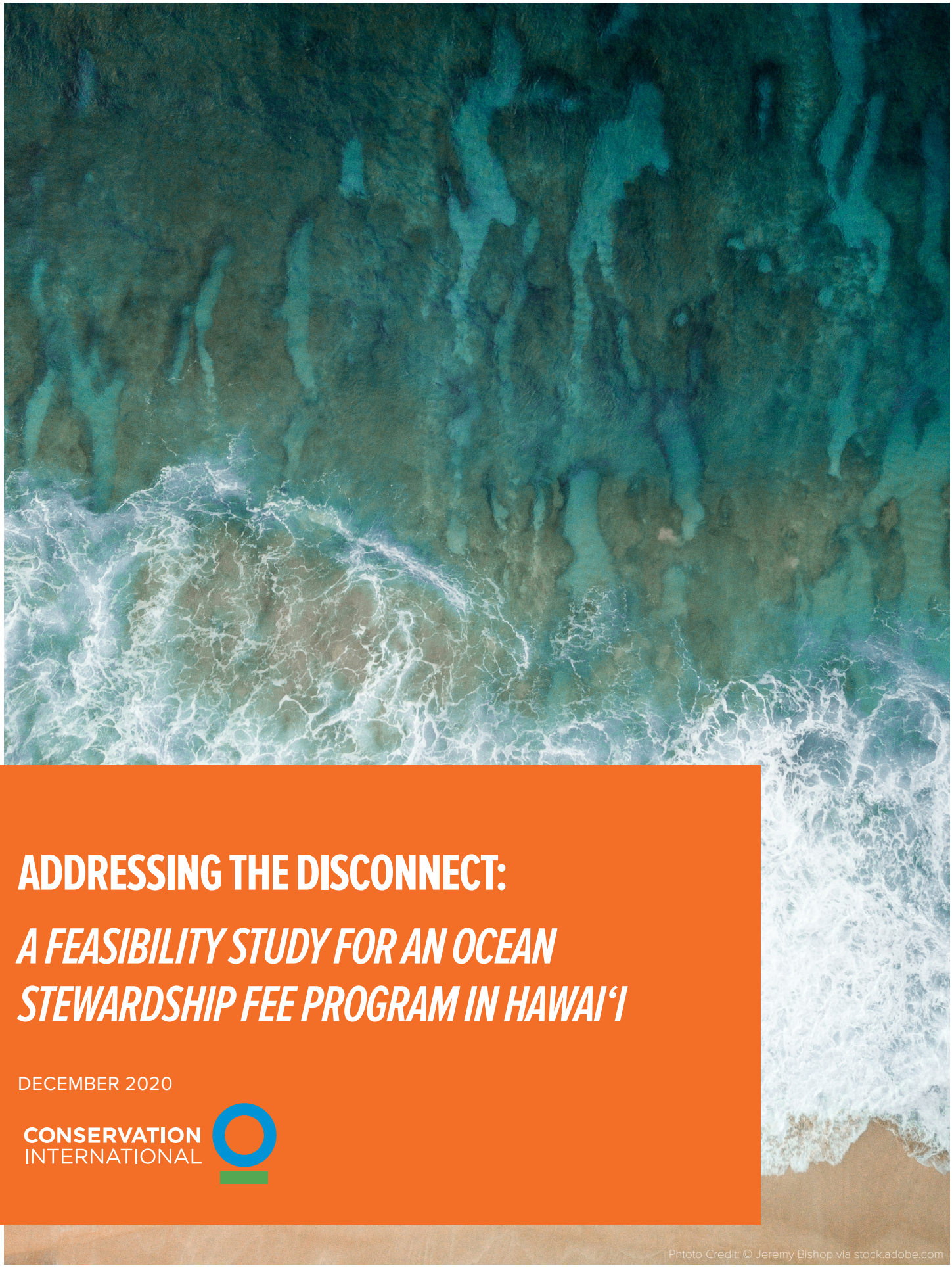

ADDRESSING THE DISCONNECT:

A FEASIBILITY STUDY FOR AN OCEAN STEWARDSHIP FEE PROGRAM IN HAWAI'I

DECEMBER 2020

CONSERVATION INTERNATIONAL

Photo Credit: © Jeremy Bishop via stock.adobe.com

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Report produced by Conservation International for the State of Hawai‘i Department of Land and Natural Resources Division of Aquatic Resources.

Authors

Aarin F. Gross and Carolyn Hicks

Contributors

Jan Yoshioka, Bertram Weeks

Contact:

Aarin F. Gross, agross@conservation.org

www.conservation.org/hawaii

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Jhana Young

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EXECUTIVE SUMMARY

Ocean tourism and commercial recreation businesses are significant contributors to Hawaii's economy and its island community. These valuable commercial operations use the ocean to introduce visitors to the unique value of Hawaii's marine ecosystem most days of every year. The value of their businesses is reflected in the fact that the tourism and recreation sector is the largest of Hawaii's ocean-dependent sectors, in terms of business, employment, wages, and gross domestic product.

Unfortunately, right now there is a disconnect between the contributions that Hawaii's marine ecosystem makes to these valuable businesses and the investment being made in maintaining and supporting that ecosystem. The fees that most commercial ocean users currently pay to the State of Hawai'i fund the maintenance and support of only human-built infrastructure in harbors and marinas and boating safety and navigation programs for vessels. A minority of commercial ocean users currently pay any fees that contribute to supporting or sustaining Hawaii's marine ecosystem.

Waikiki Yacht Club and Ala Moana Beach Park on O'ahu Photo credit: LuvAlisa / Shutterstock.com

Options for addressing the disconnect

This study explores the potential to address this disconnect – between the contributions and benefits that Hawaii's marine ecosystem makes to these valuable businesses and the financial support those businesses provide to sustain the marine ecosystem. The health of Hawaii's environment, particularly its marine environment, is central to the unique identity of Hawai'i and its attraction to potential visitors. Now, more than ever, Hawai'i needs to invest in the unique natural assets that create the primary value at the core of its economic engine.

This study begins by reviewing commercial user fee program models used in Hawai'i, other U.S. states, and other countries. It then identifies and evaluates three potential design options for a Hawai'i commercial user fee program or "Ocean Stewardship Fee program" that could directly contribute financially to managing Hawaii's living marine resources and sustaining their marine ecosystem services. These include:

- **Design Option 1:** Create a new State of Hawai'i Department of Land and Natural Resources (DLNR) Division of Aquatic Resources (DAR) fee that is collected during the issuance or renewal process of a DLNR Division of Boating and Ocean Recreation (DOBOR) Commercial Use Permit (CUP);
- **Design Option 2:** Expand DAR's Marine Life Conservation District (MLCD) permits and fees for commercial use of day-use moorings in additional MLCDs; and
- **Design Option 3:** Create a new DAR fee and online data collection and payment process requirement that is applied to DOBOR CUP holders with the potential to expand to State of Hawai'i Department of Transportation (DOT) Harbors Division commercial use permits and Kewalo Basin Harbor revocable commercial permits.

The following criteria were used to identify and consider the potential advantages and tradeoffs that each design option likely presents:

1. Would the fee program increase funding to manage living marine resources and sustain marine ecosystem services?
2. Would the fee program apply to most commercial ocean users statewide?
3. Would the fee program increase available information on the types and intensity of commercial ocean uses statewide?
4. Would the fee program leverage existing legal authorities?
5. Would the fee program limit the need for increased compliance and enforcement costs?
6. Would the fee program limit the need for increasing DAR personnel costs?
7. Would the fee program make it easy for commercial ocean users to comply?

Following an evaluation of each of the design options using these evaluation criteria, Design Option 3 was selected for a full financial impact analysis. The financial implications of several variations of Design Option 3 were examined. These included:

- **Fee Scenario A**: Pre-COVID-19, Break-Even Fee;
- **Fee Scenario B**: Pre-COVID-19, Fixed, Universal Fee Rate $1;
- **Fee Scenario C**: Pre-COVID-19, Fixed, Universal Fee Rate $2.50;
- **Fee Scenario D**: Break-Even Fee with COVID-19 Potential Impacts; and
- **Fee Scenario E**: Fixed, Universal Fee Rate $1 with COVID-19 Potential Impacts.

Study Results and Insights

Based on the research and analyses conducted for this study, **a statewide commercial ocean user fee program that contributes financially to sustaining Hawaii's living marine resources and marine ecosystem services could be feasible, if applicable constraints and tradeoffs are taken into account**. Potential cash flows from such a fee program would depend on many factors, including the fee rate charged and the annual levels of passengers or customers expected. **For example, using levels of tourism with potential COVID-19 impacts, charging $1/passenger or customer could generate a Net Present Value (NPV) of $14.4 million over a 15-year time horizon. By comparison, using pre-COVID-19 levels of tourism, a $1/passenger or customer fee could generate a NPV of $30.3 million over a 15-year time horizon.** The design and development of an Ocean Stewardship Fee program within DAR would need to take into consideration the constraints and tradeoffs summarized in the insights below.

General Insights on Fee Program Models

Currently, in Hawai'i, the only statewide commercial user fees that directly contribute financially to managing Hawaii's living marine resources and sustaining marine ecosystem services are paid by commercial fishers. Other U.S. coastal states are similar to Hawai'i, in that statewide, commercial user fees that directly contribute financially to managing living marine resources primarily apply to fishing activities. As in Hawai'i, in most other coastal states the agency that regulates boating is generally not the same agency that regulates living marine resources. As a result, most commercial user fees collected from commercial marine recreation or tourism businesses contribute to harbor management and the maintenance of human-built harbor infrastructure and services. A few exceptions can be found with permits and fees related to invasive species prevention.

Internationally, commercial user fees often apply to specific marine protected areas that are managed by public agencies, private entities, or a combination of both. Many of these marine protected areas or marine parks utilize entry fees or use fees for specific activities (such as diving and

snorkeling). Unlike the largely open waters under DAR's jurisdiction, marine protected areas have designated boundaries that allow park managers to regulate the number of commercial operators and overall visitors that use a marine park. Many marine parks involve working with the commercial marine recreation or tourism businesses to ensure entry or user fees are paid as part of tour packages.

Kihei, Maui Photo Credit: ©Christian Joudrey/Unsplash

Legal Feasibility Insights

For state-level fees in Hawai'i that would apply to commercial marine recreation or tourism businesses, there are some legal feasibility insights to consider:

1. User fees charged by administrative agencies cannot function as taxes;[1]
2. Depositing fees into a Special Fund can help distinguish a fee from a tax;[2]
3. States cannot impose a fee simply for using public waters;[3] and
4. A state law cannot make it impossible to comply with federal licenses that allow certain activities.[4]

Additionally, if any fees will be used to support marine enforcement efforts, identifying enforcement priority areas that benefit fee-paying passengers or customers and using unique cost codes to track fee-funded enforcement efforts may help support the necessary connection between areas benefiting from fee-supported marine enforcement efforts and the areas enjoyed by fee payers.

Operational Feasibility Insights

Certain operational constraints and tradeoffs will apply to an Ocean Stewardship Fee program under Design Option 3. The main tradeoff relates to the potential reach of the fee program. A program that applies only to DOBOR's CUP holders will reach many but not all of the commercial ocean users providing per-passenger or per-customer activities in Hawai'i waters. A program that also includes, or has the potential to include, commercial use permit holders under DOT Harbors Division and Kewalo Basin Harbor jurisdiction would come closer to statewide coverage.

The main operational constraint relates to enforcement of the fee. Effective enforcement of the fee will require DAR to coordinate and collaborate with DOBOR (and potentially with DOT Harbors Division and Kewalo Basin Harbor). The most effective enforcement mechanism for an Ocean Stewardship fee under Design Option 3 will likely be the ability to revoke or prevent the renewal of commercial use permits when Ocean Stewardship Fee payments are not made.

Social Feasibility Insights

To increase the chances of acceptance and compliance with a new fee program, unnecessary burdens or hurdles to paying the fee would need to be removed where possible. The main issue that commercial marine recreation or tourism businesses will likely raise with an Ocean Stewardship Fee under Design Option 3 is its potential to increase the cost of their commercial use

[1] *State v. Medeiros*, 89 Hawai'i 361, 973 P.2d 736 (1999).
[2] *State v. Adcock* (No. CAAP-19-0000508, Aug. 24, 2020) (application for cert. filed Nov. 27, 2020).
[3] *Captain Andy's Sailing, Inc. v. Johns*, 195 F.Supp.2d 1157, 1172 (D. Haw. 2001).
[4] *Young v. Coloma-Agaran*, 340 F.3d 1053, 1055 (9th Cir. 2003).

permit fees. Their monthly commercial use permit fees are based on a percentage of their monthly gross receipts. If the permit holders must add an Ocean Stewardship Fee to the cost of their tour or activity packages, their monthly gross receipts will automatically increase and so will the commercial use permit fees that they owe to DOBOR (or DOT Harbors Division or Kewalo Basin Harbor). To avoid this unfair outcome, DAR would need to work with DOBOR (and potentially DOT Harbors Division and Kewalo Basin Harbor if the program was expanded) to clarify and formalize how Ocean Stewardship Fees collected by the permit holders would not be included in the monthly gross receipts total used to calculate their monthly permit fees.

Alternatively, DAR could allow the passengers or customers to pay the Ocean Stewardship Fee directly through the online portal system. The commercial marine recreation or tourism businesses would then be responsible for ensuring that each customer purchased the fee online prior to starting the tour or activity. This approach could reduce some of the administrative burden on the operators of collecting the fee and avoid collected fees increasing their total monthly gross receipts. The significant tradeoff for DAR with this approach, however, is that the commercial marine recreation or tourism businesses would themselves become the primary compliance and enforcement mechanism to ensure the fees are paid. This may create a conflict of interest for the operators if customers are willing to pay for a tour or activities but do not want to pay the Ocean Stewardship Fee through the online portal. It would likely be very difficult to turn away a paying customer solely because they did not pay the Ocean Stewardship Fee.

One significant operational advantage of a Design Option 3 fee program would be the potential to collect better information about ocean recreation activities in Hawai‘i waters through the online payment system. In addition to the number of passengers or customers served each month, the system could also collect information about the destinations of those passengers and customers and the activities they engaged in once in the water. Collecting this additional information could significantly improve DAR’s understanding of the activities and the intensity of the activities taking place in Hawaii’s nearshore waters, which could be combined with other DAR monitoring efforts to better understand changes taking place in the water and in the health of Hawaii’s marine resources. It could also empower DAR to make informed decisions about how funding from the collected fees should be allocated to provide meaningful benefits to the fee payers.

Financial Feasibility Insights

It is important to note that the creation of a new Ocean Stewardship Fee program will require an initial commitment of financial resources either by the State of Hawaii or external investors. Additionally, the potential benefits from each fee scenario considered during this study depended on the expected volume of fee payments. The volume of fee payments depended on the population of passengers or customers of Hawaii’s commercial ocean use permit holders. The analysis included scenarios using pre-COVID-19 population assumptions and scenarios using assumptions with levels of tourism with potential COVID-19 impacts.

Benefits potential and timing

Using assumptions with pre-COVID-19 levels of tourism, the fee amount required to “break-even” or cover just the costs of creating and running a new Ocean Stewardship Fee program within DAR (over a 15-year time horizon) would be $.017/passenger (Fee Scenario A). Using assumptions with levels of tourism with potential COVID-19 impacts, that “break-even” price would be $0.31 (Fee Scenario D).

Using assumptions with pre-COVID-19 levels of tourism, a fee of $1/passenger (Fee Scenario B) was expected to generate a Net Present Value (NPV) of $30.3 million over a 15-year time horizon with start-up expenditures of $790,000 in Year 0. Positive annual cash flows of a little over $600,000 started in Year 1 and increased to a little over $5 million in Year 15. Increasing the fee to $2.50/passenger (Fee Scenario C) increased the NPV to $85 million over a 15-year time horizon with the same expenditures in Year 0, but with positive annual cash flows of $2.25 million in Year 1 and almost $13.6 million in Year 15.

