

**ENFORCEMENT CHAIN ANALYSIS OF
AQUATIC RESOURCE ENFORCEMENT ON
O‘AHU ISLAND AND NORTH SHORE MAUI**

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O‘ahu Resource Conservation and Development Council*

Wayne C. Tanaka, Melissa A. Miyashiro, and Koalani L. Kaulukukui

***The views and opinions expressed in this report do not necessarily reflect the views or opinions of Kua‘āina Ulu Auamo and the O‘ahu Resource Conservation and Development Council**

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ABSTRACT & HIGHLIGHTS

The links in Hawai‘i's nearshore aquatic resource enforcement chain can be described as education, detection/interdiction, criminal prosecution or civil administrative adjudication, and criminal or civil sanctions. This report measures the effectiveness of the enforcement chain by evaluating how each link contributes to the law enforcement functions of education, deterrence, rehabilitation, restoration, and community engagement. Quantitative and qualitative data to evaluate these functions were gathered by reviewing relevant literature, surveying fishers on O‘ahu and the north shore of Maui, analyzing criminal citation data, and interviewing agency officials that operate within the enforcement chain. Based on these research activities, recommendations on how to improve the functions of Hawai‘i's nearshore aquatic resource enforcement chain are provided.

In general, the study identified gaps or barriers within Hawai‘i's nearshore aquatic resource enforcement chain with respect to each of the following law enforcement functions. **Education:** Educational activities throughout the enforcement chain are ad hoc and piecemeal, and primarily fall on the state Division of Aquatic Resources ("DAR") and the Division of Conservation and Resources Enforcement ("DOCARE"). Educational efforts should be coordinated, and should target all agencies involved in the enforcement chain, so that officials can pass this information down to offenders during the enforcement process. **Deterrence:** Significant funding and personnel shortages within DOCARE, prosecutors' offices, district court judges, and public defenders prevent the chain from effectively deterring violations of aquatic resource laws. **Rehabilitation:** The lack of transformative rehabilitation programs specifically designed to rehabilitate aquatic resource violators is a major barrier to rehabilitation of violators. **Restoration:** The nearly exclusive use of relatively minimal fines to punish criminal defendants confirms that restorative sanctions are rarely if ever available in the criminal court system. **Community Engagement:** Lack of administrative capacity to support community initiatives, and the lack of funding and personnel to both respond to community concerns and provide feedback on incident reports inhibited DOCARE's ability to assure mutual compliance and support community engagement with aquatic resource management.

To address these deficiencies in the proper functioning of the enforcement chain, the following recommendations were made:

- (1) Develop strategic and coordinated educational outreach programs;
- (2) Strengthen interagency and interdivision relationships and communication;
- (3) Expand the civil (non-criminal) administrative adjudication process;
- (4) Improve the efficiency of the current enforcement process;
- (5) Develop enforcement performance measures;
- (6) Develop relationships with community groups; and
- (7) Create new positions to fill multiple enforcement chain gaps (education and outreach specialist(s), legal analyst(s), DOCARE operational support staff).

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EXECUTIVE SUMMARY

I. PROJECT GOALS

The "enforcement chain" for Hawai'i's nearshore aquatic resource laws involves a number of governmental agencies at both the state and county level, each tasked with carrying out specific "links" in the enforcement process. These "links" are generally understood as education, detection/interdiction, criminal prosecution or civil administrative adjudication, and the imposition of criminal or civil sanctions for adjudicated violations. The effectiveness of aquatic resource law enforcement in Hawai'i depends upon the proper functioning of and relationship in each agency and between each link in this enforcement chain.

The purpose of this report is to (1) identify the gaps and barriers in Hawai'i's enforcement chain for nearshore aquatic resource violations by looking specifically at its functions on O'ahu and the north shore of Maui, and (2) use these findings to make recommendations to better facilitate the law enforcement functions of education, deterrence, rehabilitation, restoration, and community engagement in aquatic resource management.

II. METHODOLOGY

The following activities were conducted in pursuit of the project goals:

1. A **literature review** of all published and unpublished studies and analyses relating to the aquatic resources enforcement chain in Hawai'i, particularly for violations of nearshore aquatic resource laws;
2. A **public survey** of nearshore fishers of all types on O'ahu and the north shore of Maui to evaluate public perceptions of the effectiveness of the links in the aquatic resource enforcement chain;
3. A **citation disposition database review** of aquatic resource citations issued in each study area, including conviction and dismissal rates as well as penalties imposed; and
4. **In-depth interviews** with individuals from the government agencies carrying out specific links in the enforcement chain for each of the geographic study areas, to survey the barriers that they face in the proper functioning of their agency's responsibilities.

III. SUMMARY OF FINDINGS & ANALYSIS

Highlights of findings from each of the above activities with respect to the functions of law enforcement are summarized below.

Education

With respect to the law enforcement function of education, literature review findings not confined to either study area indicated a lack of transparency in how laws may be interpreted in criminal court, as well as a lack of interdivision communication in the development and implementation of rules inhibiting follow-up educational efforts.

On O‘ahu, 90% of survey participants indicated some knowledge of fishing laws, while 72% of participants indicated that violations occurred primarily due to a lack of knowledge. On the north shore of Maui, 98% of survey participants indicated some knowledge of fishing laws, while 77% of participants indicated that violations occurred primarily due to a lack of knowledge. A majority of respondents on both islands supported regulations of all types.

The citation database analysis indicated that for both islands, over 80% of the aquatic resource cases ending in a conviction resulted in a fine alone, which in most instances was less than or equal to the lowest statutory minimum fine for aquatic resource violations. Educational outreach to the public regarding potential penalties as a justification for compliance may be limited by the fact that for the most part, actual penalties imposed as lower than the statutory minimum penalties.

Interviews on both islands revealed that while state Division of Conservation and Resources Enforcement ("DOCARE") officers engage in educational activities, such activities were ad hoc and piecemeal given the lack of administrative capacity to develop and implement a more coordinated and effective educational campaign. Interviews on both islands suggest that a more coordinated and strategic educational program, particularly between the Division of Aquatic Resources ("DAR") and DOCARE, may increase the educational function of the enforcement chain in both study areas. Educational efforts, however, should not be limited to Department of Land and Natural Resources ("DLNR") divisions. Efforts to improve education as a law enforcement function should focus inwardly to all players involved in the enforcement chain, including judges, prosecutors, hearing officers, and administrative staff, to ensure each person involved is fully aware of the laws, their justification and importance, and how they should be applied and enforced, so that these officials can pass this information down to offenders at all stages within of the enforcement chain.

Deterrence

The literature review identified a lack of administrative capacity within DOCARE to develop and evaluate metrics that would justify greater investment in funding, develop programs to utilize community support of enforcement functions, as well as develop cross-division working groups to comprehensively address compliance issues. The loss of asset forfeiture as a potential penalty for violations was also indicated as a barrier to deterrence cited both in literature and in interviews.

On O‘ahu, a significant majority of survey respondents (72%) believed that it was "not at all likely" that a violator would be caught. A significant majority (75%) had also witnessed or heard about a fisheries violation, while only 25% of respondents witnessed or heard about a warning being issued for a violation, with 18% witnessing or hearing about a citation being

issued. Only 13% of respondents heard about a conviction for an aquatic resource violation in the last year. Only 20% of respondents were aware of potential penalties other than fines, and a quarter of respondents did not have any knowledge of potential penalties. The majority of respondents (57%) also felt that current penalties are insufficient in deterring violations.

On the north shore of Maui, over 50% of respondents believed that it was likely to some degree that a violator would be caught. A significant majority (68%) had also witnessed or heard about a fisheries violation, while only 25% of respondents witnessed or heard about a warning being issued for a violation, with 22% witnessing or hearing about a citation being issued. 42% of respondents heard about a conviction for an aquatic resource violation in the last year. 31% of respondents were aware of potential penalties other than fines, and 19% of respondents did not have any knowledge of potential penalties for aquatic resource violations. 37% of respondents believed that current penalties are ineffective for deterring violations.

The citation database analysis indicated that for both islands, over 80% of the aquatic resource cases ending in a conviction resulted in a fine alone, which in most instances was less than or equal to the lowest minimum standard fine for aquatic resource violations (\$100-\$250 per citation, depending upon the type of underlying violation). Forfeiture of gear was imposed in a relatively small number of cases on Maui, and jail was imposed in only one case on Maui during the entire study period. None of the O‘ahu cases resulted in jail or the forfeiture of gear. Citation database analyses also indicated a high likelihood of having an aquatic resource citation dismissed, particularly on O‘ahu. Dismissals with no other sanction occurred in 45% of citations issued on O‘ahu, and 31% of citations issued on Maui during the periods in which citation data was available for each area.

DOCARE interviews indicated that significant funding and personnel shortages, including administrative capacity to coordinate and support expanded operations, presented significant barriers to improving deterrence functions in both O‘ahu and the north shore of Maui. Honolulu and Maui county prosecutors, district court judges, and public defenders also noted a significant lack of capacity generally within the criminal district court system, with all interviewees citing the disproportionate legal burdens associated with criminal liability as inhibiting their ability to more zealously prosecute aquatic resource cases. Interviews also indicated the need for greater administrative capacity to grow out and equitably implement a civil administrative enforcement system that would mitigate the barriers faced in the criminal justice system.

Rehabilitation

The literature review indicated that the attention paid to aquatic resource cases in the criminal court system would likely determine whether rehabilitation opportunities as an alternative sanction might be made available.

The citation database analysis indicated some potential for rehabilitative sanctions to be imposed on both islands, by the occasional imposition of mandatory community service in lieu of or in addition to fines. However, no information regarding any rehabilitative or resource-related aspect to court-mandated community service was available, and community service

appeared to be imposed in lieu of fines for most cases, indicating that community service may have been imposed based on the inability of defendants to pay fines.

Interviews indicated the lack of transformative rehabilitation programs specifically designed to rehabilitate aquatic resource violators as a major barrier to this law enforcement function on both O‘ahu and Maui. While the interviews provided anecdotal indications of the effectiveness of transformative rehabilitation for aquatic resource violators, such examples appeared extremely rare and occurred on a piecemeal and ad hoc basis. The lack of administrative capacity to review recidivism rates was also indicated as inhibiting the development of rehabilitation programs apart from the criminal justice system. Furthermore, on Maui, the recent loss of funding for additional intake by the Maui Intake Services Center has made rehabilitation opportunities in the criminal justice system nonexistent.

Restoration

The literature review indicated that the criminal justice system does not provide adequate revenue or other contributions from aquatic resource violators (such as resource management-focused community service) to mitigate the impact of noncompliance.

The nearly exclusive use of relatively minimal fines to punish criminal defendants, as illustrated in the citation database analysis, further confirms that restorative sanctions are rarely if ever available in the criminal court system.

Interviews indicated that prosecutors and judges on O‘ahu and Maui had no knowledge or standardized process to link criminal penalties to the harm caused by aquatic resource violations. Marine Law Fellows indicated that while past civil enforcement actions have more directly and effectively used fines and other penalties to mitigate the impacts of aquatic resource violations, again, administrative capacity to grow out and tailor DLNR's administrative adjudication programs is necessary for expanded use of this system.

Community Engagement with Aquatic Resource Management

The literature review indicated the need to better publicize enforcement actions, violation rates, and otherwise foster the perception of compliance provided by law enforcement for aquatic resource laws. In addition, other literature indicated the need for greater development of the existing reporting reward system, whereby reporters of aquatic resource violations may be eligible to receive 50% of the fine obtained through information leading to the arrest and conviction of the violator.

44% of O‘ahu survey respondents believed that it is "not at all likely" that a DOCARE officer will respond to reports of aquatic resource violations, with 65% of respondents also believing that enforcement is "not at all successful" in assuring compliance with aquatic resource laws. 81% of Maui survey respondents believed that it is "likely" to some degree that a DOCARE officer will respond to reports of aquatic resource violations, with 65% of respondents also believing that enforcement is "to some degree successful" in assuring compliance with aquatic resource laws.

Interviews indicated that the barriers, like a lack of administrative capacity to support community initiative (such as Makai Watch) and a lack of funding and personnel to both respond to community concerns and provide feedback on incident reports and enforcement activities, inhibited DOCARE's ability to assure mutual compliance and support community engagement with aquatic resource management.

IV. RECOMMENDATIONS

As this report suggests, the aquatic resource enforcement chain is multi-faceted and complex. Allocating improvement efforts to only one segment of the chain may be ineffective and/or counterproductive. Rather, a comprehensive, systemic approach that addresses barriers and explores opportunities throughout the enforcement chain may more efficiently and thoroughly enhance the effectiveness of aquatic resource enforcement. In pursuit of this goal, and based on the findings summarized above, this report recommends focusing on (A) target priority areas for substantively increasing the effectiveness of the enforcement chain; and (B) specific staff positions that may be created to carry out or achieve these priorities.

A. Target Areas

In identifying where to allocate improvement efforts, the following six (6) priority areas should be considered:

1. Developing Educational Outreach Programs

Enhanced deterrence, rehabilitation, and restoration flow from effective educational efforts by individuals at each level of the enforcement chain, including fishers, enforcement officers, prosecutors, and judges. Thus, the development and improvement of educational outreach programs is a critical step in improving aquatic resource law enforcement. Specifically, educational programs should focus on the following:

- (a) *Strategic Targeted Outreach* – e.g., creating, updating, and strategically placing educational materials that target specific enforcement or violation concerns; expanding the scope of DOCARE and DAR educational activities to encompass more modern methods and modes of communication.
- (b) *Educating Violators* – e.g., exploring rehabilitative and restorative sanctions with educational components, by requiring violators to attend community service or other programs that focus specifically on aquatic resource violations—such as rehabilitative courses on relevant laws and their importance, or restorative activities that educate violators with respect to the work necessary to protect or enhance diminishing aquatic resources.
- (c) *Networking and Educating Agencies* – e.g., implementing coordinated educational programs that target the individuals and agencies that enforce aquatic resource regulations (DOCARE, DAR, and DLNR) and those involved in the adjudication of alleged violations (prosecutors, public defenders, and judges). In addition to being educated themselves, these

agencies and individuals may then pass on educational messages to violators that are processed through the enforcement chain.

2. Strengthening Interagency and Interdivision Relationships and Communication

As a corollary to educational outreach, improving interagency and interdivision relationships and communication among those involved in the enforcement chain is another strategic priority. The observed lack of communication between stakeholders creates gaps in the enforcement chain, particularly at the education and detection/interdiction links. For example, without communication, DOCARE, DAR, and prosecutors might each interpret a single rule in different ways, a scenario that has already led to certain aquatic resource rules that have limited practical enforceability both in the field and in the courts. DOCARE and prosecutor input in the development of rules (perhaps through a rulemaking working group) could provide a necessary "real world" filter for lawmakers and rulewriters, ensuring that rules are both accessible and enforceable. Establishing and building on relationships with local police departments, or with police officers that have a passion for fishing or aquatic resources, may also expand the resources and personnel available for aquatic resource detection and interdiction activities.

3. Expanding the Civil (Non-Criminal) Administrative Adjudication Process

The expansion of the administrative enforcement system is an important long-term goal. The foundation for two administrative adjudication processes—the Civil Resource Violations System ("CRVS") and Board of Land and Natural Resources ("BLNR") adjudication—is already in place, but CRVS currently handles only commercial marine license violations (in the aquatic resource context), and clear processes have yet to be established for BLNR adjudication (particularly given the absence of a DAR administrator for the last three years). The first step to the expansion of the administrative enforcement system in the CRVS arena is formal rulemaking to establish penalty schedules and CRVS citation forms for aquatic resource violations other than delinquent commercial marine license catch reports. Developing a streamlined and fair strategic plan for the BLNR adjudication route would require additional steps, including hiring additional staff, developing penalty schedules and training materials, and establishing legal authorities and accounting mechanisms.

DAR and/or DOCARE must build staff capacity to facilitate this long-term expansion. Dedicated deputy attorneys general to deal specifically with contested cases would be necessary. Marine Law Fellows could continue to provide legal research and rule drafting assistance. Ideally, a permanent legal analyst position, as detailed below, would be created to facilitate the change, serve as a legal expert and program point of contact, and evaluate legal and enforcement feasibility and compliance along the way.

4. Improving the Efficiency of the Current Enforcement Process

Because expansion of the civil, administrative enforcement system is a long-term goal, short term priorities for improving the criminal prosecution system are also necessary. The following improvements to the existing criminal prosecution system could be implemented to improve overall enforcement in the short-term: (a) model the DOCARE citation form after the

form utilized by county police officers to facilitate review by prosecutors; (b) restore DOCARE's asset forfeiture authority through rulemaking as instructed by the Hawai'i Supreme Court; (c) facilitate improved educational outreach and enhanced communication between DOCARE and/or DAR and prosecutors, public defenders, and judges; and (d) work with courts, prosecutors, and public defenders to develop penalty options, such as community service alternatives, that feature educational, rehabilitative, and/or restorative components specifically tailored to aquatic resource violations

5. Developing Enforcement Performance Measures

In general, the findings demonstrate a lack of administrative capacity within DOCARE to develop and evaluate qualitative metrics for measuring the performance and effectiveness of the agency's activities. Without tracking what is working and what is not working, progress may be stunted and well-intentioned programs can easily veer off-track. While performance measures may vary, one possible option may be the development and maintenance of a database of citation and conviction data. Although tracking the citation and conviction data is not an absolute measure of the effectiveness of the system, tracking such data is invaluable in observing enforcement trends and identifying potential issues or needs. Furthermore, regularly maintaining citation and conviction databases could also support greater justification for educational, rehabilitation, and restoration programs, such as evaluating changes to recidivism rates and other post-conviction outcomes.

Although the data analyzed for the instant report were confined to citations within the criminal prosecution system, maintaining a similarly structured database for the administrative enforcement system would also be useful for the long-term goal of expanded administrative enforcement. Tracking whether the administrative enforcement avenue is indeed faster and more effective would provide important feedback during the transition phase. The recommended outreach specialist and operational staff support positions detailed below, in addition to interns or volunteerism, could be utilized to facilitate such a program.

6. Developing Relationships with Community Groups

Effective community-based management strategies begin with developing relationships with community groups. Community groups may contribute to enforcement by acting as additional "eyes and ears" in the field and could support education and outreach efforts in a variety of ways. The Makai Watch program can be strengthened and should include a dedicated liaison to DOCARE. Informal community groups, particularly those in more isolated (and fish-plentiful) areas, may also need dedicated support to protect their aquatic resources.

B. Create New Positions to Fill Multiple Enforcement Chain Gaps

Creating new facilitative positions at DLNR, DAR, and/or DOCARE is a critical step in achieving the strategic priorities listed above. Although additional funding is necessary to create new positions, specialized positions that target specific areas in need of improvement could add substantial value to resource conservation efforts by simultaneously filling multiple gaps along the enforcement chain. Just a few added positions could target all of the above-identified priority

areas. In particular, the following three additional positions could be used to simultaneously fill multiple gaps within the enforcement chain:

1. Education and Outreach Specialist(s) (Branch and Division Level)

The general scope of work for education and outreach specialists should include developing educational programs, improving and facilitating interagency communication, developing relationships with community members, establishing and routinely reviewing performance measures, and analyzing citation trends. Outreach specialists may also design education materials, research and pursue funding opportunities, and prepare grant proposals. Insofar as some of these efforts are currently carried out by field officers with varying levels of institutional knowledge, such outreach positions would have the added benefit of freeing field officers to engage in more fieldwork, thereby enhancing the educational, deterrence, and relationship-building exposure of the officers themselves. Meanwhile, branch-level outreach specialists would have the benefit of officers' experience in the field with both users and resources. Furthermore, outreach specialists could be tasked with developing community service programs tailored specifically to rehabilitating violators and restoring aquatic resources, in collaboration with other specialists as well as the legal analyst(s) (see below). A division-level education and outreach specialist could supervise the branch-level specialists, act as the point person for interagency collaboration at the state level, and coordinate activities and resources as appropriate.

2. Legal Analyst(s) (Division Level)

While working to expand and strengthen the administrative adjudication system(s) as a long-term goal, the legal analyst would strive for improving the effectiveness of the criminal prosecution system as a short-term goal, using the strategic priority recommendations outlined above. In the long-term, the legal analyst would work to improve transparency in the interpretation of aquatic resource rules and facilitate interagency and interdivision communication in the development of new or amended rules. The legal analyst could also work with outreach specialists to propose and/or assist in implementing and facilitating educational programs.

3. DOCARE Operational Support Staff

In addition to funding for field personnel, DOCARE officers and administration in both study areas cited the need for operational support positions to manage and support officers and ensure that DOCARE operations can occur effectively and efficiently. Many of the operational support positions within county police departments are absent in DOCARE offices. DOCARE officers are thus tasked with performing administrative duties, such as navigating state procurement processes, which takes them out of the field and which may lead to morale and operational issues. Operational support staff could target problem areas encountered by field officers and branch managers, such as by developing updated operational systems for staff use, and further free field officers and other DOCARE staff to focus on their primary responsibilities.

LIST OF ABBREVIATIONS USED IN THIS REPORT

AG – Attorney General, the legal counsel for the governor and state agencies under the governor's authority.

BLNR – Board of Land & Natural Resources, the main decision-making body of the DLNR. The BLNR has the authority to both promulgate regulations, and enforce them through its administrative penalty powers.

B&F – The Department of Budget & Finance, the Hawai‘i state agency that houses the Office of the Public Defender.

CML – Commercial Marine License, required by DLNR for any individual who takes marine life for commercial purposes; licensees are required to submit monthly catch reports detailing their harvest.

CRVS – Civil Resource Violations System, BLNR's authority to process administrative violations pursuant to a penalty schedule and without requiring a BLNR hearing except when contested case hearings (appeals) are pursued. *See* HRS Chapter 199D.

DAR – Division of Aquatic Resources, a division of the DLNR tasked with managing aquatic resources, including commercial fisheries, sportfish fisheries, and habitat. *See* HRS §§ 187A-195.

DLNR – Department of Land and Natural Resources, the primary Hawai‘i state agency responsible for managing the natural, cultural, and historical public trust resources of the state.

DOCARE – Division of Conservation and Resources Enforcement, a division of DLNR tasked with enforcing all DLNR regulations, in addition to other federal, state, and county laws. *See* HRS Chapter 199.

ECA – Enforcement Chain Analysis

HAR – Hawai‘i Administrative Rules, the set of regulations promulgated by executive branch agencies under the authority of the governor.

HPD – Honolulu Police Department, tasked with enforcing state and county laws in the county of Honolulu.

HRS – Hawai‘i Revised Statutes, the codified laws of the State of Hawai‘i enacted by the state legislature.

HSJ – The Hawai‘i State Judiciary, administering the judicial branch (including courts and judges) of state government.

MPD – Maui Police Department, tasked with enforcing state and county laws in the county of Maui.

NGO – Non-governmental organization, typically nonprofits, that engage in resource management activities.

I. INTRODUCTION

"Yesterday I went to Malaekahana to fish, what do I see, a laynet 30 yards from shore almost all the way to the island. Another net to the left and right the nets must of been 500 yards or longer. A park worker was watching this too, he said the have been doing this for 3 or 4 weeks Tuesdays, Wed., Thurs. They also lay nets to the left and right boundries of the park. So in total they had 5 super long nets in the water. They called DLNR but nothing. They leave the net overnite. They use 2 14 foot Livingston flat bottom boats with motors to lay and pick up the net. Remember how Kuhuku golf course was like 15 years ago choke oios and papios occassional uluas. Now nothing, a old timer said that lay netters caught 5000-7000 pounds of oios and papios a bunch of times and the fish never returned to this day."

Posting by user "uluakane" to *Hawaii Fishing Forums* (www.ulua-fishing.com/hff/index.php), Topic: Disturbing (Aug. 7, 2010) available at <http://www.ulua-fishing.com/hff/viewtopic.php?f=31&t=9215>.

"Well no, the reason they're not enforcing net violations isn't because the law is poorly written. It's because the state has killed their budget and they have no manpower to do anything any more. The current lay net regulations are pretty good, and if they were enforced properly it would make a real difference. A net like that is clearly illegal, and if DLNR was able to do their job there should have been no problem getting it pulled and/or the divers arrested. Making more laws won't help much until this changes."

Posting by user "Matt" to *Hawaii Skin Diver Community* webpage (www.hawaiiiskindiver.com/community), Topic: Re: Anyone ever call DLNR before? (Nov. 6, 2012) available at <http://www.hawaiiiskindiver.com/community/viewtopic.php?f=3&t=15747>.

A. Project Purpose

For over a decade, the perceived lack of sufficient enforcement for Hawai'i's aquatic resource laws has confounded fishers, community groups, resource managers, and politicians alike. Ad hoc and on-going attempts to address the state's capacity to enforce these laws have appeared insufficient to meaningfully resolve this enforcement "gap," and studies thus far have only revealed piecemeal deficiencies and barriers throughout the entire enforcement process. Management audits, fiscal audits, bill proposals for environmental courts and "community policing" units, updated strategic plans, and other measures to improve resource enforcement have all been conducted and/or undertaken within the last decade. None of these measures, however, have resulted in a sustained or coordinated response to comprehensively improve the aquatic resource enforcement system.

Indeed, despite the economic, social, and cultural necessity of protecting Hawai'i's aquatic resources, the uncertainty inherent in the complexities of Hawai'i's aquatic resource enforcement system appears to have inhibited a full and sustained commitment towards any comprehensive solution. For example, in conducting an audit of the state Division of

Conservation and Resources Enforcement ("DOCARE"), the law enforcement agency tasked with detecting and interdicting natural resource violations, the State of Hawai'i Auditor indicated—at least implicitly—a clear need for much greater funding of enforcement operations.

