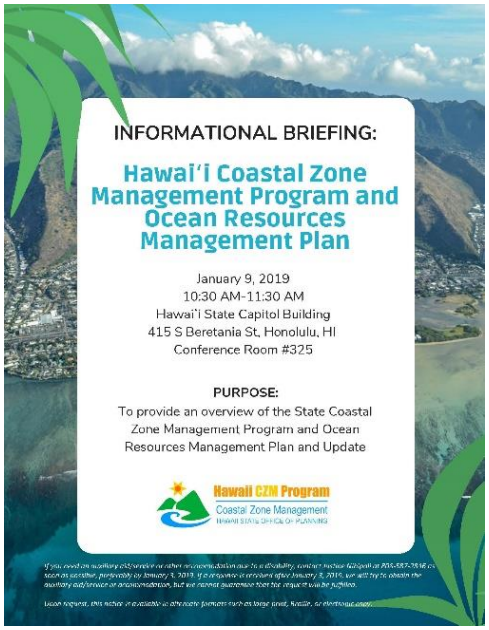
The ORMP sets forth guiding principles and recommendations for the State to achieve comprehensive and integrated ocean and coastal resources management. HRS Section 205A-62,

charges the CZM Program with the review and periodic update of the ORMP, as well as coordination of the overall implementation of the plan. The ORMP is an integrated, place-based approach to management of ocean resources in the islands, based on recognition of the ecological connections between the land and sea, the link between human activities and their impact on the environment, and the need for improved collaboration and stewardship in natural resources governance.

During this reporting period, the major topics of discussion and development have been focused on the implementation of the 2013 ORMP, and an ORMP Legislative Briefing, and updating of the 2020 ORMP.



Implementation of the 2013 ORMP: During this year, the Action Team (ACT) for Appropriate Coastal Development and ACT for Management of Coastal Hazards worked on the project to address implementation of the Managed Retreat Strategy and its nexus with public access. The Hawai‘i CZM Program published the final report *Assessing the Feasibility and Implications of Managed Retreat Strategies for Vulnerable Coastal Areas in Hawai‘i*. This report synthesizes work and input from the background research on managed retreat, scenarios profiles depicting different types of development, and reflections from a one-day symposium hosted as part of the project. The report makes findings regarding retreat programs and their relative significance to Hawai‘i and a specific multi-prong recommendation regarding the feasibility of retreat in Hawai‘i. The findings and report were presented to the Georgetown Climate Center State Policy Forum and Hawai‘i Shore and Beach Preservation Association annual meeting. More information about the project and a copy of the report can be found on the OP website: https://planning.hawaii.gov/czm/ormp/ormp-action-team-project-on-the-feasibility-of-managed-retreat-for-hawaii/



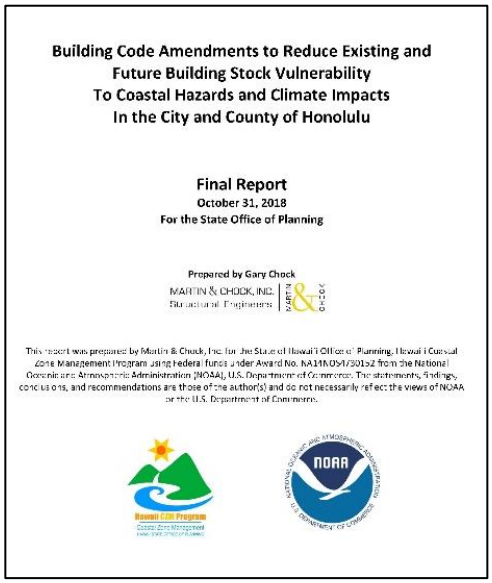
Informational Briefing: The Coordinated Working Group continues to meet monthly work towards the implementation of the 2013 ORMP. Partnerships between ORMP agencies remain intact and participation continues as ocean and coastal issues continue to be a visible challenge, requiring multi-sector solutions. During this year, OP worked on an informational briefing for the legislators and public at the State Capitol. The purpose of the informational briefing was to provide an overview of the State CZM Program and ORMP.

5-Year Update of the ORMP:
Also during this year, OP began work on the 5-year update of the ORMP. The update will involve gathering candid feedback and input from state agencies on the effectiveness and use of the ORMP; solicit feedback from public listening sessions conducted in community meetings statewide and synthesizing the information to improve upon the existing planning document. It is expected to be finalized in early 2020.

Program Related Initiatives

Hawai‘i Climate Change Mitigation and Adaptation Commission: The OP continues to collaborate with the Department of Land and Natural Resources (DLNR) in their capacity as co-chairs of the Hawai‘i Climate Change Mitigation and Adaptation Commission (Climate Commission), established by Act 32, Session Laws of Hawai‘i (SLH) 2017. The Climate Commission provides direction, facilitation, coordination and planning among state and county agencies, federal agencies, and other partners about climate change mitigation (reduction of greenhouse gases) and climate change resiliency strategies. During FY 2019, three (3) Climate Commission meetings were convened and information on the Climate Commission can be found at http://climate.hawaii.gov/.

Coastal Resilience Networks (CRest) Project: In 2014, OP received $100,000 (NOAA Coastal Services Center funds) to advance and strengthen Hawai‘i’s preparedness for the impacts of climate change, especially those that will exacerbate current threats to coastal life and property. Specifically, the project developed disaster resilient measure for use with relevant codes applicable to the City and County of Honolulu to reduce building construction vulnerability to coastal natural hazards with consideration of climate change effects. During FY 2019, the report, *Building Code Amendments to Reduce Existing and Future Building Stock Vulnerability to Coastal Hazards and Climate Impact in the City and County of Honolulu*, was finalized and posted on the OP website.


Building Code Amendments to Reduce Existing and Future Building Stock Vulnerability To Coastal Hazards and Climate Impacts In the City and County of Honolulu

Final Report
October 31, 2018
For the State Office of Planning

Prepared by Gary Chock
MARTIN & CHOCK, INC.
Structural Engineers

This report was prepared by Martin & Chock, Inc. for the State of Hawai'i Office of Planning, Hawai'i Coastal Zone Management Program using Federal funds under Award No. NA14NOS4190142 from the National Oceanic and Atmospheric Administration (NOAA), U.S. Department of Commerce. The statements, findings, conclusions, and recommendations are those of the author(s) and do not necessarily reflect the views of NOAA or the U.S. Department of Commerce.

Coastal Hazards

Hawai‘i is threatened by numerous hazards, many of which affect the nearshore area. These hazards include coastal erosion, earthquakes, tsunamis, hurricanes, sea level rise, flooding, subsidence, lava flows, and wildfires. These hazards can result in significant loss of life, property and environmental damage, business loss and interruption, and damage to historical and cultural resources.

An objective of the Hawai‘i CZM law is to reduce hazard to life and property from tsunami, storm waves, stream flooding, erosion, subsidence, and pollution. A related objective deals with the improvement of the development review process in the management of coastal hazards. The

hazard mitigation work of the Hawai‘i CZM Program is focused on meeting these objectives to achieve greater community resilience to natural hazards.