Using assumptions with levels of tourism with potential COVID-19 impacts, a fee of $1/passenger (Fee Scenario E) was expected to generate a NPV of $14.4 million over a 15-year time horizon with start-up expenditures of $790,000 in Year 0 as well as negative returns of almost $225,000 in Year 1. Positive annual cash flows did not start until Year 2 at just under $65,000 and only increased to $2.8 million in Year 15. This fee scenario did not factor in any increases to the base cost assumptions that might result from COVID-19 impacts on the overall state budget and DAR personnel levels. The full extent of potential state budget impacts is not currently known; therefore, the positive annual cash flows for Fee Scenario E should be revisited when more information becomes available.

Benefits allocation

Regardless of the benefits potential of any new Ocean Stewardship fee program, the critical question for commercial marine recreation or tourism businesses and their passengers will be what DAR intends to spend the collected fees on. Conversations with DAR staff during the course of this study have highlighted several potential priority areas for funding from a new commercial ocean user fee program, including:

- education and outreach (such as educational signage at priority beaches, harbors, airports, etc. with information on marine life, regulations, and best practices);
- habitat restoration (such as funding for outside organizations or businesses to partner with DAR on restoration projects at sites important to commercial operators);
- enforcement and compliance (such as increasing marine patrol units, technical legal and data experts, and liaisons to commercial operators to enhance compliance and enforcement capacity); and
- institutionalized monitoring (such as fishery and non-fishery dependent monitoring, including commercial use monitoring, to expand monitoring capacity and assist with restoration projects of interest to commercial operators).

Some commercial operators have also suggested to DAR that funds be allocated to public-private partnerships, moorings, projects that address land-based sources of pollution or watershed restoration, enforcement, education and outreach, debris clean-ups, reducing resident-visitor tension, and scholarship programs. Additionally, these operators commented that any new commercial ocean user fee program would need to build trust with the commercial operators and accountability for DAR to use the funds appropriately and suggested the use of an advisory board, firm budget allocations or caps for the special fund that holds the fees, transparent accounting, and annual reports to the Legislature.

Conclusion

If applicable constraints and tradeoffs are taken into account, an Ocean Stewardship Fee program could be a promising contribution to the increasing challenge of responsibly caring for Hawaii's marine ecosystem and the important services it provides for current and future generations of residents and visitors to Hawai‘i. The impacts of COVID-19 on the benefits potential for such a program and so many other things are not fully known yet and continue to unfold. It is encouraging, however, that even in these difficult times there have been many calls to reinvent Hawaii's relationship to tourism and rethink how Hawaii's economic engine invests in the natural assets that drive that engine. This study is one contribution to that process of rethinking and reinvention.

Diamond Head, Honolulu, Hawai‘i. Photo Credit: RightFramePhotoVideo via Shutterstock.com

II. INTRODUCTION

Ocean tourism and commercial recreation businesses are significant contributors to Hawaii's economy and its island community. These valuable commercial operations use the ocean to introduce visitors to the unique value of Hawaii's marine ecosystem most days of every year. The value of their businesses is reflected in the fact that the tourism and recreation sector is the largest of Hawaii's ocean-dependent sectors, in terms of business, employment, wages, and gross domestic product (GDP).

Unfortunately, right now there is a disconnect between the contributions that Hawaii's marine ecosystem makes to these valuable businesses and the investment being made in maintaining and supporting that ecosystem. The fees that most commercial ocean users currently pay to the State of Hawai'i fund the maintenance and support of only human-built infrastructure in harbors and marinas and boating safety and navigation programs for vessels. A minority of Hawaii's commercial ocean users pay any fees that contribute to supporting or sustaining Hawaii's marine ecosystem.

Maui, Hawai'i © Conservation International/photo by Kevin Connor

A. PURPOSE

This study explores the potential to address the disconnect between the contributions and benefits that Hawaii's marine ecosystem makes to commercial ocean users and the investment those users make to support and maintain that ecosystem. The health of Hawaii's environment, particularly its marine environment, is central to the unique identity of Hawai'i and its attraction to potential visitors. Now, more than ever, Hawai'i needs to invest in the unique natural assets that create the primary value at the core of its economic engine.

B. STUDY APPROACH

This study provides an overview of the types of commercial user fee program models currently used in Hawai'i to maintain and care for marine life and resources. Approaches from other U.S. states and international examples are described and discussed, as well.

The study then identifies three potential design options for a commercial user fee program in Hawai'i that could provide funding to DAR to maintain and care for the marine life and marine resources that are enjoyed and relied on by commercial ocean users. Each option is evaluated against a set of criteria to identify the potential advantages or tradeoffs each option represents. If implementing a design option will likely require amendments or revisions to existing laws or rules, these changes are identified and discussed. Additionally, any supports external to DAR that will likely be critical to the success of the design options, and any anticipated restrictions to the use of funds from the collected fees are also discussed.

Finally, the study provides a financial impact analysis for a selected design option using certain assumptions about administrative and personnel costs to establish and maintain the fee program, the size of potential fee payer populations, and a range of potential fee charges. The financial impact analysis provides a comparison of the likely benefits and cost structure for the selected fee scenarios.

III. COMMERCIAL BENEFITS FROM HAWAII'S MARINE ECOSYSTEM SERVICES

A diversity of commercial ocean use activities take place in Hawaii's nearshore waters. Yet, a small minority of commercial ocean users directly contribute financially to maintaining the marine ecosystem services that benefit their businesses and their customers. This leaves commercial ocean users and Hawaii's broader community at risk of losing important ecosystem services for future generations – of both commercial and noncommercial ocean users.

A. Hawaii's Marine Ecosystem

The Hawaiian archipelago has some of the highest endemism of any tropical marine ecosystem on Earth (Friedlander, 2005). This unique system and the irreplaceability of the species within it make Hawai'i a biodiversity hotspot of global importance (Friedlander, 2005).

1. Physical Characteristics

The Hawaiian Islands are home to a single large marine ecosystem that extends over the 2,500 km between the island of Hawai'i and Kure atoll (Tissot, 2009). This includes the main Hawaiian Islands (Hawai'i, Maui, Kaho'olawe, Moloka'i, Lāna'i, O'ahu, Kaua'i, and Ni'ihau) and the older islets, atolls, and pinnacles of the Northwestern Hawaiian Islands. Coral reefs vary from fringing reefs around the main Hawaiian Islands to barrier reefs and atolls on the older islands. As a result of the isolation of the Hawaiian Islands, Hawaii's marine species have a lower level of diversity but a higher percentage of marine species that are found nowhere else on Earth (Eldredge, 2003).

Approximately 85 percent of the coral reef area of the United States lies within Hawaii's large marine ecosystem with the majority of it in the Northwestern Hawaiian Islands (Tissot, 2009). This ecosystem is home to around 5,000 species of invertebrates (including corals), 680 species of fish, and 8,000 species of marine algae and plants (Eldredge, 2003). Across the main Hawaiian Islands alone, there are 410,000 acres of living reef (Cesar, 2002).

2. Marine Ecosystem Services

At present, a human population of approximately 1.4 million people inhabit the main Hawaiian Islands, with most of that population (70 percent) concentrated on the island of O'ahu. In 2019 alone, more than 10.4 million people also visited the main Hawaiian Islands (HTA, 2019). In 2018, 67 percent of Hawaii's U.S. visitors reported swimming in the ocean and 47 percent reported snorkeling during their trip to the islands (DBEDT, 2019).

Man snorkeing in Hawai'i.
Photo Credit: EpicStockMedia via Shutterstock.com

Hawaii's 1.4 million residents and its more than 10.4 million annual visitors benefit from the many services that Hawaii's marine ecosystem provides. These ecosystem services include goods, services, and cultural and other benefits (Barbier, 2017). Goods include the products obtained from marine ecosystem habitats, such as fish, marine plants, and other marine animal resources (Barbier, 2017). Services include contributions to recreation, tourism, water transportation, education, scientific research, pollution control, storm protection, flood control, species habitat, and shoreline stabilization (Barbier, 2017). Cultural benefits include contributing to the perpetuation of indigenous and other cultural, heritage, and traditional knowledge, as well as preserving opportunities for future generations to benefit from the marine ecosystem (Barbier, 2017).

In the goods category, Hawaii's marine ecosystem supports migratory pelagic fisheries that are

the region's most valuable resource – largely comprised of ono, mahimahi, yellowfin tuna, albacore tuna, and skipjack tuna (Tissot, 2009). In 2017, Hawaii's pelagic fisheries were valued at $110.8 million (WPRFMC, 2019). Nearshore fishing in the main Hawaiian Islands is mostly concentrated on the narrow shelf areas of coastal waters and targets bottomfishes, reef fishes, invertebrates, and seaweeds (Tissot, 2009). In 2017, the total annual value of the nearshore fishery in Hawai'i was estimated between $10.3 million and $16.4 million (Grafeld S, 2017). The main Hawaiian Islands also support a small-scale recreational and subsistence fishery for which there are no catch statistics; however, a study in 2017 estimated that it was nearly three times larger than the reported commercial catches (Grafeld S, 2017). Between 2009 and 2013, it was estimated that 3.3 million pounds of fish were pulled from the nearshore waters of the main Hawaiian Islands each year by the recreational and subsistence fishery alone (Grafeld S, 2017).

In the services category, in 2015, Hawaii's marine ecosystem supported over 114,000 jobs in ocean-dependent sectors, including marine transportation, marine construction, ship and boat building, education and scientific research, offshore mineral resources, and tourism and recreation (ERG, 2018). More than 102,000 of these people were employed in Hawai'i's tourism and recreation sector (ERG, 2018). In an island setting like Hawaii's, the ocean-dependent tourism and recreation industry is larger than in coastal states (ERG, 2018). A wider range of economic activities tend to be partially or completely dependent on the ocean in an island setting, such as jewelry stores, gift and novelty stores, and passenger car rentals that primarily depend on tourists who are primarily visiting for ocean-related activities (ERG, 2018).

In the cultural benefits category, in the Hawaiian worldview, the Northwestern end of Hawaii's archipelago is a sacred zone that contains the boundary between the world of light and the living (Ao) and the world of the gods and spirits (Pō) and the coasts and reefs of the main Hawaiian Islands provide critical connections to traditions, cultural practices, and customs for the living Hawaiian culture today (Kikiloi, 2017). For non-Hawaiian residents, Hawaii's marine ecosystem is central to traditions that have developed over generations of fishing, diving, surfing, and sailing.

Honolua Bay in Maui Hawai'i. Photo Credit: arkanto via Shutterstock.com

3. Primary Threats and Drivers

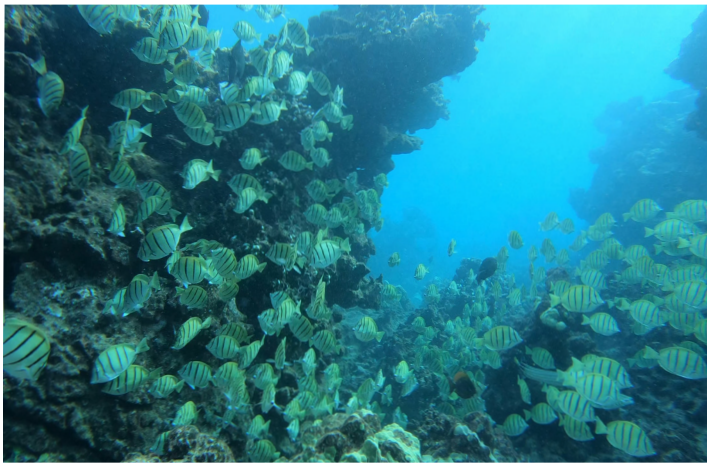
Around the world, marine ecosystems represent some of the most heavily exploited ecosystems (Barbier, 2017). The threats to Hawaii's marine ecosystem are many and include overfishing, coastal development, coral bleaching, disease, invasive alien species, damage from ship groundings and anchorings, reef trampling, and point- and non-point pollution and runoff of nutrients and sediments (Tissot, 2009).

Overfishing driven by human population growth, habitat destruction, the introduction of new technologies and techniques, and the loss of traditional management practices have led to overexploitation and depletion of Hawaii's nearshore reefs (Tissot, 2009). Hawaii's coastlines have been developed, floodplains filled, storm drains constructed, and streams channelized, resulting in sediment being deposited in Hawaii's nearshore waters (Friedlander, 2005). Sediment is likely the leading land-based pollutant causing alteration of reef community structure in the main Hawaiian Islands (Friedlander, 2005).

In 2014 and 2015, Hawai'i experienced unprecedented coral bleaching events as a result of increasing water temperatures in Hawai'i and around the globe (NOAA, 2019). In addition to coral bleaching, eight different coral diseases have been found across the main Hawaiian islands (Friedlander, 2005). The main Hawaiian islands also continue to battle the introduction of

new invasive alien species, as well as manage the damaging effects of those that have already been introduced, such as smothering seaweed (DLNR, n.d.).

Coral reefs in the main Hawaiian Islands also experience physical damage from human activities. On average, three to five ship groundings are reported each year in the main Hawaiian Islands, though many more recreational ship groundings are likely unreported (Friedlander, 2005). Ship anchoring can also cause significant reef damage, as shown in a recently settled case from a 2018 incident where a 197-foot luxury yacht caused significant damage to 431 coral colonies and approximately 150 square feet of live rock when it anchored in the Kona Coast Fishery Management Area (HNN Staff, 2020). Uninformed or careless residents and visitors can also cause coral damage by touching, walking, or standing on the reef during recreational activities like snorkeling and diving.



School of Manini on O'ahu. Photo Credit: Jhana Young

Although these threats are numerous, the drivers of all these threats are directly related to the ever-expanding number of people seeking to benefit from the ecosystem services provided by Hawaii's marine ecosystem.

B. Economic Importance

Based solely on economic factors, in 2002, Hawaii's nearshore reefs were found to generate about $800 million annually in gross revenues with $364 million of that representing the added value specifically from reefs (Davidson, 2003). As observed in a 2018 report for NOAA's Office for Coastal Management, Hawaii's entire economy has a strong dependency on the ocean (ERG, 2018).

NOAA's Economics: National Ocean Watch (ENOW) dataset provides an annual time series of employment, establishment, wage, and gross domestic product data for 47 industries grouped into six ocean-dependent sectors (ERG, 2018). Data for 2015 reflected that the tourism and recreation sector in Hawai'i is by far the largest ocean-dependent sector in terms of establishments, employment, wages, and GDP. Compared to the marine construction, living resources, offshore mineral extraction, ship and boat building, and marine transportation sectors, the tourism and recreation sector in Hawai'i supported 93 percent of establishments (3,893), 89 percent of jobs (102,606), 77 percent of wages ($3.2M), and 86 percent of the GDP ($6.9M) of all ocean-dependent sectors (ERG, 2018).