From the outset of its 2006 report, the State Auditor recognized that DOCARE's field-based officers (seventy-nine in number at the time) could not "patrol land and waterways and also respond to hotline calls This is not enough to provide full coverage 24 hours a day, seven days a week for the nearly 1.3 million acres of State lands, beaches, near shore waters and 750 miles of coastline for which the department is responsible."¹ However, despite the obvious need for much greater investment in resource enforcement, the auditor declined to recommend greater legislative appropriations. Citing the lack of "performance measures," the audit suggested instead that executive branch leaders first engage in strategic planning to "measure the effectiveness of programs." The only funding-specific recommendation involved the pursuit of federal partnership funds.²

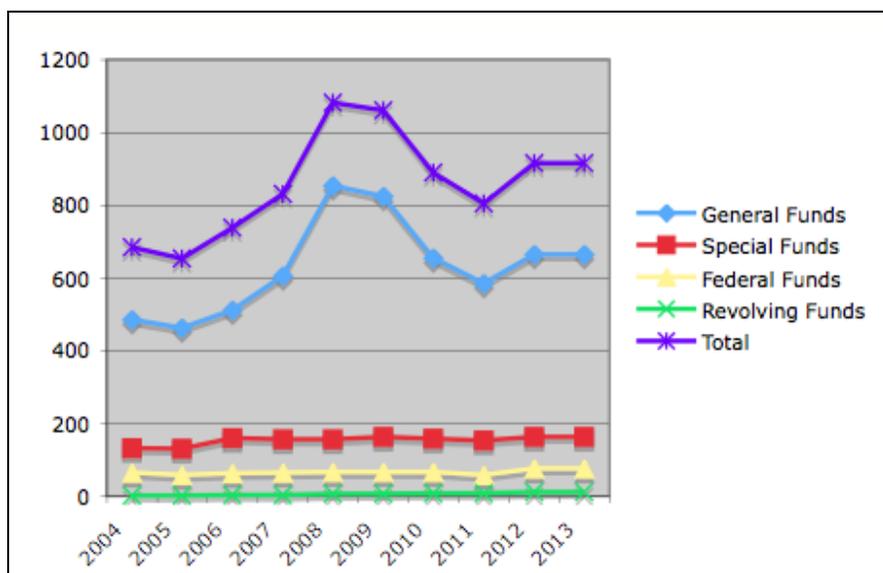


Figure 1. Funding for the Division of Conservation and Resources Enforcement, 2004-2013. Values on the Y-axis are scaled to \$10,000s. Source: Hawai'i Legislature Final Budget Worksheets (archived) available at <http://www.capitol.hawaii.gov/archives/main.aspx>.

The Hawai'i state legislature increased DOCARE's funding from \$6 million to \$8 million for the next budget biennium; however, this financial commitment quickly waned, and by 2010 state funding had fallen back to the previous level of \$6 million. See Figure 1. By contrast, the

¹ THE AUDITOR, OFFICE OF THE AUDITOR, MANAGEMENT AUDIT OF THE DIVISION OF CONSERVATION AND RESOURCES ENFORCEMENT 17 (2006), available at <http://www.state.hi.us/auditor/Reports/2006/06-01.pdf> (hereinafter "DOCARE AUDIT").

² *Id.* at 36-37.

operating budget for the Honolulu Police Department (responsible for serving just one of the four counties in the state) in 2010 was over \$224 million.

The reluctance among state policymakers to commit fully to solving Hawai‘i’s aquatic resource enforcement woes may be partially explained by what cognitive science has recognized as "status quo bias," a well-documented phenomenon in which decisionmakers prefer the status quo when faced with uncertainty—often unavoidable—of progressive or reformative action.³ It may very well be that the myriad problems, proffered solutions, and ever-changing limitations and opportunities for addressing aquatic resource enforcement in Hawai‘i have inhibited more meaningful progress in this area. Ironically, uncertainty about the benefits of management efforts without "meaningful" enforcement has in itself been cited as a basis of opposition to other progressive aquatic resource management measures.⁴

Given that "uncertainty is inherent in environmental science,"⁵ and that the full range of costs, benefits, and risks of any solution within the realm of environmental management may never be fully understood, this Enforcement Chain Analysis is an attempt to address as comprehensively as possible the gaps, barriers, and opportunities for improvement throughout the entire enforcement process, or "chain," for aquatic resource violations in two specific geographic areas: O‘ahu island and the north shore of Maui. As illustrated in the DOCARE audit, and discussed further in the Literature Review below, much research and consternation has focused primarily on DOCARE, just one agency out of many that participate in the enforcement of aquatic resource laws. However, an analysis of the entire enforcement process, including the numerous agencies and individuals involved, is necessary to identify the potential gaps or barriers that may inhibit the overall effectiveness of Hawai‘i’s aquatic resource enforcement system. In addition, such a systemic, inter-agency analysis may ensure that limited financial resources are expended as efficiently as possible, and may reveal opportunities that have yet to be explored or sufficiently utilized.

³ William Samuelson & Richard Zeckhauser, *Status quo bias in decisionmaking*, 7 J. OF RISK AND UNCERTAINTY 59 (1988); Stephen M. Nickelsburg, *Mere Volunteers? The promise and limits of community-based environmental protection*, 84 VA. L. REV. 1371, 1379 (1998); Barton H. Thompson, *Tragically Difficult: The obstacles to governing the commons*, 30 ENVTL. L. 241, 267 (2000).

⁴ See, e.g., Wayne Tanaka, *Ho‘ohana aku, Ho‘ōla aku: First steps to averting the tragedy of the commons in Hawai‘i’s nearshore fisheries*, 10 ASIAN-PACIFIC L. & POL’Y J. 235, 282-84 (2008); Posting of "LundieF" to *Hawaii Skin Diver Community* webpage (<http://www.hawaiiiskindiver.com/community/>), Topic: Oahu Opihi Ban, Statewide Closed Seasons (Feb. 26, 2012) available at <http://www.hawaiiiskindiver.com/community/viewtopic.php?f=3&t=15025&p=127152&hilit=enforcement#p127152> ("Good or bad idea? Seems to me that without additional enforcement, it really doesn't matter cause this wouldn't make one bit of difference[.]"); Posting of "Fishyfishy" to *Hawaii Skin Diver Community* webpage (www.hawaiiiskindiver.com/community/), Topic: malama I ke kai: please take 5 minutes to protect our reefs! (Feb. 9, 2012) ("The bill sounds good on the surface, but in my eyes, it'll just be a bunch of scientists and community activists wasting much needed money . . . what the hell[] do we need more studies for of these areas? . . . No fisherman should support this bill unless it is amended so all monies go to ENFORCEMENT . . . [A]ny studies done should be of fishing areas ONLY").

⁵ Thompson, *supra* note 3, at 272.

The analysis focuses on the aquatic resource enforcement chain with respect to two geographic segments of Hawai'i's nearshore resources. The geographic focus of this report is on the enforcement system as relevant to O'ahu Island and the "north shore" of Maui (from Waihe'e to Huelo). It should be noted that island-specific differences may limit the applicability of this report's specific findings to other areas within the state. Nevertheless, it is the aspiration of this report that such a comprehensive overview and analysis will mitigate the effects of uncertainty that have inhibited more meaningful and sustained action in the past, and that the recommendations offered will provide clear and organic direction for ongoing action in the years to come throughout Hawai'i.

B. Defining the Aquatic Resource Enforcement Chain

Hawai'i's aquatic resource enforcement chain is complex and multi-layered. Popular discussion of resource law enforcement in Hawai'i has largely centered around DOCARE, the law enforcement agency tasked with detecting and interdicting violations of all natural resource, historic property, and ocean and land use regulations promulgated under Title 13 of the Hawai'i Administrative Rules ("HAR"), and all statutes under Title 12 and chapters 6D, 6E, and 6K of the Hawai'i Revised Statutes ("HRS"). But the entire process of enforcing resource laws, from the detection of violations to the imposition of penalties, involves a number of governmental agencies, each with responsibilities and authorities critical to this overall system. These agencies perform procedural functions that may be conceptualized as "links" in the chain of events that must occur for resource laws to be fully enforced.

The "enforcement chain" described in this report thus entails the entire process of enforcing aquatic resource laws, with the "links" in this chain described as: (1) education, (2) detection/interdiction, (3) prosecution or administrative adjudication, through either criminal prosecution or civil administrative proceedings, and (4) conviction and the imposition of penalties. More details on the agencies tasked with fulfilling these "links," and their respective authorities under the law, are provided in Part II of this report. This Enforcement Chain Analysis seeks to analyze all links in the aquatic resource enforcement chain, and evaluate how the barriers and gaps inhibiting the effectiveness of aquatic resource law enforcement may be addressed within (and between) each link.

For the purposes of this report, "aquatic resource laws" includes all rules promulgated under chapters 13-31 through 13-100, HAR, relating to living, nearshore (i.e., non-pelagic) marine resources, and all laws found under subtitle 5 of title 12, HRS, pertaining to the same.

Part II below outlines the existing law enforcement processes relevant to nearshore aquatic resource violations. The methodologies developed to carry out the remaining research activities are further described in Part III of this report. The information and data gathered through these activities form the basis of this Enforcement Chain Analysis, particularly in its identification of gaps, barriers, and opportunities in the aquatic resource enforcement system. Findings from research activities are outlined in Part IV of this report, with an analysis of research findings described in Part V. Final recommendations, including next steps for both short- and long-term improvements, are described in Part VI.

C. Development of Research Activities

1. Theoretical Functions of Resource Law Enforcement: Education, Deterrence, Restoration, Rehabilitation, and Facilitation of User Engagement

Evaluating the effectiveness of the aquatic resource enforcement chain first requires identifying the theoretical goals and functions of law enforcement in general, and as applied to the aquatic resource context. Traditionally accepted goals of law enforcement include maximizing compliance with existing laws and mitigating the impacts of noncompliance. Specific law enforcement functions to meet these goals have been identified as:

- (1) Education, or the dissemination of information regarding laws and the justification for compliance;
- (2) Deterrence, or the prevention of offenses by increasing the perceived potential costs of noncompliance;
- (3) Rehabilitation, or the adjustment of an offender's sense of moral values regarding his or her unlawful conduct; and
- (4) Restoration, or the requirement that an offender mitigate or compensate for the harms inflicted by his or her violation.⁶

Again, while these functions may be evaluated via different metrics, they serve the overarching goals of maximizing compliance with existing laws and mitigating the impacts of noncompliance.

In the environmental commons context, law enforcement—and its perceived success in obtaining compliance—has often been cited as serving the additional goal of encouraging the formation of coordinated, community-based user groups, who take active roles in the management of their commonly shared resources. As illustrated by both successful and unsuccessful examples of coordinated community-based management approaches, formal law enforcement support for community-based management concerns is a key ingredient in fostering greater user stewardship over shared resources.⁷ Particularly for large and heterogeneous user groups, formal law enforcement functions to provide the necessary assurances that all users will cooperate with community-based management strategies; without such assurances, individual users would have little incentive to engage in any regulatory initiative. In other words, in order to get users of commonly-shared resources to engage in potentially more "costly, coordinated strategies . . . each [user] must be assured that he or she will not be the 'sucker' who adopts the most costly coordinated strategies . . . while others yield to their 'temptation' not to cooperate and

⁶ See, e.g., CONTEMPORARY PUNISHMENT: VIEWS, EXPLANATIONS, AND JUSTIFICATIONS (Rudolph J. Gerber & Patrick D. McAnany, eds. 1972).

⁷ See, e.g., Elinor Ostrom, *The Rudiments of a Theory of the Origins, Survival, and Performance of Common-Property Institutions*, in MAKING THE COMMONS WORK 293 (Daniel W. Bromley ed., 1992).

continue their own practices."⁸ Thus, an additional overall goal of resource law enforcement seeks to encourage community participation in management approaches through the function of assuring mutual compliance with regulatory measures.

The law enforcement goals of maximizing compliance, mitigating the costs of noncompliance, and assuring users that others will comply thus form the theoretical foundation for this Enforcement Chain Analysis. To evaluate whether Hawai‘i's fishing enforcement chain effectively achieves these goals, this analysis focuses on the functions of education, deterrence, restoration, rehabilitation, and the assurance of mutual compliance. Gaps and barriers to achieving these goals are identified and recommendations provided to address them.

2. Metrics for Evaluating Law Enforcement Functions

Qualitative metrics to evaluate the above-mentioned goals and their respective functions are described in Table 1 below. The research activities of this Enforcement Chain Analysis were developed to gather data with respect to these qualitative metrics.

Goal	Function	Qualitative Metrics
Obtain compliance with existing regulations	Education	Users' knowledge of existing laws and regulations, and their respective justifications
	Deterrence	Perceived likelihood of being caught; perceived potential penalties; actual likelihood of being caught; actual penalties imposed and executed
	Rehabilitation	Transformative reformation opportunities; actual recidivism rates and other post-conviction outcomes (i.e., continued stewardship activities or engagement in management efforts)
Mitigate the impacts of noncompliance	Restoration	Implemented penalties relating to the restoration of affected resources

⁸ Tanaka, *supra* note 4, at 281 (citing Ostrom, *supra* note 7, at 302).

Goal	Function	Qualitative Metrics
Encourage community engagement with management efforts	Provide support for community management measures and concerns; assure users that others will comply	Formal law enforcement support for community enforcement concerns; perceived likelihood of law enforcement support; perceived success of penalties in encouraging compliance

Table 1. Goals, functions, and evaluation metrics for aquatic resource enforcement chain analysis.

Notably, several of these functions involve both objective and subjective (or perceived) characteristics of the enforcement chain. For example, deterrence in large part may rely upon the realistic, objective probability of detection, interdiction, and consequences outweighing the benefits of noncompliance; however, the cognitive process leading to deterrence also depends upon users' *perception* of these risks. Thus, as described below, research activities focused not only on "objective" data such as the actual types of penalties imposed, but also sought to establish baselines relating to officials' and users' subjective perceptions, where relevant to these metrics.

D. Research Activities

Acknowledging the multi-faceted nature by which the functions of law enforcement may be evaluated, this project adopted a multi-lateral approach to ensure a comprehensive analysis of Hawai'i's aquatic resource law enforcement chain. Research activities designed to gather data with respect to the qualitative metrics described above include:

- (1) A preliminary outline of the existing law enforcement processes (the enforcement chain) available to address nearshore aquatic resource violations from education to post-conviction outcomes, including the agencies tasked with specific responsibilities within these chains;
- (2) A literature review of existing studies and reports relating to systemic barriers to fulfilling the functions of aquatic resource law enforcement;
- (3) A survey questionnaire for over 200 nearshore ocean resource users on O'ahu and the north shore of Maui (Waihe'e to Huelo), to evaluate the public perception of law enforcement effectiveness and resource management measures in these areas;
- (4) A compilation of existing citation data relating to aquatic resource law enforcement systems on O'ahu and Maui, including review of data pertaining to court cases and administrative proceedings and actions, citation dispositions, conviction rates, imposed penalties, recidivism rates, and other post-conviction outcomes; and

- (5) Interviews with agencies and individuals tasked with carrying out links in the aquatic resource enforcement chains on O‘ahu and Maui, seeking to identify barriers to the effectiveness of aquatic resource law enforcement and opportunities to address those barriers.

II. HAWAI'I'S AQUATIC RESOURCE ENFORCEMENT CHAIN

The legal process in place to enforce Hawai'i's aquatic resource laws, or the "aquatic resource enforcement chain," involves a series of "links" through which an alleged violation must be processed. This section will outline Hawai'i's aquatic resource enforcement chain by looking at four of these links, broadly described as: (1) education, (2) detection/interdiction, (3) criminal prosecution or administrative adjudication, and (4) conviction or civil disposition, including the penalties imposed. This section will briefly describe each link, identify the agencies involved in each, and describe the typical processes and legal requirements for each link to work properly. A map/diagram of the enforcement chain for aquatic resource laws in Hawai'i is provided in Appendix A.

As suggested by links (3) and (4), Hawai'i uses two distinct processes—criminal and civil—to adjudicate aquatic resource violations. Both the criminal prosecution and the civil administrative adjudication process can be used to determine whether there is sufficient evidence to indicate whether an alleged offender has committed an aquatic resource violation, and to allow the defendant or alleged violator to raise defenses to his or her liability. As further described below, each process has distinct procedural and substantive requirements and has separate statutory penalty provisions. *See* HRS §§ 187A-12.5, 187A-13. As of the publication date of this report, aquatic resource violations are dealt with nearly exclusively using the criminal process. However, both processes are described below and further analyzed in Part V to identify potential strength, gaps, barriers, and opportunities for both approaches. Information below was derived from research and professional interviews conducted for this report.

A. Education

While sometimes considered a separate process from enforcement, education is nonetheless a critical link in an effective enforcement chain. Education involves instructing the general public on how to comply with aquatic resource laws and the reasons and justification behind them. Ensuring that the public has access to such information may (a) preempt the need to engage in costly or inequitable enforcement actions for violations arising out of ignorance; (b) assist community groups and resource users in their identification of violations for law enforcement follow-up; and (c) generate broader support for enforcement and management initiatives. Thus, many law enforcement agencies include educational programs as part of their overall goal in fostering compliance with the law.

The State of Hawai'i Department of Land and Natural Resources ("DLNR") is essential to the dissemination of information about Hawai'i's fishing laws. The DLNR's Division of Aquatic Resources ("DAR"), the agency responsible for promulgating regulations managing Hawai'i's aquatic resources, produces educational materials and programs based on research by DAR biologists and outside sources. Such materials include posters, websites, and an annually-updated regulation handbook summarizing most aquatic resource laws. The handbook is distributed through DAR offices, sporting goods and fishing supply stores, and non-governmental organizations ("NGOs"). All educational outreach materials published by DAR are in English only. DAR education staff members also participate in public events and are

available to give presentations to classrooms and community groups upon request. As of this report, there are a total of three staff members in DAR's education program.⁹

DLNR-DOCARE officers, supervisors, and administrative staff also engage in educational activities, through enforcement contacts, participation in community events and meetings, targeted outreach at certain high-use areas (such as boat ramps), and through presentations to public schools and Makai Watch volunteers.¹⁰

Certain NGOs, such as Mālama Maunalua and Mālama Pūpūkea-Waimea, also carry out educational activities, and federal agencies, such as the National Oceanic and Atmospheric Administration ("NOAA"), provide additional materials and guidance in partnership with DLNR.

B. Detection and Interdiction

Detection and interdiction involve uncovering violations and intercepting violators, whether at the time and place of the violation, or after a subsequent follow-up investigation. The primary government agency tasked with detection and interdiction activities is DOCARE, and the enforcement agency for all rules and statutes under DLNR's jurisdiction. State sheriffs and county police officers may also enforce aquatic resource and other natural resource laws; however, resource enforcement is not a primary focus of these agencies. *See* HRS § 199-3.

The process of detection and interdiction begins with DOCARE officer training. Given their full police powers and authorities, general law enforcement training is required for all DOCARE officers; however, DOCARE does not have a formal law enforcement "boot camp" typical of other police agencies, and must rely on other agencies to provide such training. Training for DOCARE officers with respect to aquatic resource laws takes place in both the classroom and on the job. During the first three to six months of their service, new officers are trained in a classroom setting, where they are walked through aquatic resource rules and statutes. While on patrol, these new officers are also paired with veteran officers who can provide practical on-the-job training. Courtroom experiences, particularly in observing the legal process and testifying at trial, are also considered valuable training opportunities.

DOCARE officers typically conduct daily patrols in shoreline areas and are on-duty during daytime work hours. Field officers may also engage in investigative operations based on suspected poaching activities. DOCARE maintains a statewide enforcement hotline, which allows community members to report violations either directly to a local dispatcher or to voicemail during non-work hours. Reports from the hotline are forwarded to a field supervisor during working hours. For reports made during non-work hours, a follow-up investigation or

⁹ *See, e.g.*, Division of Aquatic Resources, Aquatic Resources Education, <http://hawaii.gov/dlnr/dar/education.html> (last accessed Nov. 6, 2012).

¹⁰ Makai Watch originated out of various community group initiatives aimed at fostering greater community involvement in management initiatives. Now formally recognized by the state and supported by federal programs, Makai Watch activities include both educational "Community Outreach" and violation-focused "Incident Observation and Reporting" components. *See* Hawai'i Coral Reef Strategy, Makai Watch, <http://www.hawaiicoralreefstrategy.com/index.php/local-action-strategies/makai-watch> (last accessed Nov. 6, 2012).

inquiry with the reporting party may take place. Community groups, such as those within Makai Watch programs, also assist with detection efforts by training volunteers on identifying aquatic resource violations, and encouraging them to report suspected violations to DOCARE.

Upon interdiction of a suspected violator, the investigating field officer has primary discretion over whether or not to make an arrest or issue a citation (also known in the criminal context as a "summons"), conduct further investigation, or issue a warning. Such discretion may be exercised based upon an officer's case-by-case evaluation of the applicable law, the context of a violation, the existence of probable cause, and the severity of the violation, among other factors. Criminal citations or summons are typically forwarded to the district court of the district where the violation occurred, and a copy is provided to the county prosecutor's office. Officers may also choose to compile a report without issuing a citation, which can then be forwarded to the county prosecutor's office for screening and subsequent action (i.e., the issuance of a summons or arrest warrant). In the latter case, DOCARE officers are often tasked with serving the summons or carrying out the arrest warrant if one is issued. Civil citations within the Civil Resource Violation System ("CRVS") may also be issued if available and deemed appropriate, in which case citation reports are forwarded to the CRVS administrator for further action. As of this report, CRVS aquatic resource citations are only available for late or misfiled commercial marine license ("CML") catch reports, due to the lack of established penalty schedules for other types of aquatic resource violations. *See* HAR § 13-1-70(b).¹¹

C. Criminal Prosecution and Administrative Adjudication

As described earlier, the process of determining whether a violation has occurred may take the form of criminal prosecution, administrative adjudication, or both. This subsection describes both processes, including the burdens of proof and evidentiary standards for each.

1. Criminal Prosecution

The filing of a complaint with the criminal court system and the issuance of a summons or arrest warrant triggers the criminal prosecution process. Nearly all aquatic resource violations are classed as petty misdemeanors, save for limited felonies, such as those involving the use of explosives or poisons. *See* HRS §§ 187A-13, 188-23, 188-70, 190-5, 604-8, 701-107. Criminal prosecutions for petty misdemeanor aquatic resource violations take place on the district court level, in the judicial circuit and district where the violation occurred. There are five district courts on O'ahu (Honolulu, Ewa/Pearl City, Kāne'ohe, Wahiawā/Waiialua, and Wai'anae), and five district courts in Maui county (Wailuku, Moloka'i, Lāna'i, Hāna, and Lahaina). There are fourteen district court judges on O'ahu and three in Maui County. HRS § 604-1.

(a) Relevant Agencies

The primary agencies responsible for criminally prosecuting aquatic resource violations are the county prosecutor's offices—the Department of the Prosecuting Attorney for the City &

¹¹ *See also* CRVS Administrative Sanctions Schedule (2009), available at <http://hawaii.gov/dlnr/crvs/CRVS-Admin-Schedule.pdf>.

County of Honolulu, Traffic and Misdemeanors Division handles the prosecution of cases originating on O'ahu, while the Department of the Prosecuting Attorney for the County of Maui, District Court Division handles cases originating in Maui county. *See* HRS § 46-1.5(16). Prosecutors' offices review citations and their attached reports prepared by DOCARE, screen potential cases and apply for arrest warrants where appropriate, negotiate plea bargains, and go to trial when required. *See* HRS §§ 805-4, -5, -8. Prosecutors often request that DOCARE officers attend the trials of defendants they have cited and act as witnesses if necessary. In past cases, DAR aquatic biologists have also been subpoenaed by prosecutors to provide expert testimony. As of this report, however, this practice has been largely discontinued.

For qualifying indigent defendants, an attorney from the state public defender's office may be assigned to represent them in criminal court and to assist them with negotiating plea bargains where appropriate. If an attorney from the public defender's office is not available, private counsel may be appointed by the court. Defendants may also opt to hire their own defense attorney, or defend themselves without attorney representation.

Within the criminal prosecution process, district court judges from the state judiciary are tasked with admitting evidence, evaluating the arguments and conclusions of both sides, and making the necessary findings of fact and adjudication of guilt. Due to the "non-serious" nature of petty misdemeanors and their limited penal liability, a jury trial is typically not available for alleged aquatic resource violations.

(b) Substantive Requirements: "Reckless" Mens Rea Beyond Reasonable Doubt

For a criminal prosecution to prevail, admissible evidence must be introduced to prove every element of the charged offense(s) "beyond a reasonable doubt." "Elements" of an offense are determined by the language of the applicable statute or regulation, and are broadly categorized as conduct, attendant circumstances, and the results of such conduct. In addition, criminal prosecution for misdemeanors requires a minimal showing of a "reckless" mental state (*mens rea*), which is defined as the conscious disregard of a substantial risk with respect to each element. *See* HRS §§ 702-204, -205, -206, -207. For example, for a regulation stating that no person may "pursue, take, or kill any crustacean (except introduced freshwater prawns) . . . in the state, with a spear," a criminal conviction requires proof beyond a reasonable doubt that the defendant has (1) pursued, taken, or killed (*conduct or results of conduct*), (2) a crustacean that is not a freshwater prawn (*attendant circumstances*), (3) in the state of Hawai'i (*attendant circumstances*), and (4) with a spear (*conduct*). *See* HAR § 13-75-9(a). In addition, the prosecution must prove beyond a reasonable doubt that the defendant has done these acts intentionally, knowingly, or while consciously disregarding the risk of his or her conduct and attendant circumstances (i.e., with a "reckless" *mens rea*). HRS § 702-204.

The admissibility of evidence is governed by both constitutional provisions, such as the right to privacy, as well as a broad spectrum of laws known as the "Rules of Evidence." *See* HRS chapter 626. The Rules of Evidence exclude the admission of hearsay evidence (subject to

certain exceptions),¹² exclude certain privileged information, require the authentication of documents and photographic evidence, require expert testimony for certain matters, and provide for many other procedural requirements and substantive limitations on the presentation of evidence. *Id.*

(c) Procedural Requirements

Normally, criminal citations issued in the field contain a court date indicating where and when the defendant must make his or her first appearance, otherwise known as the arraignment. In cases where a citation is not issued in the field, DOCARE officers may serve the defendant with a subsequent criminal summons or carry out an arrest warrant as ordered by the district court, in which case the arraignment date and time is set accordingly. At their arraignment, defendants may choose among several pleas, including guilty, no contest, or not guilty. HRS § 805-6. A not-guilty plea triggers the trial process. HRS § 806-49. At arraignment, prosecutors may also make a motion to *nolle prosequi*, which, with the consent of the judge, results in the dismissal of a case. A jury trial is not required for most aquatic petty misdemeanor cases, as criminal liability does not exceed the six months necessary for a charge to be considered a "serious crime" requiring a jury trial. *See* HRS §§ 701-107, 806-60. Thus, most aquatic resource cases are conducted as bench trials in which the sitting judge serves as the finder of fact. Upon the entry of a not-guilty plea, a defendant is referred to the public defender's office, where he or she may obtain a defense attorney at the government's expense if he or she is found unable to afford private counsel. HRS § 802-1.

At trial, the prosecution must introduce admissible evidence to prove every element of the alleged offense(s) beyond a reasonable doubt; this includes the introduction of DOCARE officers' testimony (but not the written citation, which is often inadmissible as hearsay) and any expert testimony required to prove technical elements (such as species identification or equipment calibration). Alternatively, prosecutors may negotiate a plea agreement with the defendant and allow him or her to plead guilty in exchange for lowered criminal liability. Deferred acceptance of guilt ("DAG") or deferred acceptance of nolo contendere ("DANC") pleas allow a defendant to avoid a criminal record of conviction, if he or she pleads guilty prior to trial and abides by conditions set by the court for a predetermined period, usually six months. HRS § 853-1. Defendants may raise applicable defenses, submit their own witnesses, cross-examine the prosecution's witnesses, challenge the validity or admissibility of evidence, and otherwise take advantage of the procedural and substantive protections afforded to criminal defendants. *See* HRS chapter 801. Defendants may also change their non-guilty plea to a guilty or no contest plea at any time during this process. Should a defendant be found guilty after a full trial, the defendant may also pursue an appeal to the State of Hawai'i Intermediate Court of Appeals. HRS § 641-12.