Probabilistic Tsunami Design Zone Maps: The CZM Program continues to work on a 5-year strategy to support the development and subsequent adoption of comprehensive high resolution probabilistic tsunami design zone maps for the City and County of Honolulu to use in accordance with the International Building Code (IBC) 2018 / American Society of Civil Engineers (ASCE) 7-2016 Standard that will include tsunami loads and effects. The new Tsunami Design Zone maps will define the coastal zones where structures of greater importance will be designed for tsunami resistance and community resilience, leading to better consideration of siting and design of critical facilities and infrastructure.

Annual Hawai‘i Association of County Building Officials (HACBO) Conference: Federal funds and staff from the CZM Program supported the Annual HACBO Conference in Kona, Hawai‘i in furtherance of the State Hazard Mitigation Forum and State Building Code Council Subcommittee on Training’s efforts to ensure that training on the new building codes is made available to relevant state and county officials and private design professionals.

Coastal Nonpoint Pollution Control Program (CNPCP)

In 1990, Congress enacted Section 6217 of Coastal Zone Management Act Reauthorization Amendments (CZARA) which requires states and territories with federally-approved CZM Programs to develop a Coastal Nonpoint Pollution Control Program (CNPCP). Hawai‘i’s CNPCP is jointly administered by the U.S. Environmental Protection Agency (EPA) and NOAA. Locally, its development and administration are the responsibilities of the State Department of Health (DOH) Polluted Runoff Program and the Hawai‘i CZM Program. The CNPCP primarily focuses on pollution prevention through the implementation of management measures developed by the U.S. EPA.

The CNPCP-established management measures are the best available, economically achievable practices or combinations of practices that can be used to address nonpoint source pollution. The management measures are designed to control runoff from six main sources: forestry, agriculture, urban areas, marinas, hydromodification (shoreline and stream channel modification), and wetlands and vegetated shorelines, or riparian areas. These measures are backed by enforceable state policies and actions that will ensure implementation of the program. OP continues to move forward with its *Strategy to Address Remaining Management Measures* that was approved by NOAA and U.S. EPA in 2008. During FY 2019, CZM Program and DOH submitted drafts for two remaining conditions to U.S. EPA Region IX.

Greenhouse Gas Sequestration Task Force

On June 4, 2018, Governor David Ige signed into law Act 15, SLH 2018 (Act 15), established the Greenhouse Gas Sequestration Task Force (GHGSTF), formerly the Carbon Farming Task Force, within the OP for administrative purposes only. For the status of the GHGSTF, please see Appendix A.

B. Geographic Information Systems (GIS) Program

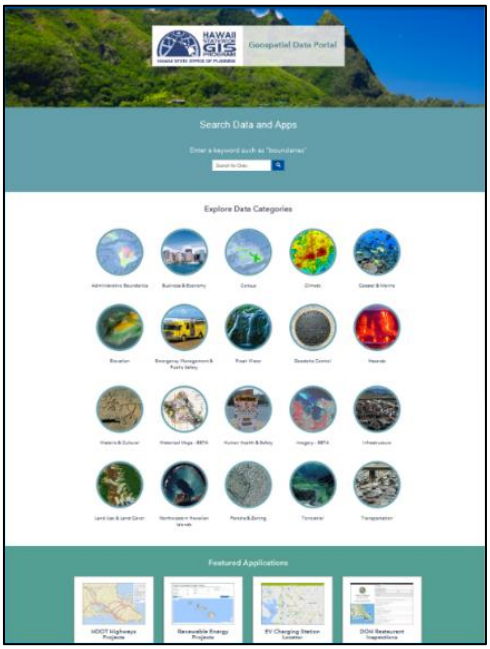
Authority: HRS Section 225M-2(b)(4), Statewide Planning and Geographic Information System.

HRS Chapter 225M, tasks OP with leading and coordinating a State Geographic Information System (GIS). In carrying out its statutory mandate as the lead agency for GIS in Hawai‘i State government, OP’s GIS Program supports and coordinates GIS efforts across state agencies and conducts spatial analysis and mapping for projects and initiatives in OP, DBEDT, and other State agencies. In addition, OP is responsible for collecting, integrating, analyzing, maintaining and disseminating various forms of geospatial data and information to further effective state planning, policy analysis and development and the delivery of government services. OP encourages data sharing among agencies to minimize stove-piping of data, reduce costs, and minimize duplication of effort.

GIS is an effective analysis and decision support tool that provides a graphical and location-based or spatial context to statistical and compiled data. It is a platform on which complex analysis can be performed to plan resource distribution, or identify and prioritize areas for conservation or economic development; GIS analysis may expose spatial distributions or trends over time not readily evident in raw data; it may reveal possible cause-and-effect or correlative relationships among different data sets; or it may be used in "what-if" scenarios to predict outcomes by varying parameters.

GIS Program Administration

The GIS Program manages and maintains the various elements of the State’s geoplatform, which consists of geospatial data, servers, software licenses, and an online mapping platform.



Enterprise Agreement: The GIS Program staff managed the State’s Enterprise Agreement (EA) with Esri for GIS software and services (funded by ETS). The agreement provides for the unlimited deployment of most of Esri’s GIS desktop and server software products to state agencies, the Judiciary, and the Legislature for the term of the contract. It also provides several organizational subscriptions to Esri’s online mapping platform, ArcGIS Online (AGOL). In addition to the general Statewide GIS organizational AGOL site for use by all State agencies, secondary sites have been set up by the Departments of Health and Transportation, the Offices of Elections and Hawaiian Affairs, and the State Senate and State House of Representatives, and most recently the Hawai‘i Emergency Management Agency (HI-EMA).

Geodatabase: The GIS database, or geodatabase, is managed and maintained by the GIS Program and contains over 300 data layers, including contributions from federal, state and county agencies. The wide

variety of datasets includes parcels, airports, benthic habitat, census tracts and blocks, critical habitat, flood insurance zones, important agricultural lands, golf courses, harbors, reserves, solar radiation, trails and U.S. Department of Defense Lands.

This geodatabase is accessible to state agencies through the state network and is the single source from which geospatial data and imagery is made available to the general public over the Internet through multiple vehicles – the State's Geospatial Open Data Portal (https://geoportal.hawaii.gov), the State's Socrata Open Data Portal (https://data.hawaii.gov), the Office of Planning's GIS data download website (http://planning.hawaii.gov/gis/download-gis-data), and the State's online mapping platform, ArcGIS Online (https://histategis.maps.arcgis.com). Nearly all of the state's data layers from the geodatabase are available publicly, with some data only available directly from the geodatabase for security, privacy, or licensing reasons.

During this reporting period, 22 new data layers were added to the geodatabase, and 49 layers were updated. In addition, metadata was enhanced or added to 151 layers in 15 map services. Other symbology and usability enhancements were made on all map services.

The GIS Program published an enhanced elevation service that can be used to visualize and interact with various elevation products (e.g. 3D terrain models) and to download raw elevation data.

User Administration: The GIS Program staff administer accounts for more than 500 users in the primary AGOL site with another 150 users in secondary AGOL sites. Besides access to the AGOL mapping platform, these accounts provide state employees with access to free self-paced online e-Learning courses provided by Esri. The AGOL accounts are key to a consolidated user management system that tracks mapping activity, cloud-based software distribution, and training history.