Table 1-1. Hawai'i Establishments, Employment, Wages, and GDP by ENOW Sector (2015)

ENOW SECTOR	ESTABLISHMENTS	EMPLOYMENT	WAGES (MILLION)	GDP (MILLION)
MARINE CONSTRUCTION	28	1,128	$117.4	$223.0
LIVING RESOURCES	123	938	$35.9	$86.2
OFFSHORE MINERAL EXTRACTION	10	110	$13.0	$42.8
SHIP AND BOAT BUILDING	23	5,551	$479.9	$70.8
TOURISM AND RECREATION	3,893	102,606	$3,234.9	$6,958.1
MARINE TRANSPORTATION	107	3,828	$289.4	$670.7
ALL OCEAN-DEPENDENT SECTORS	4,184	114,164	$4,170.5	$8,051.6

Source: (ERG, 2018)

The importance of Hawaii's ocean-based tourism industry was reinforced in the months following Governor David Y. Ige's first emergency proclamation issued in response to the infectious respiratory disease, COVID-19 (Liou, 2020). On March 4, 2020, the Governor issued the first of a series of emergency proclamations that ordered residents to stay home and mandated a 14-day self-quarantine requirement for all people arriving

in the state and all interisland travelers (Liou, 2020). Less than two months after that order, Hawai‘i businesses reported having to reduce their workforces by about 220,000 full- and part-time workers (Garboden, 2020).

The businesses most dependent on revenue from tourism were hit the hardest. The accommodation sector reported that it was 90.88 percent dependent on tourism revenue and between January and April had lost more than 6,000 employees and anticipated losing 49 percent of its expected revenue in 2020 (Garboden, 2020). The arts, entertainment, and recreation sector, which reported it was 89.8 percent dependent on tourism revenue lost nearly 9,000 employees (82 percent) and anticipated losing nearly 65 percent of its expected revenue in 2020 (Garboden, 2020). In total, about one third (31 percent) of Hawai‘i businesses reported that their revenue had been reduced to essentially zero during the shutdown, including 56 percent of hotels, 46 percent of restaurants, and 44 percent of retail (Garboden, 2020).

Prior to restrictions on resident movement within the state and visitor travel into Hawai‘i, Hawai‘i saw more than 800,000 visitors in the month of January 2020 alone and those visitors spent $1.71 billion. By September of 2020, the monthly visitor total had been reduced to 19,000, and the total visitor arrivals for the first nine months of 2020 had declined by 71.6 percent to 2.2 million (Chun, 2020).

Diamond Head Hike overlooking Waikiki, O‘ahu.
© Christian Joudrey via Unsplash.com

Ten months into the pandemic, the economic impacts from the COVID-19 virus continue to unfold for Hawai‘i and around the world. Even during this difficult time, however, there have been calls to reinvent Hawaii’s relationship with tourism (Finnerty, 2020), (Yamaguchi, 2020), (Lee, 2020), (Glusac, 2020). There is a growing recognition that the devastating economic impacts created by COVID-19 have provided space for Hawai‘i to rethink old approaches that may no longer be serving the best interests of Hawaii’s communities or its environment. Rethinking how Hawaii’s economic engine invests in the natural assets that drive the engine and Hawaii’s brand to visitors is part of that process of reinvention.

C. Publicly Funded Services and Benefits

To understand what might be reinvented, it helps to understand the current design. This section provides an overview of who is responsible for caring for the natural assets in Hawaii’s marine environment, and who is currently investing in their care.

1. DAR Management Activities

The State of Hawaii’s Department of Land and Natural Resources (DLNR) has the responsibility to take care of and responsibly manage Hawaii’s marine ecosystem. DLNR’s powers and duties specifically include managing and administering the aquatic life and aquatic resources of the State (Hawaii Revised Statutes (HRS) §187A-2, 1998). DLNR is headed by an executive board, known as the Board of Land and Natural Resources (the Board) (HRS §171-3, 2008). The Board has the authority to appoint an Administrator of Aquatic Resources who directs all matters relating to aquatic resources management, conservation, and development activities (HRS §187A-4, 1985). The Administrator of Aquatic Resources leads the Division of Aquatic Resources (DAR) of DLNR (HRS §187A-4, 1985).

DAR’s mission is to work with the people of Hawai‘i to manage, conserve, and restore the state’s aquatic resources and ecosystems for present and future generations (DLNR, 2018). DAR’s responsibilities extend from the upper reaches of the wash of the waves on shore seaward to the limit of the State’s police power and management authority, including the United

States territorial sea (HRS §187A-1.5, 1990), (Haw. Const. art. XV, § 1, 1978). Depending on the activity, DAR's responsibilities extend anywhere from three to twelve miles out from the 750 miles of coastline under the State of Hawaii's jurisdiction (DLNR, n.d.). This includes approximately 3 million acres of ocean waters (DLNR, 2018).

These responsibilities require DAR to provide marine life and ecosystem management activities such as fisheries management, ecosystem monitoring, protection, and restoration, as well as outreach and education at sufficient levels to allow responsible management of all the marine resources within its jurisdiction. Fisheries management requires the implementation of effective resource management, appropriate regulatory frameworks, outreach, collaboration, and the wise use and long-term sustainability of Hawaii's fishery resources supported through research, outreach, collaboration, and management. Ecosystem monitoring, protection and restoration requires active protection, public information and education, and other effective management measures (DLNR, 2018).

All of these management activities are critical to caring for the marine life that commercial recreation and marine tourism businesses rely on to draw customers for their services. As commercial recreation and marine tourism businesses succeed in drawing larger numbers of customers, the likelihood of human impacts on Hawaii's marine life and ecosystem also increase, including breakage of coral skeletons and tissue from direct contact (such as walking, touching, or gear contact) and boat anchors that cause habitat destruction and affect the diversity and abundance of fish populations, alteration in the behavior of marine life from feeding or harassment, and increased trash and debris (Friedlander, 2005), (DLNR, n.d.), (Severino, 2020).

Parasailers in Honolulu, Hawai'i. Photo Credit: Britney Ragunton

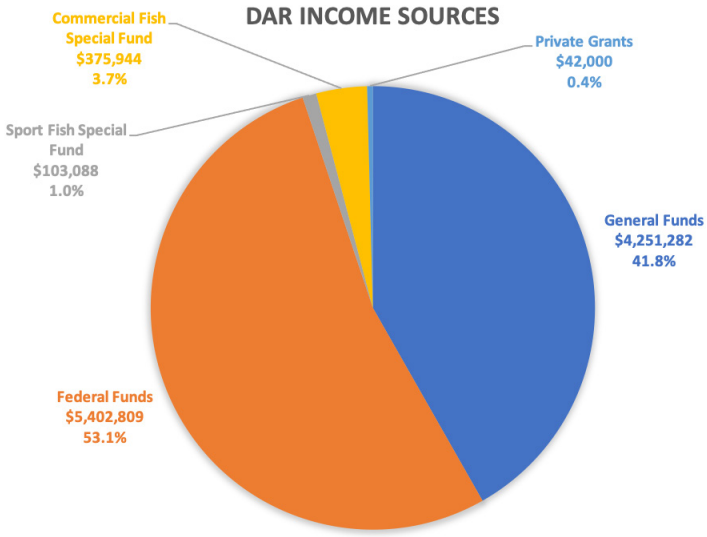
The level of influence that human impacts can have on water quality and marine life behavior in Hawaii's nearshore waters was recently affirmed by research conducted in the Hanauma Bay Nature Preserve during a temporary period of closure to the public due to COVID-19 virus restrictions. Prior to the COVID-19 closure, Hanauma Bay would receive about 850,000 visitors annually (Lyte, 2020). Research conducted by the Hawaii Institute of Marine Biology's Coral Reef Ecology Laboratory for the City and County of Honolulu revealed that the bay's water was 42 percent clearer during the COVID-19 closure period than on days when the bay had been open to the public (Severino, 2020).

This recent research reconfirms the relationship between the impacts on Hawaii's reefs and living marine resources and the number of people interacting with these sensitive systems. As human impacts increase, so does the need for DAR's management activities and the need to invest in the responsible care and management of these critical natural assets.

2. DAR Sources of Funding

Despite DAR's management activities being critical to safeguarding the foundational value and brand of Hawaii's commercial ocean recreation and tourism industry, in fiscal year 2020, nearly 95 percent of DAR's budget came from public funding sources (see figure below) (Kanenaka, 2020). Just under forty-two percent of DAR's budget came from Hawai'i taxpayers (i.e. General Funds) (Kanenaka, 2020), and just over fifty-

three percent came from federal grants (i.e. the National Oceanic and Atmospheric Administration (NOAA)-Coral Reef Conservation Program, NOAA-Fisheries Management, U.S. Fish and Wildlife Service (USFWS)- State's Sport Fish Restoration (SFR) projects, USFWS-Aquatic Nuisance Species) (Kanenaka, 2020).



Source: (Kanenaka, 2020)

Less than 5 percent of DAR's budget in fiscal year 2020 was expected to come from fees paid by anyone who received commercial benefits from the living resources in Hawaii's marine waters (Kanenaka, 2020).[5] The commercial users expected to pay these fees were predominantly commercial fisherman with a small number of freshwater sport fishers and around 40 Molokini Shoal Marine Life Conservation District (MLCD) commercial use permit holders.[6]

Irrespective of the income sources, the current funding levels available to support DAR's management activities are not sufficient to provide the level of care and management that Hawaii's living marine resources need, particularly in the face of increasing human impacts. For example, DAR's operating budget has yet to recover from cuts made during the last economic recession in 2009 and 2010 (Kanenaka, 2020). Nevertheless, beginning in 2010, the annual number of visitors to Hawai'i increased every year through 2019 – from 7.1 million visitors in 2010 (DBEDT, n.d.) to 10.4 million in 2019 ((HTA, 2020).

3. Fees Paid by Commercial Ocean Users

Although most commercial ocean users are not paying fees that can fund the care and management of Hawaii's marine life, commercial ocean users are required to secure certain State permits and pay associated fees to operate their businesses. The vast majority of the fees they pay, however, can be used only to maintain the human-built infrastructure of Hawaii's boat harbors or support boating safety programs.

Vessel registration fees

For example, all commercial vessels,[7] water craft, or water sports equipment must be registered with DOBOR for commercial use (Hawaii Administrative Rules (HAR) §13-256-4(a), 2014). Registration fees range from $5 per vessel to $1 per surfboard or $1 for watersports equipment used in a commercial operation (HAR §13-253-1, 2019). Commercial vessels operating from state harbors or boating facilities that are covered by a commercial use permit, however, are exempt from this requirement (HAR §13-256-4(b), 2014).

Operating fees

Additionally, anyone who operates commercial vessels, water craft, or water sports equipment must obtain a DLNR-Division of Boating and Ocean Recreation (DOBOR) Commercial Use

[5] This expectation is generally not realized, however, since the budgeted figures for these special funds are actually spending ceilings. These spending ceilings are often not reached because the actual revenue brought into the funds during the year falls short of the budgeted spending ceiling. For example, in fiscal year 2020, the Sport Fish Special Fund received only $25,449 in actual revenues (compared to its spending ceiling of $103,088) and the Commercial Fish Special fund received only $337,895 in actual revenues (compared to its spending ceiling of $375,944) (Kanenaka, 2020).

[6] Currently, only commercial tour boats that use Molokini Shoal MLCD pay a user fee through a $50 biannual permit fee. The revenue from these fees amounts to only $2,000 every other year (Kanenaka, 2020).

[7] "Commercial vessel" is defined as "a vessel engaged in any trade or business including, but not limited to, carrying passengers for hire, charter fishing, bare boat (demise) or any type of charter maintenance, harvesting coral or similar resources, construction, towing, tow-boating, or other trade or business wherein the vessel is used in any manner to promote the venture, or is registered with the State or documented by the United States Coast Guard for commercial use." HAR §13-231-54 (1994, comp 2014).

Permit (CUP) or alternatively a catamaran registration certificate, where applicable (HAR §13-256-3, 2018). There is an exception for those operating out of a state commercial harbor or Kewalo Basin; however, commercial vessels operating out of state commercial harbors must obtain commercial use permits issued by the Department of Transportation (HAR §19-42-25(2), 1996), and commercial vessels operating out of Kewalo Basin must obtain a commercial use permit issued by the operators of Kewalo Harbor under the authority of the Department of Business, Economic Development and Tourism's (DBEDT) Hawai'i Community Development Authority (HCDA) (HAR §15-212-29(2), 2008). Additionally, the term "water sports equipment" (HAR §13-230-8, 2018) includes scuba diving and snorkeling equipment, so commercial diving and snorkeling tours that enter the water directly from the shoreline (rather than from a vessel) are also required to obtain a DOBOR CUP. As of September 2020, there were more than 2,000 DOBOR CUPs issued across the state.

To understand how the fees for these commercial use permits are calculated, DOBOR's CUP can be used as a representative example. Fees for DOBOR's CUPs are currently determined by the greater of two amounts: 1) three percent of the monthly gross receipts;[8] or 2) the commercial rate for mooring fees or ramp fees in state boat harbors or other relevant state boating facilities (HAR §13-234-25, 2019).[9] DOT Harbors Division CUP and Kewalo Basin Harbor commercial use permits are also calculated on a percentage of monthly gross receipts basis.[10]

DOBOR CUP permittees must also meet a minimum annual gross receipts requirement. CUPs will not be reissued if the permittee fails to meet the minimum annual gross receipts requirement which ranges from $7,000 to $250,000 (HAR §13-231-61(a)(1), 2014). Similar minimum annual gross receipts requirements exist for DOT Harbors Division CUPs and Kewalo Basin Harbor commercial use permits.[11] For example, vessels used for bare boat charters, charter sail boats, or water sports equipment rental must meet a minimum annual gross receipts requirement of $7,000, while vessels certified by the U.S. Coast Guard to carry more than ninety-nine passengers must meet an annual requirement of $250,000.

Passenger fees

Passenger or cruise vessels used for private gain that do not have a valid mooring permit or commercial permit and use the State's small boat harbors property or facilities must also pay passenger fees for disembarking and embarking passengers to shore. These fees range from $1.50 to $2 per passenger (HAR §13-234-26, 2019).

Access fees

DOBOR CUP permittees that want to engage in commercial activities (excluding the taking of marine life) at the Molokini Shoal MLCD or Old Kona Airport MLCD must also apply for an MLCD permit from DAR (HAR §13-257-52, 1995) (HAR §13-31-5, 1995) (HAR §13-37-4, 2005). Each boat must obtain a separate permit and pay a permit fee of $50 for a two-year period.[12]

Disconnect between fees and benefits from marine ecosystem services

The fees associated with Molokini Shoal MLCD and Old Kona Airport MLCD are the only

[8] Fees and charges are due and payable not later than the end of the month following the month in which the fees and charges were incurred. HAR §13-234-25(f) (1994, am & comp 2019).

[9] Commercial mooring rates are based on overall vessel length or maximum length of berth or mooring, whichever is greater. HAR §§13-234-3, 13-234-25(a)(1) (1994, am & comp 2019). These rates vary by harbor location. *Id.* Ramp fees are set at the greater of $300 per month or 3 percent of the monthly gross receipts. HAR §§13-234-31, 13-234-25(a)(2) (1994, am & comp 2019).

[10] *See* HAR §19-44-36 (1982, comp 2018) (State commercial harbor fees for use of facilities for private gain); HAR §15-214-35 (2008) (Kewalo Harbor fees for use of facilities for private gain).

[11] See HAR §19-42-39 (1982, am & comp 1996) (Requirements for renewal of DOT Harbors Division commercial use permits); HAR §15-212-43 (2008) (Requirements for Kewalo Basin Harbor permit renewals).

[12] There is also a DOBOR commercial day use mooring permit fee for Molokini that is charged as $100/month or 2 percent of gross receipts. HAR §13-257-53 (1995). The fee is waived for commercial operators already paying commercial vessel user fees for using state boating facilities. Most, if not all, of the commercial operators with an MLCD permit for Molokini appear to operate from state boating facilities, so they would be eligible for the waiver.

fees charged to Hawaii's commercial marine recreation or tourism businesses that can directly contribute financially to any DAR management activities. Those fees generate a total of about $2,000 every two years (Kanenaka, 2020). All the remaining DOBOR fees described above are required by statute to be deposited into the Boating Special Fund and used to administer a comprehensive statewide boating program (HRS §200-34, 2005) (HRS §200-4, 2012) (HRS §200-8, 2015) (HAR §13-234-1, 2019).[13]

All DOBOR's fees are charged relative to the use of state property and small boat harbor facilities and calculated to produce an amount sufficient to pay the expenses of operating, maintaining, and managing the facilities and services and the cost, including interest, of amortizing capital improvements for boating facilities including berths, slips, launch ramps, general navigation channels, breakwaters, aids to navigation, and other harbor structures (HAR §13-234-1, 2019).