¹² "Hearsay evidence" is defined as statements made outside of court that are used to prove the fact of the matter stated. HRS chapter 626, Rule 801.

2. Administrative Adjudication

In addition to criminal prosecution, aquatic resource violators may also be subject to civil (i.e., non-criminal) sanctions through an administrative adjudication process. *See* HRS §§ 91-8, -9, 187A-12.5, 199D-1; HAR chapter 13-1. The DLNR has the authority to enforce violations in three ways: (1) file a civil action in circuit court, (2) bring an administrative action to the Board of Land and Natural Resources ("BLNR"), or (3) bring an administrative action through the Civil Resource Violations System ("CRVS") process. *See* HRS §§ 187A-12.5, 199D; HAR Chapter 13-1. DLNR has only tentatively explored civil court litigation in a single large-scale coral damage case (against the U.S. Navy). This section focuses on the administrative BLNR and CRVS adjudication processes as most relevant and practical to "typical" aquatic resource violations. As detailed below, the BLNR process, while relatively rare, has usually been triggered by the submittal of an enforcement report and recommendation by DAR to the BLNR; the CRVS process is triggered by the issuance of a CRVS violation notice to an alleged violator, and is currently only available for violations of CML catch reporting requirements.

(a) Relevant Agencies

The relevant agencies in the administrative adjudication process for aquatic resource violations are the DLNR (including DLNR's DAR and DOCARE divisions and CRVS administrator), the BLNR, and the State of Hawai'i Department of the Attorney General ("AG").

For BLNR actions, DAR and DOCARE assist by verifying the substantive facts of the alleged violation and submitting their findings along with a staff recommendation to the BLNR. The BLNR reviews the staff submittal, renders findings of violations, and imposes administrative penalties as authorized by statute. A finding of a violation may be appealed by the alleged violator, in which case the BLNR also renders a decision in a "contested case" hearing regarding the appeal. In contested cases, the AG both defends the BLNR's initial findings and provides legal guidance to the BLNR. To avoid conflicts of interest, deputy attorneys general from different divisions within the AG Department carry out each of these tasks. *See* HRS §§ 91-8, -9, 187A-2, -12.5; HAR chapter 13-1.

For violations covered under the CRVS program, DOCARE officers or the CRVS administrator may evaluate evidence, make findings of violations, and issue CRVS violation notices in place of the BLNR. An alleged violator may resolve a CRVS violation notice by paying the indicated fine and thereby avoid appearing before the BLNR or its authorized designee. Should the alleged violator wish to contest a CRVS violation notice, the AG acts to defend the initial finding of violation (discussed further below), and the BLNR, the Chairperson, or an appointed CRVS hearings officer (pursuant to the BLNR's delegation of its final decision-making power) makes a final decision in the subsequent contested case hearing. HAR §§ 13-1-58, -61.

(b) Substantive Requirements: Preponderance of the Evidence

For a violation to be upheld in the administrative system (both through the BLNR and CRVS), admissible evidence must be presented to prove each element of the alleged offense by a "preponderance of the evidence," i.e., sufficient evidence for the adjudicator to find it "more

likely than not" that a violation was committed by the alleged violator. HRS § 91-10; HAR § 13-1-35. This is a considerably lesser burden of proof than the "beyond a reasonable doubt" standard required for criminal conviction. Evidence with respect to the alleged violator's mental state, or mens rea, has not yet been required for an aquatic resource violation in the administrative adjudication context.

Admissible evidence in administrative proceedings, including contested cases, may include any evidence that may be material, relevant, or not unduly repetitious or subject to a privilege. HRS § 91-10, HAR § 13-1-35.1. Admissibility of evidence in administrative hearings is governed by the Hawai'i Administrative Procedures Act (codified at HRS chapter 91), which was intended to "free administrative agencies from the bounds of any technical rules of evidence," and which is considerably more relaxed than the judicial Rules of Evidence. *See Dependents of Cazimero v. Kohala Sugar Co.*, 54 Haw. 479, 483 (1973).

(c) Procedural Requirements

As mentioned, civil sanctions for aquatic resource violations are processed through one of two available administrative avenues: (1) the BLNR administrative adjudication process, or (2) the CRVS administrative adjudication process.

The BLNR administrative adjudication process is rarely used for aquatic resource violations, and procedures to initiate this process have not been entirely formalized. Accordingly, the BLNR process has historically only involved large-scale coral damage cases. As has been done in past BLNR cases, DAR biologists bring potential cases to the attention of the DAR administrator and the DLNR-DAR Marine Law Fellow.¹³ Upon approval by the administrator, the DLNR-DAR Marine Law Fellow then compiles information from relevant reports and biological assessments into a board "enforcement submittal" requesting a finding of violation of the relevant rule provision. With approval from the DLNR Chairperson, the enforcement submittal is then presented to the BLNR at a publicly-noticed board meeting, during which the BLNR must determine (with legal guidance from an attending deputy attorney general) whether a violation has occurred. HRS § 91-8; HAR § 13-1-27. Notice to the alleged violator may be given or ordered by the BLNR, sometimes with assistance from DOCARE when personal service appears necessary. HAR 13-1-27.

Alternatively, for certain violations falling under the jurisdiction of CRVS, DOCARE officers or the CRVS administrator may make an initial finding of a violation and issue a CRVS violation notice. In such a case, BLNR action is not required for a violation to be found; however, these violation notices must indicate the set monetary penalty for the underlying

¹³ The Marine Law Fellow program was created in 2006, in order to expand the legal capacity of DLNR-DAR, and to liaison with the Department of the Attorney General on legal issues facing the division, including enforcement issues. The primary goal of the Marine Law Fellow program is to assess, evaluate, and coordinate revisions to existing DAR regulations in consultation with DAR biologists, DOCARE, the Division of Boating and Ocean Recreation, and the Department of the Attorney General. Secondary goals include the development of proposals for new statutes, regulations, and procedures, and the administrative enforcement of aquatic resource violations selected by the DAR administrator. *See* Hawai'i Coral Reef Working Group, Strategy, <http://www.hawaiiicoralreefstrategy.com/> (last accessed Dec. 20, 2012).

violation, and thus require a penalty schedule for the underlying violation to have been established by the DLNR. HRS § 199D-1, HAR §§ 13-1-61 -63. Due to this requirement for an already-established penalty schedule, CRVS notices are currently only available for commercial marine license catch report violations.

Individuals or other entities found by the BLNR or CRVS officer to be in violation of the law may contest such a finding by submitting a written request for a contested case hearing. Should this occur within the BLNR process, a hearings officer may be appointed by the BLNR or its designee (usually the DLNR Chairperson). At least two deputy attorneys general from different divisions under the Department of the Attorney General must then respectively provide legal counsel to the BLNR, and defend the finding of violation at a subsequent BLNR contested case hearing. HRS § 91-9; HAR §§ 13-1-18, -28, -32. In addition to other witnesses, DLNR staff (such as DAR biologists) may also be called upon to provide testimony by the BLNR. HAR § 13-1-32.2. Alternatively, prior to a contested case hearing, a negotiated settlement agreement may be made between the alleged violator and a DLNR representative, subject to approval by the BLNR. HRS § 91-8.5. For contested cases arising out of CRVS, the BLNR may also delegate its contested case decision-making power to the DLNR Chairperson or an administrative hearings officer, again avoiding involvement in the administrative adjudication process. HAR § 13-1-58.

Should an alleged violator wish to appeal a contested case decision by the BLNR or a CRVS officer, he or she may pursue an appeal to the circuit court. HRS § 91-14.

D. Conviction and Civil Disposition and Penalties

1. Criminal Conviction and Penalties

In the criminal context, the presiding district court judge determines the appropriate penalty to impose, subject to statutory limitations. In the case of plea agreements, judges must review and approve the terms of the agreement, although prosecutors, defendants, and defense attorneys work out the proposed agreement terms prior to the judge's review and approval.

Upon a conviction or a guilty/no contest plea, a criminal defendant found in violation of an aquatic resource law (other than a violation involving protected species, electrofishing devices, explosives, or firearms) is subject to petty misdemeanor liability, which can carry a potential penalty of thirty days in jail and a maximum \$1,000 fine. HRS §§ 706-640, -663. Mandatory first-time minimum penalties of \$100 (for fisheries management area or public fishing area violations) or \$250 (for marine life conservation district and most gear and regulated species violations) are also set by statute; mandatory minimum fines increase for subsequent violations. HRS §§ 187A-13, 188-70, 189-4, 190-5; 195D-9. Defendants could be ordered to complete community service, or fines could be converted to community service. HRS §§ 706-605, -646. Criminal defendants may also be ordered to pay restitution to victims (including governmental entities), as well as perform community service. *Id.* Corporate defendants, in addition to probation and monetary fines, may also be subject to forfeiture of their charter or, in the case of foreign corporations, revocation of their authority to do business in the state. HRS § 646-608.

Plea agreements may also lessen the offense of the conviction, in which case the potential sanctions discussed above may be further limited; for example, a plea to "simple trespass," a violation, would not subject the defendant to potential imprisonment or probation. *See* HRS § 706-663.

Outstanding fines levied in criminal court may result in civil collection actions. In addition, "contumacious" defendants, or those found unwilling to take necessary steps to pay their fine, may be committed to a term of imprisonment not to exceed one day for each \$25 they were found to be in contumacious default. HRS §§ 606-644, -647. For non-contumacious defendants, outstanding fines may be converted to community service by court order. *Id.*

2. Administrative Adjudication and Penalties

For civil sanctions arising out of administrative adjudication by the BLNR, the BLNR makes the final determination with respect to the penalty to impose, subject to statutory limitations. Enforcement submittals by DLNR staff may also contain recommendations as to the appropriate penalty, subject to review and approval by the BLNR. Civil penalties for aquatic resource violations include a maximum \$1,000 fine for a first violation involving non-endangered or threatened species. For endangered or threatened species, first-time violators face a maximum \$2,500 or \$5,000 fine, depending on whether or not they are found in violation of state endangered or threatened species laws specifically. HRS § 187A-12.5; *cf.* § 195D-9(b). An additional \$1,000 fine (or \$5,000 for endangered or threatened species) may also be levied for each specimen of aquatic life taken, injured, or killed in violation of state aquatic resource laws. *Id.*

For CRVS violation notices, monetary fines are determined by penalty schedules established by the BLNR, not to exceed the maximum administrative fines as described above. Currently, however, only one penalty schedule has been established, which is exclusive to CML catch reporting violations. *See* HAR § 13-1-70.

Should an alleged violator refuse to pay the fine levied by the BLNR or CRVS, the BLNR may take civil "legal action" to enforce the judgment. *See* HRS §§ 171-7; 187A-12.5. Such legal action may include referral to collection agencies.

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III. METHODOLOGY

As outlined above, the research activities of this Enforcement Chain Analysis involved a review of relevant literature, public surveys, citation disposition database review, and in-person interviews with individuals from each government agency involved in the enforcement chain. This section summarizes the methodologies used for each research activity.

A. Literature Review

Although there are no studies identical to the instant enforcement chain analysis, several authors and scholars have commented on Hawai‘i aquatic resource enforcement issues in other contexts. As a foundation for this report, and to provide the appropriate context in which to view its findings and conclusions, various research materials were gathered and summarized. As a preliminary step, criteria were developed for selecting materials to be included in the Literature Review. Research materials meeting the following criteria were selected for inclusion:

- (1) Focuses on Hawai‘i;
- (2) Discusses nearshore aquatic resources as regulated by the State of Hawai‘i and/or discusses the state agencies tasked with enforcing nearshore aquatic resource regulations—e.g., DLNR, DOCARE, or DAR;
- (3) Provides comprehensive analyses and/or in-depth studies—as a general guideline, considers ten or more sources;
- (4) Discusses effectiveness of enforcement operations and/or aquatic resource management; and
- (5) Offers recommendations or suggestions for improved enforcement and/or management.

Based on these criteria, materials such as news articles, blog postings, and studies from other jurisdictions were not included. In gathering the materials, the researchers consulted both electronic and print sources, conducted internet research, and searched the Libraries of the University of Hawai‘i catalog, the William S. Richardson School of Law Library catalog, and Westlaw and LexisNexis legal databases.

B. Public Survey

Surveys of nearshore ocean resource users on O‘ahu and Maui's north shore were conducted to evaluate public perceptions of the effectiveness of aquatic resource law enforcement, specifically as they relate to the links in the enforcement chain, and the qualitative metrics for the functions and goals of law enforcement as they relate to public perception.

1. Development of Survey Questions

Collectively, survey questions were intended to establish a baseline for the subjective perceptions and objective observations of actual users of O‘ahu and Maui's nearshore resources, with respect to the qualitative metrics described in Part I. These metrics and their associated functions included:

- (1) Users' knowledge of existing laws and regulations (education);
- (2) Users' understanding and support of laws and regulations (education);
- (3) Users' perceived likelihood of being caught (deterrence);
- (4) Users' perception of potential penalties (deterrence);
- (5) Actual risks of being caught (deterrence);
- (6) Actual risks of being subject to a penalty (deterrence);
- (7) Formal law enforcement support for users' enforcement concerns (assuring mutual compliance);
- (8) Perceived likelihood of law enforcement support (assuring mutual compliance); and
- (9) Perceived success of law enforcement in encouraging compliance (assuring mutual compliance).

Survey questions were also developed to illicit data relevant to each of the four links in the enforcement chain: education, detection and interdiction, prosecution, and the imposition of penalties. Combining the metrics with the links in the enforcement chain resulted in the following categories of questions:

- (1) **Education.** Questions in the category of education were developed to provide an educational function baseline to gauge users' knowledge of existing penalties, where users acquire information about fishing laws, and users' support for various existing management strategies. Questions potentially relevant to this category as well as the detection/interdiction and penalty categories also sought users' input as to why violations may be occurring.
- (2) **Detection/Interdiction.** Questions in the category of detection and interdiction focused on the deterrence metrics, namely the perceived risk factor in committing violations and perceived cost of being caught in general. These questions also sought to establish baselines for the extent to which information relevant to these perceptions was communicated to the general public, including first- and second-hand reports of DOCARE presence and actions in the field. This category also included questions related to whether or not users would report violations to DOCARE, as part of the mutual assurance of compliance metric.

- (3) Prosecution. Questions in the category of prosecution focused on the deterrence and assurance of compliance metrics. These questions involved determining public perception of whether convictions were occurring, and whether survey takers would serve as a witness in a prosecution.
- (4) Conviction and penalties. Questions in the category of conviction and penalties centered around the deterrence metrics, namely in users' perception of potential penalties for aquatic resource violations.
- (5) Mutual assurance of compliance. Other questions also targeted the perception of the law enforcement system as a whole in assuring users that others will comply with aquatic resource laws.

Demographic questions were also included to provide information on survey respondents, including their methods of fishing, the number of years spent fishing in the subject areas, and the frequency of fishing activities.

A mix of closed and open-ended questions was used to achieve measurable and comparable answers as well as provide an opportunity for participants to expand on answers and identify potential problems and solutions in their own words. Questions were reviewed to meet standard survey guidelines of objectivity, accessibility, completeness, and succinctness. Once initial questions were developed, Hawai'i Fish Trust partners were given an opportunity to provide input, and revisions to the questions were made. The resulting questions were then pretested with O'ahu and Maui survey contractors to ensure the questions flowed well and to test the timing of the survey. Additional revisions were made to the draft survey questions based on the pretests conducted on O'ahu. Maui survey coordinator Hannah Bernard pretested the questions for Maui with Darrell Tanaka, and no additional revisions were made based on this pretest. As a result, the questions for Maui and O'ahu varied slightly. Because the surveys for O'ahu and Maui were intended to be independent studies of opinions of fishers on each island and were not intended to be comparable, the team decided slight differences were of minimal importance.

Appendices D and E include the O'ahu and Maui survey questions.

2. Survey-Taking Process

Individuals with nearshore fishing experience and who were familiar with the O'ahu and north shore Maui shorelines, as relevant, were contracted to administer the surveys to nearshore fishers. Marine biologist Hannah Bernard of the Hawai'i Wildlife Fund was contracted to both coordinate the Maui surveys and surveyors and carry out a portion of the surveys. Two additional surveyors, Darrell Tanaka and Anthony Moreno, were contracted to carry out the Maui surveys along with Ms. Bernard. Mr. Darrell Tanaka and Mr. Moreno each were responsible for administering at least 33 surveys and Ms. Bernard for at least 34. Each of the surveyors sought survey participants from the near-shore areas from Waihe'e to Huelo. No direction was given as to the number of surveys per area.

O‘ahu team members Wayne Tanaka and Koalani Kaulukukui coordinated the O‘ahu surveys and subcontracted Joey Kaimana and Luke Sarvis to carry out the O‘ahu surveys. Mr. Kaimana was responsible for giving at least 50 surveys from Hanauma Bay to Ka‘ena Point along the east and north shores of O‘ahu, and Mr. Sarvis was responsible for 50 surveys in the south and west shores, including Diamond Head and Wai‘anae. The O‘ahu surveyors were asked to ensure their survey participants represented fishers spread across the range of their designated areas.

A script was developed to ensure the surveyors were consistent in methodology in both approaching survey participants and administering the survey, and to ensure surveyors did not bias survey takers' responses. Surveyors were trained on the script. Surveyors approached a mix of fishers, including fishers the surveyors knew and those they did not know, by intercepting fishers while at the shoreline, at fishing supply stores, and through informal networks.

3. Data Analysis

Two Excel spreadsheets were created—one for O‘ahu, one for Maui—to analyze data for each survey question. The spreadsheets facilitated accurate categorization of the information in tables, sorting, calculating percentages, and producing charts. The analysis of the data represented by percentage charts is attached as Appendices D and E.

For multiple choice questions, the answer choices were assigned numbers to facilitate data analysis. For each survey, the equivalent numbers representing answers were entered into columns for each question. A dash (-) was entered if the survey participant gave no answer, multiple answers, or illegible answers; these were included in the percentage of "don't know/no opinion" responses, where applicable.

To analyze the data, each column representing a question was sorted smallest to largest. A subtotal data count was then run through the Excel program to determine the number of participants that chose a particular answer (represented by a number) for each question.

For open-ended questions, the responses fell into trends, and these trends were also organized as columns in the spreadsheets. The spreadsheets indicated whether a particular survey participant mentioned the trend in each column. The number of participants mentioning a trend was then counted through the Excel program. Other ideas that did not rise to the level of a trend, e.g., with only one or two similar responses, are noted within Appendices D and E and the text in Part IV. Particularly interesting or representative comments by survey-takers are also highlighted in Appendices D and E and Part IV.

The surveyors were asked to note when answers were qualified and given discretion to take notes when yes or no answers were explained. For these instances, or where given choices were not selected but other explanations were given, responses are also noted in Appendices D and E and Part IV.

Averages were determined by dividing the number of responses in each category by the number of participants answering the question. In other words, if participants did not answer a question, their non-response was not included in the denominator for that question.

C. Criminal Citation Database

The citation database analysis portion of this project sought to gather initial baseline information relating to three qualitative metrics, as relevant to the functions of deterrence, rehabilitation, and restoration. These metrics were:

- (1) Actual penalties currently imposed for aquatic resource violations on O‘ahu and Maui (deterrence);
- (2) Rate of transformative rehabilitation opportunities imposed for aquatic resource violations in these areas (rehabilitation); and
- (3) Implemented penalties related to mitigating impacts of violations to resource laws (restoration).

Based upon the type of data available through DOCARE's criminal citation records, answers to the following questions for each island were sought in the database analysis:

- (1) What are the ranges and types of penalties imposed by the current criminal enforcement system for aquatic resource laws? (to evaluate the deterrence metric and potential opportunities for restoration);
- (2) What is the percentage of non-monetary sanctions imposed per citation resulting in a conviction, by type? (to gauge opportunities for restoration and rehabilitation);
- (3) What is the percentage of dismissals issued per citation? (to evaluate the deterrence metric);
- (4) What is the percentage of indigent defendants? (to evaluate and identify opportunities in deterrence and restoration).

As described earlier, for the purposes of this report, aquatic resource laws are considered to be those involving nearshore marine resources covered under HAR chapters 13-31 through 13-100 and under HRS title 12, subtitle 5; other ocean-related laws fall under the jurisdiction of other divisions not specializing in aquatic resource management. Thus, citations based upon violations not considered part of nearshore aquatic resource laws, such as dive flag regulations, boat registration requirements, or entry into a prohibited state natural area reserve, are excluded as outside the scope of the analysis.

Aquatic resource citation data were made available through DOCARE, from data entry work provided through the Marine Law Fellow program. Using citation numbers listed in DOCARE's citation logbooks for each island, information for individual aquatic resource citations were retrieved from the district court case tracking system, and compiled into Excel spreadsheets for each island. Excel spreadsheets were further coded to aid analysis with respect to the categories of violations, the types and amounts of sanctions imposed, final dispositions, etc. Information for each citation number included (a) the date of citation; (b) the section of law allegedly violated; (c) a description of the violation (i.e., "lobster with eggs"); (d) the number of

counts or violations issued under the section of law cited (for example, the possession of two gravid lobsters may result in two counts, or violations, of a law prohibiting gravid lobsters from being possessed); (e) the current case status (i.e., pending or closed); (f) the judge, prosecutor, and public defender or defense attorney assigned to the case; (g) the ultimate disposition and penalty (if available) and whether it was based upon a plea agreement, trial, or admission of guilt; and (h) whether a bench warrant was issued for the defendant's failure to appear or to satisfy the penalty. Data in the Excel spreadsheets provided by the Marine Law Fellow program were available for citations issued between July 2006 and March 2010 for Maui, and between November 2008 and November 2010 for O'ahu.

Given the small number of prosecutors and judges dealing with aquatic resource cases in Maui district courts, confining citation database analysis to the relatively small Hāna district court docket was not considered necessary, particularly since violations occurring in the north shore of Maui may also be heard in the Wailuku district court. As the main focus of the citation disposition database analysis was based upon disposition outcomes, the much greater amount of information on the disposition of a handful of district court judges and prosecutors constantly circulating throughout the Maui district court system outweighed geographic isolation of citations issued solely in the north shore of Maui. Thus, in the case of Maui, the citation disposition database analysis looks to cases disposed of on a countywide basis.

An initial review of cases on record issued during the same 18-month period, between July 2008 and December 2009, indicated that there were 76 aquatic resource citations issued on O'ahu and 343 citations issued on Maui. The disparate number of aquatic resource citations on each island for the same time period may have been affected by a variety of circumstances, including differing geographies, applicable rules with varying levels of practical enforceability (i.e., differing amounts of closed fishing areas and gear regulations between the islands), user demographics, enforcement resources and priorities (such as the marine patrol unit based solely on O'ahu, and focused primarily on boating violations), data entry processes and backlogs in the district court system, and other factors. As such, a comparative analysis was not considered feasible or appropriate between O'ahu and Maui. Use of citation disposition data to evaluate trends in the detection/interdiction link of the enforcement chain was also avoided, for the same reasons. As the analysis's primary objective focused on evaluating the types and characteristics of prosecution and conviction outcomes and opportunities, rather than detection or interdiction rates, isolating the analysis to the same temporal subset of available data was determined unnecessary. Rather, the incorporation of as much data as possible for each island would provide a much more informative relating to the range and overall rates of deterrence, restoration, and rehabilitation opportunities provided through the criminal court system. As such, the analysis includes and incorporates the full range of data available for each island, subject to the screening procedures further described below.

Prior to the analysis, data were screened to remove citation data for cases that did not have any disposition data, due to a variety of possible issues including backlogs in data entry within the district court database, failure of defendants to appear for their arraignments, and missing citation data within the system. With the assumption that the lack of data for these cases did not reflect a systemic issue within the enforcement chain so much as individual variations or outliers due to issues or events outside the scope of the enforcement chain, these cases were not

included as part of the analysis. Citations for which disposition and penalty data were available, but which were not closed due to a defendant's failure to satisfy the judgment (for example, a failure to pay the levied fine or perform the community service), were included within this analysis, as sufficient information was available regarding the intended penalty in such instances.

Finally, further screening of cases occurred for individual questions pertinent to this analysis. Thus, as indicated above, the percentage of non-monetary sanctions imposed, and the calculations of average, median, and mode fines for each island per count, did not include consideration of cases resulting in a dismissal or acquittal; these latter cases were presumed to be outside the scope of penalty-based analyses, as their failure to result in a conviction obviated the requirement for a penalty to be imposed.

D. Professional Interviews

Professional interviews were expected to contribute greatly to the analysis of current gaps and barriers in the enforcement chain. Individuals working in governmental agencies responsible for carrying out relevant links in the enforcement chain were assumed to have direct knowledge of and opinions on the processes and systemic gaps within their respective links. Their input was considered particularly useful due to their on-the-ground perspective informed by years of daily experience. Relevant agencies were first identified in the description of the enforcement chain processes, and the relevant divisions or sections of each agency were subsequently identified by analyzing organizational charts, agency rules, and by interviewees. Individual interviewees within these divisions or sections were solicited through existing relationships, references by other interviewees, or by cold-calling the target agency/division. Initial target agencies for the enforcement chains on both islands included DLNR, the Department of the Attorney General, the Honolulu and Maui county prosecutors' offices, and the Hawai'i State Judiciary. Relevant divisions or sections within these agencies were later identified as DLNR-DAR, DLNR-DOCARE, the DLNR CRVS Administrator, the traffic/misdemeanors division of the Honolulu Prosecutor's Office, the district court division of the Maui Prosecutor's office, and the district court division of the first and second circuits of the Judiciary (for O'ahu and Maui, respectively). Individuals and agencies interviewed for this Enforcement Chain Analysis include the following:

- Individuals interviewed for information applicable to both Maui and O'ahu, based upon their agency and their position:
 - DLNR-DOCARE Acting Chief
 - DLNR-DOCARE Administrative Office Acting Supervisor
 - DLNR-CRVS Administrator
 - DLNR-DAR Marine Law Fellows (3 individuals)
- Individuals interviewed for information applicable to the enforcement chain for O'ahu island:

- DLNR-DAR Education Program Staff
- DLNR-DOCARE Officers or Former Officers (3 individuals)
- Department of the Prosecuting Attorney, City & County of Honolulu Traffic/Misdemeanor Division Deputies or Former Deputies (3 individuals)
- Hawai‘i State Judiciary 1st Circuit District Court Judges (2 individuals)
- Individuals interviewed for information applicable to the enforcement chain for north shore Maui:
 - DLNR-DAR Maui Former Education Specialist
 - DLNR-DOCARE Officers or Former Officers (including management positions) (6 individuals)
 - Department of the Prosecuting Attorney, County of Maui District Court Division Deputies or Former Deputies (4 individuals)
 - Hawai‘i State Judiciary 2nd Circuit District Court Judges (3 individuals)
 - Office of the Public Defender Maui Branch Defense Attorney

The State Department of the Attorney General's Office did not respond to interview requests. Based upon the information gathered from other interviewees, however, the Attorney General's office currently has a minimal to nonexistent active role in the enforcement of aquatic resource violations, with their daily responsibilities focused mainly on transactional work and addressing issues of departmental liability.