Technical Support: The GIS Program staff provides technical support for state agency GIS users, some data and technical assistance to federal and county agencies, and responds to inquiries from the general public. In addition, there are designated staff in various agencies who can place technical support calls to Esri and two designated Premium Support callers who can initiate priority technical support tickets. In FY 2019 the State opened 38 Standard Support tickets, 29 Premium Support tickets, and responded to 165 public inquiries.

GIS Program
Collaborates with Agencies:

- Office of the Governor
- Hawai‘i State Senate
- Hawai‘i State House of Representatives
- Office of Elections
- Office of Enterprise Technology Services
- Business Development and Support Division (DBEDT)
- Creative Industries Division (DBEDT)
- Hawai‘i Community Development Authority (DBEDT)
- Hawai‘i Tourism Authority (DBEDT)
- Land Use Commission (DBEDT)
- Research & Economic Analysis Division (DBEDT)
- State Energy Office (DBEDT)
- Dept. of Agriculture
- Dept. of Commerce and Consumer Affairs
- Dept. of Education
- Dept. of Health
- Dept. of Land and Natural Resources
- Dept. of Transportation
- GIS coordinators from the City and County of Honolulu, County of Hawai‘i, County of Kaua‘i and County of Maui

GIS Mapping and Analysis

During this reporting period, the GIS Program's maps, products, and applications assisted OP programs in the assessment of environmental and ecological impacts from proposed uses and developments and helped illuminate important issues and concerns, positively impacting decisions on permits and approvals. The Program also performs mapping and analysis for the legislature and provides technical support to all State agencies using GIS.

Maps and applications for other agencies: GIS Program staff developed a number of publicly available, easy-to-use, web-based applications, such as the Census Demographic Profiles that displays data from the U.S. Census Bureau's American Community Survey (ACS) 5-year selected estimate profiles showing population estimates by county of several periods and showing demographic and economic information by census tract or legislative district.

The staff also develop a mobile application for the DLNR Division of Conservation and Resource Enforcement (DOCARE) to enable them to access relevant location-based information in the field, including parcel ownership, state land use, conservation subzones, cultural sites, and other data sets, as well as access to administrative rules that govern permitted and prohibited uses for certain regulated sites. The application replaced a similar county application to which DOCARE officers had been temporarily granted access during the 2018 Kīlauea eruption event.

In addition, during this reporting period, GIS Program staff responded to 62 mapping requests from legislators and a dozen different state offices, including maps for proposed Opportunity Zones, Enterprise Zones, Transit-Oriented Development, Broadband, and Land Use Commission Dockets.

Outreach and Participation

Office of Planning Website: The GIS section of the OP website (https://planning.hawaii.gov/gis) is continually updated and provides important GIS resources, including downloadable maps, geospatial data and metadata, as well as links to relevant mapping tools and applications.

Outreach: Throughout the reporting period GIS Program staff worked with state agencies and community partners to raise awareness about the state's GIS Program and to promote the use of the State's geospatial resources and authoritative data.

- Provided training opportunities for more than 180 state employees from various agencies. Training ranged from two- or three-day instructor-led courses to in-house introductory classes to full-day web mapping workshops
- Participated in the third Hawaiʻi Annual Code Challenge (HACC), October 20-November 10, a state-sponsored hackathon event organized by the Office of Enterprise Technology Services (ETS), that brings together developers and independent software coders to develop innovative software solutions to problems that State and county agencies have identified as business process challenges.

- Participated in GIS Day 2018, on November 13, 2018, a half-day of educational activities focused on geospatial analysis, tools, and resources, hosted at the NOAA facility on Ford Island, for 80 students from four public high schools on Oʻahu (Mililani, Waipahu, Moanalua, and Castle).

- Participated in Hawaiʻi DOA Pesticides Branch Annual Workshop in November 29-30, 2018 and co-presented an overview of the Statewide GIS Program and the use of a field data collection application for monitoring Brown Tree Snake traps.
- Participated in the Hawaiʻi Surveying and Mapping Conference 2019, March 21-22, at the Pomaikai Ballrooms in Honolulu. The conference was organized by the Hawaiʻi Land Surveyors Association (HLSA) and the Hawaiʻi Geographic Information Coordinating Council (HIGICC), comprising two days of presentations covering a wide variety of topics for GIS professionals, surveyors, and some sessions that were of interest to both disciplines. 200 attendees came from Oʻahu and the neighbor islands, representing the federal, state, county, and private sectors. The Hawaiʻi DOT Highways Division, University of Hawaiʻi at Hilo, University of Hawaiʻi at Mānoa, DAGS State Surveyor's Office, DAGS Archives, DLNR Forestry and Wildlife Division, HDOA Plant Quarantine Branch, the Hawaiʻi DOD Army National Guard, and DBEDT State Energy Office gave presentations and/or demonstrations.
- Participated in the DOH Vector Control Conference May 8-10 and presented an overview of the Statewide GIS Program and the geospatial resources available to all state employees, including the mobile data collection applications.
- Hosted two State GIS Users Meetings with a combined attendance (in-person and online) of over 50 state employees, and including presentations from four state offices (State Parks, Forestry and Wildlife, Army National Guard, and Vector Control) and one consultant working with the Office of Elections, highlighting the geospatial data, tools, and resources they're using that are provided by the State.

Hawaiʻi Board on Geographic Names (HBGN): The GIS Program staff provides support and assistance to the Hawaiʻi Board on Geographic Names on which the OP's Director serves. The purpose of the Board, created by Act 50, SLH 1974 (codified as HRS Chapter 4E), is to assure uniformity in the use and spelling of the names of geographic features within the State. The HBGN is responsible for designating official names and spellings of geographic features in Hawaiʻi and has undertaken a multi-year project, reviewing each name that appears on the quadrangle maps and in the U.S. Geographic Names Information System (GNIS) and adding the ʻokina and kahakō, or diacritical marks, as appropriate for the correct historical or cultural spelling of the place name. (https://planning.hawaii.gov/gis/hbgn)

The Kilauea eruption of 2018 dramatically changed the landscape of Puna, resulting in the creation of some new geographic features and the destruction of others. Arguably, the most active and prominent new feature is the puu known as "Fissure 8." During the eruption and after activity at Fissure 8 subsided, there was interest in bestowing a culturally appropriate name for Fissure 8.

This even presented a unique opportunity for HBGN to become involved in the naming of new geographic features. The Board's statutory role in the process is to designate an official feature name that will be recognized and used by state agencies, and to submit that name to the U.S. BGN for its approval and inclusion in the GNIS, thereby requiring its use by federal agencies.

HBGN established a process under which the potential names would come from the local community; the Board would collect the name proposals, meet with the community to gather input and feedback, and evaluate the proposals based on criteria to be determined. During this time period and consistent with the process the Board had established, the Hawai‘i County Council adopted Resolution 640-18 and the Hawai‘i State Legislature adopted Senate Resolution 165 and Senate Concurrent Resolution 205, all of which urged the Board to *"consult with community members who have direct traditional, cultural, and familial ties to the District of Puna to establish appropriate names for the Fissure 8 vent and other features of the 2018 eruption of Kīlauea volcano."*

To facilitate meeting with the community and with other interested parties, the Board established a Permitted Interaction Group (PIG), charged with setting a deadline to submit name proposals, meet with the Puna community, evaluate the name proposals, and report back to the full Board by December 31st. By June 30, 2019, the deadline set for submitting name applications, the PIG had met with the community once and received 21 proposed names. The next steps will be for the PIG to evaluate the names it has received, collect more community input, and report back to the full Board with its recommendation(s). It will be up to the full Board to designate a name for the feature from among those proposed by the community. The decision will be based on several factors, including, but not limited to, the meaning of the proposed name, the sources of the inspiration for the name, and feedback from the community.