By contrast, there are no DAR fees that have been similarly developed relative to the commercial use of the state's living marine resources and marine ecosystem services. Research efforts have indicated, however, that the customers of commercial ocean users would be willing to pay such fees. For example, a willingness-to-pay survey of divers and snorkelers in Hawai'i was conducted in 2004 (van Beukering, 2004).[14] That survey asked respondents if they would be willing to pay a certain amount per dive or snorkel experience to help fund activities that protect corals, reef fish, sea turtles, and other reef animals in Hawai'i. The survey results showed that 75 percent of the surveyed divers and snorkelers were willing to pay an extra amount to fund a program for a healthier marine environment. The largest number of those willing to pay were willing to pay $5 extra per experience. The average amount across all users willing to pay was $3.77 per experience. The survey found that the uniqueness of the site, the facilities or services available, and the health of the reef had a positive impact on the respondents' willingness to pay for conservation. The survey also found that the group most agreeable to paying extra for conservation were respondents visiting from the mainland U.S. – with almost 80 percent willing to pay extra.[15]

IV. OPTIONS FOR ADDRESSING THE DISCONNECT BETWEEN BENEFITS AND FEES

A. Review of Commercial User Fee Models

This section reviews commercial fee program models that are currently in use in Hawai'i, other U.S. states, and other countries that directly contribute financially to managing living marine resources and sustaining marine ecosystem services.

1. Hawaii's Program Models

State Jurisdiction Models

There are several commercial fees at the state level in Hawai'i that directly contribute financially to managing living marine resources and sustaining marine ecosystem services. The fees in the table below are organized by the state agency and division managing the program:

[13] These costs include but are not limited to the cost of: 1) Operating, maintaining, and managing all boating facilities under the control of the department; 2) improving boating safety; 3) operating a vessel registration and boating casualty investigation and reporting system; 4) other boating program activities; and 5) planning, developing, managing, operating, or maintaining of all lands and improvements under the control and management of BLNR, including permanent or temporary staff positions who may be appointed without regard to civil service requirements (in HRS chapter 76). HRS §200-8 (am 2015).

[14] This study is part of a larger report with the title "Assessment of Economic Benefits and Costs of Marine Managed Areas in Hawaii" by Herman Cesar, Pieter van Beukering and Alan Friedlander.

[15] The 2004 survey also asked respondents which funding mechanism would be the most convenient and trustworthy way to collect the conservation contributions. Given the choice between being charged a small amount (such as $2) for each dive or snorkel day they took or a larger amount (such as $10) that would be charged on an annual basis, 50 percent of divers and 58 percent of snorkelers preferred payment per activity. Thirty-three percent of divers and 27 percent of snorkelers preferred annual payments. (van Beukering, 2004).

Administrative Agency	State of Hawai'i Department of Land and Natural Resources						
Division	Division of Aquatic Resources						Division of Forestry & Wildlife
Commercial Permission	Aquaculture Facility License	Commercial Marine License	Bait License	Kona Crab/ Lobster Closed Season Sales License	Special Marine Product License	Molokini Shoal MLCD Use Permit	Commercial Wildlife Sanctuary Access Permit
Fee type	Use fee					Use fee	Access fee
Spatial application	Statewide					Molokini Shoal MLCD	Vessels landing at Mokuauia, Popoia, or Mokunui of the Mokulua Islets
Fee payer	Qualified aquaculturalists	Person taking marine life for commercial purposes and any person providing vessel charter services in the State for the taking of marine life in or outside of the State	Commercial marine licensees	Commercial marine dealers and restaurants	Importers, whole-salers, retailers, and restaurants	Commercial operators who conduct dive tours, charters, and other activities within Molokini Shoal MLCD	Any person engaging in commercial activities that use or take place in regulated wildlife sanctuaries.
Fee amount	$50	$100	$50	$50	$50	$50	$10 to $110
Fee calculation method	Per facility	Per person	Per vessel or per independent fishing operation	Per commercial marine dealer or restaurant	Per business	Per vessel	Base processing fee ($10) plus fees for commercial activities accompanied by a commercial guide calculated as price per person or price per vessel based on number of passengers
Fee collection mechanism	Online or in person					In person at DAR Maui Office	Online or in person at district offices
Permissible use of fees	All fees must be deposited into the Commercial Fisheries Special Fund (HRS 189-2.4). Fund is used to partially fund costs associated with commercial fishing licensing, projects relating to commercial fishing, and payroll for personnel.					These fees are used for the Molokini Shoal MLCD.	All fees deposited into the Endangered Species Trust Fund (HRS 195D-31). Fund is used to support the study, monitoring, management, and recovery of Hawaii's threatened and endangered species.

Administrative Agency	State of Hawai'i Department of Land and Natural Resources						
Division	Division of Aquatic Resources						Division of Forestry & Wildlife
Additional requirements	Initial site inspection, Letter of authorization, Annual report accounting for the regulated aquatic life received, bought, sold, transferred, or exchanged.	Monthly catch reports, Trip reports for bottomfish	Commercial marine license, Bait report	End-of-closed season report	Monthly reports	Possession of a commercial vessel use permit for the use of state boating facilities or commercial vessel registration; Monthly use logs with passenger numbers	Assessment of the potential environmental impact the use may have on the sanctuary or surrounding area
Permission duration	1 year					2 years	Not to exceed 1 year
Authority	HRS 187A-3.5, HAR 13-74-43	HRS 189-2,3	HRS 188-45	HRS 188-57	HRS 189-6	HAR 13-31-5	HRS 183D-2, -3, -4; HAR 13-126-50, -55

General insights about state-level commercial user fees:

Currently, only commercial operators providing ocean recreation activities at specific sites (i.e., Molokini, Old Kona Airport, Mokulua, Popoia, and Mokuauia) are required to pay commercial fees that directly contribute financially to managing Hawaii's living marine resources and sustaining marine ecosystem services. The only *statewide* commercial user fees that contribute to that management are paid by commercial fishers.

Snorkeling tour boats gather at Molokini Crater, Hawai'i. Photo Credit: Felipe Sanchez via Shutterstock.com

In contemplating new state-level fees that would apply to commercial marine recreation or tourism businesses in Hawai'i, there are some general insights that can be taken from previous legal cases:

1. User fees charged by administrative agencies cannot function as taxes;[16]
2. Depositing fees into a Special Fund can help distinguish a fee from a tax;[17]
3. States cannot impose a fee simply for using public waters;[18] and
4. A state law cannot make it impossible to comply with federal licenses that allow certain activities.[19]

Each of these general insights is discussed in more detail below.

1. User fees charged by administrative agencies must not function as taxes

The Hawai'i Supreme Court has generally defined "taxes" as "burdens or charges imposed by legislative authority on persons or property to raise money for public purposes, or, more

[16] *State v. Medeiros*, 89 Hawai'i 361, 973 P.2d 736 (1999).
[17] *State v. Adcock* (No. CAAP-19-0000508, Aug. 24, 2020).
[18] *Captain Andy's Sailing, Inc. v. Johns*, 195 F.Supp.2d 1157 (D. Haw. 2001).
[19] *Young v. Coloma-Agaran*, 340 F.3d 1053 (9th Cir. 2003).

briefly, an imposition for the supply of the public treasury." *Hawai'i Insurers Council v. Lingle*, 120 Haw. 51, 59-60, 201 P.3d 564, 572-73 (2008). The word "taxes" is very comprehensive and includes all charges imposed through the taxing power with the object of raising money for public purposes. *Id.* But not every exaction by state authorities is a tax. *Id.* at 572.

The legislature may delegate the state's police power to state authorities to allow them to assess fees. *Id.* The Hawai'i Supreme Court distinguishes a fee from a tax in that a fee is exchanged for a service rendered or a benefit conferred, and the amount of the fee normally bears a relationship to the value of the service or benefit. *Id.* (citing *Bolt v. City of Lansing*, 587 N.W.2d 264, 269 (1998)).

The Hawai'i Supreme Court has identified two common types of fees: (1) user fees and (2) regulatory fees. *Id.* Different rationales underlie the assessment of user and regulatory fees. *Id.* at 575. A user fee is generally charged to the recipient of a service provided by the government. *Id.* Examples of user fees include bridge tolls or entry into a regulated profession. *Id.* at 573. By contrast, a regulatory fee is authorized by the state's police power to prescribe regulations for the promotion of "public safety, health, and welfare." *Id.* at 575. Examples of regulatory fees include a state guaranty fund assessment charged to certain insurance companies to protect policyholders from insolvent insurers. *Id.* at 573.

For user fees, the Hawai'i Supreme Court has adopted a test to determine whether a charge is a user fee as opposed to a tax. *Id.* at 574. The test considers whether the charge (1) applies to the direct beneficiary of a particular service, (2) is allocated directly to defraying the costs of providing the service, and (3) is reasonably proportionate to the benefit received. *Id.* In *State v. Medeiros*, a Honolulu City and County ordinance that imposed a service fee on persons convicted of certain crimes failed this test and was determined to be a tax for general revenue generating purposes. *State v. Medeiros*, 89 Hawai'i 361, 973 P.2d 736 (1999). In *In re Water Use Permit Applications*, a permit condition imposed by the State Commission on Water Resource Management that required permittees to pay for a portion of the studies and monitoring activities that would determine the impact of their permitted use on the public water source passed this test as a general matter and did not constitute an illegal tax. 94 Haw. 97, 9 P.3d 409 (2000).

2. *Depositing fees into a Special Fund can support the function of a fee and distinguish it from a tax*

In a recent decision, the Intermediate Court of Appeals of the State of Hawai'i (ICA) distinguished the ordinance that was invalidated in *Medeiros* to hold that the Crime Victim Compensation (CVC) fee and Internet Crimes Against Children (ICAC) fee were not unconstitutional taxes. *State v. Adcock* (No. CAAP-19-0000508, Aug. 24, 2020) (application for cert. filed Nov. 27, 2020). The ICA highlighted the fact that the ordinance held to be unconstitutional in *Medeiros* gave the city discretion to use the funds rather than mandated that they be used on the law enforcement objectives for which the ordinance was established. By contrast the CVC and ICAC fees were deposited into special funds, which are required by statute to be expended for limited purposes. As a result, the use of the CVC and ICAC fees was not discretionary. The ICA concluded that because the use of the funds was controlled by a mandatory rather than a discretionary statute, the fees could not be classified as taxes.

3. *States cannot impose a charge for simply using public waters*

State user fees must make clear that they are being assessed for services and that those services benefit the payers of the fees. For user fees imposed on vessels, it must be clear that the fees are not being imposed for merely entering or leaving a port or for using navigable waters.

The U.S. District Court for the District of Hawai'i has observed that "the United States Constitution prohibits states from laying a 'duty of tonnage' without the consent of Congress." *Captain Andy's Sailing, Inc. v. Johns*, 195 F.Supp.2d 1157, 1172 (D. Haw. 2001) (citing U.S. Const. art. I, § 10, cl. 3). A "duty of tonnage" is a charge upon a vessel as an instrument of commerce, for entering or leaving a port, or navigating the public waters of the country. *Id.* The prohibition against tonnage duties

has been deemed to embrace all taxes and duties regardless of their name or form, and even though not measured by the tonnage of the vessel, which operate to impose a charge for the privilege of entering, trading in, or lying in a port. *Id.* (citing *Clyde Mallory Lines v. State of Ala.*, 296 U.S. 261, 265-66, 56 S.Ct. 194, 80 L.Ed. 215 (1935)). However, reasonable fees charged by state authorities for services rendered to and enjoyed by the vessel are not "duties of tonnage." *Id.*

Distant view of a dinner cruise boat and humpback whales spouting at sunset on Maui. Photo Credit: Manuel Balesteri via Shutterstock.com

The court cited as an example a harbor fee charged for the use of restroom facilities, parking, trash disposal, and security as not a "duty of tonnage" because services are provided in exchange for the fee. *Id.* Similarly, if fees are for pilotage, wharfage, use of locks on a navigable river, or for medical inspection, those fees are not unconstitutional duties of tonnage. *Id.* The court also noted that a fee charged to ensure that emergency services are available is not a duty of tonnage, even if not every ship paying the fee needs the service." *Id.* (citing *New Orleans Steamship Ass'n v. Plaquemines Port, Harbor & Terminal Dist.*, 874 F.2d 1018, 1023 (5th Cir. 1989), *cert denied*, 495 U.S. 932, 110 S.Ct. 2172, 109 L.Ed.2d 502 (1990). The court also held that a fee does not need to only be for direct services to avoid being a duty of tonnage. *Id.* at 1173. The fee may be for general services securing the benefits and protections of rules, such as regulating the safety of vessels and facilitating the movement of vessels in a harbor. *Id.* The court further stated that a fee does not become a prohibited duty of tonnage just because the services provided by the fee are also used by persons not paying that fee. *Id.* (citing *Barber v. Hawai'i*, 42 F.3d 1185, 1196 (9th Cir. 1994)).

Based on this legal framework, the court in *Captain Andy's Sailing* concluded that the State of Hawai'i DOBOR's assessment of a two percent permit fee against a vessel operating in the North Shore Kaua'i Ocean Recreation Management Area (ORMA) was an impermissible tax in violation of the prohibition against tonnage duties. *Id.* at 1173. The court concluded that the ORMA permit fee failed because it did not relate to a specific service that conferred "readily perceptible" benefit to vessels operating in the Na Pali Coast ocean waters. *Id.* This conclusion was based in part on there being no evidence provided that showed regulatory activity in connection with the Na Pali Coast ocean waters or any evidence of the costs associated with that regulatory activity. *Id.* Additionally, the court noted that there was no evidence that the ORMA fees that were collected were used to defray the costs of those regulatory activities. *Id.* at 1174.

4. *State law cannot make it impossible to comply with federal licenses*

States must also be aware of the areas where federal law may preempt state law, including state licenses and permits. "Federal law may preempt state law in three ways: (1) federal law may explicitly preempt state law in a given area; (2) federal law may implicitly preempt state law by dominating regulation in a given area; or (3) state law may actually conflict with federal law." *Young v. Coloma-Agaran*, 340 F.3d 1053, 1055 (9th Cir. 2003) (citing *Barber v. State of Hawai'i*, 42 F. 3d 1185, 1189 (9th Cir. 1994)).

a. *Example: State regulation invalidated*

In *Young*, the Ninth Circuit Court of Appeals considered the third type of preemption, a claim of actual conflict or "conflict preemption" made by commercial tour boat operators that conducted passenger tours from Hanalei Bay to the Na Pali coast on Kaua'i. *Young* at 1055. "Actual conflict or conflict preemption occurs where it is impossible to comply with both state and federal requirements, or where state law stands as an obstacle to the accomplishment and execution of the full purposes and objectives of Congress."

Young at 1055-56. The commercial tour boat operators claimed that a newly adopted DLNR regulation prevented them from conducting federally authorized business under their federal coasting licenses. Coasting licenses grant the authority to carry on coastwise trade, which includes the transportation of passengers.