Preliminary interview questions were developed for each agency's division or section to direct the interview towards the relevant link(s) of the enforcement chain carried out by the interviewee's agency. For example, questions developed for county prosecutors focused mainly on the prosecution and conviction elements and the barriers or gaps they faced in processing resource violations in criminal court. However, given the breadth of potential issues and ideas that could have been encountered, interviews were expected to be organic, allowing interviewees the necessary flexibility to provide their holistic perspective. More detailed questions, including follow-up questions based upon provided answers, allowed the interviewer to flesh out in detail the identified gaps and recommendations made by each interviewee. In some cases, group interviews were conducted with multiple interviewees, in order to minimize the time burden on agencies and individuals, and to allow interviewees to build on the others' responses. Such group interviews did not include more than 3 individuals at a time, and all interviewees in the group represented a single agency or division to encourage greater candidness.

To further encourage candid answers, interviewees were assured anonymity with respect to their individual identity to the extent possible; only agencies and titles would be included in this report. Those individuals whose titles could provide conclusive identifying information

were specifically advised that their identity may be revealed simply by the nature of their job title; all agreed to go forward with the interview regardless.

After interviews were completed, findings were organized into a matrix of the identified strengths, gaps/barriers, and recommendations for each section of the enforcement chain (education, detection/interdiction, prosecution, and conviction). This information was then categorized and compared with other data to develop the overall recommendations of this report. Interview findings for each link of the enforcement chain are provided in Part IV of this report.

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IV. SUMMARY OF RESEARCH FINDINGS

A. Literature Review

Applying the criteria outlined above (*see* Part III – Methodology, Literature Review), six (6) reports and/or studies were analyzed, summarized, and used to inform the recommendations provided in the instant Enforcement Chain Analysis. The vast majority of the materials encountered were opinion-based overviews rather than studies comprising quantitative analyses. Abstracts of the selected materials are provided below, and the Literature Review report in its entirety (including detailed summaries) is provided in Appendix B. The abstracts and summaries provided in the Literature Review seek to encompass the key points articulated in the various research materials as those points relate to the enforcement focus of this Enforcement Chain Analysis. The following abstracts and summaries, provided in chronological order, are not intended to be comprehensive overviews of all points covered in the materials. Furthermore, the abstracts and summaries are written from the perspective of the articles' authors and do not necessarily represent the collective opinions of the authors of this report.

1. Rick Gaffney & Associates, DIVISION OF AQUATIC RESOURCES TECHNICAL REPORT 20-02: EVALUATION OF THE STATUS OF THE RECREATIONAL FISHERY FOR ULUA IN HAWAI‘I, AND RECOMMENDATIONS FOR FUTURE MANAGEMENT (2000).

In this 2000 technical report prepared by Rick Gaffney and Associates for the DLNR-DAR, the author summarizes the popular recreational ulua (jacks and trevallies) fishery and identifies management options for its protection. While analyzing fisheries management through the lens of the ulua fishery, the author suggests that community-based management involving various stakeholders is needed to supplement science-based programs. Noting a decline in the ulua population and the shortcomings of science-based management studies and policies, the author recommends the following:

- (1) Empowering community-based management for an increasing number of contiguous, homogeneous coastlines across Hawai‘i;
- (2) Evaluating and establishing harvest refugia;
- (3) Implementing biologically appropriate minimum lengths, reduced bag limits, and a ban on the commercial sale of several species of ulua;
- (4) Hiring of new DAR staff specialists for ulua and for recreational fishing;
- (5) Expanding the study of the biology and ecology of ulua; and
- (6) Collecting and archiving recreational fishing data.

2. Koalani Kaulukukui, comment, *Establishing an Environmental Court in Hawai'i: Lessons from the Environmental Courts of the United States* (2005) (unpublished) (on file with author).

This 2005 scholarly article outlines Hawai'i's current environmental law enforcement structure, provides a thorough discussion of the State of Hawai'i Judiciary, and analyzes the feasibility of establishing an environmental court in Hawai'i. The article acknowledges the emphasis on criminal, as opposed to administrative, enforcement in Hawai'i's regulatory scheme and recognizes the challenge of engaging criminal court judges in fisheries enforcement. Noting that environmental courts in other jurisdictions (e.g., Vermont, Georgia, Ohio, Alabama, and Memphis) can be used as models, the author stresses that any environmental court or specialized docket established in Hawai'i must be uniquely tailored to allow for smooth incorporation into Hawai'i's current system. To more readily fit into Hawai'i's current system, and to eliminate the need for a complete overhaul, the author suggests defining specialized environmental jurisdiction for already existing courts, e.g., establishing specialized environmental dockets in the district courts. Such specialized dockets could be tailored to the specific concerns of policymakers and government agencies and may result in less disruption than creating a separate environmental court within the circuit courts.

Critical first steps for establishing a specialized environmental docket include defining the new system's goals, tailoring its jurisdiction to meet those goals, and starting with a smaller subset of resource violations to test and review the capacity of the new system. Furthermore, the choice of judges is another important consideration in any proposal. Practically speaking, there may be an inherent perception among judges that fisheries violations are less serious than the traffic, domestic, violence-based, and/or alcohol-related violations they more frequently encounter. Therefore, judges adjudicating cases within a specialized docket would ideally be committed to the program's established goals. Although the author also discusses and assesses anti-pollution regulations, the Literature Review summary provided in Appendix B focuses on the author's analysis that pertains to fisheries management.

3. THE AUDITOR, OFFICE OF THE AUDITOR, MANAGEMENT AUDIT OF THE DIVISION OF CONSERVATION AND RESOURCES ENFORCEMENT (2006).

In 2005, as requested by the Hawai'i State Legislature, the State of Hawai'i Auditor conducted a management audit of the DOCARE (hereinafter "DOCARE Audit" or "audit"). The audit incorporated agency office and branch site visits as well as interviews with DOCARE supervisors and enforcement officers. The findings of the audit, published in 2006, revealed that DLNR and DOCARE had not achieved full and effective enforcement.

The audit concludes that a lack of strategic planning has led to mission expansion that diverts attention and resources away from conservation enforcement, and that DOCARE leaders need to develop more efficient methods of performing enforcement operations. In particular, the audit suggests that DOCARE lacks meaningful performance measures to determine whether compliance progress is being made and whether enforcement officers are held accountable for effectively performing their duties.

The audit also opines that DOCARE is underfunded and understaffed, with not enough enforcement officers to complete all required tasks as well as patrol the vast geographical area within its enforcement jurisdiction. DOCARE branches typically do not have officers on duty during late evening and early morning hours—a popular time for poaching and other illegal activity. The audit noted that enforcement officers also devote too much time to administrative tasks and are not adequately trained in conservation enforcement activities. To address the multitude of purported departmental and divisional issues, the audit recommends, in part, the following:

- (1) Periodically scheduling officers to work evening and morning hours;
- (2) Establishing measurable goals and objectives on a continuum, starting at the operational level with inputs, activities, and outputs, and moving up to higher departmental levels to encompass both immediate and long-term outcomes (by developing higher-level, outcome-oriented performance measures and articulating those results in annual reports to the Legislature, DLNR and DOCARE leaders can present more convincing arguments for additional resources and funding);
- (3) Proactively seeking federal grants, including those aimed at conservation training, such as the Conservation Law Enforcement Training Assistance program;
- (4) Establishing cross-division working groups within DLNR to address the wide range of factors influencing compliance and establish mechanisms to monitor, evaluate, and report the results of collaborative efforts;
- (5) Performing a review of DLNR to determine the types and quantities of information technology positions needed for modernizing, operating, and maintaining a department-wide system;
- (6) Seeking guidance and additional funding to acquire computers for DOCARE's use in the field, allowing officers to prepare and forward reports in real-time rather than weeks or months later;
- (7) Translating high-level objectives and goals into branch expectations addressing the specific geographic area and missions within a specific branch's control (these expectations should relate to the specific enforcement actions necessary to achieve compliance, e.g., quality and timeliness; number of arrests, citations, investigations, inspections, parking tickets, warnings; number of contacts, boat boarding, education sessions, marijuana eradication raids, cruise ship security activities; etc.);
- (8) Increasing radio or cell phone contact between branch chiefs and the field workforce during work shifts to rectify accountability issues;
- (9) Defining with more specificity DOCARE officers' performance expectations; and
- (10) Establishing a formal training program for new recruits and improved, conservation-focused sustainment training for current officers.

In sum, to provide more effective enforcement, the audit urges DLNR and DOCARE leaders to adopt more long-term strategic thinking and focus attention on resources and conservation enforcement operations. Furthermore, enforcement responsibilities must be collaboratively shared by the various divisions of DLNR.

4. Brooke Kumabe, *Protecting Hawai'i's Fisheries: Creating an Effective Regulatory Scheme to Sustain Hawai'i's Fish Stocks*, 29 UNIVERSITY OF HAWAI'I LAW REVIEW 243 (2006).

This 2006 law review article discusses the Hawai'i fisheries regulatory system and concludes that the State of Hawai'i should expand its regulations to include all commercially sold fish. The author proposes that the State of Hawai'i should resurrect ancient Hawaiian management practices such as imposing seasonal fishing prohibitions to allow fish stocks to naturally replenish, and encouraging community-based groups to take greater responsibility for specific fishing grounds. The author further advocates for the imposition of a tax scheme on all commercially sold fish to provide funds for conservation measures.

5. Wayne Tanaka, *Ho'ohana aku, Ho'ōla aku: First Steps to Averting the Tragedy of the Commons in Hawai'i's Nearshore Fisheries*, 10 ASIAN-PACIFIC LAW & POLICY JOURNAL 235 (2008).

This 2008 law review article compares and contrasts the traditional Hawaiian fisheries management regime, governed by communal stewardship and religious reverence, with the now-prevalent Western management practices focused on resource commodification and free exploitation. The author comments that Western practices have created an imminent "tragedy of the commons" scenario in Hawai'i's nearshore fisheries. In offering proposed solutions, the author builds upon researcher Elinor Ostrom's *Rudiments of a Theory of Common-Property Institutions*, in which Ostrom asserts that avoiding "tragedy" often requires the emergence of an organized group of users to collectively manage a common-pool resource. The author suggests that improving the effectiveness of Hawai'i's enforcement system requires that resource users are assured (1) of the nature of the problem, (2) that coordinated strategies exist to effectively reduce the risk of serious harm to common resources, (3) of the likelihood of mutual trust and reciprocity, and (4) that expected decision-making costs are less than the benefits derived from a coordinated strategy (hereinafter "the Ostrom factors").

To realize Ostrom's first factor, the author recommends mitigating the "stagnating effects of uncertainty" by:

- (1) Investing in low cost user-oriented scientific studies to gather more information about the resources through semi-independent, long-term data collection that also consider non-fishing impacts (i.e., impacts of private development and other sources of non-direct exploitation);
- (2) Shifting the focus from uncertain losses to certain losses, either ecological or social—for example, proposing anti-fishing legislative "solutions" could mobilize users to organize for collective action based on an apparent certainty of social loss (constitutional and political feasibility would likely prevent the actual

implementation of an extreme proposal, yet the threat of certain destruction of users' collective interests could spur their collective action);

- (3) Visualization of future loss by focusing on current costs, perhaps through media announcements that showcase serious fisheries regulation violators, which in turn focus users' attention on immediate costs of overuse; and
- (4) Opening and maintaining lines of communication between Hawai'i nearshore users through both formal and informal networks, thereby enabling users to express their own positions more fully and dispel misperceptions held by others.

The author opines that Ostrom's second factor may be achieved by increasing users' familiarity with actual management success stories. The historical success of the traditional Hawaiian system of sustainable management and the statutory recognition of stewardship principles within the state's basic governance framework offer opportunities to promote and publicize successful management solutions.

Realizing Ostrom's third factor requires either mutual trust among users or formal enforcement to ensure compliance. Given the large number of users of Hawai'i's aquatic resources, which may inhibit the spontaneous formation of mutual trust, the author recommends increased incentives to foster community-supported enforcement programs. Such programs might encompass: (1) posting signs and publishing brochures in multiple languages with contact numbers and information to assist enforcement officers in establishing probable cause for inspections; (2) ensuring access to fishing areas, especially at night, to allow for additional monitoring; and/or (3) providing rewards from levied fines for individual users.

Finally, the author suggests that a preliminary step in realizing the fourth factor might be developing a framework for a representative, all-inclusive coalition of local fishing clubs and other community networks that has both regulatory authority and a cost-efficient means of resolving conflicts. In addition, continuous dialogue between user representatives could help alter the perception that future decision-making would be costly.

In sum, the author stresses that the aforementioned proposals are neither exclusive nor exhaustive but rather initial steps toward improving user-based community management. Addressing Ostrom's four factors would pave the way for additional targeted and proactive solutions.

6. Joanne Sheng, *DOCARE, or No Care? Improving the Effectiveness of Conservation Resource Enforcement in Hawai'i*, ASIAN-PACIFIC LAW & POLICY JOURNAL (forthcoming 2013).

In this law journal article scheduled to be published in 2013, the author incorporates various legal sources, reports, news articles, and interviews with interested persons—including prosecuting attorneys, enforcement officers, regulators, etc.—into a comprehensive analysis of resource enforcement in Hawai'i, with a focus on fisheries management. The author emphasizes a lack of public assurance in the system as a key contributor to the system's ineffectiveness. In particular, the author highlights Carlisle Runge's Assurance Model. The predicate factor of

Runge's model is the mutual assurance between resource stakeholders that all will conform to more costly, coordinated strategies. A lack of enforcement or the public perception of a lack of enforcement diminishes mutual assurance.

The author identifies a general lack of funding, over-reliance on a criminal enforcement system, and deficiencies in interagency and interdivision communication as the most prevalent problems with Hawai'i's current system. In offering recommendations to tackle the funding problem, the author advocates for restoring DOCARE's forfeiture authority to remove poacher tools and equipment. Empowering an enforcement officer to freeze, seize, or confiscate assets can destroy the money base of an illegal enterprise, deter individuals from using their property to facilitate criminal activity, appropriate the proceeds of criminal activity, and rededicate money to the public good. Although DLNR has statutory forfeiture authority, the Hawai'i Supreme Court in *Carlisle v. One(1)Boat*, 195 P.3d 1177, 119 Hawai'i 245 (2008), held that DLNR was required to explicitly add asset forfeiture provisions to its administrative rules in order to validly use its forfeiture power. Because asset forfeiture is an effective deterrence mechanism for environmental crimes, the author recommends that DLNR divisions prioritize the insertion of the asset forfeiture language into the applicable rules.

Turning to the second identified problem, the author comments that DLNR currently relies almost exclusively on an ineffective criminal enforcement system for adjudicating natural resource violation cases. In contrast, DLNR underutilizes its available administrative enforcement system, which could be more effectively used for government inspections, violation notices, administrative orders, and imposition of administrative sanctions for violations. Collecting civil penalties through an administrative enforcement system could help by (1) providing an essential and traditional source of income that could be used for further natural resource enforcement activities; (2) consolidating resource violation cases into the agency tasked with natural resource responsibilities; (3) providing the public with greater transparency regarding resource enforcement actions; and (4) allowing the adaptive implementation of policy to the extent allowed through administrative deference. Furthermore, the author notes that administrative procedures need not adhere to the more stringent rules of evidence and criminal procedure that result in high hurdles to a criminal conviction.

Regarding the third identified problem with natural resource enforcement, the author calls for improved interdivision and interagency communication and collaboration. Natural resource enforcement rulemaking occurs within the policymaking division of DLNR, but DOCARE is not consulted until after the fact. The author comments that officers are often frustrated by their inability to halt even blatant poaching because of poorly drafted rules that were created without DOCARE's valuable input. Officer frustration contributes to low morale and negative public perception of DLNR.

The author also identifies logistical challenges and miscommunications between DOCARE and attorneys tasked with prosecuting resource violation cases. For example, the author notes that the DOCARE citation form invites a narrative-type report, and prosecutors with high-volume caseloads do not have the time to sift through reports to pull out legally significant facts. Based on the author's interviews, prosecutors preferred the citation forms used by the Honolulu Police Department, which present legally significant facts in bullet-point form.

Furthermore, with respect to criminal penalties, the author notes that district court judges are not maximizing the available, albeit lenient, penalties for fisheries violations.

To improve interdivision collaboration, the author recommends the following strategies:

- (1) Establishing a consultation process or rule-drafting procedure to ensure enforceability of rules promulgated by other divisions (e.g., continuing DLNR's monthly inter-departmental meetings and including DOCARE in rulemaking would further this goal);
- (2) Organizing regular training sessions for prosecutors, organizing a prosecutor's division dedicated to natural resource cases, and/or developing a more comprehensive legal fellowship program at DLNR; and
- (3) Educating district court judges on the importance of imposing penalties for natural resource violation cases through: (a) participating in monthly Education Committee meetings, (b) organizing judicial symposia, and/or (c) drafting a written guide to be submitted to the Judicial Education Office.

In general, the article provides a comprehensive overview of the current enforcement system and a thorough, in-depth analysis of the system from various angles and perspectives. As summarized above, the article not only identifies problems, but also offers specific suggestions for addressing those problems. Although advocating for the above-summarized recommendations, the author stresses the importance of adequate planning before implementation of any new management program.

B. Fisher Surveys

Detailed summaries of the survey responses are provided in Appendix D (O'ahu Fisher Survey Detailed Summary) and Appendix E (Maui Fisher Survey Detailed Summary).

1. O'ahu

The individuals participating in the survey on O'ahu appeared to be experienced fishers, with 85% fishing for 6 or more years in Hawai'i and half fishing for 16 or more years. The survey participants were also frequent fishers, with more than three-quarters of the participants fishing more than twice per month and very few fishing once a month or less. 99 of the total 101 O'ahu participants resided on O'ahu; two resided on Maui.

The survey indicates that more than 90% of the participants self-reported having some information about Hawai'i's fishing laws. As Figure 2 shows, the majority of participants reported receiving such information at fishing supply stores and from friends and family. About a quarter reported receiving their information from the news, and about 15% received their information from the internet and online forums. 4% received their information from a resources enforcement officer. 86% of the participants reported that they had received no information about Hawai'i's fishing laws from a resources enforcement officer.

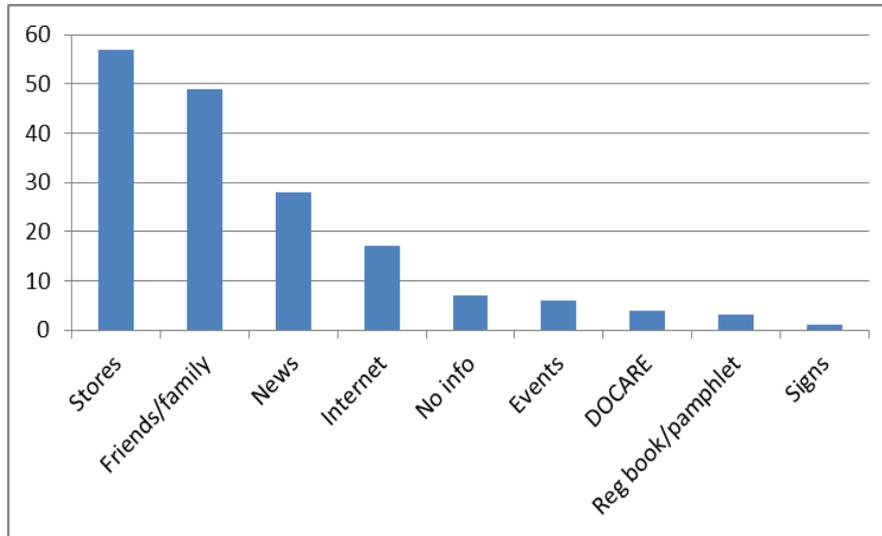


Figure 2. Graphical response of O'ahu survey participants to Question 5: "How do you normally get information about Hawai'i's fishing laws?"

72% of the survey participants believed that it is not at all likely that a person breaking a fishing law would be caught. Less than a quarter of the participants thought it is likely to any degree that a violator will be caught.

58% of the participants believed it likely to some degree that a violator who is caught will be convicted or subject to a penalty. 36% believed it not at all likely that a cited violator would be convicted or subject to penalty.

Nearly three-quarters of the participants had heard about or witnessed at least one fishing law violation in the past year, with 44% hearing about or witnessing one to five, and 28% hearing about or witnessing more than six.

Nearly three-quarters of the participants had never heard about or witnessed a resources enforcement officer give a warning for a fishing violation in the past year. A little more than a quarter heard about or witnessed a resources enforcement officer give at least one warning.

In the past year, 82% of the participants never heard about or witnessed a resources enforcement officer give a citation for a fishing violation. 18% heard about or witnessed a resources enforcement officer give at least one citation.

87% of the participants had not heard about a conviction for a fishing violation in the last year. 13% had heard about at least one conviction.

As Figure 3 shows, a quarter of survey participants did not know any potential penalties for fishing law violations. A little over half were aware that monetary fines are a potential penalty; some specifying fines involve "big money." 20% believed their gear could be seized, 18% believed jail is a possibility, and 6% believed their catch could be seized. 16% thought they could get a ticket and 4% believed they could get a warning.

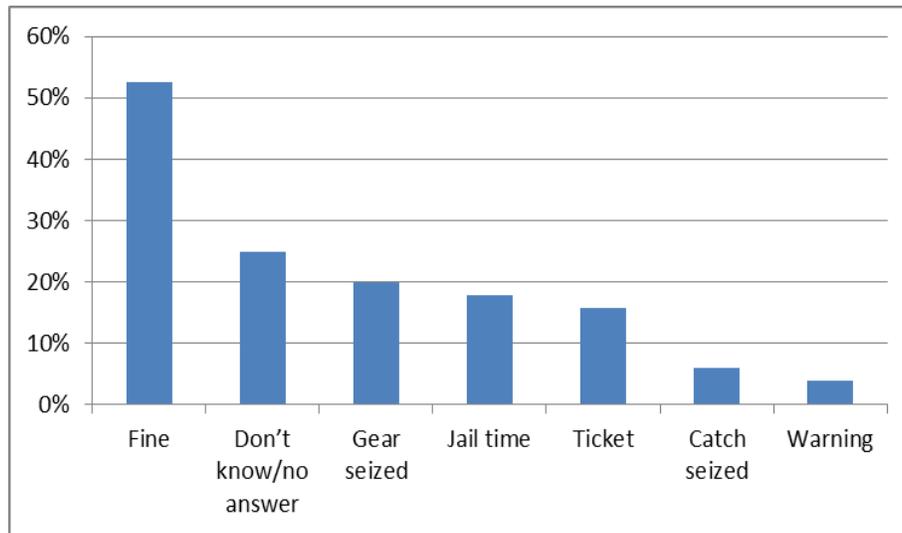


Figure 3. Graphical response of O‘ahu survey participants to Question 13: "To the best of your knowledge, what are the potential penalties for state fishing law violations?"

65% believed Hawai‘i's current law enforcement system is not at all successful in assuring that people follow fishing laws. Of those who did not believe the system is successful, nearly half attributed this to a lack of enforcement, manpower, and resources, with particular emphasis on DOCARE's lack of presence on weekends or after working hours. One participant opined that "most rules are broken when the [DOCARE] office is closed," while another explained that the system is "too corrupt, everybody got family or friends." One participant opined that "people are hardly caught, and if they are its a slap on the wrist."

34% of the O‘ahu participants believed Hawai‘i's current law enforcement system is to some degree successful in assuring that people follow fishing laws. Of these, 4% believed the system is very successful, 12% believed it is moderately successful, and 18% believed it is somewhat successful. Of those who believed the system was successful, several believed other fishers care about the resources and want to follow the laws. One survey participant indicated having seen enforcement officers, and other participants indicated the system must be working because they do not see many violations.

52% of the participants believed it likely to some degree that a resources enforcement officer will respond or follow up to a citizen's report of a violation. 44% believed it not at all likely that a resources enforcement officer will respond or follow up to a report. Of the 42% that found it "somewhat likely" that a resources enforcement officer would respond, two shared they believed the response would come "too late."

As depicted below in Figure 4, 75% of the O‘ahu participants believed one of the top three reasons people violate fishing laws is that they are not likely to be caught. 71% believed one of the top three reasons people violate fishing laws is a lack of knowledge of the law. 57% believed people violate laws because penalties are ineffective, and 10% believed that rules are

unfair or do not make sense. 9% believed people violate fishing laws because of necessity or survival. 18% believed one of the top three reasons people violate fishing laws is that people do not care, with some specifying that people do not "care enough to respect the laws," that "they don't care because [they] won't get caught," and that people "don't give a shit." 4% attributed fishing violations to greed.

Others had unique opinions on why people violated fishing laws, including:

- "The amount of money they make makes up for the fine they could receive"
- "Too many places closed not fair"
- "Too many restrictions people resent it"
- "That's how things always were"
- "Only way they can catch"
- "Easy"

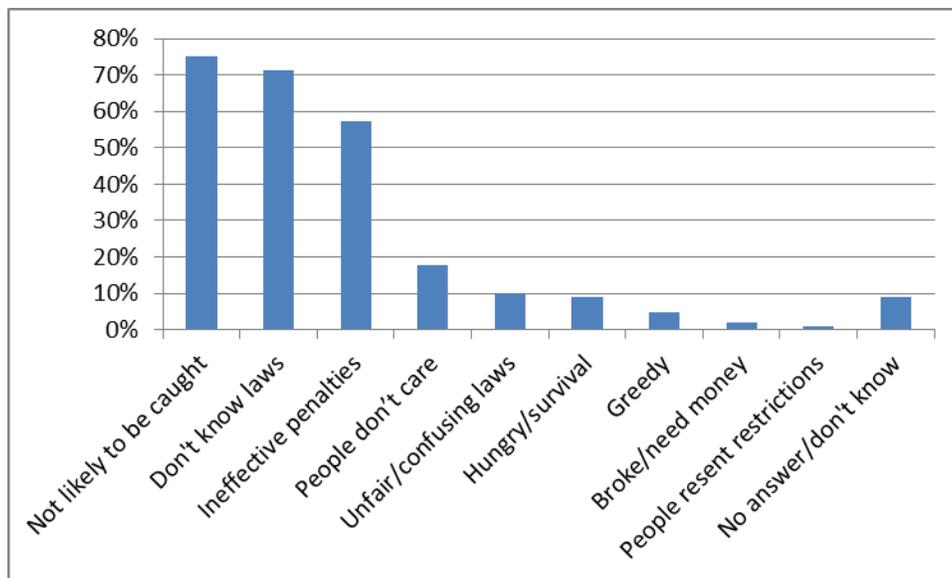


Figure 4. Graphical response of O‘ahu survey participants to Question 16: "What do you think are the top three reasons people violate Hawai‘i's fishing laws?"