Hawai‘i Geographic Information Coordinating Council (HIGICC): The GIS Program is an active participant in HIGICC and one staff member currently sits on its board of directors. This private non-profit, 501(c)(3) organization consists of members from all sectors of Hawai‘i's geospatial community – federal, state, county, private and non-profit. It provides coordination of geospatial activities in Hawai‘i, and works to promote data sharing and data standards throughout the state. (https://higicc.org)

National States Geographic Information Council (NSGIC): "NSGIC's membership is comprised of senior state geographic information systems executives and coordinators, federal agency representatives, local government officials, private sector solutions providers, academic researchers and GIS colleagues at partner organizations." The Office of Planning participates in NSGIC both as the state representative for Hawai‘i and through its membership in HIGICC, the state GIS council. In 2019 the State participated in NSGIC's Geo-Enabled Elections initiative to "develop a set of best practices for states to leverage GIS data to ensure more effective and accurate elections." (https://www.nsgic.org)

C. Special Plans Branch
Authority: HRS Chapter 226, Hawai‘i State Planning Act

The Special Plans Branch (SPB), is tasked with carrying out the functions of OP related to statewide planning under the Hawai‘i State Planning Act. The SPB conducts statewide planning and coordination, as well as policy analysis to address critical areas of concern affecting the direction, rate and character of growth (primarily land use and economic growth). During this reporting period the activities of the SPB included statewide integration of sustainability goals and objectives. During FY19, the State’s Sustainability Coordinator became the sole employee within the Special Plans Branch. The State’s Sustainability Coordinator position was established via Act 124, SLH 2016 cited as the Supplemental Appropriations Act of 2016, and was filled in June 2017; however the Sustainability Coordinator has not yet received any programmatic budgetary funding or support staffing within the OP’s operating budget to implement the Sustainability Priority Guidelines or guide and encourage sustainability initiatives and practices.

The OP’s definition and interpretation of “sustainability” is consistent with the definition of sustainability found in HRS §226-2 of the Hawai‘i State Planning Act, as follows: “‘Sustainability’ means achieving the following: (1) Respect of the culture, character, beauty, and the history of the State’s island communities; (2) Striking balance between economic, social, community, and environmental priorities; and (3) Meeting the needs of the present without compromising the ability of the future generations to meet their own needs.”

In order to implement the Sustainability Priority Guidelines that are a part of the Hawai‘i State Planning Act (HRS Section 226-108), the Sustainability Coordinator serves as a liaison among state and other government agencies, as well as private or non-profit organizations, to guide and encourage sustainability initiatives. The Sustainability Coordinator is responsible for establishing broad work plans for state initiatives that promote sustainability, including developing programmatic priorities and budgets, conducting program analyses, making policy recommendations, and preparing sustainability or initiative reports, and other written material. Through collaborative efforts the Sustainability Coordinator works to fold the Aloha+ Challenge and 2030 goals the United Nations Sustainability Development Goals into the State’s sustainability Priority Guidelines and implement them.

State Sustainability Webpage: During this reporting period the Sustainability Coordinator launched the State's sustainability website hosted on the OP's webpage: http://planning.hawaii.gov/sustainability/. The sustainability website explains OP's intention to develop a statewide sustainability planning and coordination program to assist with the implementation of HRS §226-108.

This is consistent with the OP's previous Annual Report published December 2018, under "Section V. Legislative Proposals" for the previous 2019 legislative session, which the OP proposed the legislative action of establishing a "Sustainability Program – Establishment of a statewide sustainability program within the OP to ensure long-term planning, coordination, and implementation of Hawai'i's sustainability goals and policies by amending Section 225M-1, HRS and adding a new chapter. The Sustainability Program is needed to assist, organize, and coordinate state agencies, the private sector, and the public to meet Hawai'i's sustainability goals and policies. The proposed bill establishes a formal sustainability coordinator entity and formal legislative framework to execute Hawai'i's sustainability goals and policies."

Carbon Offset Program: In FY 2019-20, the Legislature appropriated $150,000 in general funds to OP to investigate a carbon offset program in partnership with the Greenhouse Gas Sequestration Task Force through Act 16, SLH 2018. The Legislature requires the OP to submit a report of its findings and recommendations to the Legislature and the Hawai'i Climate Change Mitigation and Adaptation Commission prior to the convening of the Regular Session of 2020. The Sustainability Coordinator served as the project manager for this investigative study, prepared and issued a competitive Request for Proposals for the report investigating the *Feasibility and Implications of Establishing a Carbon Offset Program for the State of Hawai'i*, the final report is expected to be available by the end of 2019.

Carbon Offset Symposium: To educate and inform state and county stakeholders, Greenhouse Gas Sequestration Task Force members, and the public on the protocoled requirements of carbon offsetting and carbon credit markets; the Sustainability Coordinator hosted, managed, coordinated, and prepared the State of Hawai'i's Carbon Offset Symposium, held at the Hawai'i State Capitol Auditorium on April 10, 2019. The Carbon Offset Symposium included presentations from greenhouse gas and carbon market expert speakers on existing programs for carbon offsetting. The Carbon Offset Symposium also included an interactive analysis of the carbon offset development process with the "GHG Offset Gate Key" analyzing the potential applicability of Hawai'i-based carbon offset projects or their alternatives through

greenhouse gas reduction efforts. This Carbon Offset Symposium was organized to inform the investigation of the *Feasibility and Implications of Establishing a Carbon Offset Program for the State of Hawai'i*, pursuant to Act 16, SLH 2018.

<u>Coordination with State Agencies:</u> The Sustainability Coordinator coordinated and collaborated with various state and county agencies, private sector and non-governmental organizations, testified and lobbied at the legislature on sustainability initiatives to ensure comprehensive development of sustainable goals and objectives throughout the state.

Since 2018, the State's Sustainability Coordinator under the direction of the OP, collaborated with the State's Land Use Commission to update the Hawai'i Administrative Rules Chapter 15-15 to add new subsections requiring the analysis of sustainability and climate change issues to conform with HRS §§226-108 and -109.

After participating in the Sustainable Purchasing Leadership Council 2018 Summit made possible with the National Association of State Procurement Officials Green Purchasing funds during the previous reporting period, the Sustainability Coordinator encouraged the State's Procurement Office to attend the 2019 Sustainable Purchasing Leadership Council Summit. The Sustainable Purchasing Leadership Council convenes buyers, suppliers, and public interest advocates to develop programs that simplify and standardize sustainable purchasing efforts by large organizations. Sustainable purchasing is purchasing that builds healthy communities, economies, and environments all along local and global supply chains. State participation and attendance to this Summit initiated the State Procurement Office's interest in sustainable purchasing. The State Procurement Office held its first public presentation on sustainable purchasing at the "**SPO**Con 2019" a training workshop for procurement and contract specialists in October 2019.