In considering the commercial tour operators' claim, the Ninth Circuit observed that states may not exclude from their navigable waters a ship operating under a federal license. *Id.* at 1056 (citing *Huron Portland Cement Co. v. City of Detroit*, 362 U.S. 440, 447, 80 S.Ct. 813, 4 L.Ed.2d 852 (1960)). States are allowed, however, to impose upon federal licensees reasonable, nondiscriminatory conservation and environmental protection measures otherwise within their police power. *Id.* (citing *Douglas v. Seacoast Products, Inc.*, 431 U.S. 265, 277, 97 S.Ct. 1740, 52 L.Ed.2d 304 (1977)).

Boat tour with tourists along the Na Pali coast on Kaua'i, Hawai'i. Photo Credit: Fominayaphoto via Shutterstock.com

The Ninth Circuit ultimately concluded that the DLNR regulation, which prevented commercial use permits from being issued for commercial vessels operating at or on the Hanalei River or Hanalei Bay ocean waters, was preempted by federal law. *Young* at 1057. The court found that the DLNR regulation completely excluded those commercial tour boat operators from conducting their federally licensed tour boat businesses in Hanalei Bay. *Id.* Since the state would not issue use permits under any conditions, the court concluded that it was effectively impossible for the plaintiffs to comply with both federal and state law in order to conduct their business. *Id.*

b. Example: State statutes upheld

A similar claim was brought against Hawai'i statutes that prohibited parasailing off the coast of Maui during limited portions of the year to protect mating humpback whales. *UFO Chuting of Hawai'i, Inc. v. Smith*, 508 F. 3d 1189 (9th Cir. 2007). Unlike the outcome in *Young*, in *UFO Chuting* the Ninth Circuit concluded that federal coasting licenses did not preempt these Hawai'i statutes. *Id.* The court noted that, in contrast to *Young*, the ban on parasailing was only in effect for five months of the year. *Id.* at 1193. Although the Hawai'i statute imposed a significant restriction on UFO's ability to ply its trade, state law had not completely excluded UFO from engaging in coastwise trade as it did with the year-round ban in *Young*. *Id.*

Humpack Whale with Molokai in Background. Photo Credit: Gray Aletter via Shutterstock.com

County Jurisdiction Models

Hawai'i has a limited number of examples of county-level commercial fees that directly contribute financially to managing living marine resources and sustaining marine ecosystem services. Hanauma Bay Nature Preserve on O'ahu provides most of the examples:

City & County of Honolulu			
Commercial Permission	Hanauma Bay Nature Preserve Entry Fee for Customers of a Commercial Scuba Diving and Snorkeling Permittee	Hanauma Bay Nature Preserve Parking Fee for Licensed Motor Carriers	Commercial scuba diving and snorkeling permits
Fee type	Entry fee	Parking fee	Use fee
Spatial application	Hanauma Bay Nature Preserve		
Fee payer	Commercial scuba diving and snorkeling permittee	Driver of licensed motor carrier	Commercial scuba diving and snorkeling permittee
Fee amount	$12 (for nonresidents, 12 years of age and older)	$10/vehicle accommodating 1-7 passengers, $20/vehicle accommodating 8-25 passengers; $40/vehicle accommodating 26+ passengers	$10 (daily permit), $75 (monthly permit), $900 (annual permit)
Fee calculation method	Per person for nonresidents; Per vehicle	Per vehicle based on passenger number	Per permit based on duration
Fee collection mechanism	On site		Department of Parks and Recreation
Permissible use of fees	Fees deposited into the Hanauma Bay Nature Preserve Fund. All moneys deposited into this fund must be used: (1) First, for the operation, maintenance, and improvement of the Hanauma Bay Nature Preserve; (2) Second, for educational and orientation programs for visitors to the preserve; and (3) Third, for a carrying capacity study of the preserve and for other studies relating to the environmental condition of the preserve.		
Additional requirements		PUC certificate	Licenses required to conduct business within the State of Hawai‘i; Insurance policy naming City & County of Honolulu, State of Hawai‘i, and Bishop Estate as additional insured
Permission duration	One day		Varies - 1 day to 1 year
Authority	Honolulu County ROH sec. 10-2.11, sec. 6-51.2		Honolulu County ROH sec. 10.2.11, 10-3.1, 6-51.2; Honolulu Department of Parks and Recreation Amended Rules and Regulations sec. 24-

General insights about county-level commercial user fees in Hawai‘i:

In addition to the Hanauma Bay Nature Preserve fees described in the table, there are other county-level commercial user fees that apply to ocean recreation activities. These fees, however, do not directly contribute financially to managing living marine resources, because county governments in Hawai‘i do not have management jurisdiction over living marine resources. That management authority is held by DLNR at the state level.

Nevertheless, counties can regulate commercial operators that use county parks to provide access to the ocean for customers.

For example, the City and County of Honolulu (City) requires commercial windsurfing permits at Kailua Beach Park (Revised Ordinances of Honolulu (ROH) sec. 10-5.1, 1989) (ROH sec. 10-5.4, 1989), and Maui County requires commercial ocean recreational activity (CORA) permits at all Maui County beach parks where commercial ocean recreational activities are not prohibited (Maui County Code (MCC) sec. 13.04A.280) (MCC sec. 13.04A.370) (County of Maui Administrative Rules ch. 10-102). The fees from these permitted commercial activities can be up to $900 per year

in the case of the Kailua Beach Park commercial windsurfing permits or up to $1,000 per activity per park per year in the case of the Maui County CORA permits.[20] The fees from these permits are generally used for the maintenance of the County park properties, infrastructure, and regulation of the permitted activities.

Aerial view of windsurfers in Kailua, O'ahu. Photo Credit: marmore via Shutterstock.com

Hanauma Bay Nature Preserve is an exception to this general rule, in part because of a DLNR permit condition that was also built into the permissible uses of the Hanauma Bay Nature Preserve Fund (Waters, 2020). The City had to secure a Conservation District Use Permit (CDUP) from DLNR to make improvements on the land where the preserve is located. As a condition of the CDUP, the City agreed to contract for the continuation of a Hanauma Bay carrying capacity study and submit yearly updates of baseline data to the Board of Land and Natural Resources (Waters, 2020). The Hanauma Bay Nature Preserve Fund (Hanneman, 1996) allows only three uses for the moneys deposited into the fund:

1) The operation, maintenance and improvement of the Hanauma Bay Nature Preserve;
2) Educational and orientation programs for visitors to the Preserve; and
3) A carrying capacity study of the Preserve and for other studies relating to the environmental condition of the Preserve (ROH sec. 6-51.2, 2015).

Visitors at Hanauma Bay, O'ahu. Photo Credit: Vincent X via Shutterstock.com

2. Other U.S. State Program Models

Other U.S. coastal states are similar to Hawai'i, in that state-level, commercial user fees that directly contribute financially to managing living marine resources and sustaining marine ecosystem services primarily apply to fishing activities. As with Hawai'i, many commercial user fees collected from commercial marine operations are used for harbor management and maintenance of harbor infrastructure and services (Skagway Small Boat Harbor, n.d.), (CBJ, 2017).

A few exceptions can be found with permits and fees related to invasive species prevention as reflected in the table below:

[20] CORA permits require a $100 processing fee that is non-refundable and $1,000 per permit per park er activity annually for the first two permits issued per business or entity. Each permit issued after that is $500 per permit per park per activity (County of Maui, Fiscal Year July 1, 2018 to June 30, 2019).

State	California	Oregon		Washington
Agency	State Lands Commission and the California Department of Tax and Fee Administration	Oregon State Marine Board		Washington Department of Fish and Wildlife
Commercial Permission	Marine Invasive Species Fee[21]	Out-of-state Aquatic Invasive Species Prevention Permit[22]	Non-Motorized Waterway Access Permit[23]	Aquatic Invasive Species Prevention Permits[24]
Fee type	Use fee	Use fee		Use fee
Spatial application	California waters	Oregon waterways		Washington waters
Fee payer	Owner or operator of each vessel that arrives at a California port or place from a port or place outside of California per qualifying voyage	Person bringing motorboat or sailboat 12 feet and longer into Oregon from out-of-state	Persons 13+ years of age registering Oregon or out-of-state non-motorized watercraft 10 feet or longer	Owners of watercraft registered in another state or country, Seaplane operators, commercial transporters of vessels
Fee amount	$1,000 per voyage	$20	$5 (1-week permit); $17 (1-year permit); $30 (2-year permit)	$24 ($20 permit plus transaction and dealer fees)
Fee calculation method	Per vessel per qualifying voyage that arrives at any California port from a port or place outside of California	Per motorized boat or sailboat over 12 feet per entry into the State	Per boat 10 feet long and longer	Per watercraft except for specified exceptions
Fee collection mechanism	CDTFA works with the California Marine Exchanges to identify daily arrivals of vessels of California ports	Online, licensed agents, or Oregon Department of Fish & Wildlife office		Online or licensed dealers
Permissible use of fees	Funds are used to support the marine invasive species program established to prevent the introduction and spread of foreign non-indigenous aquatic species into the state waters of California.	Permit fees help fund the Aquatic Invasive Species Prevention Program and a new Oregon State Marine Board Waterway Access Account for the development of non-motorized boating facilities. Fees fund watercraft inspection stations throughout the state.		Funds support the Washington Department of Fish and Wildlife efforts to keep Washington's waters free from alien invasive species and manage infestations when prevention fails.
Permission duration	Until next entry into California ports	Until next entry into the state	Varies	1 year

[21] (CDTFA, n.d.)
[22] (ODFW, n.d.)
[23] (ODFW, n.d.)
[24] (WDFW, n.d.)

General insights about commercial user fees in other U.S. states:

Charging fees for commercial use of public terrestrial parks and recreation areas is common in other U.S. states, and the funding from those fees is often used to fund the maintenance and management of the natural assets in those public areas (Walls, 2013), (LAO, 2017), (Summers, 2005). By contrast, it is fairly uncommon in other U.S. states to charge commercial user fees that directly contribute financially to managing living marine resources and sustaining marine ecosystem services. As in Hawai'i, in most other states the agency that regulates boating is generally not the same agency that regulates living marine resources.[25] Although there may be opportunities for collaboration between these divisions to ensure that commercial ocean users are contributing financially to managing living marine resources, there are currently limited examples to learn from in the U.S.

Dive Boat in Kona, Hawai'i. Photo Credit: Ocean Image Photography via Shutterstock.com

3. International Program Models

Internationally, there are varied approaches for commercial user fee programs that directly contribute financially to managing living marine resources. Generally, however, these commercial fees apply to specific marine protected areas that are managed by public agencies, private entities, or a combination of both. Several examples are reflected in the table below:

[25] See for example: Florida's Fish and Wildlife Conservation Commission (https://myfwc.com/media/18878/fwcorgchart.pdf) where boating and waterways falls under a separate division than marine fisheries management; California's Department of Fish and Wildlife Marine Region (file:///Users/agross/Downloads/MarineRegion_SeniorStaffOrgChart_200316.pdf) and California State Parks' Division of Boating and Waterways (http://dbw.parks.ca.gov/?page_id=28832); and Texas' Parks & Wildlife Coastal Fisheries Division (https://tpwd.texas.gov/about/administration-divisions/coastal-fisheries) and the Law Enforcement Division where boating registration is handled (https://tpwd.texas.gov/faq/fishboat/boat/registration_and_titles/#faq1).

Country	Netherlands Antilles		Philippines		Malaysia	Seychelles
Site	Bonaire Marine Park		Tubbataha Reefs National Park		Pulau Sipadan Island	Aldabra Atoll
Commercial Permission	Marine park scuba diving fee[26]	Marine park water sports fee[27]	Commercial tour operations permit[28]		Sipadan diving permit[29]	Impact Fees[30]
Fee type	Use fee		Entry fee (Vessel Entry Permit Conservation Fee)	Entry fee (Visitor Entry Permit Conservation Fee)	Use Fee	Use fee
Spatial application	Bonaire Marine Park		Tubbataha Reefs National Park (TRNP)		Pulau Sipadan Island	Aldabra Atoll
Fee payer	Person scuba diving within the marine park	Person using the marine park for purposes other than scuba diving	Any person or entity who conducts commercial tour operations in TRNP		Any person who wants to dive Sipadan (scuba or snorkel)	All visitors
Fee amount	$45/calendar year/non-resident diver (entry fee) -- different fees apply for Bonairian residents	$25/calendar year/ non-resident -- children under 12 years, passengers of cruise ships, and crews of commercial vessels exempt -- different fees apply for Bonairian residents	~$62 (or 3,000 Philippine pesos)/100 gross tons and below vessels; ~$93 (or 4,500 Philippine pesos)/101-200 gross ton vessels; ~$125 (or 6,000 Philippine pesos)/201 gross tons and above vessels	~$104 (or 5,000 Philippine pesos)/visitor; ~5 (or 250 Philippine pesos)/divemaster; (minors aged 12 years and below are exempt from paying the fee); Boat crew and boat managers are exempt	~$34 (or 140 Malaysia ringgit)/ day per diver	$225/day per passenger and crew
Fee calculation method	Per person	Per person	Per commercial vessel entering TRNP	Per person entering TRNP	Per diver per day	Per visitor per day
Fee collection mechanism	In-person following diver orientation session	Online, dive shops, activity centers, and the marine park headquarters	Tubbataha Management Office or online		Authorized dive resorts and dive centers	Tour operators
Permissible use of fees	Funds operating costs for the marine park, enforcement, research to support and inform park management, and education and outreach activities		Funds operating and management costs for the park		Funds held in the Marine Park and Marine Reserve Trust Fund and used for the management and maintenance of the Malaysia's marine parks	Funds operations and management of the atoll and ongoing conservation and monitoring programs
Additional requirements	A diver who has not dived on Bonaire within the last calendar year must attend a diver orientation dealing with Bonaire Marine park regulations and information.		Certificate of Vessel Registry; Passenger Ship Safety Certificate; Minimum Safe Manning Certificate; Accreditation from the Philippine Commission on Sports Scuba Diving; Sewage Pollution Prevention Certificate from the Philippine Coast Guard; List of boat crew and dive masters employed as certified by the boat owner or boat operator; Photocopy of valid dive license of all employed dive masters; Special Working Permit (SWP)/Alien Employment Card of foreign crews and dive masters employed by dive operators/boat owners. All vessels entering TRNP must have a holding tank and Automatic Identification System (AIS) transceivers and must submit Ship Station License from National Telecommunications Commission.		Sabah Parks issues 176 permits per day that is divided among specific dive resorts and dive centers. One permit gives a diver the right to dive or visit Sipadan for one day.	Access is limited to specific areas; all visitors must be accompanied by an Seychelles Islands Foundation (SIF) staff member at all times; all vessels must have a clearance letter in writing from the SIF office and the Seychelles Port Authority.
Permission duration	Calendar year	Calendar year	Calendar year		1 day	1 day

[26] (STINAPA Bonaire, 2019)
[27] (STINAPA Bonaire, 2019)
[28] (TRNP, n.d.)
[29] (Sipadan.com, n.d.), (Sabah Parks, 2020)
[30] (SIF, n.d.)

General insights about international commercial user fee programs:

As reflected in the table above, many of the international examples of commercial use fees that directly contribute financially to managing living marine resources and sustaining marine ecosystem services are from marine protected areas or marine parks that utilize entry fees or user fees for specific activities (such as diving and snorkeling). Marine protected areas have designated boundaries that allow park managers to regulate the number of commercial operators and overall visitors that utilize the park. This can allow park managers to further regulate the number of people engaging in specific activities within the park per day, per month, or per year. These international examples demonstrate a range of user fees design approaches, but most of them involve working with the commercial operators to ensure that the necessary fees have been paid as part of tour packages.