A summary of O‘ahu participants' responses to questions regarding specific regulations on fishing is provided in Figure 5 below, and detailed here:

88% of O‘ahu participants supported bag limits without qualification. 7% might support bag limits in certain circumstances. 7% opposed bag limits. 96% of O‘ahu participants supported size limits without qualification. 2% might support size limits in certain

circumstances. 2% opposed size limits. 86% of O‘ahu participants supported open/closed seasons without qualification. 8% might support open/closed seasons in certain circumstances. One supported open/closed seasons for commercial fishing only. 6% opposed open/closed seasons.

76% of O‘ahu participants supported gear restrictions without qualification. 12% might support gear restrictions in certain circumstances. Two specified support for restrictions on nets. 12% opposed gear restrictions.

80% of O‘ahu participants supported fisheries management areas without qualification. 13% might support fisheries management areas in certain circumstances. 7% opposed fisheries management areas. 84% of O‘ahu participants supported marine life conservation districts without qualification. 6% might support marine life conservation districts in certain circumstances. 10% opposed marine life conservation districts.

55% of O‘ahu participants supported licenses and registration requirements without qualification. 17% might support licenses and registration requirements in certain circumstances. Some supported licenses and registration requirements for lay nets, while others specified that they supported licenses and registration requirements for commercial purposes only. 28% opposed licenses and registration requirements.

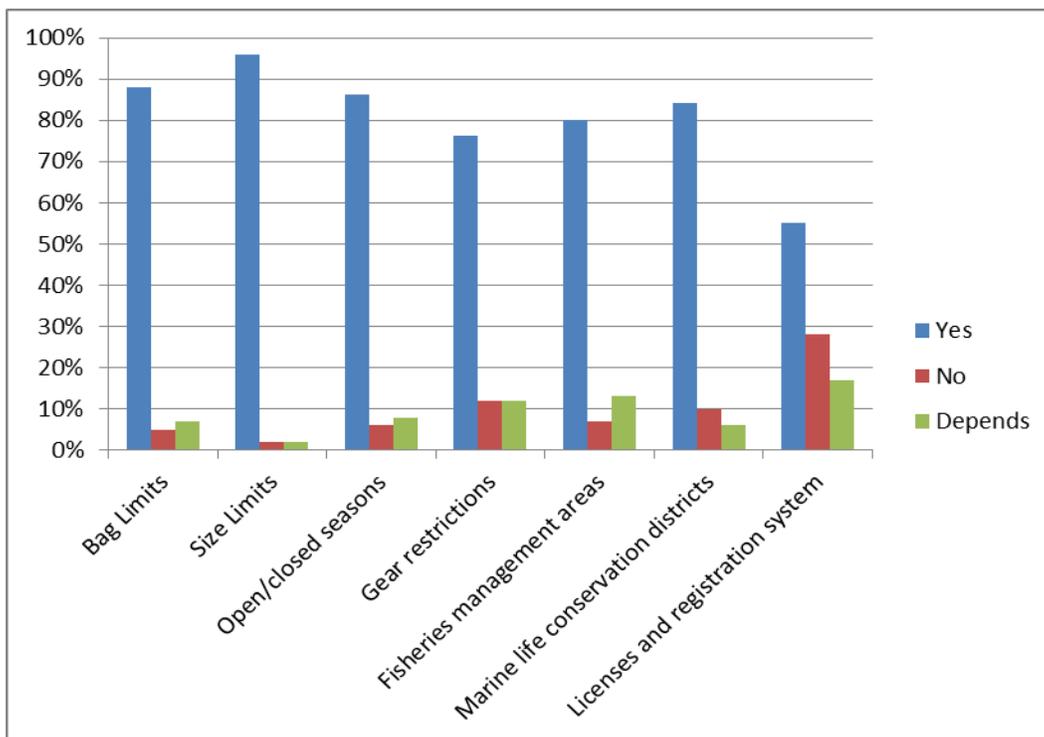


Figure 5. Graphical response of O‘ahu survey participants to Questions 17-23. "Yes" indicates support for the management strategy; "depends" indicates qualified support in certain circumstances; "no" indicates opposition.

54% of O'ahu participants said they would report a fishing law violation to DLNR. Several participants who said they would report a violation indicated that they had called in the past, but received no response. For those participants who responded that they would report a violation, they did so because:

- "Fishing is my life, if someone is taking too small of or too many fish . . . [i]t has an effect on everyone."
- "Everyone should . . . Small chance that they will show up."
- "Not only does it effect me but everyone around"
- "Because everyone should be able to enjoy their right to fish. If no one turns them in they will continue to break the rules."
- "Its unfair to people that do follow the rules."
- "Fishing is for everyone to enjoy."
- "Over the years I've noticed the near shore fish population has gone down. I'm sure its cause of lay nets."
- "I don't support illegal activity."
- "As a fishermen it's my responsibility."
- "Gotta try to make rules stick"
- "Yes but would probably be a waste of time"
- "It's not right, it's already fished out"
- "Everybody obeys laws the population will come back"

31% said it "depends" whether they would or would not report a violation. For many who answered that it "depends," they clarified that it would depend on the severity of the violation. Other explanations included:

- "Only lay nets. One small fish won't have an effect, but a whole net full needs to be stopped."
- "Only lay nets . . . I hate lay nets"
- "Rules I see broken happen at late eve or night time. They don't work at night."
- "Because when i have they didn't show up."
- "If my report is made unseen."

- "Only if its on a large scale. One fish isn't a big deal."
- "Because it might be a family member fishing."
- "Endangered species and abundance"

16% said they would not report a fishing violation. Of the participants responding that they would not report, there was a general sense that it would be a waste of time to report a violation because DLNR is unresponsive, particularly at night, and that there is a lack of follow up the next day. These were some of the reasons given by those who responded they would not report a violator to DLNR:

- "On numerous occasions no one answers the phone or even followed up."
- "The few times I have they gave me the run around."
- "Don't have the number."
- "Not my business"
- "Waste of time"
- "Just talk to the person"
- "I would tell them to stop"
- "Nothing would happen"
- "Live and let live, nobody will come"
- "Might be my friend"

44% would be willing to serve as a witness in a prosecution, 36% said it would depend, and 21% would not be willing to serve as a witness. Of those that would be willing, some explanations included:

- "It should be every fishermen's responsibility."
- "I want to put people like that in jail. Most of all guys laying net."
- "Fishing is Sharing!"
- "To put a stop to illegal activity one case at a time."
- "They don't deserve to fish."
- "Everybody should follow the rules"

- "Not enough fish gotta enforce the laws"
- "If I called it in I would follow through"
- "Gotta be responsible"
- "Enforcement is important because it educates people that they do something wrong. The Micronesian people don't follow any rules this upsets the locals"
- "It's our hobby we don't want people to ruin it"
- "It's not right, it's already fished out"
- "There's no fish left so of course"

For those that said it depended whether or not they would be a witness (36%), for many, it depended on who the violator was and/or how severe the violation was:

- "If it will help."
- "Lay nets only."
- "No one likes a rat. If it means the case will be thrown out by my absence, I would show up."
- "Again only lay nets, i wish DLNR would put a state wide ban on them."
- "Only if they were laying net."
- "If i get paid for it i would."
- "Depends on the degree of the violation."
- "If it would help to convict them i would."
- "If they took a big school of small fish or a bag of small tako i would."
- "A lot of people know who I am. I feel if I did I'd get beat up."
- "Depends on severity"
- "Depends on the situation, the people involved"
- "On severity and the guy"

For those that would not be willing to serve as a witness (21%), they explained their response with reasons including:

- "We need to learn our own self 1st."

- "I shouldn't have to. DLNR should have a better system."
- "I would not want to run into them fishing again."
- "I don't want them to know i made the report."
- "I wouldn't want the violators to know who made the report."
- "Don't want to go to court"
- "Don't want to be a rat"
- "No time"
- "It's pointless because nothing happens"
- "Not gonna be a rat"

2. North Shore Maui

The Maui survey focused on the north shore of Maui, defined as the areas from Waihe'e, Waiehu, Paukūkalo, Kahului, Pā'ia, Ha'iku, to Huelo. 100% of the 104 Maui survey participants resided on Maui. One participant resided on Lāna'i, in addition to Maui. The fishers participating in the survey on Maui appeared to be experienced, with 90% fishing for 6 or more years in Hawai'i and 76% fishing sixteen or more years. 27% of the participants reported fishing on Maui's North Shore more than twice per month, with 37% fishing there once a month or less, and 37% going one to two times per month.

85% of the survey participants were hook and line fishers. Of the hook and line fishers, 71% reported using at least one other method, primarily spears. Half of the participants reported hand harvesting near-shore resources such as seaweed and 'opihi.

As depicted in Figure 6, the survey indicates that 98% of the Maui participants self-reported having some information about Hawai'i's fishing laws. The majority of participants reported receiving such information from friends and family and at fishing supply stores. About half reported receiving their information from the news. 34% got their information from a resources enforcement officer or calling the government. 21% received their information from the internet and online forums. 3% reported receiving their fishing information from fishing regulation handbooks.

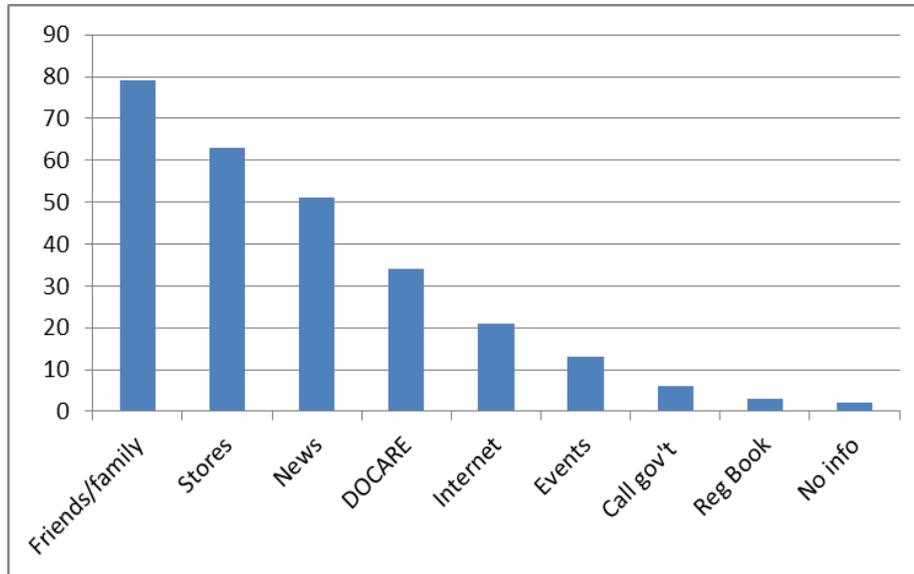


Figure 6. Graphical response of Maui survey participants to Question 5: "How do you normally get information about Hawai'i's fishing laws?"

One survey participant suggested mailing commercial fishermen and boat owners information about fishing laws by mail. 40% of the participants reported receiving information about Hawai'i's fishing laws at least once from a resources enforcement officer.

More than half of the participants thought it likely to any degree that a violator would be caught. 38% of the survey participants believed it not at all likely that a person breaking a fishing law will be caught. One participant did not pick a supplied choice, but created a new category, "depends on person/focused on certain people." Another participant believed it "depends on where; not at all likely in Kaupo, very likely in Wailea, Lahaina, Kahului."

79% of the Maui participants believed it likely to some degree that a violator who is caught will be convicted or subject to a penalty. 14% believed it not at all likely a violator will be convicted or subject to penalty. One participant believed it "depends on where; not at all likely in Kaupo, very likely in Wailea, Lahaina, Kahului."

68% of the Maui participants had heard about or witnessed at least one fishing law violation in the past year, with 50% hearing about or witnessing one to five, and 18% hearing about or witnessing more than six.

71% of the participants had never seen a resources enforcement officer give a warning for a fishing violation in the past year. A little more than a quarter saw a resources enforcement officer give at least one warning.

In the past year, 78% of the Maui participants never saw a resources enforcement officer give a citation for a fishing violation. 22% saw a resources enforcement officer give at least one citation. One participant noted that "DOCARE cites divers more than other type fisherman."

58% of the participants did not hear about or witness any convictions for a fishing violation in the last year. 42% had heard about or witnessed at least one conviction.

As Figure 7 shows below, 19% did not know any potential penalties for fishing law violations or did not answer the question. 72% believed monetary fines are a potential penalty, with some specifying that fines range from "\$100 per offense plus court fees" to "\$1,000 dollar fine per illegal removed resource," and one specifying that the fine would apply per fish. 31% believed jail is a possibility, and 28% believed their gear could be seized. Less than 5% of the participants believed penalties could include seizure of catch, a warning or a ticket, arrest, a court appearance, or probation. 3% believed their fishing rights/privileges could be revoked, one specifying "a ban for a limited amount of time." One participant believed license suspension is a potential penalty. Others named community service and "classes to prevent" violations as possibilities. One participant simply answered the question "none." Another responded, "DLNR steals fish for themselves."

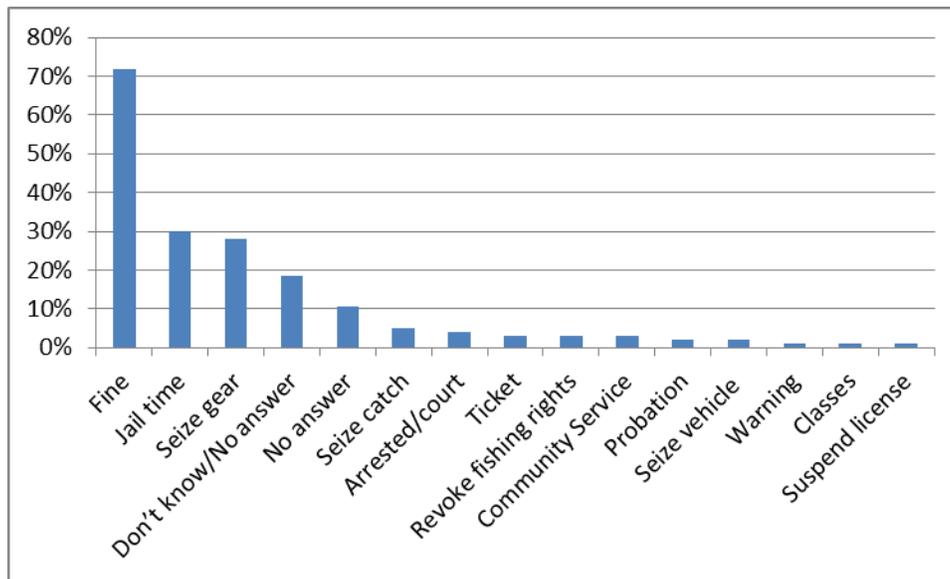


Figure 7. Graphical response of Maui survey participants to Question 13: "To the best of your knowledge, what are the potential penalties for state fishing law violations?"

65% of the participants believed Hawai'i's current law enforcement system is to some degree successful in assuring that people follow fishing laws, with 7% believing the system is very successful, 21% believing it is moderately successful, and 38% believing it is somewhat successful. 28% believed Hawai'i's current law enforcement system is not at all successful in assuring that people follow fishing laws.

20% clarified that there is not enough enforcement. Some specified that enforcement was necessary at night, e.g., "they don't work night time when illegal stuff happens" and "enforcement is not a 9-5 job!" One participant indicated there was "too much enforcement."

Participant's ideas for better enforcement include:

- "More enforcement staff"
- "24 hr hotline on each island, not an Oahu number"
- Give the public details about the perpetrator, crime, and punishment ("We (the public) never hear about violators being punished. When law enforcement is notified of violations, they seldom if ever show up. When violators get caught red-handed, we hear about the "bust" but that's the extent of it. The public never hears any more about who they are, what was the violation? What did they catch? How many? Where? What was the punishment? Shit!! I can handle that kind of treatment too. No embarrassment, no shame- who cares? I'll do it again.")

Other identified problems include:

- "Hostess bars buy a lot of seafood from poachers. Can someone look into this?"
- "Fishing supply stores also buy tako from divers who don't even have a G.E. license. We need to penalize the buyers as well."
- "Our resources do not seem to be thriving."

78% of the participants believed it likely to some degree that a resources enforcement officer will respond or follow up to the report of a violation. 11% believed it not at all likely that a resources enforcement officer will respond or follow up, and 11% did not know or did not answer. One said it depends where; the survey respondent believed a response from a resources enforcement officer was "not at all likely in Kaupo, very likely in Wailea, Lahaina."

82% believed one of the top three reasons people violate fishing laws is that they are not likely to be caught, while 77% believed violations resulted from a lack knowledge of the law. *See Figure 8 (below)*. 37% believed people violate laws because penalties are ineffective and 24% because the rules are unfair or do not make sense. 31% believed people violate fishing laws because of necessity or survival, although one participant said necessity is "not really good excuse. Get a fricken job!" 6 participants commented on the lack of DOCARE presence, including at popular fishing spots like boat ramps. A lack of follow-up was also specifically mentioned. 5% believed that people do not care, with some specifying "people don't care about rules," people "don't care about authority," and "some people just don't care." 4% attributed violations to greed.

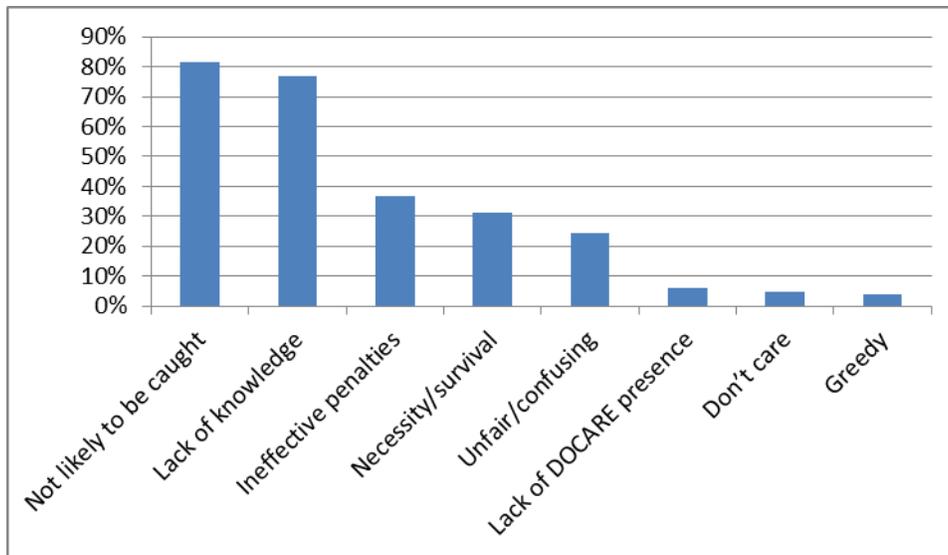


Figure 8. Graphical response of Maui survey participants to Question 16: "What do you think are the top three reasons people violate Hawai'i's fishing laws?"

One participant expressed that there is a "sense of entitlement by some who feel like the land is theirs to do as they like." Another participant thought there are "locals that feel they don't have to follow rules." Others had unique opinions on why people violated fishing laws, including:

- "Not enough legal, catchable fish, so people turn to catching illegal fish as in poaching reserves"
- "Drug users needing drug money"
- "They change the rules and never inform the fishermen"
- "Not afraid of paying the fine"
- "Accidental"
- "Not enough information about fishing at stores that sell fishing equipment"
- "In general I think most fishermen are following the rules. Some guys bend the rules but most won't break a regulation for example they might shoot a 9" plus kumu but not a 6" one."

A summary of Maui participants' responses to questions regarding specific regulations on fishing is provided in Figure 9 below, and detailed here:

73% of Maui participants supported bag limits without qualification, one enthusiastically, "Hell yeah!! Gotta be done NOW!" One participant who supported bag limits commented,

"commercial take is wiping things out so why make small time fisherman take only a few." Another supporter believed that "people can get around it." 21% might support bag limits in certain circumstances. 6% opposed bag limits.

89% of Maui participants supported size limits without qualification. 5% might support size limits in certain circumstances. For example, one participant would support limit on taking the "biggest" and "babies." 6% opposed size limits.

87% of Maui participants supported bag limits without qualification, while 9% might support bag limits in certain circumstances. One clarified their support was "provided a bona fide study to determine breeding seasons." Another supported open/closed seasons for "especially limu." 4% opposed open/closed seasons.

63% of Maui participants supported gear restrictions without qualification. 29% said they might support gear restrictions limits in certain circumstances. Some of these depended on the type of gear, with some specifying gill nets, surround nets, and overnight nets. 8% opposed gear restrictions.

69% of Maui participants supported fisheries management areas without qualification. 21% might support fisheries management areas in certain circumstances, one specifying "if educated on how." 11% opposed fisheries management areas.

66% of Maui participants supported marine life conservation districts without qualification, while 21% might support marine life conservation districts in certain circumstances. One said it depends because "sometimes they get on a roll, the agencies get too much restrictions and violate fisherman's trust." 14% opposed marine life conservation districts.

44% of Maui participants supported licenses and registration requirements without qualification. 37% might support licenses and registration requirements in certain circumstances. Two specified they would only support license and registration requirements for commercial purposes, and one said "for boats only." Another wrote that "they do it on the mainland. Funds could be used towards enforcement." 20% opposed licenses and registration requirements.

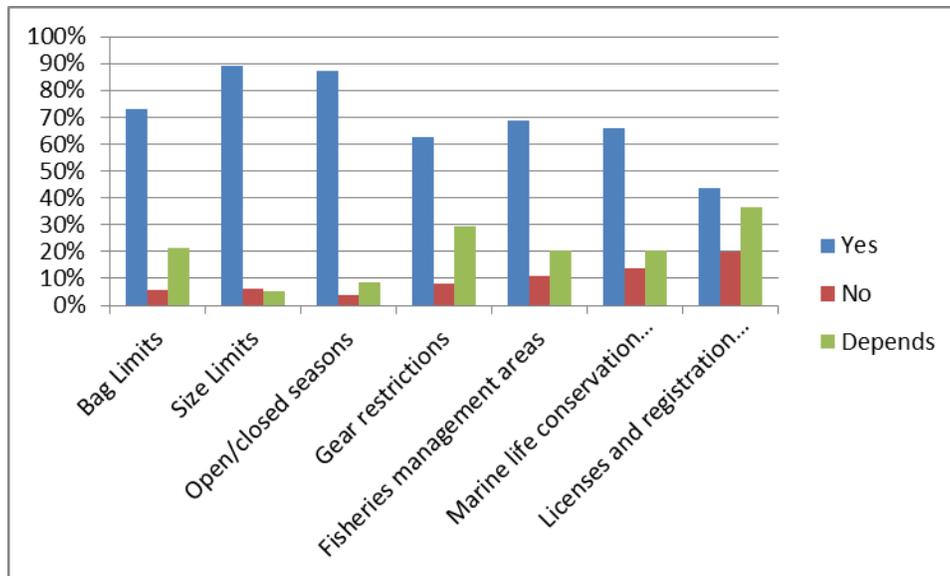


Figure 9. Graphical response of Maui survey participants to Questions 17-23. "Yes" indicates support for the management strategy; "depends" indicates qualified support in certain circumstances; "no" indicates opposition.

42% of Maui participants said they would report a fishing law violation to DLNR; several indicated that had already done so and would do so again. For those participants who responded that they would report a violation, reasons given included:

- "Yes, because I strongly believe in conservation and doing things by the creed."
- "Wrong is wrong - gotta obey the laws. A lot of violations are not witnessed though, you only hear about them. If reported, can Enforcement Office look into it?"
- "if they screw up it screws us all up"
- "We need to be all part of the solution. Take responsibility"
- "We need these fish to remain and spawn for the future of fishing/survival. Restrictions are necessary. Violators should be prosecuted and fined to realize this need. Plus none of these fisherman are starving just getting fish to eat fish."
- "Because I want to see marine life be the same for my kids' generation"
- "To help keep our resources from diminishing"
- "Only hurts everyone, when others don't follow the rules"
- "We all need to do our part to ensure that the future generations have the same resources that we had"

- "Need to support program for future of fishing"
- "The enforcement people cannot be everywhere at all times. If more of the public is willing to step up and participate, these scum-bag violators will think twice before they do anything."
- "Because it is not right."
- "Resources these days are getting depleted fast and if you don't practice conservation next generation won't have these resources."
- "We all need to be fair"
- "to protect our fishing"
- "Because that person is wrong. The person screwing things up for everyone else."
- "If they catch all the fish we not going have nothing"
- "So the fish population can stay high"
- "Need to preserve for future generations"

51% said it "depends" whether they would or would not report a fishing law violation to DLNR. For many who answered that it would depend if they were to report a violation, they clarified that it would depend on the violation and the violator. Explanations included:

- "If flagrant, yes for sure"
- "Depends on who it is"
- "Depends on how severe"
- "If I feel if it was right or wrong; lay nets and guys leaving their nets overnight, yes!"
- "Would have to be major enough"
- "Depends on circumstances, if the guy hungry he should eat it"
- "Why maybe/depends because I say this Hawai'i land and we should be able to fish and be able to live off the land."
- "Depends on violation"
- "I would report a violation if the fish (animal) was endangered."
- "Depends on the seriousness of it and if they (DLNR) are nearby."

- "Depends if it was a little or a big violation"
- "Some rules seem unjustified with no scientific backing; i.e., female species banning (lobsters; etc.) I feel endemic species should be protected but worldwide species should be less restricted."
- "Depends on what kind of violation. Example-see someone w/100 lobsters in off season—I will report, but just 1 no need"
- "Depends on who violates it and how much they abuse the law (I believe in certain people having gathering rights)"
- "I personally don't trust the system here in Hawai'i. I feel it is too connected and that certain people are singled out more than others. Sometimes it seems better to let things be, but if it's blatant rape of the ocean I would 100% report it."
- "It depends on the situation and the rule broken and who breaks the law"
- "I would not report net fishermen"

7% of the participants said they would not report a violator to DLNR. These were some of the reasons given by those who responded they would not report:

- "I would talk to them face to face and ask them if they knew"
- "Personal conflict"
- "Not a rat"
- "Seems like the DLNR is only out there to harass our local people. So why should we call or report anything to DLNR."

34% would be willing to serve as a witness in a prosecution, 43% said it would depend, and 24% would not be willing to be a witness. Of those that would be willing, some explanations included:

- "To help keep our resources from diminishing"
- "To ensure a penalty is given"
- "Cause its bad to take small fish"
- "Laws are made to be followed/enforced and punishments must be issued for this to work"
- "Need to support program which support fishing in Maui. Want my grandkids to be able to fish like I do and enjoy fishing as I do"

- "Because if I get a chance to talk to a judge I will use that opportunity to impress upon him the significance and gravity of the issue at hand. I do not think prosecutors or judges give a shit!"
- "It is our responsibility to take care of the ocean. We are slowly killing it. And we must bring justice to those who deserve it."