<u>Coordination with Private Sector and Non-Governmental Organizations:</u>

During this reporting period, the State's Sustainability Coordinator also represented the State at the GreenerBuilder Pacific Regional Conference of the U.S. Green Building Council, the International Conference on Sustainable Development, the United Nations' Sustainable Development Summit in New York

City specifically participating in the United Nations' "High-Level Local and Regional Governments Forum on the 2030 Sustainable Development Goals," and the U.S. Green Building Council's Greenbuild International Conference and Expo.

Although the lack of budgetary funding and staffing to build a statewide sustainability program continues to be a challenge, the Sustainability Coordinator was able to formalize partnerships with the U.S. Green Building Council's Hawai'i Chapter, and has assisted in various sustainable building tours including showcasing the University of West O'ahu's new Admin and Allied Health Facility, and other non-governmental organizations to advance sustainable development, sustainable practices, and sustainability initiatives in Hawai'i.

Hawai'i Green Growth / Aloha + Challenge: OP continues to serve as an advisory member of the Hawai'i Green Growth (HGG), a voluntary partnership of more than 50 state, county, federal government and non-government leaders in energy, food, and the environment working together to achieve the six sustainability targets set forth by the Aloha+ Challenge. The Sustainability Coordinator liaises on behalf of the OP with the Hawai'i Green Growth and the Aloha + Challenge.

Hawai'i 2050 Sustainability Plan: The 2019 State Legislature recently passed Act 146, SLH 2019. This new law recognized OP's efforts to fulfill the previous requirements set forth in Act 8 of the Special Session Laws of Hawai'i 2005, which called for the State Auditor, with the assistance of the OP to update the sustainability plan every ten years and report to the Legislature.

The State Legislature's passage of Act 146, SLH 2019, clarifies governmental roles and codifies the requirement within the Hawai'i State Planning Act for the OP to perform decennial updates to the Hawai'i 2050 Sustainability Plan. The Legislature appropriated $150,000 in general funds to fulfill this update during FY 2020-21, with new language clarifying that the newly updated Hawai'i 2050 Sustainability Plan "shall serve as the State's climate and sustainability action plan." The Sustainability Coordinator will begin the update of the Hawai'i 2050 Sustainability Plan, embracing the United Nations' 2030 Sustainable Development Goals as the decennial framework while aligning the Aloha+ Challenge and the various sustainability legislated targets, plans, and initiatives within the Hawai'i 2050 Sustainability Plan.

IV. LAND USE DIVISION

Authority: HRS Section 225M-2(b)(5), Land Use Planning
HRS Chapter 205, Land Use Commission

The Land Use Division (LUD) of OP represents the State's interests and positions on quasi-judicial proceedings before the State Land Use Commission (LUC) regarding land use district boundary amendment petitions. The LUD evaluates boundary amendment petitions to assure that they (1) are consistent with State regulatory requirements and (2) provide mitigation that addresses reasonably foreseeable impacts of a proposed project on State resources. The LUD also reviews and comments on special permit petitions involving land less than 15 acres in which a county planning commission rules on "unusual and reasonable uses" within agricultural and rural districts other than those for which the district is classified.

The LUD is also the lead on periodic Land Use District Boundary Reviews as required in HRS Section 205-18. During the fiscal period, the LUD worked on the production of GIS overlays and analyses to describe the current status of the district boundaries in light of county land use plans and programs. The report is expected to be completed by the end of 2019.

Pursuant to HRS Section 225M-2(b)(5) and Chapter 205, OP is a mandated party on behalf of the State of Hawai‘i to make recommendations on proposed land use district boundary reclassification dockets and proceedings before the Land Use Commission. OP's recommendations are based on the criteria for boundary designations as well as statutory objectives, policies and priority guidelines. OP also comments on petitions for special use permits and important agricultural lands designations.

A. Land Use Reviews

LUD prepares the State's position on land use proposals involving a change in district classification. As an example, this usually involves the question of whether hundreds of acres of land in the State Land Use Agricultural District should be moved into the State Land Use Urban District for development. According to the land use district data on the State's GIS, approximately 95% of all land in the State is within the Agricultural and Conservation Districts, while less than 5% of all land in the State is within the Urban District, with a very small percentage in the Rural District.

In this capacity, LUD consults with affected State agencies and the petitioner to ensure that a boundary amendment petition (1) is consistent with State regulatory requirements, and (2) provides mitigation that addresses reasonably foreseeable impacts of a proposed project on State resources. LUD coordinates with affected State agencies to ensure that the LUC's decision and orders include terms and conditions that protect the State's interest in the long-term, sustainable use of limited State resources, such as land, water, natural and cultural resources, and State infrastructure facilities.

In developing the State's position on proposed boundary amendments, LUD is guided by objectives, policies, and priority guidelines of the Hawai‘i State Planning Act, HRS Chapter 226,

and CZM objectives and policies in HRS Chapter 205A. These policies and priorities have a strong sustainability theme:

- Directing growth to urban areas or areas planned for growth where there are adequate public facilities or where they can be provided with reasonable public expenditures;
- Directing growth away from resource lands that perform other important functions, such as agricultural lands, watersheds, or coastal resources, and away from areas vulnerable to hazards, such as tsunami, flooding, rockslides, sea level rise, or storm surges;
- Reducing resource consumption and environmental impacts of proposed development; and
- Promoting the provision of affordable housing and livable communities supported by multiple modes of transportation.

In support of the State's climate change and Hawai‘i Clean Energy Initiatives, LUD has increased its efforts to advance the incorporation of sustainable design and building practices and best practices in petitioners' project proposals to ensure that future development minimizes its demand on natural resources, enhances environmental quality and sustainability, and supports active and healthy lifestyles.

To meet these goals and objectives, OP actively reaches out to potential petitioners and encourages early consultation with OP and affected State agencies.

B. State Transit-Oriented Development (TOD)

HRS Section 225M-2(b)(10) designates the OP as the lead State agency to coordinate and advance smart growth and TOD planning in the State as follows:

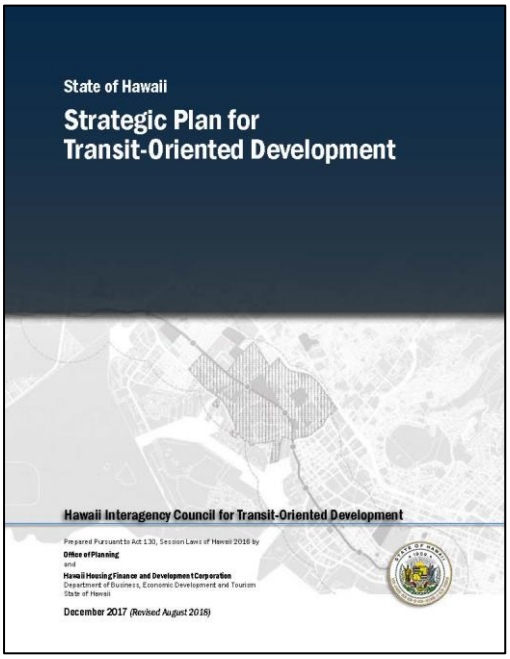
- Identify TOD opportunities shared between state and county agencies, including initiatives such as the Healthy Hawai‘i Initiative and the Hawai‘i Clean Energy Initiative;
- Clarify state goals for TOD and smart growth that support the principles of the Hawai‘i State Planning Act;
- Target TOD areas for significant increase in affordable housing and rental units;
- Conduct outreach and education to State agencies and publicize smart growth and TOD efforts;
- Review state land use decision-making processes to identify ways to make TOD a higher priority and with more proactive leadership; and
- Approve all State agencies' development plans (conceptual land use plans identifying the location and planned uses) on state-owned parcels along the rail transit corridor.