B. Design Options for a Hawai‘i Program

Based on a review of commercial user fee program models in Hawai‘i, other U.S. states, and other countries, this section describes three potential design options for a Hawai‘i commercial user fee program that could directly contribute financially to managing living marine resources and sustaining marine ecosystem services:

- **Design Option 1:** Create a new DAR fee that is collected during the issuance or renewal process for DOBOR's Commercial Use Permits (CUP);
- **Design Option 2:** Expand DAR's Marine Life Conservation District (MLCD) permits and fees for commercial use of day-use moorings to additional MLCDs;
- **Design Option 3:** Create a new DAR fee and online data collection and payment process requirement that is applied to DOBOR CUP holders with the potential to expand to DOT Harbors Division commercial use permit and Kewalo Basin Harbor revocable commercial permits.

Evaluation Criteria

The following criteria were used to identify and consider the potential advantages and tradeoffs that each design option likely presents:

1. Would the fee program increase funding to manage living marine resources and sustain marine ecosystem services?
2. Would the fee program apply to most commercial ocean users statewide?
3. Would the fee program increase available information on the types and intensity of commercial ocean uses statewide?
4. Would the fee program leverage existing legal authorities?
5. Would the fee program limit the need for increased compliance and enforcement costs?
6. Would the fee program limit the need for increasing DAR personnel costs?
7. Would the fee program make it easy for commercial ocean users to comply?

Design Option 1: DOBOR CUP permit + New DAR Ocean Stewardship Fee

Under this option, payment of a new DAR fee ("Ocean Stewardship Fee") would become a requirement for all DOBOR Commercial Use Permit (CUP) holders. The Ocean Stewardship Fee would be charged per passenger carried or customer served by the CUP holder. Payment of Ocean Stewardship fees would be due at the end of each month.

Collection of the Ocean Stewardship Fees would require coordinated database systems and collaborative payment collection processes across DOBOR and DAR. All Ocean Stewardship Fees would be deposited into a new special fund managed by DAR. DAR would provide annual reports to the CUP holders on how fees from the new special fund were spent to benefit the commercial users.

Evaluation of Design Option 1

Yes	Maybe	No	Evaluation Criteria
✓			1. Does the fee program increase funding to manage living marine resources and sustain marine ecosystem services?
		✓	2. Does the fee program apply to most commercial ocean users statewide?
	✓		3. Does fee program increase available information on the types and intensity of commercial ocean uses statewide?
✓			4. Does the fee program leverage existing legal authorities?
	✓		5. Does the fee program limit the need for increased compliance and enforcement costs?
	✓		6. Does the fee program limit the need for increasing DAR personnel costs?
	✓		7. Does the fee program make it easy for commercial ocean users to comply?

Potential Advantages

Under Design Option 1, the fee program would increase funding available to manage living marine resources and sustain marine ecosystem services by charging a new Ocean Stewardship Fee to all DOBOR CUP holders that would be held in a special fund under DAR management. Some existing legal authority would be leveraged by relying on the existing statutory authority for the DOBOR CUP. Additional legal authority would likely need to be established, which is discussed in more detail below.

Potential Tradeoffs

Under Design Option 1, the fee program would not apply to most of the commercial ocean users statewide. Under this option, the fee applies only to DOBOR CUP holders. Although it is a statewide permit, DOBOR's CUP is not required for commercial vessels, water craft or water sports equipment operating out of a state commercial harbor (under DOT Harbors Division jurisdiction) or Kewalo Basin Harbor (HAR §13-256-3, 2018).

According to a 2003 survey of Hawaii's tour boat industry, most of the charter fishing boats, catamarans, dive boats, dinner cruise, parasail boats, submarine, and excursion boats on O'ahu operated out of Honolulu Harbor (a DOT commercial harbor) or Kewalo Basin Harbor (Markrich, 2004). At the time of that study, dinner cruises made up the largest part of O'ahu's tour boat industry (Markrich, 2004). Some of O'ahu's dinner cruise vessels carried up to 1,000 passengers per trip (Markrich, 2004). These dinner cruise vessels also became the biggest carriers of whale watching passengers, when they provided whale watching trips every day during the 120-day whale watching season to supplement their revenues (Markrich, 2004). Under Design Option 1, the new fee program would not apply to the operators of these O'ahu dinner cruise vessels or any other ocean-activity businesses operating out of other DOT commercial harbors[31] or Kewalo Basin Harbor. Covering some but not all of the commercial ocean users that benefit from Hawaii's marine ecosystem services could have unintended consequences, such as operators moving to more shoreline-based operations or attempting to move their operations to DOT commercial harbors or Kewalo Basin Harbor.

A sunset dinner cruise ship as it enters Honolulu Harbor on O'ahu Photo Credit: CrackerClips Stock Media via Shutterstock.com

Unanswered Questions

As reflected in the table above, there are several evaluation criteria that do not have clear answers for Design Option 1. They all depend on how easy or how difficult it would be to coordinate

[31] Hawai'i's commercial harbor system is comprised of Nawiliwili and Port Allen Harbors on Kaua'i; Honolulu and Kalaeloa Barbers Point Harbors on O'ahu; Kahului Harbor on Maui; Kaunakakai Harbor on Moloka'i; Kaumalapau Harbor on Lāna'i; and Kawaihae and Hilo Harbors on Hawai'i Island (HDOT, 2020).

collection of the new DAR fee with DOBOR's existing CUP administration process.

One issue is that it is unclear if DOBOR would be authorized to collect a fee for DAR under existing statutory authority. Existing statutes appear to require DOBOR to deposit all collected fees into the Boating Special Fund (HRS §200-6, 1991). It is unclear if DOBOR would be allowed to transfer the collected Ocean Stewardship Fees to DAR if they are deposited into the Boating Special Fund.

If DOBOR could not collect the Ocean Stewardship Fee for DAR using DOBOR's CUP administration process, DAR may need to create its own parallel administration process to collect the fee from DOBOR CUP holders. To make it easy for the DOBOR CUP holders to comply with the new fee requirement, the two systems would need to be coordinated and streamlined as much as possible internally. DOBOR has customized its databases and payment processes to administer its CUP, as well as other DOBOR permits, which can be complex and require detailed backup documentation and widely varying payment calculations. It is unclear at this time if it would be technically feasible or user-friendly to integrate the DAR and DOBOR administration systems for the purpose of a new Ocean Stewardship Fee program. If integration is not feasible, DAR would need to create its own parallel system and process to collect the new Ocean Stewardship Fee from CUP holders.

Finally, DAR and DOBOR would also need to coordinate how the cost of the Ocean Stewardship Fee could be passed on to the customers of the DOBOR CUP holders without increasing the monthly permit fees of the CUP itself. Currently, DOBOR CUP fees are calculated as 3 percent of the CUP holder's monthly gross receipts. If the Ocean Stewardship Fee is included in the ticket price charged to each customer, the fee alone will drive up the CUP holder's monthly gross receipts and the calculated fee owed to DOBOR. To avoid this unfair outcome for commercial operators, DOBOR would likely need to agree to amend its administrative rules to allow any collected Ocean Stewardship Fees to be subtracted from the monthly gross receipts total used to calculate DOBOR CUP monthly fees. This issue was previously raised as a concern in response to a commercial ocean user fee bill proposed during the 2019 Legislative Session (Testimony for WLH, 2019).

Policy Changes Likely Required

Based on what is clear for Design Option 1, there are several policy changes that would likely be required if this option was pursued:

1. A new statute authorizing DAR to collect the Ocean Stewardship Fee and establishing a special fund administered by DAR where the collected fees would be deposited.[32]
2. New DAR rules, adopted pursuant to HRS chapter 91, detailing:
    a. who the new fee would apply to (e.g., DOBOR CUP holders);
    b. the method for calculating the fee (e.g., per passenger or customer served by the DOBOR CUP holder);
    c. the frequency for fee payment (e.g., at the end of every month);
    d. DAR's obligation to provide annual reports to DOBOR CUP holders on how collected fees are spent.

Depending on how the unanswered questions for Design Option 1 are resolved, the following additional policy changes would likely be required:

3. New DAR rules, adopted pursuant to HRS chapter 91, detailing:
    a. How the fee will be collected.
4. Amended DOBOR rules, adopted pursuant to HRS chapter 91, relating to CUP administration detailing:
    a. How CUP holder requirements or processes would be integrated with the Ocean Stewardship Fee collection process.

External Supports Likely Necessary for Success

Depending on how the unanswered questions for Design Option 1 are resolved, DAR may or may not need help external to DLNR to effectively engage the DOBOR CUP holders and socialize the new Ocean Stewardship Fee program. Support for the program from the customers or passengers of

[32] (HRS §37-52.3, 2013)(Special funds may only be established by statute).

DOBOR CUP holders and other businesses and leaders in the tourism industry would increase the likelihood of success for the program.

Design Option 2: Expand MLCD commercial permits + fees

Under this option, payment of a new Ocean Stewardship fee would become a requirement for holders of MLCD use permits that allow commercial activities. Issuance of MLCD use permits for commercial activities would be expanded, as appropriate, to MLCDs that provide day-use mooring systems within an MLCD. Each MLCD would have a set number of day-use moorings restricted to commercial use only. MLCD use permit holders would be required to pay Ocean Stewardship Fees based on the number of passengers carried to the MLCD during the previous month.

To support compliance and enforcement, MLCD use permit holders would be required to have Automatic Identification System (AIS) transceivers on their vessels as a permit condition.[33] They would also be required to submit a copy of their passenger lists for the days when they entered the MLCD to ensure accurate payment of the Ocean Stewardship Fees. The maximum daily number of commercial passengers would be limited and defined for each MLCD.[34] The number of permits issued for each MLCD would be limited so that the maximum daily passenger capacity of all permittees cannot exceed the MLCD's maximum daily number of commercial passengers.

All Ocean Stewardship Fees would be deposited into a new special fund managed by DAR. DAR would provide annual reports to the MLCD use permit holders on how fees from the new special fund were spent to benefit the commercial users.

Evaluation of Design Option 2

Yes	Maybe	No	Evaluation Criteria
✓			1. Does the fee program increase funding to manage living marine resources and sustain marine ecosystem services?
		✓	2. Does the fee program apply to most commercial ocean users statewide?
		✓	3. Does fee program increase available information on the types and intensity of commercial ocean uses statewide?
		✓	4. Does the fee program leverage existing legal authorities?
		✓	5. Does the fee program limit the need for increased compliance and enforcement costs?
		✓	6. Does the fee program limit the need for increasing DAR personnel costs?
	✓		7. Does the fee program make it easy for commercial ocean users to comply?

Advantages

Under Design Option 2, the fee program would increase funding available to manage living marine resources and sustain marine ecosystem services by expanding the number of MLCDs that require commercial use permits and requiring MLCD commercial use permit holders to pay an Ocean Stewardship Fee based on the number of passengers they carry to the MLCD. The fees collected would be held in a special fund administered by DAR. Unlike the fees collected under Design Option 1, however, the Ocean Stewardship Fees collected under Design Option 2 would be collected from a limited number of commercial users using a limited number of sites. Compared to Design Option 1, this fee program would increase funding on a much smaller scale. Additionally, the use of the Ocean Stewardship Fees collected would likely be restricted to only uses that clearly benefit the MLCD sites or the MLCD commercial use permit holders.

[33] Similar to the requirement described for the Tubbataha Reefs National Park commercial tour operations permit and vessel entry fee (TRNP, n.d.).

[34] This would address a concern about per-head fees not addressing the carrying capacity issues for MLCDs raised in opposition to HB447 during the 2019 Legislative Session (Testimony for WLH, 2019).

Tradeoffs

Under Design Option 2, the fee program would not be statewide. As a result, it would not apply to most commercial ocean users and would not increase the information available on the types and intensity of commercial ocean uses statewide. It would increase the information available for specific sites that are designated as established MLCDs. Requiring permits and fees calculated per passenger for commercial activities in MLCDs would provide information that is currently unavailable about the type of activities that are taking place in MLCDs, the number of people participating in those activities, and whether the intensity of those activities increases or decreases during certain times of year. This kind of information about human activity in relation to the marine monitoring conducted by DAR could help DAR make adaptive management decisions for the benefit of the resources and the MLCD commercial use permit holders. A need for this kind of data has been previously noted,[35] though it would be spatially limited to established MLCDs under Design Option 2.

To a limited extent, the fee program under Design Option 2 would leverage the existing authority provided by the statutes that govern MLCDs. The permitted activities for each MLCD are defined in separate chapters of DAR's administrative rules. Currently, there are eleven established MLCDs and eleven associated chapters of administrative rules. At present, the rules for only two MLCDs (Molokini Shoal and Old Kona Airport) allow use permits for commercial activity and charge a permit fee of $50 that is valid for a two-year period. If MLCD use permits were extended to any additional MLCDs, the administrative rules chapter associated with each MLCD would need to be amended. Additionally, the MLCD rules chapters for Molokini Shoal and Old Kona Airport would also need to be amended to reflect the fee structure and additional permit conditions described under Design Option 2.

Another tradeoff of Design Option 2 is that it would not limit the need for increased compliance and enforcement costs. Enforcing the MLCD permit requirement and appropriate use of the day-use moorings restricted to commercial use only would require more on-the-water enforcement efforts than are likely taking place now. Enforcing accurate payment of the per-passenger Ocean Stewardship Fees would require auditing the data from the vessel AIS transceiver (to identify the dates when the vessel entered the MLCD) and the passenger lists from corresponding days. DAR is not currently conducting data collection and auditing efforts for these activities, so DAR personnel costs would likely increase, as well.

Unanswered Questions

Whether or not the fee program under Design Option 2 would make it easy for MLCD permit holders to comply would likely depend on the system that DAR used for fee payment (e.g., online options vs. paper-based submissions) and whether the MLCD permit holders already have AIS transceivers on their vessels and regularly use passenger lists for their daily operations.

This option could also complicate bookkeeping for the MLCD permit holders, as was noted when House Bill 447 was considered during the 2019 Legislative Session. House Bill 447 proposed to establish a Molokini Special Fund and authorize DLNR to require commercial operators who conduct activities within the Molokini Shoal MLCD to charge a user fee for each customer. Testimony received in opposition to House Bill 447 noted that there are numerous days during the year that commercial vessels are not able to access Molokini Crater because of weather conditions (Testimony for WLH, 2019). On these days, the customer would need to be given a partial refund or a full refund for the canceled trip to the MLCD. The testifier stated that refunding each guest his or her user fee would create an administrative burden that would create substantial harm to operators (Testimony for WLH, 2019). The fee program under Design Option 2 would

[35] (Malama Kai Foundation, 2010) (Page 39: "The answer to the question of whether day-use moorings fill existing needs for boats currently anchoring in an area or promote increased use of an area is not known. Unfortunately, there has been no monitoring of recreation activity or of day-use mooring use to provide these data needed to supply the answer. Currently there is no mechanism requires boaters to report usage.")

risk creating a similar burden for commercial operators. Opportunities to mitigate this risk would need to be identified if Design Option 2 was pursued.

Similar to Design Option 1, DAR would need to work with DOBOR to amend the DOBOR CUP rules to avoid including any collected Ocean Stewardship Fees in the gross receipts total used to calculate the monthly fees owed for DOBOR's CUP.

Policy Changes Likely Required

To establish the fee program under Design Option 2, the following would likely be required:

1. A new statute authorizing DAR to collect the Ocean Stewardship Fee and establishing a special fund administered by DAR where the collected fees would be deposited.[36]
2. Amendments to all DAR administrative rule chapters for MLCDs that would allow MLCD use permits for commercial activity and require collection of the Ocean Stewardship Fee on a per passenger basis (i.e., chapters 28-38 of HAR Title 13, subtitle 4).
3. Amendments to any DOBOR administrative rules that currently address commercial use of day-use moorings (i.e. chapter 257 of HAR title 13, subtitle 11).