43% said it would depend if they would serve as a witness in a prosecution. For those that said it depended whether or not they would be a witness, for many, it depended on who the violator was and/or how severe the violation was:

- "Depends on the person or people involved with the violations."
- "Depending on who is the violator, I would be afraid of retaliation. For example, the 'Hui' on the East Side have many followers."
- "Small island!"
- "Depending on severity of violation, I may or may not want to be involved. Ex: if it is a very minimal violation, I would not, but if it is something major, then possibly I would if it would strengthen the case and solidify a conviction."
- "Dolphins, tortoise, whale, or seal – yes"
- "Depends on seriousness of violation"
- "Depends on the seriousness and amount of fish or tako or crab/lobsters taken"
- "Retaliation"
- "Depends if they were affecting the reef in a way that it would be better for them not to be fishing. If I knew they were purposely do it over and over again."
- "Depends on the person and the crime. The fishing community on the islands are very tightly knit and no one want to sell out their brothers."
- "If I don't know the person I would testify"

24% would not be willing to be a witness in a prosecution. Those that would not be willing explained they would not serve as a witness for reasons including:

- "Not my job"
- "Not a rat"
- "fear of retaliation"
- "I work and support my family"

C. Citation Database

As detailed above in Part III, section C, aquatic resource citation data were made available from July 2006 to March 2010 for Maui, and from November 2008 to November 2010 for O‘ahu. Due to the variety of factors that may affect the rate of aquatic resource citations issued, including factors outside the scope of the enforcement chain (such as varying aquatic resource law types and user demographics between each island), neither a comparative analysis between islands, nor an evaluation of detection/interdiction rates, were considered appropriate or helpful goals for this analysis. As the citation database analysis instead seeks to understand the rates and characteristics of penalties imposed, the analysis below includes all of the relevant citation data for each island throughout the available time periods, subject to additional screening dependent upon the specific metric being evaluated.

As also discussed in Part III, section C, the data analysis below includes cases that are closed (through either a dismissal, acquittal, or a finding of guilt), or that indicate the issuance of a conviction and/or sanctions (this excludes cases pending due to a failure to appear for trial, or where penal summons are returned unanswered). As previously noted, only citations under HAR chapters 13-31 thru 13-100 and HRS sections under subtitle 5 of title 12 are included in the following analyses.

Overall, not including cases screened out due to irrelevant citations or incomplete dispositions, 139 aquatic resource citation dispositions representing the same number of counts were analyzed for O‘ahu. Of these cases, 50 were for gear violations, such as unmarked or undersized mesh nets; 27 were for resource-specific violations, such as the possession of an undersized fish species; 27 were for fishing in prohibited areas; and 35 were for licensing violations, such as commercial marine license violations.

For Maui, a total of 314 citations representing 337 total counts were analyzed. Of these 314 citations, 214 were for resource-specific violations, such as possession of undersized fish; 63 were for gear violations, such as possession of undersized mesh nets, unregistered or unmarked lay nets, etc.; 35 were for licensing violations, including the lack of necessary commercial marine licenses, failure to submit reports or maintain receipts, failure to obtain a special marine product licenses, etc.; and 2 cases were for fishing in prohibited areas.

1. O‘ahu

The O‘ahu analysis included 139 criminal aquatic resource law citations that were resolved between November 2008 and November 2010. These cases do not include cases that remained unresolved during this time, due to the defendants' failure to appear for trial, or failure to respond to penal summons. Other cases were excluded due to a lack of sufficient conviction data in the system as of March 2011.

Of the 139 citations, 27 were for resource-specific violations, such as the possession of an undersized fish species; 50 were for gear violations, such as unmarked or undersized mesh nets; 27 were for fishing in prohibited areas; and 35 were for licensing violations, such as delinquent CML catch reports. As detailed below, 76 of the 139 citations (55%) resulted in a conviction or sanction.

(a) Monetary Sanctions Imposed

Monetary fines, including court compensation fees,¹⁴ were the primary type of sanction imposed for 66 out of the 76 cases (87%) resulting in a conviction or other sanction (such as a deferred acceptance of guilty ("DAG") or a deferred acceptance of nolo contendere ("DANC") plea) on O‘ahu.¹⁵ These 66 cases do not include cases for which a nominal court fee was charged, or where community service was imposed in lieu of a base fine; however, they do include DAG or DANC pleas requiring a "donation" to the state general fund. Such "donations" are treated as "fines" in the analysis below. Only one case resulted in both a substantial fine and a non-monetary sanction, i.e., probation; this case is included in the 66 cases analyzed below.

Of the 66 cases with monetary penalties, fines (including court fees, but not including amounts that were suspended) ranged from \$25 to \$630.¹⁶ Three fines (5%) were above \$500, three fines (5%) fell between \$300 and \$399, 17 fines (26%) fell between \$200 and \$299, 17 fines (26%) fell between \$100 and \$199, and 26 fines (39%) fell under \$100. *See* Figure 10.

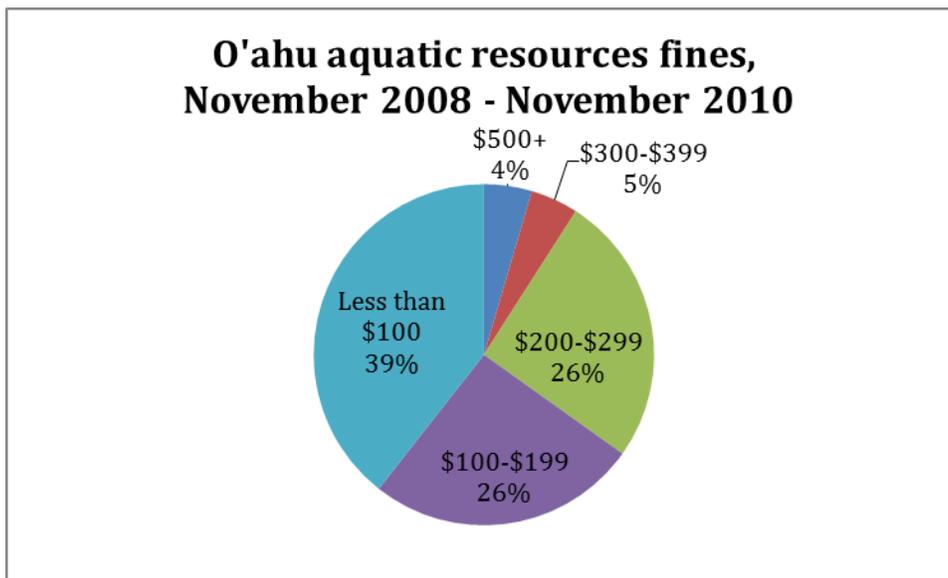


Figure 10. Percentage of fine amounts imposed for aquatic resource convictions on O‘ahu.

¹⁴ A \$30 compensation fee is required for any conviction of a petty misdemeanor, although the court fee may be waived if the defendant appears unable to pay the fee. *See* HRS §§ 351-62.6, 706-605.

¹⁵ Deferred acceptance of guilt (“DAG”) or deferred acceptance of nolo contendere (“DANC”) pleas allow a defendant to avoid a criminal record of conviction, if he or she pleads guilty prior to trial and abides by conditions set by the court for a predetermined period, usually six months. HRS § 853-1.

¹⁶ In some instances, courts may suspend portions of fines and other sentences upon the condition that the defendant does not violate the law for a set period of time, in a manner similar to probation. *See* HRS § 706-605. However, statutory criminal penalties for aquatic resource violations specify that fines “shall not be suspended or waived.” *See* HRS §§ 187A-13, 188-70, 189-4, 190-5.

The median fine within these 66 cases was \$130, which was also the most common monetary fine, occurring in 13 out of the 66 cases (20%). Of this amount, \$100 was attributed to the base fine, with the standard \$30 court fee also imposed. An additional citation resulted in a \$100 base fine with the court fee waived. The second most common fine was for \$280, representing a \$250 base fine with a \$30 court fee; this fine was actually imposed in 10 cases (15%). Three additional convictions resulted in a fine of \$250, which represented a \$250 base fine with the court fee waived. The most common base fine was \$50, which occurred in 18 cases (27%); both \$250 and \$100 shared the second most common base fine at 16 cases (24%) each.

Notably, the minimum statutory fines for aquatic resource violations are set at either \$100 or \$250 for a first offense, depending on the type of violation; such minimum fines "shall not be suspended or waived." *See* HRS §§ 187A-13, 188-70, 189-4, 190-5. Thus, nearly 40% of the 66 cases resulting in fines carried a monetary penalty of less than the lowest mandatory statutory minimum.

(b) Non-Monetary Sanctions Imposed

Non-monetary sanctions were imposed in 11 out of the 76 cases (14%) resulting in a conviction or other dispositions (i.e., a DANC plea) on O‘ahu. Community service was the most common non-monetary sanction, occurring in 10 (91%) of these cases. In three of these 10 cases (4% of the total 76 cases), community service was a condition of a DANC plea. Underlying violations for community service sanctions included fishing in prohibited areas (5 cases), resource violations (3 cases), and gear violations (2 cases). In only one case was probation and a substantial fine given; in that particular case, a geographic injunction also ordered the defendant to stay away from Hanauma Bay. No cases indicated the forfeiture of gear or evidence; several cases included a specific order to return confiscated gear or evidence to the defendant despite a conviction. *See* Figure 11.

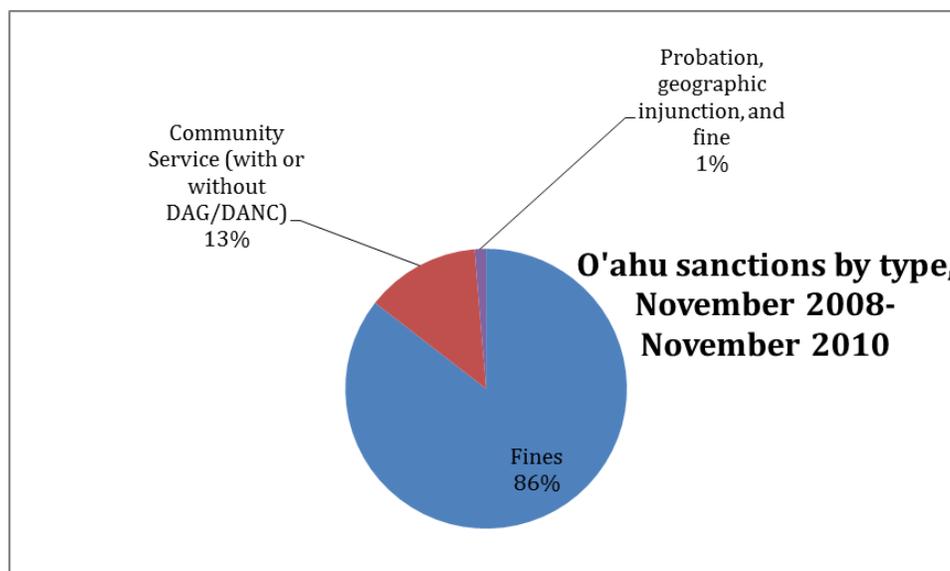


Figure 11. Types of sanctions issued for aquatic resource violations on O‘ahu.

Where community service was a sanction, 50 hours was the standard length of service imposed. 6 out of the 10 community service sanctions (60%) were set at this standard. In three instances, community service of 40 hours was imposed as a condition of a DAG or DANC plea. The remaining community service sanction was for a total of ten hours. The data does not indicate the nature of the court-ordered community service or whether rehabilitative components relevant to aquatic resource protection were mandated.

(c) Percentage of Dismissals

Of the 139 analyzed O‘ahu citations, 63 of these citations (45%) resulted in dismissals or acquittals. Of these 63 cases, 51 (37% of the total cases) were dismissed as a result of the state's motion, with 6 of the remaining dismissals (4% of the total cases) resulting from plea agreements. 5 dismissals (4%) resulted from miscellaneous circumstances such as the absence of the defendant due to military service, or a finding that the defendant had been in "substantial compliance" with the law. The remaining case resulted in a finding of not guilty after trial. *See* Figure 12.

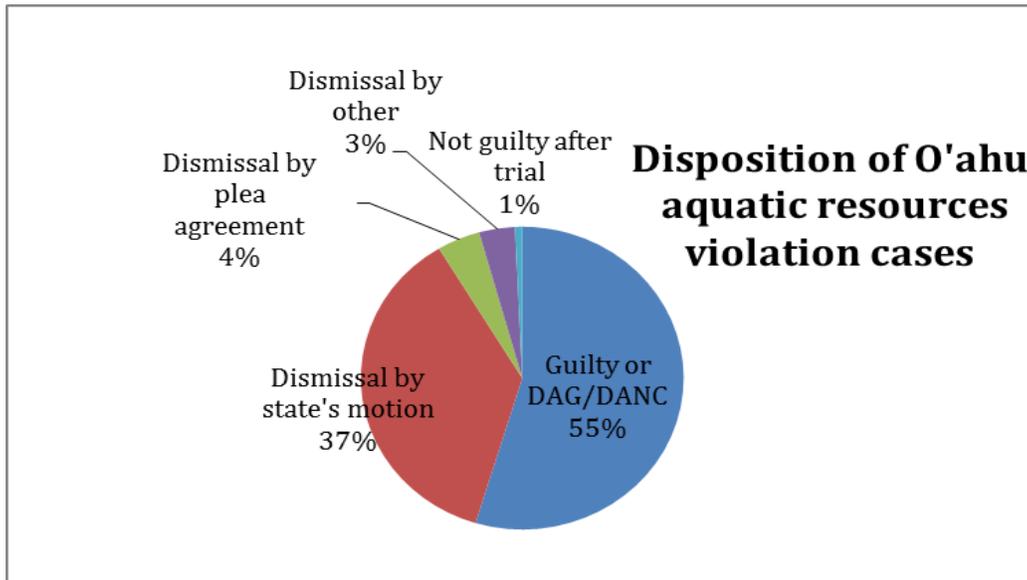


Figure 12. Disposition of O‘ahu aquatic resource citations.

(d) Percentage of Indigent Defendants

Of the 139 cases where a defendant was represented by an attorney, only 5 (3.6%) cases involved a private defense attorney. Public defenders represented defendants in 134 out of the 139 cases (96%) that were resolved or resulted in a conviction.

2. Maui

The Maui analysis included 314 criminal aquatic resource citations that were resolved between July 2006 and March 2010. These cases do not include cases that remained unresolved during this time, due to the defendants' failure to appear for trial, or failure to respond to penal summons. Other cases were excluded due to a lack of sufficient conviction data in the system as of March 2011. Of these citations, 214 were for resource-specific violations, such as undersized he'e; 63 were for gear violations, such as undersized mesh nets; 35 were for licensing violations, such as delinquent CML catch reports; and 2 cases were for fishing in prohibited areas. As detailed below, 218 citations (69%) resulted in convictions or sanctions.

(a) Monetary Sanctions Imposed

Monetary fines, including court compensation fees, were the primary type of sanction imposed for 200 out of the 218 cases (92%) resulting in a conviction or other sanction (such as a deferred acceptance of guilty ("DAG") or a deferred acceptance of nolo contendere ("DANC") plea) on Maui. These 200 cases do not include cases for which a nominal court fee was charged, or where community service was imposed in lieu of a base fine; however, they do include DAG or DANC pleas requiring a "donation" to the state general fund or, in one case, to the Kaho'olawe Island Reserve Commission. Such "donations" are treated as "fines" in the analysis below. 19 of these cases also resulted in the forfeiture of gear or evidence. Four cases, including one case resulting in an \$820 fine, included multiple counts, which in some instances resulted in multiple fines being issued within the same case. For analysis purposes, the value of these multiple-count fines were added together and attributed to a single case.

Of the 200 cases with monetary penalties, fines (including court fees, but not including amounts that were suspended) ranged from \$25 to \$820 (the latter number resulting from a case involving four counts, each resulting in a finding of guilt). Two fines (1%) were above \$500, one fine (0.5%) fell between \$400 and \$499, 38 fines (19%) fell between \$200 and \$299, 153 fines (77%) fell between \$100 and \$199, and six fines (3%) fell under \$100. *See Figure 13.*

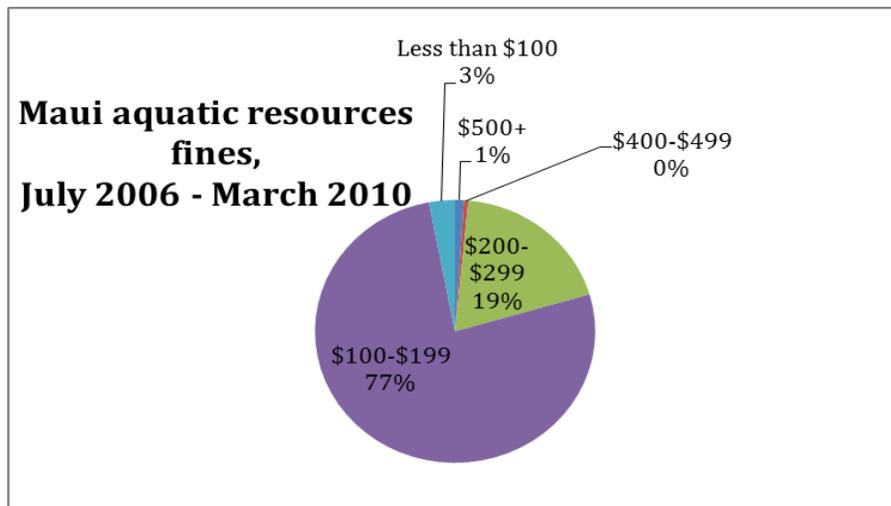


Figure 13. Percentage of fine amounts imposed for aquatic resource convictions on Maui, rounded to the nearest percent.

The median fine imposed in these cases was \$130. The most common monetary fine was \$130, which was actually imposed for 90 cases (45% of cases with monetary sanctions). Of this amount, \$100 was typically attributed to the base fine, with a standard \$30 court fee also imposed. \$100 was the second most common fine amount, imposed in 55 cases (28%), which represented a \$100 base fine with the court fee waived. Without considering court fees, a \$100 base fine was thus the most common base fine for cases resulting in a monetary sanction, imposed in 146 cases or 73% of all cases resulting in a monetary sanction.

As indicated previously, the minimum statutory fines for aquatic resource violations are set at either \$100 or \$250 (not including court fees) for a first offense, depending on the type of violation; such minimum fines "shall not be suspended or waived." *See* HRS §§ 187A-13, 188-70, 189-4, 190-5. Thus, 76% of the 200 cases resulting in fines carried a monetary penalty of equal to or less than the lowest mandatory statutory minimum for a single aquatic resource law violation.

(b) Non-Monetary Sanctions Imposed

Non-monetary sanctions were imposed in 18% of cases resulting in sanctions, with community service (typically 20 hours per count) as the most common nonmonetary sanction. Out of the 218 cases resulting in sanctions (including sanctions imposed as a condition to DAG or DANC pleas, or plea deals resulting in dismissals), 16 (7%) resulted in community service as a non-monetary sanction; however, the data does not indicate the nature of such community service or whether rehabilitative components were required. 14 citations (6%) resulted in the forfeiture of gear, specified as nets in all but one case. Six citations (3%) resulted in the forfeiture of fish or other marine life taken in violation of the law. All citations resulting in the forfeiture of gear or marine life (except for one in which forfeiture of a net was the only penalty), also resulted in a base fine of \$100 (7 citations) or \$250 (12 citations). One citation resulted in jail time at the request of the defendant (0.5%). *See* Figure 14.

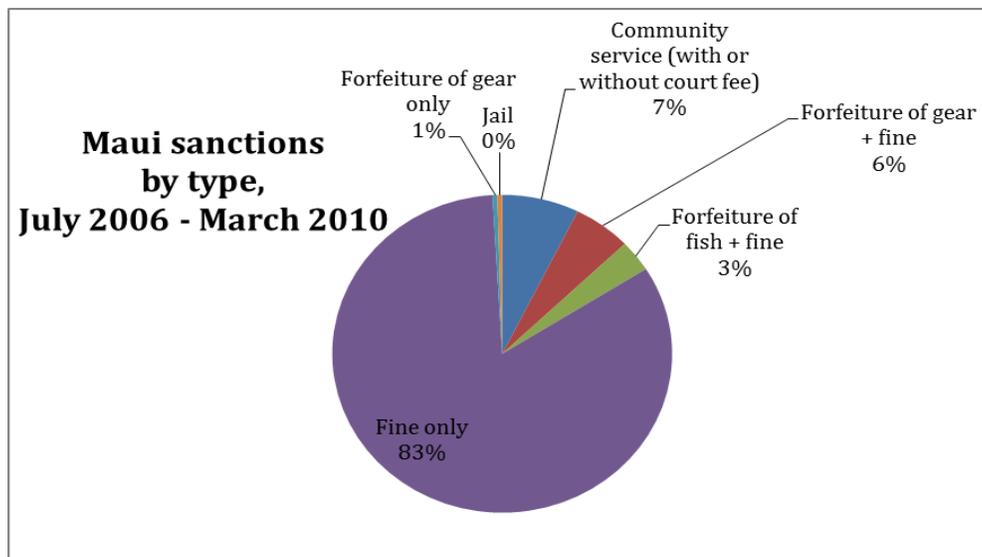


Figure 14. Types of sanctions issued for aquatic resource violations on Maui.

Where community service was a sanction, 20 hours was the standard length of service imposed. 13 out of 16 community service sanctions were set at this standard (81%). In one case involving two counts, each count resulted in 20 hours of community service each, for a total of 40 hours of community service. In one case, a \$150 fine was converted to 30 hours of community service, and 50 hours of community service was imposed in another case. For cases where community service was imposed in lieu of a fine, the amount of community service imposed appears to be calculated based on a \$5/hour basis.

(c) Percentage of Dismissals

Of the 314 citations issued, 96 (31%) resulted in dismissals or acquittals with no other sanction. 17 of these cases (14% of the total cases) were dismissed as a result of the state's motion, with 74 cases (24% of the total cases) dismissed pursuant to plea agreements on related cases. 3 cases (1% of the total cases) were dismissed after the defendant apologized or motioned for dismissal, and 2 other cases (1% of the total cases) resulted in acquittal after trial. *See* Figure 15.

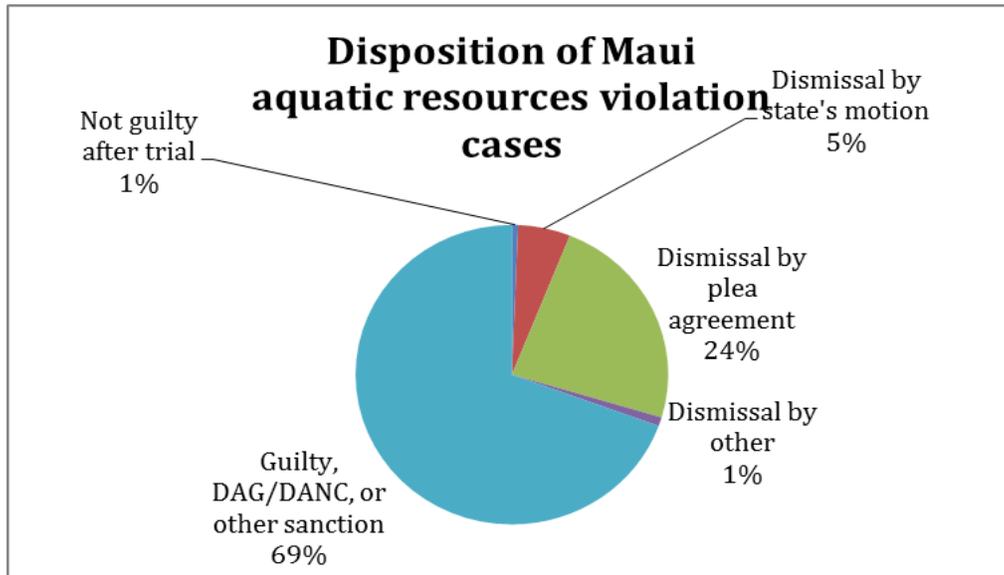


Figure 15. Disposition of Maui aquatic resource citations.

(d) Percentage of Indigent Defendants

Of the 286 cases where the defendant was represented by an attorney, only 4 (1.4%) cases involved a private defense attorney. Public defenders represented defendants in 282 out of the 314 citations (90%) that were analyzed.

D. Professional Interview Summaries

The following discussion summarizes the professional interview findings with respect to the interviewees' identified strengths and weaknesses for their respective links in the enforcement chain (education, detection/interdiction, criminal prosecution/penalties, and administrative adjudication/civil sanctions) on Maui and O'ahu. Identifying information other than interviewees' agency and title has been redacted.

1. O'ahu

(a) Education

i. Strengths

Interviews with DOCARE officers and administration indicated that O'ahu DOCARE officers were usually capable of providing educational information to community groups or schools upon request, and at large public forums and events such as the Hawai'i Fish and Seafood Expo and National Hunting and Fishing Day.

DAR education staff likewise indicated that they revise and publish up-to-date regulation handbooks, maintain the DAR website regarding regulations and notices of rule changes, and work on installing signage for regulated areas. DAR education staff also provides support of new rules and rulemaking through news releases and other written materials; however, federal funding for educational activities cannot be used directly in promulgating rules.

ii. Weaknesses/Areas for Improvement

One interviewee commented on the much more extensive educational role played by DOCARE in previous years; currently, efforts appear to have shifted from focusing on education and visibility to enforcement actions, which were more readily perceived as indicators of success. As a result, DOCARE educational efforts on O'ahu were observed to be ad hoc and piecemeal, and both judge and DOCARE interviewees commented on the potential benefits of a more coordinated campaign, using media such as television and radio to disseminate compliance information. DOCARE interviewees suggested an educational specialist or specialists to develop and conduct such a campaign, as well as meet with communities, encourage communication, and work out strategic outreach efforts. Officers also indicated that greater educational assistance from other divisions in DLNR would strengthen the department's overall educational and outreach efforts, and could particularly help in increasing awareness of the importance of DOCARE's responsibilities.

DAR O'ahu education staff indicated that information pertaining to the justification behind aquatic resource regulations must be developed by other DAR staff that work directly on proposed rules. DAR O'ahu staff also deferred to DOCARE with respect to educational gaps and barriers, but noted that language barriers with non-English speaking groups may present one gap in their educational function. Additional staff and funding for printing and presentation purposes were also identified as necessary to enhance DAR's educational function.

(b) Detection/Interdiction

i. Strengths

DOCARE officers on O‘ahu reported a high level of commitment to their job responsibilities. DOCARE officers with a passion for fishing and hunting also indicated that their knowledge of fishing practices informed their ability to detect violations, particularly in how fishing gear and equipment may be used and misused. For example, officers related how their familiarity with throw-netting methods allowed them to identify possible suspects by their possession of backpacks in shoreline areas known to be targeted by illegal-mesh throw-netters. Officers also cultivated and maintained relationships with concerned citizens, who reported violations and assisted in their enforcement efforts.