HRS Section 226-63 establishes the Hawai‘i Interagency Council for Transit-Oriented Development (TOD Council). The purpose of the TOD Council is to coordinate and facilitate State agency TOD planning, and to facilitate consultation and collaboration between the State and

the counties on TOD initiatives. With representation from State and county governments and the community, the TOD Council also serves as the State's entity for TOD planning and policy development. The Council is co-chaired by the directors of the OP and the Hawai‘i Housing and Finance Development Corporation (HHFDC). The TOD Council's responsibilities are to:

- Develop and advise the Governor on the implementation of a State strategic plan for TOD, including mixed-use and affordable and rental housing projects on State lands;
- Facilitate acquisition of funding and resources for State and county TOD programs and affordable and rental housing projects;
- Monitor preparation and conduct of plans and studies to facilitate implementation of State TOD plans;
- Review all Capital Improvement Project (CIP) requests to the Legislature for TOD projects on State lands;
- Recommend policy, regulatory and statutory changes and identify resource strategies for the successful execution of the State strategic plan for TOD;
- Assemble accurate fiscal and demographic information to support policy development and track outcomes; and
- Consider collaborative TOD initiatives of other states that have demonstrated positive outcomes.

The LUD provides staff support to the TOD Council, which includes State and county agencies and community, business and development representatives. The LUD coordinated and staffed monthly TOD Council meetings, including setting agendas, inviting speakers, arranging presentations, and reporting on TOD planning activities. Eight (8) meetings were held during the FY 2019 period. The State TOD webpage on OP's website was updated with all TOD Council meeting materials and presentations. The LUD also organized and conducted a Public/Private Partnership Workshop in May 2019. The workshop was a partnership of Urban Land Institute (ULI) Hawai‘i and the TOD Council that provided education on the development process and real estate financing, and the opportunities and challenges of public-private partnerships in Hawai‘i from the perspective of major developers and government agencies.



A major accomplishment in FY 2019 was the revision and publication of the State of Hawai‘i Strategic Plan for TOD, published in August 2018. The Plan was prepared by LUD staff in coordination with the State and county agencies on the TOD Council, and was the culmination of over two years of working with TOD Council work groups, and numerous meetings with State and county agencies to discuss their plans and proposals for TOD. The Strategic Plan includes 65 proposed TOD projects on State and county lands Statewide in various stages of planning and development.

TOD funds for CIP appropriated OP in FY 2016-2017 and FY 2017-2018 provided funding for site master planning for State lands in TOD areas that have TOD potential, and infrastructure assessments and planning for infrastructure improvements in areas where multiple agencies are involved. The FY 2016-2017 appropriation was delegated to 1) DAGS/Stadium Authority ($200,000) for preliminary master planning for the mixed-use redevelopment of the Aloha Stadium site, 2) DLNR ($200,000) for a strategic master plan for East Kapolei lands, and 3) University of Hawai‘i Honolulu Community College (HCC) ($100,000) for master plan revisions for TOD near the Kapālama transit station. The HCC study was completed in April 2019. LUD staff participate as part of the project teams for the master planning efforts which are underway.

In FY 2019, OP coordinated consultant work on the development of a State TOD Master Plan for TOD project implementation and investments on State lands along the Honolulu Rail Transit Project’s rail line on O‘ahu ($1,000,000). The State TOD Master Plan will set out the infrastructure and investments needed to enable development of State TOD projects, and provide a schedule and financing strategy for these investments. The master plan’s implementation and investment program will provide a critical tool for the State to assist and track actions needed to facilitate shared infrastructure investments and individual State agency project development, and will serve as the backbone for implementation and update of the State TOD Plan for projects along the rail corridor on O‘ahu.

A Project Coordinating Committee including key TOD Council agencies was established, and weekly status meetings were held with the prime consultant. Permitted Interaction Groups formed for each of the three priority areas – East Kapolei, Hālawa-Stadium, and Iwilei-Kapālama, met 5 times for a total of 15 meetings and workshops to provide input to the land use scenarios and feedback to the consultant on infrastructure needs.

C. Hawai‘i Brownfields Cleanup Revolving Loan Fund (HBCRLF)

LUD staff also provides program and administrative support to this loan fund program, which was seeded by a $2 million grant from the U.S. EPA in 2005. The HBCRLF provides low-cost loans to eligible public and private entities to clean up brownfields sites where economic or community development projects show the greatest need, exhibit long-term project viability, and demonstrate the capacity for repayment. The program is currently operating under a closeout agreement with the U.S. EPA, which governs the type of brownfields activities eligible for HBCRLF funding and eligibility requirements for borrowers.

Program loans have funded the cleanup of a pesticide mixing and loading facility site on Department of Hawaiian Home Lands (DHHL) property in East Kapolei, O‘ahu, and the cleanup of a pesticide mixing and loading facility site on lands to be developed by a non-profit housing developer, Hawai‘i Island Community Development Corporation (HICDC), in Hāwī, Hawai‘i.

In the reporting period, HBCRLF program staff received inquiries and discussed potential HBCRLF funding opportunities with the Department of Health’s Office of Hazard Evaluation and Emergency Response (HEER Office) and the U.S. Environmental Protection Agency, (EPA), for the following projects:

- Future Pearlridge Passive Park on the Pearl Harbor Historic Trail, City and County of Honolulu. The City is seeking grant funds to clean up former industrial properties to create a passive park that would complement its Pearlridge TOD facilities in the area. The City is in the process of acquiring the site for park use.

- Former Voice of America site, Māʻili, Oʻahu, DHHL. DHHL is seeking funds for the potential cleanup of lands where dumping may have occurred on a portion of land it has acquired for residential development for native Hawaiian beneficiaries.

- Former ʻEwa Feedlot, West Kapolei, Oʻahu, Department of Agriculture. The State Energy Office inquired into the potential for cleanup funds for use on the site or a portion of the site for a photovoltaic power facility. The site was transferred from the Department of Land and Natural Resources to the Department of Agriculture, which wishes to use the vacant parcel for a cattle feedlot.

- Affordable senior housing, ʻAiea Sugar Mill site, Oʻahu, EAH Housing. EAH proposes to develop a 145-unit affordable rental housing facility on a portion of the site, which would require cleanup prior to construction.

- Several other fund inquiries were received in the reporting period; the prospective sites or proponents were either deemed ineligible for the funds or HBCRLF funding was not pursued for other reasons.