External Supports Likely Necessary for Success

For this option, DAR would likely need help external to DLNR to effectively engage the MLCD use permit holders and socialize the new fee program. As with Design Option 1, support for the fee program from the customers or passengers of the MLCD use permit holders and other businesses and leaders in the tourism industry would increase the likelihood of success for the program.

Design Option 3: New DAR Fee + Online Data Collection and Payment

Under this option, payment of a new Ocean Stewardship Fee would become a requirement for all commercial ocean users providing vessel-based activities to passengers or vessel-free services to customers. The Ocean Stewardship fee would be charged per passenger carried or customer served by holders of DOBOR CUPs (HAR §13-256-3, 2018) with the potential of expanding the requirement to DOT Harbors Commercial Use Permit holders (HAR §19-42-25(2), 1996) and Kewalo Basin Harbor commercial permit holders (HAR §15-212-29(2), 2008).

Fees would be paid by the commercial use permit holders through an Ocean Stewardship Fee online payment system hosted by the Hawaii.gov portal. Payment of Ocean Stewardship Fees would be due at the end of each month, calculated on a per-passenger or per-customer basis and submitted with copies of the corresponding passenger or customer lists from that month.[37]

After the online payment is processed, permit holders would receive a compliance confirmation receipt from the online system that must be carried with the relevant vessel or operator at all times. All Ocean Stewardship Fees would be deposited into a new special fund managed by DAR. DAR would provide annual reports to the DOBOR, DOT Harbors Division, and Kewalo Basin Harbor commercial use holders on how fees from the new special fund were spent to benefit the commercial users and their customers.

Evaluation of Design Option 3

Yes	Maybe	No	Evaluation Criteria
✓			1. Does the fee program increase funding to manage living marine resources and sustain marine ecosystem services?
	✓		2. Does the fee program apply to most commercial ocean users statewide?
	✓		3. Does fee program increase available information on the types and intensity of commercial ocean uses statewide?
✓			4. Does the fee program leverage existing legal authorities?

[36] (HRS §37-52.3, 2013)(Special funds may only be established by statute).

[37] DOT Harbors Division currently requires similar monthly gross receipts and passenger reports. (HAR §19-44-36(b), 2018) ("A monthly report (DOT 3-167) showing the gross receipts and charges and the total number of passengers carried during the month by the vessel shall be submitted by the permittee to the department within 30 days after the last day of the month being reported and the net charges due shall be remitted along with the report for cruise boats in subsection (a)(1).").

	✓		5. Does the fee program limit the need for increased compliance and enforcement costs?
✓			6. Does the fee program limit the need for increasing DAR personnel costs?
	✓		7. Does the fee program make it easy for commercial ocean users to comply?

Advantages

Under Design Option 3, the fee program would increase funding available to manage living marine resources and sustain marine ecosystem services by charging per-passenger fees or per-customer fees to all DOBOR CUP holders with the potential to eventually charge DOT Harbors Division CUP and Kewalo Basin Harbor commercial permit holders. All of the Ocean Stewardship Fees charged to these permit holders would be collected through the online portal and held in a special fund under DAR management.

Additional measures could be taken to ensure accountability and build trust in the special fund management, such as using an advisory board to make funding recommendations to DAR. An advisory board that included participants from the private business sector as well as environmental non-profits would likely be supported by the customers of commercial permit holders (van Beukering, 2004).

This fee program would leverage existing legal authorities by creating the requirement to pay the Ocean Stewardship fee for holders of existing permits under DOBOR with the potential to eventually include permits under DOT Harbors Division and Kewalo Basin Harbor authority, as well. Additional legal authority would still be required to establish the special fund which is discussed in more detail below.

This fee program would limit the need for increasing DAR personnel costs beyond what would be required to support the administration of the online payment system and communicate with the necessary contacts at DOBOR for compliance and enforcement (and, if expanded, with necessary contacts at DOT Harbors Division and Kewalo Basin Harbor). The DOBOR CUP (and the DOT Harbors Division and Kewalo Basin Harbor commercial use permits) have provisions that allow permit revocation or denial of permit renewal for failing to resolve debts owed to the State.[38] By coordinating and communicating with DOBOR (and, if expanded, DOT Harbors Division and Kewalo Basin Harbor), DAR can enforce compliance with the fee requirement through existing permit rules and requirements.

An online payment processing system would process monthly payments, receive supporting documentation, and generate a receipt that permit holders would carry to demonstrate compliance during inspections. Auditing submitted payments to confirm accuracy would take additional DAR staff time; however, if the online system was able to auto-generate notification emails to DAR staff when a monthly payment requirement was not received, staff time required for compliance would be reduced.

It should be noted that DAR staff time would be required to coordinate with DOBOR (and if expanded with DOT Harbors Division and Kewalo Basin Harbor) to support the initial outreach to their permit holders about the new Ocean Stewardship Fee requirement, provide assistance to permit holders in setting up their online payment account, and obtain lists of the current permit holders that must create accounts in the online payment system for the Ocean Stewardship Fee.

Tradeoffs

The main tradeoff of Design Option 3 is that it will require coordination and collaboration with

[38] (HAR §13-231-6, 2018; HRS §171-3, 2008) (a DOBOR use permit may be revoked for failure to pay all fees owed to DLNR within 30 days of the date payment is due); (HAR §15-212-48(5), 2008) (A Kewalo Basin Harbor revocable permit may be terminated or revoked for reasons including "[f]ailing to satisfactorily meet delinquent outstanding indebtedness due the State"); (HAR §19-42-44(5), 1996)(A DOT Harbors Division use permit may be revoked or refused to renew for reasons including "[f]ailing to satisfactorily meet delinquent outstanding indebtedness due the State"); (HAR §19-42-15, 1996)("Use of state harbors and facilities is subject to compliance with all applicable federal, state, or county laws, ordinances, rules, and regulations.").

DOBOR (and, if eventually expanded, with DOT Harbors Division and Kewalo Basin Harbor) commercial use permit staff to be successful. This includes establishing a working master list of permit holders that will be obligated to pay the Ocean Stewardship Fee, effectively socializing the new Ocean Stewardship Fee requirement with permit holders, and working together on compliance and enforcement throughout the year. This coordination and collaboration will be particularly important since one of the most effective enforcement mechanisms for the Ocean Stewardship Fee under this option is the potential for commercial use permits to be revoked or renewal decline for failure to pay the Ocean Stewardship Fees.

Unanswered Questions

Whether or not the fee program under this option would apply to most commercial ocean users statewide depends on whether the Ocean Stewardship Fee requirement is eventually expanded to apply to DOT Harbors Division CUP and Kewalo Basin Harbor commercial permit holders. Such an expansion would cover the user gaps identified and discussed under Design Option 1.

Whether or not the fee program under Design Option 3 would increase the available information on the types and intensity of commercial ocean uses statewide will depend on how the online payment system is designed. The online system could request information not currently collected from permit holders, such as trip destinations, harbors or ramps utilized, and activities engaged in. Collecting this type of information could significantly improve DAR's understanding of the human uses and activities taking place across Hawaii's nearshore waters, which could be combined with other DAR monitoring efforts to better understand changes that may be taking place in the water and in the health of Hawaii's living marine resources. This information could also empower DAR to make informed decisions about where funding from the collected Ocean Stewardship Fees should be deployed to provide meaningful benefits to the fee payers.

Whether or not the fee program under Design Option 3 would limit the need for increased compliance and enforcement costs will depend on the level of coordination and cooperation DAR can secure from DOBOR (and, if eventually expanded, from DOT Harbors Division and Kewalo Basin Harbor). For example, if DOBOR agreed to include payment of the Ocean Stewardship Fee as an additional condition of its commercial use permits, a very powerful compliance and enforcement mechanism could be created. To effectively use that mechanism, DAR would need to co-develop a reliable process to notify DOBOR of a permit holder's noncompliance with the Ocean Stewardship Fee requirement so permit renewal could be put on hold or revocation proceedings could be initiated. Additional compliance and enforcement efforts would be needed to confirm the accuracy of passenger and customer lists maintained by the permit holders. Spot checks for accuracy could be conducted by DOCARE on the shoreline, docks, or ramps when vessels or tour groups return. In contrast to Design Option 2, this option would not require on-the-water enforcement efforts.

Whether or not the fee program would make it easy for commercial ocean users to comply will also depend on how the online portal system is designed. Designing monthly reporting questions to be easily answered with readily available information would help. Also, designing the online system to make repeat payments easy to process and provide more than one receipt format (e.g., printable format, scanned PDF on a mobile device, and QR code that officers/permit holders can scan with a mobile device) could help make it easier for permit holders to comply.

Finally, as with Design Option 1, DAR would need to coordinate how the cost of the Ocean Stewardship Fee could be passed on to the customers of DOBOR CUP holders (and, if expanded, DOT Harbors Division and Kewalo Basin Harbor commercial permit holders) without increasing the cost of monthly permit fees. Currently, DOBOR, DOT Harbors Division, and Kewalo Basin Harbor permit fees are calculated as a percentage of the permit holder's monthly gross receipts. If the Ocean Stewardship Fee is passed on to their customers and included in ticket prices, the fee alone would drive up the permit holder's monthly gross receipts amount

and their monthly permit fee. To avoid this unfair outcome for commercial operators, DAR would need to work with DOBOR, DOT Harbors Division, and Kewalo Basin Harbor to identify the best way for any Ocean Stewardship Fees collected by the commercial permit holders to be subtracted from their monthly gross receipts total.

Alternatively, DAR could consider allowing commercial operator passengers and customers to pay the Ocean Stewardship Fee directly through the online portal system. Operators would then be responsible for ensuring that each customer has purchased the Ocean Stewardship Fee by verifying the customer's receipt, scan code, or reference number. This approach could reduce the administrative burden on commercial permit holders related to collecting the fee and ensuring collected fees are not included in monthly gross receipts calculations. The significant tradeoff with this approach, however, is that the commercial permit holders would themselves become the primary compliance and enforcement mechanism to ensure the fees are paid. This may create a conflict of interest if customers are willing to pay for the activities but not the Ocean Stewardship Fee. It would be very difficult for a commercial permit holder to turn away a willing customer solely because they did not provide proof of paying their Ocean Stewardship Fee.

Policy Changes Likely Required

To establish the fee program under Design Option 3, the following would likely be required:

1. A new statute authorizing DAR to collect the Ocean Stewardship Fee and establishing a special fund administered by DAR where the collected fees would be deposited.[39]
2. New DAR rules, adopted pursuant to HRS chapter 91, detailing:
   a. who the new fee would apply to (e.g., DOBOR CUP holders, and if expanded, DOT Harbors Division CUP, Kewalo Basin Harbor commercial permit holders);
   b. the method for calculating the fee (e.g., per passenger or customer served by the permit holders);
   c. how the fee would be collected (e.g., online payment system);
   d. backup documentation to be submitted with payment (e.g., passenger and/or customer lists);
   e. the frequency for fee payment (e.g., at the end of every month);
   f. requirement to keep payment receipt for inspection; and
   g. DAR's obligation to provide annual reports to permit holders on how collected fees are spent.

Depending on how the unanswered questions for Design Option 3 are resolved, the following additional policy changes could also be helpful:

1. A formalized agreement between DAR and DOBOR (and, if expanded, with DOT Harbors Division and Kewalo Basin Harbor), detailing how the Ocean Stewardship Fee program will be implemented, including:
   a. cooperation to develop DAR's master list of permit holders,
   b. agreement to include payment of the Ocean Stewardship Fee as a commercial use permit condition,
   c. coordinated communication on fee payment noncompliance throughout the year, and
   d. agreement on how the Ocean Stewardship Fees collected by permit holders would not be included in the gross receipts reported by the permit holders as the basis for their monthly commercial permit payments.

External Supports Likely Necessary for Success

As with Design Options 1 and 2, DAR will need help to effectively engage the various commercial permit holders and socialize the new fee program. Ideally, some of this help would come from DOBOR (and, if expanded, from DOT Harbors Division and Kewalo Basin Harbor). Support for the Ocean Stewardship Fee program from the customers of the commercial use permit holders and other businesses and leaders in the tourism industry would increase the likelihood of success for the program.

C. Analysis of Fee Scenarios

Based on the evaluation of each design option against the evaluation criteria, Design Option 3

[39] (HRS §37-52.3, 2013)(Special funds may only be established by statute).

was selected for a full financial impact analysis. This financial impact analysis examines the financial implications of several variations of Design Option 3 and describes the results of preliminary analyses conducted into the relationship between certain design, operating and financial assumptions.

A brief overview of a 2004 willingness-to-pay survey of divers and snorkelers in Hawai‘i provides context for the fee ranges selected for analysis here (van Beukering, 2004). The survey asked respondents if they would be willing to pay a certain amount per dive or snorkel experience to help fund activities that protect corals, reef fish, sea turtles, and other reef animals in Hawai‘i. The survey results showed that 75 percent of the surveyed divers and snorkelers were willing to pay an extra amount. The largest number of those willing to pay were willing to pay $5 extra per experience. The average amount across all users willing to pay was $3.77 per experience. The survey found that the uniqueness of the site, the facilities or services available, and the health of the reef had a positive impact on the respondents' willingness to pay for conservation. The survey also found that the group most agreeable to paying extra for conservation were respondents visiting from the mainland U.S. – with almost 80 percent willing to pay extra.

The 2004 willingness-to-pay survey also asked respondents which funding mechanism would be the most convenient and trustworthy way to collect the conservation contributions. Given the choice between being charged a small amount (such as $2) for each dive or snorkel day or a larger amount (such as $10) that would be charged on an annual basis, 50 percent of divers and 58 percent of snorkelers preferred payment per activity. Thirty-three percent of divers and 27 percent of snorkelers preferred annual payments.

1. Approach

The creation of an Ocean Stewardship Fee program within DAR will require an initial commitment of certain financial resources either by the State of Hawai‘i or external investors. Evaluating the attractiveness of such an investment from a financial perspective requires an analysis of the future benefits and costs that may be generated by an Ocean Stewardship Fee program, and a comparison of these costs and benefits with the value of the initial program investment(s). In order to facilitate this evaluation, we conducted a discounted cash flow (DCF) analysis, a method commonly used to evaluate the attractiveness of project investments – in this case, a proposed Ocean Stewardship Fee program. DCF analysis is used to calculate a project's Net Present Value (NPV) – which is the present (discounted) value of future cash flows generated by or used in a project relative to the value of initial capital investments made. The general premise of the DCF analysis is that, all else equal, if the present value of net cash flows (benefits) exceeds the current capital investment required (costs) by a project, the project should be considered.

2. Information Objectives

Based on interviews with DAR staff, the information objectives for this financial impact analysis include:

A. **Estimated Net Cash Flows**. The estimated net cash flow contribution (or burden) generated by a new Ocean Stewardship Fee program, given certain assumptions.

B. **Returns on Investment**. The potential financial returns that may be generated by a Ocean Stewardship Fee program expressed in terms of the program's NPV, Internal Rate of Return (IRR) and other select financial metrics.

C. **Target Fee Rate(s)**. The per-unit fee that would enable the proposed Ocean Stewardship Fee program to 'break even' – that is, to cover all of the initial start-up and recurring direct and indirect costs of operating the Ocean Stewardship Fee program given the tourism estimates, compliance, and other assumptions.

In each scenario, we explored the sensitivity of these values to changes to the underlying assumptions.

3. Preliminary Findings

Through the financial impact analysis, we considered a range of potential fee structures.