Strong relationships with federal agencies also provided funding for cooperative detection and interdiction actions such as patrols of federally-owned areas, federal operations, and boarding operations of longlining vessels. Partnerships with the Honolulu Police Department ("HPD") also provided for some collaboration in terms of detecting and documenting violations in areas with high county police presence, such as Waikīkī.

ii. Weaknesses/Areas for Improvement

The lack of sufficient funding and positions was cited by DOCARE officers, DOCARE administration, prosecutors, and judges as a major barrier to DOCARE's detection and interdiction functions. One interviewee noted that the HPD, serving only the island of O‘ahu, employed over 2,000 officers, as compared to the 96 active DOCARE field officers serving the entire state. A comparison of agency budgets further illustrated the apparent lack of adequate funding for DOCARE, with HPD reporting an annual budget of \$224 million, or twenty times DOCARE's annual budget. Interviews indicated that this lack of funding and positions has precluded adequate enforcement coverage in the field, diminished staff morale and public confidence, and led to both mission creep and confusion within the agency tasked with detecting and interdicting aquatic resource violations.

In addition, while interviewees unanimously cited the insufficiency of funding and field coverage for detection and interdiction purposes, interviewees in DOCARE administration also cautioned that increased positions for field officers would necessarily require greater administrative and management capacity within the division. Interviewees felt that without also including positions to support administrative and personnel functions within DOCARE, simply adding field officer positions alone could result in further systemic failures to the detriment of communities and DOCARE alike. Interviewees noted that DOCARE's existing administrative needs have already required administration, management, and support staff to take on additional responsibilities outside of their individual functions, resulting in confusion and lowered morale. Thus, additional administrative and support staff to manage field activities, coordinate with Makai Watch groups, analyze statistical data, develop officer training programs, and focus on inter-branch cohesion were all cited as necessary to improving DOCARE's capacity to detect and interdict natural resource and aquatic resource violations.

Lowered morale, also tied to funding and human resource issues, was further cited as inhibiting DOCARE's capacity to perform its functions in the field. For example, DOCARE administration cited the lack of financial resources, administrative support, and opportunities for growth as harming staff morale, particularly for officers and managers who are required to be increasingly flexible with their job responsibilities. As interviewees observed, diminished morale among division heads working with limited staff and resources has led to diminished morale among officers, who may challenge DOCARE administration as a result. The subsequent need to address these morale and personnel issues has only further limited DOCARE administration's capacity to support the division's field operations.

Various interagency barriers were also cited by O'ahu DOCARE personnel as a limitation on the agency's ability to detect and interdict violations. For example, the lack of internal access to other divisions' databases (such as boating registration and commercial marine license databases) requires DOCARE to be dependent upon the timely response of these other divisions to ascertain and enforce violations in the field. DOCARE interviewees similarly noted a lack of access to legal support or guidance for DOCARE field operations, such as from the attorney general's office or the Honolulu prosecutor's office. The relationship between DOCARE and the Honolulu prosecutor's office in particular was seen as nonexistent or even antagonistic, despite the best efforts of DOCARE administration. Interviews further cited the development of stronger partnerships with HPD and other enforcement agencies as an area for improvement; as two DOCARE interviewees noted, such relationships would increase the resources from which DOCARE could draw from. Finally, DOCARE interviewees noted the potential value of Makai Watch partnerships in providing a greater number of trained "eyes and ears" in the field; however, as with the other interagency barriers, coordinating with Makai Watch groups would require resources and personnel beyond the division's current capacity.

Other barriers to detection and interdiction indicated by interviewees within DOCARE included the lack of coordinated training or refresher courses on current laws, species identification, and other specialized information intrinsic to DOCARE's enforcement mission. Language and cultural barriers, the lack of in-house resources to address needs beyond day-to-day operations, and shifting directions and management philosophies from changing leadership in the executive branch were also cited by interviewees as hampering DOCARE's enforcement functions. Finally, the inability to inspect coolers and closed containers without probable cause was cited as another barrier to interdicting violations; one officer noted that a licensing system may provide a legal mechanism to inspect such containers.

(c) Criminal Prosecution and Penalties

i. Strengths

Honolulu county deputy prosecutors reported that trials in O'ahu district courts were rare, and that most cases were resolved with a plea deal and an admission of guilt. One DOCARE officer confirmed that he had been called as a witness on 3-4 occasions in eight years of service. Prosecutors noted a high degree of satisfaction with DOCARE reports, and that DOCARE officers "know what they are doing." Prosecutors also observed that in the rare instances when O'ahu DOCARE officers were called to the stand, they were often "strong" witnesses. Judges

similarly noted that the criminal process was standardized, and that most defendants appeared to find the criminal process burdensome enough to forego contesting fines.

ii. Weaknesses/Areas for Improvement

Prosecutors noted that a major limitation to their prosecution of aquatic resource cases was a general lack of capacity in the prosecutor's office. Deputy prosecutors, particularly in the traffic and misdemeanors division, were often "slammed" by the daily caseload they were required to handle; deputy prosecutors estimate that of this caseload, aquatic resource cases comprised an estimated "2%." Deputies had a limited amount of time to deal with these types of cases and were not always familiar with the law, making plea deals a practical necessity in most instances. Deputies are required to spend a disproportionate amount of legal research into unfamiliar areas of the law, further limiting prosecutors' time and ability to vigorously pursue these types of violations.

DOCARE officers and prosecutors also noted that deputy prosecutors in the traffic and misdemeanor division, who are typically new to the prosecutor's office, could use assistance from DOCARE or DAR in understanding the more "esoteric" elements of aquatic resource regulations, and identifying available penalties for specific violations. One prosecutor suggested that having a go-to "expert" on aquatic resource laws, who deputies could call for quick legal references, would greatly aid their handling of such cases. Judges also noted that training on aquatic resource laws, particularly for those judges in rural district courts, could be helpful in their adjudication of aquatic resource cases. One judge observed that criminal convictions and penalties were normally driven by the prosecutors through the plea bargaining process, and that educational efforts for judges would not likely influence the process or conditions of plea agreements.

Criminal burdens of proof and evidentiary standards were noted as disproportionately burdensome relative to the types of aquatic resource cases usually encountered by the Honolulu prosecutor's office. In addition to requiring deputy prosecutors to understand how to establish unfamiliar and esoteric elements beyond a reasonable doubt, such standards also require DOCARE officers to carefully document their investigatory procedures in order to facilitate a successful or zealous prosecution. For example, prosecutors noted the issues that they had previously encountered when introducing evidence from the use of "technical equipment," such as digital scales or Global Positioning System devices; if challenged, evidence resulting from the use of such equipment could not be introduced in trial without documentation regarding the equipment's manufacturer, its calibration, the training of the officer using such equipment, and its actual use in the field. Judges and prosecutors suggested training for DOCARE officers on how to document such information, to increase the prosecution's confidence and leverage in pursuing cases and negotiating plea deals. Prosecutors cautioned that many defense attorneys use criminal burdens of proof and evidentiary burdens to their advantage, by challenging evidence and delaying trials until a key witness fails to appear.

With respect to the deterrent or rehabilitative effectiveness of criminal penalties, O'ahu judges and prosecutors indicated that their respective caseload inhibited their ability to evaluate any imposed penalties. Judges noted that prosecutors primarily arrange plea agreements for

aquatic resource violations, and that judges had no way of knowing how effective any agreed-upon penalty would be on deterring a defendant's future unlawful behavior. While judges felt that plea deals were sufficient, DOCARE officers felt that the penalties were just "drops in the bucket," and largely insufficient. Due to the primary role of prosecutors in negotiating plea deals, judges recommended focusing outreach and educational efforts on prosecutors, and to ensure sufficient training and legal support for DOCARE officers in documenting cases and facilitating prosecutors' vigorous negotiation of plea deals.

(d) Administrative Adjudication & Civil Penalties

With respect to the administrative adjudication process, Marine Law Fellows and the CRVS administrator all endorsed the benefits of an expanded administrative enforcement system, to ease the burden on both the court system and defendants, to facilitate "prosecution" through lowered burdens of proof and evidentiary standards, and to provide more appropriate penalties than criminal liability. The CRVS administrator indicated a high level of success in improving compliance through CRVS's civil penalties, which allowed defendants to quickly pay fines and resolve their liability. Judges concurred that lowered liabilities, particularly with respect to criminal liabilities, may reduce challenges and allow for more efficient processing of cases. Marine Law Fellows also unanimously supported addressing aquatic resource violations with DLNR's administrative enforcement authority, for the same reasons, and for the additional benefit of having resource cases addressed by an agency specifically focused on resource management.

With respect to penalties, the CRVS administrator and the Marine Law Fellows noted that civil liability appeared to be a more appropriate response to most aquatic resource violations than a criminal conviction. The CRVS administrator noted that within CRVS, the ability to resolve administrative violations through the simple payment of fines or corrective action facilitated both enforcement actions and compliance with regulations. Violators no longer facing a criminal conviction appeared to concede their liability more readily, and the number of CML catch reporting violations dropped from 1,300 cases to 250 cases in the three years since the CRVS system had been implemented.

The Marine Law Fellows likewise indicated that the DLNR would appear better equipped to address violations of its own rules through the administrative adjudication process, and provide remedies more appropriate than a criminal record for enforcing aquatic resource violations. In several coral damage cases, the Fellows noted how significant civil fines paid by commercial operators were able to fund infrastructure maintenance, community programs, and other projects designed to protect and restore coral reefs. Such civil fines also appeared to deter further violations as commercial operators took note of their potential liability. An expanded system that specialized in aquatic resource violations could also allow the imposition of deterrent, restorative, and rehabilitative penalties as appropriate. For example, the suspension or revocation of commercial permits may have a high deterrent effect on commercial entities; resource-focused community service may provide for both restorative and rehabilitative opportunities for individual violators; and meaningful monetary fines dedicated to resource management could serve both deterrence and restoration functions. In addition, the public nature of BLNR meetings and enforcement actions would increase the public exposure of enforcement

actions, enhancing the public perception necessary to assure of mutual compliance through formal enforcement (as well as deter violations through the public "shame" factor).

Despite these potential advantages, Marine Law Fellow and CRVS interviewees noted that the expansion of a civil enforcement process would require an investment in staff positions to put cases together and administer the program, as well as in-house hearings officers to adjudicate cases throughout the state. The DOCARE administrator similarly noted the need to develop appropriate due process protections for violations on neighbor islands. Judges likewise noted that any civil enforcement process would have to be researched and developed to ensure that timeliness and deterrence goals are met, and advised building off of systems or models currently in place.

The Marine Law Fellows also noted that special fund caps and federal grant mandates may also raise issues with respect to adjudicated civil fines, and that settlement procedures take into consideration the spending limitations for existing special funds.

Finally, despite their endorsement of a civil alternative to criminal enforcement, Marine Law Fellows, prosecutors, and judges on O‘ahu all indicated that criminal liability and the criminal process be retained to some degree, to provide for criminal penalties when appropriate or necessary.

2. Maui

(a) Education

i. Strengths

Maui interviews indicated that, similar to O‘ahu DOCARE operations, DOCARE officers were capable of providing educational information as requested by community groups or schools, and were able to provide basic information on fishing rules (including copies of the DAR regulations handbook) to individuals they contacted in the field.

Maui branch DOCARE staff also included bilingual officers who could speak Tagalog, which allowed DOCARE to communicate with limited-English -proficiency members of the Tagalog-speaking community.

Former DAR Maui education staff noted that DAR produces printed materials on aquatic resource laws, which are strategically distributed through fishing stores, dive shops, and made available at the DAR-Maui office. As on O‘ahu, DAR also works to install signage at closed areas. Similar to DOCARE, DAR education staff also provides presentations to schools and community groups upon request, and has developed a fishing education program for small groups (such as Boy Scouts, churches, etc.) that is focused more towards promoting fishing practices with a conservation mindset. DAR-Maui staff also seek out situations where fishers may gather, such as during the seasonal halalū (juvenile mackerel scad) runs, to engage fishers directly and efficiently. When new rules affecting regulated areas are established, DAR-Maui education staff members similarly reach out to fishers directly, in order to educate them regarding the changes to aquatic resource laws.

ii. Weaknesses/Areas for Improvement

Similar to the situation on O‘ahu, DOCARE educational efforts on Maui were also described as ad hoc and piecemeal, primarily due to the lack of administrative and support staff capacity to coordinate outreach and educational efforts. Although Tagalog-speaking staff allowed DOCARE to conduct some outreach to the Tagalog-speaking community, interviews also indicated that cultural and language barriers may inhibit outreach to other communities. The Maui branch also had insufficient support staff capacity to analyze or review citations or identify trends that might indicate the need for directed outreach or educational efforts. Staff positions to coordinate or plan educational efforts, provide cultural expertise and insight, analyze citation trends, and implement projects such as statewide educational campaigns were all cited as possible ways to further DOCARE's educational functions on Maui. Insofar as such efforts must currently be carried out by field officers with varying levels of institutional knowledge, such administrative staff positions would have the added benefit of freeing field officers to engage in more fieldwork, as a necessary prerequisite to increasing educational (and other enforcement) contacts.

Interviews with DOCARE personnel also indicated that difficulties in interpreting rule language inhibited timely educational efforts for new or amended rules. For example, conflicting interpretations of new gill net rule language between DOCARE officers and DAR staff resulted in confusion both within DLNR and in the community, with several reported instances of civilians destroying fishing nets they had wrongfully believed were illegal. DOCARE officers and DAR Marine Law Fellows alike cited the need for greater interdivision communication throughout the rulemaking process, to ensure that aquatic resource rules were both legally sufficient and accessible to the general public. In addition, interdivision training opportunities between DAR and DOCARE regarding new or amended rules were cited as potential ways to close the rule interpretation gap, and ensure that the DLNR remained on the same page in describing such rule changes to the general public.

Interviews with former DAR-Maui education staff likewise indicated that greater coordination of educational efforts and priorities with DOCARE may be critical to DAR's own educational program. For example, DAR-Maui engaged in extensive outreach and education efforts around rules implementing the Kahekili Herbivore Fishery Management Area, as well as the Kahului Harbor fisher check station. When these rules were implemented, DAR education staff met directly with fishers and even provided incentives, such as gift certificates, to those fishers who demonstrated compliance with the new rules (in the case of the fisher check station). Without enforcement officers to provide stern warnings or citations to encourage compliance, however, compliance with these aquatic resource laws has remained relatively low (within the range of 1% for the Kahului fisher check station, and 15-20% for the Kahekili Herbivore Fishery Management Area). DAR Maui staff noted that DOCARE officers, who have a much larger direct presence in the field and who carry the authority of law, are likely to be more effective at promoting messages regarding compliance to the general public than "DAR biologists."

Similar to O‘ahu DAR staff, DAR Maui staff also indicated that addressing language barriers, particularly for new immigrant groups, may be a worthwhile investment. In addition, strategically "modernizing" DAR's education and outreach activities, such as utilizing social

media and other technology, or producing fishing shows or other videos highlighting conservation issues, may help educate the new generation of ocean users with respect to aquatic resource laws and justifications for compliance. Regular news articles, newsletters, or even mailings to a registry of fishers could also provide reminders to fishers about pertinent regulations.

Finally, DAR Maui staff noted that staff and funds are two basic needs that would be required to enhance DAR's educational mission. A restructuring of DAR to be district-based rather than program-based would also better reflect the needs of DAR branches on the neighbor islands, and may enhance DAR's overall capacity. For example, the current program-based structure artificially divides habitat staff, fisheries staff, and education staff, when fisheries staff must often engage in habitat-focused projects, and habitat staff likewise engage in fisheries work out of necessity. Meanwhile, neighbor island staff are placed under the "supervision" of program managers on O'ahu, who are not directly connected to the comprehensive concerns and issues specific to each of the neighbor islands. Providing management through a district-based structure may be more responsive to the issues and concerns on the various islands throughout the state, while also providing staff with greater direction and support statewide.

(b) Detection/Interdiction

i. Strengths

Maui DOCARE officers cited strong community relationships that aided in their ability to detect and interdict violations. Officers indicated that they tried to follow up on every reported violation, even those reported after-hours, although reports varied widely in the amount of available information to follow up on (such as identifying features, pictures, etc.). Interviews indicated that reported information was often shared between officers, to allow officers to collaboratively monitor and develop intelligence on suspected poaching activities.

DOCARE officer interviews also indicated a relatively strong inter-agency relationship with the Maui Police Department ("MPD"), which appeared to aid Maui DOCARE officers in their enforcement mission, including the enforcement of aquatic resource violations. While both agencies strived to "take care of their own" in carrying out their respective responsibilities, a long-standing relationship allows both agencies to leverage resources or collaborate on enforcement activities upon request. For example, MPD allows DOCARE recruits to participate in their law enforcement training course, and use their radio system free of charge; DOCARE in turn provides training presentations, special vehicles (such as all-terrain vehicles and marine vessels) and additional enforcement officers for violations occurring in undeveloped lands. DOCARE supervisors also make themselves available to MPD personnel twenty-four hours a day, and officers from both agencies may share intelligence and information on suspected criminal activity under their respective jurisdictions.

Maui officers also recognized that their own passion for hunting and fishing informed their knowledge of aquatic resource laws, regulated species, regulated gear, and the identification of suspicious behavior or anticipation of seasonal poaching activity. A personal passion for the resources also seemed to drive certain officers to "go the extra mile" in their jobs, from

conducting extra patrols for violations, to following up on violations witnessed while off-duty (when off-duty interdiction may have been unsafe or impractical due to lack of equipment, etc.), to developing community informants, to exploring the incorporation of modern technology in their investigative efforts, etc.

ii. Weaknesses/Areas for Improvement

As on O‘ahu, an overall lack of both funding and positions were cited by DOCARE administration, officers, prosecutors, and judges in Maui county as a critical barrier to DOCARE's capacity to detect and interdict aquatic resource violations throughout the island. Similar to O‘ahu, funding and personnel shortages have resulted in extremely limited DOCARE officer coverage during after-work hours and weekends. Such shortages are exacerbated both by the occasional breakdown of working equipment, and a relatively small but defiant poaching community. To this latter point, interviewed DOCARE officers cited the need to strategically plan out operations, sometimes over a several-day period, to interdict a single poaching operation, and that known poachers engage in creative strategies (such as using a lookout system) to avoid detection or establishing probable cause in their unlawful activities. Such operations, while necessary to curtail significant poaching activities, drain DOCARE's resources and capacity to engage in broader detection and interdiction actions.

In addition to funding for field personnel and equipment, officers and administration in DOCARE's Maui office also cited the need for administrative and support positions to manage and support officers, and ensure that DOCARE operations can occur effectively and efficiently. Interviewees noted that many of the operational support positions within county police departments are absent in DOCARE offices. For example, without mechanics on staff, field officers and their supervisors must often ensure their vehicles and vessels are maintained and in working order; without procurement specialists, officers must spend days attending procurement training classes, researching vendors, drafting and administering bids, and engaging in other procedural processes to make a once-a-year purchase of necessary equipment. One officer noted that the MPD also retains a full-time asset forfeiture officer, tasked with navigating state asset forfeiture laws, to facilitate the seizure and disposition of equipment used in violating an applicable law.

Other administrative, specialist, or support positions suggested by DOCARE interviewees included a community outreach specialist, who could meet with communities, encourage communication with the agency, and cultivate relationships with informants and Makai Watch community groups; an operational support officer, who could cultivate relationships within and outside of the DLNR, and work to ensure timely and direct DOCARE access to agency databases that provide critical enforcement information; a branch-level educational specialist; a cultural specialist; a research statistician; a legal advisor; grant writers; and clerical staff to support these positions and officers. Interviewees felt that these positions would free field officers from current administrative, non-field activities; allow the exploration of new avenues and resources to detecting and interdicting violations; and expand the overall operational capacity of the Maui DOCARE branch in carrying out its enforcement functions.

Legal barriers were also cited by DOCARE officers, prosecutors, and judges as inhibiting DOCARE officers' ability to detect and interdict violations in the field, without violating the rights of potential criminal defendants. Judges noted that criminal liability carries procedural and substantive due process requirements impacting and restricting DOCARE functions of detection and interdiction; these requirements were seen both by judges and DOCARE officers as frustrating detection efforts, and ripe for exploitation by poachers. For example, the lack of administrative search authority was cited as a major obstacle to detecting violations, and officers related how suspected poachers exploited this barrier to prevent searches of closed containers holding unlawful gear or resources. Nearly every officer interviewed noted how certain divers and netters, after realizing the probable cause requirements for searches of personal property, quickly began using opaque pillow cases and backpacks to conceal their suspected unlawful gear or catch. One officer suggested highway checkpoints as a mainland resource enforcement model that would greatly increase both their detection and interdiction functions.

Developing interdivision communication and training opportunities within DLNR were also cited by officers as a way to improve their detection and interdiction capacity, particularly given the difficulty in interpreting certain aquatic resource rules. As discussed earlier in this section, without consensus between DAR staff and DOCARE field officers, identification of crimes (much less detecting them) could be subject to differing interpretations by DLNR. According to interviewed officers, coordination between DAR staff and DOCARE in both the development and implementation of aquatic resource rules would not only increase the practical enforceability of aquatic regulations, but would also free officers from taking weeks or months to interpret such rules before being able to enforce them in the field.

(c) Criminal Prosecution & Penalties

i. Strengths

Interviews with Maui prosecutors and DOCARE officers indicated a relatively strong mutual respect between prosecutors and officers. Some prosecutors were cited as working closely with DOCARE, and consulted in some cases as soon as reports were filed. Prosecutors cited DOCARE officers' reports as consistent, detailed, and otherwise "solid," and stated that they rarely needed to consult with officers after reviewing their reports. As a result, nearly all aquatic resource cases pled out with some admission of guilt, with only one or two contested trials cited in the last year. In interviews with Maui prosecutors, officers that were called for trial were seen as taking their jobs seriously, and prosecutors found them receptive to learning through their trial experiences. DOCARE officers in turn consistently cited that courtroom experiences provided some of the "best training" opportunities in their careers.

Maui district court prosecutors also indicated that they strived to handle cases "vertically," with the same deputy prosecutor handling cases from reception to trial. Prosecutors also recently began tracking recidivism data, to ensure higher scrutiny for cases involving repeat offenders.

Self-reflection by district court judges on Maui indicated that they had a general understanding of the importance of conservation laws, sometimes "lecturing" resource violation

defendants at sentencing, and approving jail time, geographic injunctions, or probation conditions tied to compliance with resource laws for repeat offenders. In recent cases involving jail time, the sentence was seen as particularly effective for defendants who were known to consistently engage in unlawful poaching activities.

Prosecutors, judges, and DOCARE officers noted that for most convicted defendants, either the process or the subsequent sentence seemed to result in their "learning a lesson," and estimate the system was effective at preventing recidivism in an estimated 9 out of 10 cases they encountered. Of the remainder cases, half were said to involve individuals who simply "need to eat," while the other half involved individuals who were particularly unresponsive to enforcement sanctions.

ii. Weaknesses/Areas for Improvement

As on O‘ahu, prosecutors, public defenders, and judges on Maui cited limited court and prosecutor/public defender resources as a major obstacle to providing close scrutiny of aquatic resource cases in criminal court. Interviewed prosecutors and judges cited the rarity of aquatic resource cases (estimated at approximately 2% of the weekly caseload), the relative difficulty in interpreting aquatic resource rules or their associated penalties, and a highly overburdened court system as limiting factors in their ability to provide close individual attention to such cases. As on O‘ahu, the sheer volume of caseload processed by the Maui district courts, and the relative burdens of taking aquatic resource cases to trial, made plea agreements a practical necessity in most instances.

On a similar note, judges, prosecutors, and public defenders all expressed their perception that even with the plea bargaining process, prosecuting aquatic resource cases in criminal court did not appear to be cost-effective in light of the court and attorney resources needed to prosecute a case. For example, a public defender noted that a single aquatic resource case could potentially require at least \$600 for court-appointed counsel alone, given the shortage of public defenders; over ten minutes of court time for judges, prosecutors, public defenders or court-appointed defense attorneys, and court staff; and both prosecutor and public defender time to conduct legal research and evaluate legal liabilities—all for a typical monetary fine of no more than \$50 to \$100. Should a defendant or the prosecution choose to pursue a full trial, these costs would quickly escalate, thus providing great incentive to quickly plea bargain cases.

Judges also felt that the criminal, petty misdemeanor liability carried by an aquatic resource violation sets a relatively high standard for criminal procedure and burden of proof requirements in obtaining a conviction. Prosecutors similarly indicated that DOCARE officers, while mostly viewed as effective and passionate in their line of work, could also use some legal guidance with respect to constantly evolving legal areas, such as search and seizure law.

On a related note, a desire for greater interaction between DOCARE officers and judges, and between officers and prosecutors, was expressed by those interviewed. Prosecutors indicated that on the rare occasions that consultation with DOCARE officers was necessary, some difficulties were encountered in determining who and how to contact them. Such difficulties were exacerbated or mitigated by varying visions of leaders in both agencies with

respect to interagency cooperation; prosecutors indicated that personal relationships between individuals who value communication would be necessary to overcome this barrier. Judges also expressed an interest in interacting with DOCARE officers and learning more about their fieldwork. Maui DOCARE officers in turn indicated a desire to interact on a greater level with both prosecutors and judges. Despite recognizing the potential benefits of interaction, interviewees indicated that such opportunities were not normally available.

With respect to criminal penalties, none of the interviewed judges or prosecutors were able to determine whether the fines or other penalties imposed for aquatic resource violations provided any reflection of the harm inflicted, and indicated that typical penalties were relatively inflexible. Judges and prosecutors noted that while they had a concern for conservation of resources, they had no idea how to value such resources in the context of imposing fines. While one judge indicated that a "half-day seminar" might help provide greater guidance as to what fines may be appropriate, such opportunities had not been made available. Judges and the public defenders also indicated that criminal records appeared inappropriately burdensome on some defendants, and that aquatic resource violations for the most part did not meet the "modern norms" for criminal liability. As one judge noted, "No one goes to jail for an undersized fish." Judges and public defenders both expressed concern for defendants' diminished employment opportunities and potential immigration consequences resulting from a criminal conviction.

At the time of the interviews, judges and public defenders also noted that the Maui Intake Services Center, the agency charged with administering sentences of community service, could no longer accept cases due to a lack of funding. As a result, options were extremely limited for many defendants who had no means to pay fines, or who may have benefited from rehabilitative or non-monetary penalties. With respect to the former, indigent defendants subject to fines throughout the district court system must instead report back to court every two weeks to explain their inability to pay, draining court resources and potentially subjecting defendants to further criminal liability.