HBCRLF program staff also worked with the County of Kauaʻi staff to successfully secure DOH-HEER assistance for the preparation of a Phase 1 and EPA Targeted Brownfields Assistance for the conduct of Phase 2 Environmental Site Assessments for the Samuel Mahelona Hospital facility at Kapaʻa, Kauaʻi. The environmental site assessments are being performed as part of the preparation of a conceptual TOD master plan for the site.

HBCLRF staff continue to collaborate with the HEER Office and U.S. EPA to identify potential sites and property owners for HBCRLF loans, participate in outreach activities to promote brownfields assessments and cleanups statewide, and support State and county agency brownfields initiatives. In the reporting period, program staff provided HBCRLF information for presentation at a Hawaiʻi State Energy Office PV Brightfields Contaminated Lands Workshop.

Under its existing statutory authority, HBCRLF funds are restricted to leans for cleanups as was required under the original EPA grant conditions. The EPA Closeout Agreement allows for funds to be disbursed for sub-grants and brownfields site assessments as well. There has always been more demand for sub-grants and funding for brownfields site assessments. Program staff will be preparing a bill for the 2020 legislative session to amend the authorizing language to allow for use of funds for sub-grants and brownfields site assessments, which would enable greater use of the funds.

V. LEGISLATIVE PROPOSALS

For the upcoming 2020 legislative session, OP is proposing the following legislative action:

Regarding Brownfields Cleanup Revolving Loan Fund

The Hawai‘i brownfields cleanup revolving loan fund was capitalized with funds from a U.S. Environmental Protection Agency (EPA) brownfields revolving loan fund grant. In 2012, the grant was closed when all grant funds had been expended for cleanup loans, and a closeout agreement was executed between the EPA and the DBEDT. Under the EPA closeout agreement, revolving loan funds may be used for both loans and sub-grants to eligible entitles for brownfields site assessment activities, sampling, and related activities, in addition to cleanup activities. The existing loan fund authority strictly limits use of revolving loan funds to loans and cleanup activities as allowed under the original grant award terms. OP proposes to amend the statutory authority for the revolving loan fund to expand the use of funds for brownfields environmental site assessments and sub-grants to eligible public and nonprofit entities. The proposed amendment would align the use of revolving loan funds with the provisions of the more-flexible EPA closeout agreement.

TOD and Affordable Housing

The State has a persistent and growing need for affordable housing in its urban areas. On O‘ahu, the State owns approximately 1,900 acres of land in proximity to planned rail stations along the Honolulu rail corridor. Use of State lands for affordable housing lowers the cost of housing production and would contribute significantly to the production of more affordable housing. The development of affordable housing goals and a multi-agency implementation strategy for the delivery of affordable housing on State lands would help to direct and focus State investments and actions needed to leverage State assets and to capitalize on the potential afforded by TOD to add significantly to the affordable housing stock of urban Honolulu. Similar TOD potential for State lands exist on the Neighbor Islands. One of the primary objectives for promoting transit-oriented development on state lands is to provide affordable housing in walkable, mixed-use communities at designated public transit stations or transit hubs statewide. Therefore, the proposed legislative action is to require the Hawai‘i Interagency Council for Transit-Oriented Development to develop affordable housing goals and an implementation strategy for the delivery of affordable housing on State lands in transit-oriented development TOD areas along the Honolulu Rail Project corridor on O‘ahu and statewide.

VI. GOALS FOR THE FUTURE

In compliance with Act 100, SLH 1999, Part II – Section 7 – Statement of OP Goals, Objectives, Policies, Action Plans, Timetables and Performance Measures for FY20:

- **Ocean Resources Management Plan** (ORMP) – The ORMP sets forth the guiding principles and recommendations for the State to achieve comprehensive and integrated ocean and coastal resources management. During FY20, OP intends to finalize and adopt the updated ORMP. The update involves statewide public outreach and will focus on collaboration among agencies for implementation of ORMP focus areas. Funding for this project will come from the CZM Program federal funding.

- **Probabilistic Tsunami Design Zone Maps -** During FY20, OP plans to complete the integration of tsunami design zone maps for integration into the ASCE Tsunami Hazard Tool which will facilitate application into City and County of Honolulu building codes to strengthen resilience of critical infrastructure for the Island of Oahu. Funding for this project will come from the CZM Program federal funding.

- **State Transit-Oriented Development** (TOD) – During FY20, OP plans to complete the State TOD Planning and Implementation project which sets forth the infrastructure requirements and costs needed to enable development of State TOD projects, and which will provide a schedule and financing strategy for these investments. Agency partners will start planning, design and construction of backbone infrastructure projects to allow greater density around transit hubs. Funding is through the State CIP fund resources.

- **Feasibility and Implications of Establishing a Carbon Offset Program for the State of Hawaii** – During FY20, OP plans to finalize and publish the report investigating a carbon offset program in partnership with the Greenhouse Gas Sequestration Task Force. By developing a framework for Hawaii's Carbon Offset Program, the offsets from our local sequestration of atmospheric Carbon and Greenhouse Gases combined with Hawaii's coordinated emission reductions will guide Hawaii to achieve its Zero Emissions Clean Economy Target by 2045, pursuant to HRS Section 225P-5. Funds have been appropriated by Legislature, Act 16, SLH 2018.

- **Periodic Review of State Land Use Districts** – During FY20, OP plans to complete its periodic review of State Land Use Districts as provided in HRS Section 205-18. OP has completed the productions of GIS overlays and analyses to describe the current status of the district boundaries relative to county land use plans, resources, and developments. The project is being undertaken using existing staff resources.

- **TMK Parcel Boundary Shift Mitigation Plan** – During FY20, OP plans to procure consultant services in order to study options to address TMK parcel boundary displacements/shifts that occur when counties improve their GIS data accuracy and the data no long align with state data. The displaced parcel boundary alignment affects analysis of GIS data throughout the State. Funds for this project are through the OP General Fund.

- **Elevation Data Acquisition** – During FY20, OP will partner with federal, state, and county agencies and the private sector to acquire high-density light detection and ranging (LiDAR) data to: (1) replace old and lower quality data, and (2) provide new coverage areas. LiDAR data are the primary sources for deriving elevation models and other datasets. Planned data acquisition are for areas on Maui, but other areas may be added, if funding permits. Funds for this project are through the OP General Fund and will be used as the State match for Federal LiDAR data acquisition funds.

- **Strategic Plan for Statewide GIS Program** – During FY20, OP will review and update the Statewide GIS Program's current Strategic Plan. GIS Program leads a multi-agency effort to establish, promote, and coordinate the use of geographic information systems (GIS) technology among Hawaii State Government agencies. Funding for this project will come from the CZM Program federal funding.

Statement of OP Goals, Objectives, Policies, Action Plans, Timetables and Performance Measures for FY2021 - 24:

- **Hawaii 2050 Sustainability Plan –** During FY21, OP plans to complete the decennial updates to the Hawaii 2050 Sustainability Plan as required by Act 146, SLH 2019. This new act added new language clarifying that the newly updated Hawaii 2050 Sustainability Plan "shall serve as the State's climate and sustainability action plan." The Hawaii 2050 Sustainability Plan will embrace the United Nations' 2030 Sustainable Development Goals as the decennial framework while aligning te Aloha+ Challenge and the various sustainability legislated targets, plans, and initiatives. Funds have been appropriated by Legislature, Act 146, SLH 2019.