In each scenario, we explored the sensitivity of the Ocean Stewardship Fee program revenues and expected overall financial returns to these design options, given a set of underlying tourism population, compliance, program cost and other assumptions. Presented here are the findings from an analysis of selected fee scenarios.

a. Model Assumptions

Cost Structure. To properly administer and manage an Ocean Stewardship Fee program, DAR would need to hire additional capacity: 3 full-time employee (FTE) administrative staff with one staff each based on the islands of Hawai'i, Maui and Kaua'i to provide distributed and localized contact points for the fee program and 1 FTE Program Manager based on O'ahu to oversee the fee program operations, lead coordination of compliance and enforcement efforts with other agencies and divisions, and provide necessary reporting, both internally and externally, such as to stakeholders and the Legislature. The total Personnel Costs for the program are estimated at $420,000 in Year 0 and the model assumes a year-over-year increase in labor costs at an average of 2.4 percent per annum, the average rate of growth based on the U.S. Bureau of Labor Statistics. For each fee scenario presented herein, we assume: (a) a required initial capital investment of US $300,000 for the software design and development of an online system occurring in the period Year 0; (b) annual fixed operating costs which include software maintenance costs estimated at $60,000, IT hardware maintenance costs estimated at $10,000, and personnel salaries, payroll taxes, and fringe benefits for 4 FTE DAR staff detailed above; (c) annual variable costs which include 5 percent credit card transaction fees and a 5 percent State of Hawaii fee for the administration of a Special Fund.

***Fee Payment Volume*.** The expected volume of fee payments is influenced by certain underlying assumptions regarding the population of passengers or customers of Hawaii's commercial ocean use permit holders.

i. Population Size. In order to establish a baseline estimate of the passenger or customer population of Hawaii's commercial ocean use permit holders, we examined Hawai'i Tourism Authority data of the total visitors to the state of Hawai'i over the past 10 years, which presented an average growth rate of 4.48 percent over the period, with the 2019 total visitors being 10,424,995. Based on a 2003 survey of the Hawai'i tour boat industry, we assume that 43 percent of the total annual visitors to Hawai'i will be customers or passengers of a Hawai'i commercial ocean use permit holder (Markrich, 2004).[40] For Fee Scenarios A-C below, we have used pre-COVID-19 levels of tourism as the tourist population.

ii. Expected Compliance Rates. Due to a range of factors, we assume that only a portion of the total tour operators will comply with the Ocean Stewardship Fee program. Based on trends from other state-level permissions and fees in other U.S states, we estimate that a maximum of 70 percent of the operator population will pay the fee to DAR on a monthly basis, conservatively. Further, we estimate that the rate of compliance with new operators will increase at an average annual rate of 15 percent over the first five years before reaching the 70 percent compliance target.

***COVID-19 Impacts to Tourism Population*.** While the tourism impacts of COVID-19 are still widely unknown, a recent report by the Organization for Economic Cooperation and Development has estimated that tourism has decreased by 80 percent in 2020 and that a return to pre-COVID-19 levels will take a minimum of 4 years (OECD, 2020).

b. Analysis of Ocean Stewardship Fee Scenarios

i. Fee Scenario A: Pre-COVID, Break-Even Fee.

[40] The study provides a comprehensive view of the Hawai'i tour boat industry. More recent data is available from the Hawai'i Tourism Authority but those statistics are segmented by ocean activity and visitor origin. For example, in 2018, visitors that went on sightseeing tours on boats, submarines, or for whale-watching during their trip to Hawai'i ranged from 9.7 percent (visitors from Japan) to 27.6 percent (visitors from China). During the same year, visitors that went snorkeling during their trip ranged from 17.2 percent (visitors from Japan) to 54 percent (visitors from Canada). For lunch, sunset, or dinner cruises in 2018, anywhere from 15.7 percent (visitors from Japan) to 60 percent (visitors from China) took cruises during their trip to Hawai'i (Anthology, 2018).

Fee Scenario A examines the minimum per-passenger or per-customer fee required for the Ocean Stewardship Fee program to "break-even" assuming: (a) a 15-year time horizon; (b) a fixed, universal fee applied to all passengers or customers of commercial ocean use permit holders; (c) all of our cost structure assumptions stated in Section 1.1 are applied; and (d) all other relevant assumptions as presented in Table 1. Fee Scenario Analysis -Model Drivers below.

Our analysis indicates that, given the assumptions described above, the minimum (break-even) fee rate is US $0.17. Additional findings of our analysis are summarized in Table 2. Fee Scenario Analysis – Model Outputs below. In interpreting the break-even analysis presented here, it is important to note the relevant range – that is, the activity level range within which certain revenue or cost levels can be expected to occur. Increases or decreases to the tourism population, compliance rates, or other data underlying model drivers such as the expected volume of fee transactions, or changes in the Ocean Stewardship Fee program cost structure all influence the break-even fee rate.

ii. Fee Scenario B: Pre-COVID, Fixed, Universal Rate $1.

Fee Scenario B examines the Ocean Stewardship Fee set at a fixed, universal rate of $1 per passenger or customer and assumes: a) a 15-year time horizon; (b) all of our cost structure assumptions stated in Section 1.1 are applied; and (c) all other relevant assumptions as presented in Table 1. Fee Scenario Analysis -Model Drivers below.

Our analysis indicates that given the assumptions described above, the Ocean Stewardship Fee is **expected to generate a Net Present Value (NPV) of $30,349,440 and a project Internal Rate of Return (IRR) of 140 percent**. After start-up cost expenditures of $790,000 in Year 0, this Fee Scenario B would generate positive returns in Year 1 of just over $600,000. Annual net cash flows would range from $600,000 in Year 1 to slightly over $5 million in Year 15. Details are presented in Table 2 below.

iii. Fee Scenario C: Pre-COVID, Fixed, Universal Rate $2.50.

Fee Scenario C examines the Ocean Stewardship Fee set at fixed, universal rate of $2.50 per passenger or customer and assumes: a) a 15-year time horizon; (b) all of our cost structure assumptions stated in Section 1.1 are applied; and (c) all other relevant assumptions as presented in Table 1. Fee Scenario Analysis -Model Drivers below.

Our analysis indicates that given the assumptions described above, the Ocean Stewardship Fee program is **expected to generate a Net Present Value (NPV) of $85,447,661 and a project Internal Rate of Return (IRR) of 352 percent**. As with Fee Scenario B, after start-up cost expenditures of $790,000 in Year 0, Fee Scenario C would generate positive returns in Year 1 of $2.25 million. Annual net cash flows would range from approximately $2.25 million in Year 1 to $13.5 million in Year 15. Details are presented in Table 2 below.

iv. Fee Scenario D: Break-Even Fee with COVID-19 Potential Impacts.

Fee Scenario E examines the minimum per-passenger or per-customer fee required for the Ocean Stewardship Fee program to "break-even" using tourism numbers with potential COVID-19 impacts and assuming: (a) a 15-year time horizon; (b) a fixed, universal fee applied to all passengers or customers of commercial ocean use permit holders; (c) all of our cost structure assumptions stated in Section 1.1 are applied; and (d) all other relevant assumptions as presented in Table 1. Fee Scenario Analysis -Model Drivers below.

Our analysis indicates that, given the assumptions described above, the **minimum (break-even) fee rate is US $0.31**. Additional findings of our analysis are summarized in Table 2. Fee Scenario Analysis – Model Outputs below. In interpreting the break-even analysis presented here, it is important to note the relevant range – that is, the activity level range within which certain revenue or cost levels can be expected to occur. The long-term impacts on tourism from COVID-19 are still widely unknown and this Fee Scenario is presented for comparison purposes only.

i. Fee Scenario E: Fixed, Universal Rate $1 with COVID-19 Potential Impacts.

Fee Scenario E examines the Ocean Stewardship Fee set at fixed, universal rate of $1 per passenger or customer and assumes: a) a 15-year time horizon; (b) all of our cost structure assumptions stated in Section 1.1 are applied; and (c) all other relevant assumptions as presented in Table 1. Fee Scenario Analysis -Model Drivers below.

Our analysis indicates that given the assumptions described above, the Ocean Stewardship Fee program is **expected to generate a Net Present Value (NPV) of $14,413,266 and a project Internal Rate of Return (IRR) of 55 percent**.

After start-up cost expenditures of $790,000 in Year 0 as well as negative returns of almost $225,000 in Year 1, Fee Scenario E would not generate positive returns until Year 2. Annual net cash flows would range from nearly -$225,000 in Year 1 to $2.8 million in Year 15. Details are presented in Table 2 below. It should be noted that this fee scenario did not factor in any increases to the base cost assumptions that may result from COVID-19 impacts on the overall state budget and DAR personnel levels. The full extent of potential state budget impacts is not currently known; therefore, the positive annual cash flows for Fee Scenario E should be revisited when more information becomes available.

Table 1. Fee Scenario Analysis - Model Drivers

Scenario A		Scenario B		Scenario C		Scenario D		Scenario E	
Passenger Population	4,683,763	Passenger Population	4,683,763	Passenger Population	4,683,763	Passenger Population	936,753	Passenger Population	936,753
Annual Population Growth	4.48%	Annual Population Growth	4.48%	Annual Population Growth	4.48%	Annual Population Growth	4.48%	Annual Population Growth	4.48%
Expected Compliance		Expected Compliance		Expected Compliance		Expected Compliance		Expected Compliance	
Year 1	25%	Year 1	25%	Year 1	25%	Year 1	25%	Year 1	25%
Year 2	40%	Year 2	40%	Year 2	40%	Year 2	40%	Year 2	40%
Year 3	55%	Year 3	55%	Year 3	55%	Year 3	55%	Year 3	55%
Year 4	65%	Year 4	65%	Year 4	65%	Year 4	65%	Year 4	65%
Year 5	70%	Year 5	70%	Year 5	70%	Year 5	70%	Year 5	70%
Year 6...15	70%	Year 6...15	70%	Year 6...15	70%	Year 6...15	70%	Year 6...15	70%
Passenger Fee Rates	$0.17	Passenger Fee Rates	$1.00	Passenger Fee Rates	$2.50	Passenger Fee Rates	$0.31	Passenger Fee Rates	$1.00

Table 2. Fee Scenario Analysis - Model Outputs

Scenario A		Scenario B		Scenario C		Scenario D		Scenario E	
Summary of Financial Returns		Summary of Financial Returns		Summary of Financial Returns		Summary of Financial Returns		Summary of Financial Returns	
Net Present Value	$0	Net Present Value	$30,349,440	Net Present Value	$85,447,661	Net Present Value	$(0)	Net Present Value	$14,413,266
Internal Rate of Return	5%	Internal Rate of Return	140%	Internal Rate of Return	352%	Internal Rate of Return	5%	Internal Rate of Return	55%
Projected Annual Net Cash Flows		Projected Annual Net Cash Flows		Projected Annual Net Cash Flows		Projected Annual Net Cash Flows		Projected Annual Net Cash Flows	
Year 0	(790,000)	Year 0	(790,000)	Year 0	(790,000)	Year 0	(790,000)	Year 0	(790,000)
Year 1	(308,772)	Year 1	600,885	Year 1	2,252,333	Year 1	(415,603)	Year 1	(224,839)
Year 2	(190,604)	Year 2	1,330,018	Year 2	4,090,648	Year 2	(333,882)	Year 2	64,729
Year 3	(61,560)	Year 3	2,122,916	Year 3	6,088,747	Year 3	(203,994)	Year 3	511,797
Year 4	35,457	Year 4	2,732,707	Year 4	7,629,461	Year 4	(42,565)	Year 4	1,062,200
Year 5	95,362	Year 5	3,130,157	Year 5	8,639,709	Year 5	145,189	Year 5	1,698,965
Year 6	112,591	Year 6	3,283,273	Year 6	9,039,523	Year 6	164,649	Year 6	1,787,997
Year 7	130,827	Year 7	3,443,481	Year 7	9,457,475	Year 7	185,217	Year 7	1,881,252
Year 8	150,121	Year 8	3,611,104	Year 8	9,894,384	Year 8	206,946	Year 8	1,978,924
Year 9	170,526	Year 9	3,786,480	Year 9	10,351,102	Year 9	229,896	Year 9	2,081,217
Year 10	192,099	Year 10	3,969,962	Year 10	10,828,524	Year 10	254,127	Year 10	2,188,343
Year 11	214,896	Year 11	4,161,918	Year 11	11,327,583	Year 11	279,702	Year 11	2,300,525
Year 12	238,980	Year 12	4,362,736	Year 12	11,849,253	Year 12	306,687	Year 12	2,417,996
Year 13	264,414	Year 13	4,572,817	Year 13	12,394,553	Year 13	335,153	Year 13	2,540,998
Year 14	291,265	Year 14	4,792,583	Year 14	12,964,549	Year 14	365,171	Year 14	2,669,787
Year 15	319,604	Year 15	5,022,474	Year 15	13,560,352	Year 15	396,819	Year 15	2,804,627

Scenarios A and D examine the Net Present Value (NPV) break-even fee rate - mathematically, the fee rate that sets NPV to "0".

Mathematically, the Internal Rate of Return (IRR) is the rate that sets NPV to "0". Because Scenarios A and D solve for the break-even fee, the IRR is equivalent ot the selected discount rate.

c. Benefits allocation

Regardless of the benefits potential of any new Ocean Stewardship fee program, the critical question for commercial marine recreation or tourism businesses and their passengers will be what DAR intends to spend the collected fees on. Conversations with DAR staff during the course of this study have highlighted several potential priority areas for funding from a new commercial ocean user fee program, including:

- education and outreach (such as educational signage at priority beaches, harbors, airports, etc. with information on marine life, regulations, and best practices);
- habitat restoration (such as funding for outside organizations or businesses to partner with DAR on restoration projects at sites important to commercial operators);
- enforcement and compliance (such as increasing marine patrol units, technical legal and data experts, and liaisons to commercial operators to enhance compliance and enforcement capacity); and
- institutionalized monitoring (such as fishery and non-fishery dependent monitoring, including commercial use monitoring, to expand monitoring capacity and assist with restoration projects of interest to commercial operators) (DAR, 2020).

Surfer at sunset. Photo Credit: Jeremy Bishop via stock.adobe.com

Some commercial operators have also suggested to DAR that funds be allocated to public-private partnerships, moorings, projects that address land-based sources of pollution or watershed restoration, enforcement, education and outreach, debris clean-ups, reducing resident-visitor tension, and scholarship programs (Neilson, 2020). Additionally, these operators commented that any new commercial ocean user fee program would need to build trust with the commercial operators and accountability for DAR to use the funds appropriately and suggested the use of an advisory board, firm budget allocations or caps for the special fund that holds the fees, transparent accounting, and annual reports to the Legislature (Neilson, 2020).

V. CONCLUSION

Based on the research and analyses conducted for this study, the overall conclusion is that a statewide commercial ocean user fee program that contributes financially to sustaining Hawai‘i’s living marine resources and marine ecosystem services could be feasible, if applicable constraints and tradeoffs are taken into account. A successful Ocean Stewardship Fee program will require DAR to collaborate and coordinate with DOBOR (and potentially with DOT Harbors Division and Kewalo Basin Harbor) for outreach, stakeholder engagement, and effective statewide compliance and enforcement.

If applicable constraints and tradeoffs are taken into account, an Ocean Stewardship Fee program could be a promising contribution to the increasing challenge of responsibly caring for Hawai‘i’s marine ecosystem and the important services it provides for current and future generations of residents and visitors to Hawai‘i. The impacts of COVID-19 on the benefits potential for such a program and so many other things are not fully known yet and continue to unfold. It is encouraging, however, that even in these difficult times there have been many calls to reinvent Hawai‘i’s relationship to tourism and rethink how Hawai‘i’s economic engine invests in the natural assets that drive that engine. This study is one contribution to that process of rethinking and reinvention.

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Pyramid butterflyfish at French Frigate Shoals Photo Credit: © Greg McFall/NOAA

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