- **Development of a Stormwater Guidance Manual for local roads, highway, and bridges of County of Hawaii –** During FY21, OP plans to complete the development of a stormwater guidance manual and field guide which incorporate best management practice (BMP) protocol for operation and maintenance of local roads, highways, and bridges for the County of Hawaii. These documents will assist in meeting the necessary management measures of Hawaii's Coastal Nonpoint Pollution Control Program (CNPCP). Funding for this project will come from the CZM Program federal funding.

- **Federal Approval of the Section 309 Assessment and Strategy –** During FY21, OP plans to obtain federal (NOAA) approval Every five years the Hawaii CZM Program conducts a self-assessment of its coastal management program within each of the nine enhancement areas. Hawaii CZM then develops strategies with stepwise approach to reach a stated goal and lead to enhancement in the federally approved Hawaii CZM Program. Work has begun on the assessment and development of the 5-year strategy. Funding for this initiative comes from the CZM Program federal funding.

- **Implement Governance Framework for ArcGIS Online (AGOL) Platform -** During FY20 and FY21, OP will work with state agencies to implement a governance framework around the AGOL platform. This will include coordinating with ETS to establish AGOL liaisons in state agencies who will be responsible for facilitating and managing the

continued growth in the numbers of GIS users, and geospatial content and applications. Funds for this project are through the OP General Fund.

OP Fiscal Year 2024 Goals and Plans:

- **Section 309 Assessment and Strategy Implementation** – OP plans to work on implementation of the NOAA approved Section 309 Assessment and Strategy for FY2021-2025. Funding for this initiative comes from the CZM Program federal funding.

- **Statewide Transit-Oriented Development** (TOD) – OP plans to work towards the implementation of the State Strategic Plan for TOD. The Strategic Plan was prepared by the OP in coordination with the State and county agencies on the TOD Council. The Strategic Plan includes 65 proposed TOD projects on State and county lands Statewide in various stages of planning and development.

- **State TOD on Oahu** – In FY19, OP coordinated the development of the State TOD Master Plan for TOD project implementation and investment on State lands along the Honolulu Rail Transit Project's rail line on Oahu. The State TOD Master Plan sets out the infrastructure and investment needs to enable development of State TOD projects, and provide a schedule and financing strategy for these investments. OP plans to utilize the Master Plan to assist in track actions needed to facilitate shared infrastructure investments and individual State agency project development.

- **Statewide Sustainability** – OP Plans to work towards the statewide implementation of the Hawaii 2050 Sustainability Plan which will embrace the United Nations' 2030 Sustainable Development Goals and aligning with the Aloha+ Challenge and various sustainability legislated targets, plans, and initiatives.

- **Establish a Distributed/Federated System of GIS Servers and Data** – By FY24, OP plans to develop a distributed/federated geoplatform architecture (geodatabases and hubs/portals) and develop a governance plan to manage the proliferation of geospatial data and applications. The federated architecture is expected to be in the Statewide GIS strategic plan and will help to manage the growth and proliferation of geodata system in a disturbed fashion.

VII. ACRONYMS

AGOL	ArcGIS Online
CDD	Community Development District
CEDS	Comprehensive Economic Development Strategy
CNPCP	Coastal Nonpoint Pollution Control Program
CRest	Coastal Resilience Networks
CZARA	Coastal Zone Act Reauthorization Amendments
CZM	Coastal Zone Management
CZMA	Coastal Zone Management Act (Federal)
DBEDT	Department of Business, Economic Development and Tourism
DHHL	Department of Hawaiian Home Lands
DLNR	Department of Land and Natural Resources
DOH	Department of Health
EDA	U.S. Department of Commerce, Economic Development Administration
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
ETS	Office of Enterprise Technology Services
GIS	Geographic Information System
HAR	Hawai‘i Administrative Rules
HBCRLF	Hawai‘i Brownfields Cleanup Revolving Loan Fund
HBGN	Hawai‘i Board on Geographic Names
HCDA	Hawai‘i Community Development Authority
HEER	Hazard Evaluation and Emergency Response
HHFDC	Hawai‘i Housing and Finance Development Corporation
HICDC	Hawai‘i Island Community Development Corporation
HI-EMA	Hawai‘i Emergency Management Agency
HIGICC	Hawai‘i Geographic Information Coordinating Council
HRS	Hawai‘i Revised Statutes
LUC	Land Use Commission
LUD	Land Use Division
MACZAC	Marine and Coastal Zone Advocacy Council
NGO	Non-governmental Organization
NOAA	U.S. Department of Commerce, National Oceanic and Atmospheric Administration
OCM	Office for Coastal Management (NOAA)
OP	Office of Planning
ORMP	Ocean Resources Management Plan
SLH	Session Laws of Hawai‘i
SMA	Special Management Area
SPB	Special Plans Branch
SSV	Shoreline Setback Variances
TOD	Transit-Oriented Development
TRD	Transit-Ready Development

APPENDIX A

Status of the Greenhouse Gas Sequestration Task Force (GHGSTF)

On June 4, 2018, Governor David Ige signed into law Act 15, SLH 2018 (Act 15), establishing the Greenhouse Gas Sequestration Task Force (GHGSTF) permanently within the OP for administrative purposes only. The purpose of Act 15 is to amend the former Carbon Farming Task Force to:

- Repeal Act 33, SLH 2017 which established the Carbon Farming Task Force and expand upon its former objectives;
- Align the State's clean energy and carbon sequestration efforts with climate initiative goals, and require that a member of the Greenhouse Gas Sequestration Task Force also be a member of the Climate Change Mitigation and Adaptation Commission;
- Expand the mission of the Greenhouse Gas Sequestration Task Force by requiring that it examine opportunities to exploit carbon sequestering trees and vegetation to reduce urban temperatures and thereby protect public health.

During this reporting period, OP organized the formation of the GHGSTF, pursuant to Act 15 mandates, which includes State agencies, academia, county representatives, and members appointed by the President of the Senate and Speaker of the House of Representatives. Two (2) meetings were held during FY 2018-2019 (November 29, 2018 and February 28, 2019) and meeting agenda, minutes and materials can be viewed on OP's website.

Four (4) Working Groups – Economics, Legal / Policy, Public Education / Outreach, and Science – continue to operate under the GHGSTF. With $150,000 in funds appropriated by the Legislature to the OP for Fiscal Year 2018-2019 for GHGSTF operations and implementation to achieve its objectives, GHGSTF members and staff educated themselves about the sequestration potential of Hawai‘i's natural and working lands and the certification programs for carbon markets and registries. Funds were also encumbered to support the following projects:

- Soil Carbon Inventory and Working Lands Baseline. Contractor: University of Hawai‘i at Mānoa, College of Tropical Agriculture and Human Resources (CTAHR)
- Soils Health Plan for Hawai‘i to Implement BMPs to Support Farmers and Ranchers Statewide. Contractor: Hawai‘i Agricultural Research Center (HARC)
- Desktop Drawdown Analysis in Hawai‘i's Natural and Working Lands and Nearshore Waters. Contractor: Conservation International, Inc.