Finally, DOCARE officers noted that the loss of asset forfeiture penalties for aquatic resource violations may have diminished a deterrence mechanism, and could result in the acquisition of equipment that would potentially increase their enforcement capacity. They cautioned, however, that careful discretion should be used for forfeiture actions, to avoid unnecessary costs to the state in legal resources, and in storing and maintaining unwanted equipment.

(d) Administrative Adjudication and Civil Penalties

As previously discussed in the O'ahu interview section above, the Marine Law Fellows and CRVS administrator expressed a strong endorsement of the benefits of an administrative, civil alternative to the current criminal process, subject to concerns regarding due process for neighbor islands, efficiency, and accounting considerations. Judges, prosecutors, and DOCARE officers on Maui also all endorsed the benefits of an administrative adjudication alternative to ease the burden on both the court system and defendants, to facilitate "prosecution" by setting a lower burden of proof, and to provide more appropriate penalties than criminal liability.

As on O'ahu, Maui DOCARE officers and one prosecutor indicated that criminal liability and the criminal process for aquatic resource violations should nevertheless be retained, to provide arrest authority and criminal penalties when appropriate or necessary.

V. ANALYSIS

The overarching goal of this project was to present a systemic analysis of the entire enforcement process for aquatic resource violations occurring on O‘ahu Island and the north shore of Maui. This section includes an analysis of the strengths, gaps, and opportunities in each link of the enforcement chain, as identified through the literature reviews, professional interviews, community surveys, and citation database analyses conducted for this analysis and described in the preceding sections.

A. Education

An essential function of the law enforcement system is education, or the ability to appropriately disseminate information about laws and regulations, and the justification behind them, in a way that user groups and the broader community can understand and appreciate. Ensuring that the public has access to such information may (a) preempt the need to engage in costly or inequitable enforcement actions for violations arising out of ignorance; (b) assist community groups and resource users in their identification of violations for law enforcement follow-up; and (c) generate broader support for enforcement and management initiatives. It is therefore essential to let people know, in their own language and through culturally appropriate channels, what the laws are and why the public should follow them (i.e., to support robust fisheries, avoid potential penalties, etc.). To measure the effectiveness of the education function of Hawai‘i’s fishing enforcement chain, this study evaluated users’ knowledge of existing laws and regulations and their respective justifications, through public surveys conducted on each island. In addition, interviews and surveys sought to identify the current educational activities of DOCARE and evaluate DOCARE’s capacity to carry out this enforcement function.

More than 90% of the O‘ahu survey participants self-reported having some information about Hawai‘i’s fishing laws; 98% of Maui participants self-reported having some information on the law. Yet, 71% of O‘ahu survey participants and 77% of Maui survey participants believed that a lack of knowledge of fishing laws is one of the top three reasons fishing violations occur. In addition, a quarter of O‘ahu participants and 19% of Maui participants did not have any knowledge of potential penalties for aquatic resource violations.

These figures suggest that while some information appears to be reaching a large percentage of users on both islands, disseminated information may be inaccurate, inaccurately understood, or ignored. Users also appear to lack important information about potential penalties (such as jail and community service for criminal violations). In addition, the high percentage of survey participants on both islands that ranked "lack of knowledge of fishing laws" as one of the top three reasons fishing violations happen (71%), indicates that the education function of Hawai‘i’s fishing enforcement system may not be effective in ensuring users understand both what the laws require, and why they should be followed.

Research activities indicated numerous possible explanations for the findings above. With respect to general knowledge regarding the law, interviews with DOCARE officers and administration indicated that DOCARE educational efforts in both study areas occurred on an ad hoc, reactionary, and piecemeal basis, and that administrative limitations prevented the

development of a coordinated or comprehensive campaign to further disseminate educational information. DOCARE has historically played a larger educational role, but staffing shortages have reduced its capacity to carry out this educational function. In addition, while Maui officers indicated that they had at least one bilingual staff member, officers on both islands noted cultural and language barriers in accessing certain communities, and both DAR Marine Law Fellows and DAR education staff confirmed that DAR materials are only published in English. Interviews further indicated that both O‘ahu and Maui staff lacked sufficient capacity to analyze or review citations or identify trends that could indicate the need for directed outreach or educational efforts. Accordingly, when asked how they got their information about Hawai‘i’s fishing laws, only 4% of O‘ahu survey participants indicated that they receive such information from an enforcement officer (34% of Maui participants indicated that they received information from the government, including but not limited to DOCARE officers). To address this issue, DOCARE interviewees on both islands suggested hiring an educational specialist or specialists to develop and coordinate a large-scale campaign or educational program, as well as meet with communities, encourage greater communication with the division, and develop strategic outreach efforts. In addition, officers on both islands noted the need for greater interdivision collaboration on outreach and education efforts, to avoid inconsistent interpretations and to send a stronger, more coordinated departmental message regarding the importance of complying with the law.

DAR education staff similarly noted the need for greater staff capacity and funding to better carry out their educational mission, as well as the need to explore more strategic approaches to disseminating information. As with DOCARE, DAR education staff on both islands also indicated the need for greater coordination with DOCARE in their education and outreach efforts. Maui DAR staff specifically emphasized the important role of DOCARE officers to add their greater field presence and authoritative weight to educational messages regarding new rules, such as the Kahekili Herbivore Management Area and the Kahului fisher check station. O‘ahu DAR education staff also indicated deference to DOCARE officers with respect to their on-the-ground knowledge of areas where education gaps may exist in the field. DAR education staff on both islands noted that the availability of information regarding the justification behind aquatic resource rules were beyond the scope of their program.

With respect to the lack of knowledge regarding potential penalties, surveys indicated that users lacked knowledge regarding the potential for any penalty to result from an aquatic resource violation. Surveys on both islands indicated that a significant majority of respondents had both heard about or witnessed a violation or violations within the last year, but that very few respondents (particularly on O‘ahu) had heard about or witnessed any enforcement action in response. 72% of O‘ahu participants had heard about or witnessed at least one fishing law violation in the past year, with 44% hearing about or witnessing up to five, and 28% hearing about or witnessing more than six; yet, few of these survey participants heard about or witnessed any punishment for these violations—only 28% heard about or witnessed a resources enforcement officer give at least one warning; 18% heard about or witnessed a resources enforcement officer give at least one citation; and 13% heard about at least one conviction. Similarly, 68% of Maui participants had heard about or witnessed at least one fishing law violation in the past year, with 50% hearing about or witnessing up to five, and 18% hearing about or witnessing more than six; yet again, few of the survey participants heard about or witnessed any punishment for these violations—78% had never witnessed a citation being issued

for an aquatic resource violations and 58% had never heard about a conviction for any aquatic resource violation. As further discussed in the deterrence section below, improving channels of communication to the public regarding the potential for penalties to actually result from violations may further improve the educational effectiveness of the enforcement chain.

Finally, with respect to the lack of knowledge regarding the types of penalties that may result from a violation, it appears that the failure of the current criminal system to utilize the full range of potential penalties may have hampered users' knowledge regarding what these penalties are. The citation database analysis indicated that for both islands, over 80% of the aquatic resource cases ending in a conviction actually did result in a fine alone, which in most instances was less than or equal to the lowest minimum standard fine for aquatic resource violations. Jail was imposed in only one case on Maui during the entire study period, and none of the O'ahu cases resulted in jail or the forfeiture of gear. Thus, any communication to the public regarding potential penalties as a justification for compliance may also be limited by the fact that for the most part, actual penalties fall far lower than the penalties that could have potentially been imposed.

These disparities and possible explanations provide important potential insights in developing a more coordinated and effective educational program within the enforcement chain. For example, as O'ahu interviewees suggested, a larger-scale campaign using media such as television and radio may be helpful in disseminating information about actual violations and the potential penalties faced by violators. Facilitating interdivision communication as well as community outreach activities through an educational specialist, as suggested by Maui DOCARE officers, may also provide greater and more accurate awareness of applicable laws and their respective justifications. Fishing supply stores and friends/family were also noted in the surveys as the source of information for a majority of participants on both islands (except for O'ahu, where slightly less than half of participants reported receiving information from friends/family). A coordinated campaign could also focus on these informal networks to strategically disseminate educational information; for example, education materials strategically placed at fishing supply stores, like posters and educational literature, could reach many fishers, and educational or outreach specialists could facilitate officers' capitalization of community relationships to encourage even greater communication between fishers regarding fishing laws.

Another lost opportunity for education appears to be at the adjudication level—either in criminal court or administrative hearing. In general, interviewees and survey participants rely on DOCARE officers to bear the burden of the enforcement chain's education function, however, education can and should occur at all levels. As indicated by Maui prosecutors as well as DOCARE officers on both O'ahu and Maui, educational efforts in the field would not reach particularly recalcitrant members of the poaching community. Literature reviews also indicated a lack of transparency in how laws may be interpreted in criminal court, as well as a lack of interdivision communication in the development and implementation of rules inhibiting follow-up educational efforts. Thus, educational efforts by judges, prosecutors, hearing officers, and administrative staff throughout the enforcement chain may ensure that these offenders, once interdicted, fully understand the implications of their crimes and reasons behind the punishment. Efforts to improve education as a law enforcement function should therefore also focus inwardly

to all players involved in the enforcement chain, to ensure each person involved is fully aware of the laws, their justification and importance, and how they should be applied and enforced.

B. Deterrence

The deterrence function of the enforcement chain involves the prevention of fishing law violations by ensuring that incentives to violate the law do not outweigh the risks of being caught and punished for doing so. Essential components of this function include public perceptions of the likelihood of being caught and the public perception of potential penalties, in addition to actual detection of violations and the actual imposition of penalties. Accordingly, the deterrence function of Hawai'i's aquatic resource enforcement chain is assessed by the following metrics: perceived likelihood of being caught, perceived potential penalties, actual likelihood of being caught, and actual penalties imposed and executed.

1. Actual Likelihood of Being Caught

With respect to the actual likelihood of being caught and subjected to punishment, research activities indicated that substantial barriers to the deterrence function of law enforcement are present in the enforcement chains on both O'ahu and Maui. A primary source of these barriers appears to be a lack of financial and other support for DOCARE, the primary agency tasked with detecting and interdicting violations in the field. While interviews with prosecutors and DOCARE officers on both islands indicated that officers are very passionate and committed to their job responsibilities, the lack of funding for sufficient positions (including administrative, support, and management staff), equipment, and operational expenses have severely limited DOCARE's capacity to achieve its goals at a level commensurate with that of even local police departments. Thus, interviews on both islands noted that DOCARE's ability to detect violations is severely limited by the lack of funding and positions for DOCARE activity outside of normal business hours. As one O'ahu survey participant even noted, "most rules are broken when the office is closed," such as at night or on the weekends. The lack of positions dedicated to administrative and operational support, and the subsequent reduction in officers' field capacity (through the diversion of officers' time to navigate procurement processes, maintain equipment, etc.) was also cited in the DOCARE Audit as well as interviews on both islands. As further discussed below, the legislature's failure to meet basic funding and human resource needs of DOCARE has likewise inhibited the ability for field officers to foster a greater public perception of the likelihood of being caught.

In addition to funding limitations, the Literature Review and interviews with DOCARE personnel on both islands also cited interagency and interdivision barriers as a limitation on DOCARE's ability to detect and interdict violations. For example, the lack of internal access to other divisions' databases (such as boating registration and commercial marine license databases) requires DOCARE to be dependent upon the timely response of these other divisions, in order to carry out enforcement actions in the field. Other barriers to detection and interdiction indicated by interviewees within DOCARE included the lack of coordinated, interdivision training or refresher courses on current laws, species identification, and other specialized information intrinsic to DOCARE's enforcement mission. The need to better coordinate between DOCARE, DAR, and legal authorities in developing and analyzing new and amended rules was also cited

by the Marine Law Fellows as well as DOCARE officers on both islands, in order to improve efficient enforcement in the field. While Maui interviews indicated a relatively strong relationship between the Maui DOCARE branch and MPD, which facilitated the leveraging of resources and the furtherance of both agency's goals, O'ahu interviews indicated that partnerships with the local police department were still being developed. Interviews on both islands indicated that greater communication between DOCARE branches and their respective prosecutors' offices would also aid field officers in terms of legal guidance on ever-evolving law enforcement procedures, such as search and seizure law.

Language and cultural barriers, the lack of in-house resources to address needs beyond day-to-day operations, and shifting directions and management philosophies from changing leadership in the executive branch were also cited by interviewees as hampering DOCARE's deterrence functions.

2. Actual Likelihood of (Meaningful) Punishment

Interviews, the Literature Review, and the citation database analysis all indicated significant areas for improvement with respect to the deterrent effect of penalties imposed for aquatic resource violations, and the actual likelihood of receiving them.

For example, citation database analyses indicated a high likelihood of having an aquatic resource citation dismissed, particularly on O'ahu. Dismissals with no other sanction occurred in 45% of citations issued on O'ahu, and 31% of citations issued on Maui during the respective periods in which citation data was available. A significant portion of the O'ahu dismissals, 37% of the total citations analyzed, resulted in a motion for *nolle prosequi*, meaning that the prosecution declined to pursue charges. Maui dismissals, on the other hand, primarily occurred as a result of a plea deal on a related case. On both islands, plea deals resulting in no contest pleas were the predominant method of resolving cases that did result in a conviction or other sanction. When convictions or sanctions did occur, the substantial majority of plea deals often resulted in fines within or below the range of the lowest penalties allowed by statute (set at \$100 or \$250, depending on the regulation violated). 65% of O'ahu cases, and 77% of Maui cases, resulted in fines of less than \$200. In only one instance was jail a result of a violation, which occurred as a result of a Maui defendant's own request.

Prosecutors and judges on both islands indicated to some degree that the high levels of protection in the criminal prosecution process, such as constitutional privacy protections, evidentiary requirements, and the high burden of proof with respect to each (often esoteric) element of a crime, may be disproportionate to the types of aquatic resource cases typically encountered, and may inhibit the successful or zealous prosecution of these cases. These barriers were echoed in the Literature Review, which noted that enforcement effectiveness could be improved by increased attention to legal principles—i.e., informed rule-making and foresight regarding challenges at the prosecutorial and judicial stages of enforcement. In other words, science and conservation-based approaches in resource lawmaking may not be enough; consideration of potential legal outcomes and the practical enforceability of rules and regulations is also necessary. The lack of ongoing legal guidance for DOCARE officers on ever-evolving areas of criminal procedure, such as search and seizure law, and the lack of established channels

of communication between DOCARE officers and prosecutors, were also cited on both islands as areas needing improvement, particularly in providing prosecutors' with the information or admissible evidence they need to pursue a conviction or favorable plea deal. DOCARE officers on Maui in particular noted a desire to interact more with the county prosecutors there, and prosecutors on both islands indicated that DOCARE officers appear genuinely interested in gaining experience in the court system; however, opportunities for communication and collaboration were limited to nonexistent in both islands.

Similar to DOCARE's lack of sufficient resources to carry out its detection and interdiction functions, judges and prosecutors on both islands as well as the Maui public defender all indicated that a lack of district court capacity to address its own caseload, much less the additional, rare, and relatively unfamiliar aquatic resource case, also presented a barrier to more vigorous pursuit of substantial penalties in these cases. Maui and O'ahu judges and prosecutors all cited the practical necessity of plea deals in order to clear their caseload in a timely manner; meanwhile, interviews indicate that the evidentiary and procedural burdens discussed above work to diminish their leverage in pursuing such deals in a more aggressive manner. Due to the primary role of prosecutors in negotiating plea deals, judges on O'ahu recommended focusing outreach and educational efforts on prosecutors and DOCARE officers, and to ensure sufficient training and legal support for DOCARE officers in documenting cases and facilitating the vigorous negotiation of plea deals by prosecutors. Interviews with judges and prosecutors on both islands also indicated a lack of capacity to evaluate the deterrence effect of sanctions on defendants, although Maui judges and prosecutors indicated their perception that recidivism rates for the most part remained relatively low.

Finally, both the Literature Review and professional interviews on both islands pointed to the lack of asset forfeiture authority as a barrier to imposing meaningful punishments that may better deter violations. While asset forfeiture is statutorily authorized, the Hawai'i Supreme Court found in 2008 that this provision cannot be used until adequate administrative rules are in place to complement the law.¹⁷ This may explain the failure of O'ahu courts to authorize the forfeiture of gear even in the case of conviction; it appears that Maui courts use other forfeiture authorities (such as the forfeiture of evidence used in the commission of a crime) to order the forfeiture of gear in Maui cases.

In addition to addressing the gaps and barriers described above, research activities indicated specific and general opportunities to improve the effectiveness of the deterrence function of the enforcement chain on both islands. The Literature Review identified a lack of administrative capacity within DOCARE to develop and evaluate metrics that would justify greater investment in funding, develop programs to utilize community support of enforcement functions, as well as develop cross-division working groups to comprehensively address compliance issues, including deterrence activities as appropriate. Interviews indicated the need

¹⁷ *Carlisle v. One(1)Boat*, 195 P.3d 1177, 119 Hawai'i 245 (2008). "Statutes" are enacted by the state legislature through its constitutional authority, whereas "administrative rules" are made by government agencies. Statutes can authorize an agency to create its own rules and guidelines. If authorized to do so, an agency will proceed through the specified rulemaking process and establish rules and/or regulations for the affairs of the agency. See HRS Chapter 19.

to facilitate prosecutors' and judges' understanding of aquatic resource laws, such as training on the elements of each law, available and required penalties, and the justifications behind the laws. A legal expert or point of contact providing legal references for prosecutors and officers alike was also suggested by interviews on both islands. As suggested by the Literature Review, a specialized court or docket within a court that focuses on natural resource violations presents an additional alternative approach to facilitating the informed prosecution of aquatic resource laws, although interviews indicated that the relative rarity of aquatic resource violations (2 out of a 100 cases) may not justify such a tribunal for aquatic resource cases alone.

Both the Literature Review and interviews indicated that the administrative adjudication system could also be better utilized to ease the burden on both the criminal court system and defendants to facilitate "prosecution" by setting a lower burden of proof, and to provide more appropriately tailored penalties than criminal liability. The CRVS administrator indicated a high level of success with civil penalties that allowed defendants to quickly pay fines and resolve their liability. Judges concurred that lowered liabilities, particularly with respect to criminal liabilities, may reduce challenges and allow more efficient processing of cases. The CRVS administrator and Marine Law Fellows all felt that an administrative, civil enforcement process would provide the flexibility to impose penalties more appropriate to deterring aquatic resource violations, restoring resources, and rehabilitating defendants. For example, civil penalties could include the denial of commercial permits, community service, and meaningful financial settlements to fund resource management projects. Processes involving BLNR findings would also be public in nature, with enforcement submittals available online and easily accessible; such access would provide greater public awareness of enforcement actions, greater deterrence through the "shame" factor, as well as public accountability to limit potential abuse or undue penalties. However, interviews with DOCARE administration, marine law fellows, and the Civil Resource Violation System administrator indicated the need for greater administrative capacity to grow out and equitably implement a civil administrative enforcement system in order to mitigate the deterrence barriers faced in the criminal justice system. Thus, while generally supporting increased use of administrative adjudication, prosecutors and judges on both islands indicated that criminal liability and the criminal process should be retained, to provide for criminal penalties when appropriate or necessary.

3. Public Perception of Being Caught and Punished

As recognized throughout the Literature Review materials, the public's perception of state authorities' ability to enforce fisheries regulations and ensure that nearshore resource users comply with such regulations is a critical component in the deterrence function of aquatic resource law enforcement. The results of the instant Enforcement Chain Analysis suggest, however, that public perception of the state's ability to enforce fisheries regulations is low, particularly on O'ahu, and that opportunities for improving this portion of the deterrence function are present in both study areas.

For O'ahu, 65% of the O'ahu survey participants believed Hawai'i's current law enforcement system is not at all successful in assuring that people follow fishing laws, and a larger majority of O'ahu respondents (72%) believed that it is "not at all likely" that a violator will be caught, suggesting low confidence in the ability of DOCARE to detect violations. On the

other hand, 58% of the O‘ahu survey participants believed it is likely to some degree that a violator who is caught would be convicted or subject to a penalty, lending a little more faith to the rest of the enforcement system than to DOCARE. In other words, a significant majority believed detection would not occur, but if detection did occur, a majority of participants felt the system would work in punishing the violator in some way. Nonetheless, a majority of respondents (57%) felt that current penalties are insufficient in deterring violations.

For Maui, a majority of survey participants (65%) did feel that the law enforcement system is to some degree successful in ensuring compliance with aquatic resource laws, and a small majority of the Maui survey participants indicated that it is likely to some degree that a violator will be caught. Participants also indicated a high degree of confidence (79% of respondents) in the likelihood that a penalty or conviction would result from a citation.

Addressing the issues prevalent in the actual likelihood of being caught and being punished on both islands would also provide a factual basis supporting an increased public perception regarding this likelihood. However, as discussed in the education section above, interviews also suggested the need for greater coordinated outreach by DOCARE and its sister divisions regarding enforcement actions and potential penalties, in order to most efficiently improve the public perception factors relevant to the deterrence function on both islands. With respect to public perception specifically, Marine Law Fellow interviews further noted the increased visibility of administrative adjudication before the BLNR as another means of increasing public awareness of enforcement actions, and the potential penalties for noncompliance.

C. Rehabilitation

Rehabilitation refers to the adjustment of an offender's sense of moral values regarding his or her past unlawful conduct. To measure the effectiveness of Hawai‘i's fishing enforcement chain's rehabilitation function, this study sought to examine the system's transformative reformation opportunities, actual recidivism rates, and other post-conviction outcomes (i.e., continued stewardship activities or engagement in management efforts). For the most part, current rehabilitative opportunities appear negligible to nonexistent, and no agency in Hawai‘i maintains data on actual recidivism rates or other post-conviction outcomes relevant to aquatic resource violations. However, opportunities to explore such opportunities may be present, particularly through the use of the administrative adjudication process.

Criminal court disposition data for O‘ahu indicated that between November 2008 and November 2010, 13% of citations leading to a sanction resulted in community service as a non-monetary sanction with rehabilitative potential. However, such community service appears to have been imposed merely as an alternative to fines, and the disposition data provides no indication of the rehabilitative aspect of the community service, including where the service was performed, or whether it was tied to changing the violator's attitude about aquatic resource laws. Similarly, data from Maui indicates that community service resulted in 7% of citations leading to a sanction; however, interviews indicated that funding limitations have ended community service opportunities for all criminal defendants, and information on the nature or effect of such past community service sentences is also lacking.

Interviewed judges noted that they had no idea how effective any given penalty would be on a defendant, and that there is a lack of transformative rehabilitation programs specifically designed to rehabilitate aquatic resources. While interviews provided anecdotal indications of the effectiveness of transformative rehabilitation for aquatic resource violators, such examples appeared extremely rare, and occurred on a piecemeal and ad hoc basis. Literature reviews indicated that the attention paid to aquatic resource cases in the criminal court system may also determine whether rehabilitation opportunities could be developed and made available to violators; unfortunately, this appears unlikely, given the current lack of capacity within the criminal court system as expressed through interviews on both islands. Instead, interviews with Marine Law Fellows suggested that transformative rehabilitation opportunities may be developed through administrative adjudication and the imposition of resource-related community service, given the DLNR's specific interest in managing and protecting aquatic resources.

The dearth of data to measure Hawai'i's fishing enforcement chain's rehabilitative function suggests that the system is lacking in this area. Accordingly, this could be an important focus area for improvement, through the development and implementation of opportunities for violators to learn about the laws and the justifications behind them through court-ordered classes and/or targeted community service in coastal areas, focused on instilling an appreciation of aquatic resources and the laws protecting them.

D. Restoration

The restoration function of law enforcement refers to the imposition of a responsibility upon the offender to compensate for or mitigate the harms inflicted by his or her violation. This study measured the effectiveness of the restoration function by analyzing whether implemented penalties actually related to the restoration of affected resources.

Interviews indicated that prosecutors and judges on both O'ahu and Maui had no knowledge or standardized process to link criminal penalties to the harm caused by aquatic resource violations. Consistent with this finding, the Literature Review also indicated that the criminal justice system does not provide adequate revenue or other contributions from aquatic resource violators (such as resource management-focused community service) to mitigate the impact of noncompliance. The nearly exclusive use of relatively minimal fines to punish criminal defendants, as illustrated in the citation database analysis, further confirms that restorative opportunities are rarely if ever available in the criminal court system.

The CRVS administrator and the Marine Law Fellows both noted the demonstrated benefits of administrative enforcement in providing more appropriate penalties, including restorative penalties, than the criminal process. The CRVS administrator noted that the ability to resolve administrative violations through the simple payment of fines or corrective action facilitated both enforcement actions and compliance with regulations. For example, the number of CML reporting violations dropped from 1,300 cases to 250 cases in the three years since the CRVS system had been implemented. The Marine Law Fellows likewise indicated that DLNR would be better equipped to address violations of its own rules, and provide remedies more appropriate than a criminal record for aquatic resource violations. Thus, in several coral damage cases on Maui, significant civil fines paid by commercial operators were able to fund

infrastructure maintenance, community programs, and other projects designed to protect and restore coral reefs. As discussed in the previous section, rehabilitative penalties, such as resource-related community service, may also contain restorative components. Such restorative components to resource-related community service may also take the place of monetary fines for individual violators, given the prevalence of indigent defendants in the criminal system that assumedly may not be able to afford the amount of money needed to pay restorative fines. However, interviewees noted the need for administrative capacity to grow out and tailor DLNR's administrative adjudication program in an efficient and equitable manner; in addition, Marine Law Fellows cautioned that accounting for restorative fines would have to accommodate the special fund spending limitations set by the state legislature, to avoid having such fines raided for the state general fund.

E. Community Engagement

In the environmental context, an additional function of law enforcement is to assure users that others will comply with the law, and to provide support for community management measures and concerns. This function seeks to support an overall goal of fostering resource users' participation and engagement in community-based management approaches, a powerful tool considered essential to addressing the tragedy of the commons in commonly shared resources. To evaluate the community engagement functions of the enforcement chain, this study sought to evaluate formal law enforcement support for community concerns, the perception of such support, and the perceived success of penalties in encouraging compliance.

With respect to formal law enforcement support for community concerns, interviews indicated that DOCARE officers on both islands had established relationships with certain citizens and community members, and that officers seek to follow up on all reports of violations even if made after hours. However, the lack of coverage during non-work hours and the variability of information made available in citizens' reports were indicated as inhibiting the community engagement function. In addition, interviews with DOCARE officers and administration noted that DOCARE requires greater capacity to coordinate and train existing Makai Watch groups focused on reducing violations of the law.

Interviews and the Literature Review also indicated that DOCARE's ability to enforce laws largely supported by the community, such as state gillnet laws, may be inhibited by drafting issues that render certain elements relatively unenforceable. As previously noted, findings from Literature Review counseled a consideration of the legal and practical enforceability of natural resource laws in their drafting; accordingly, interviewed DOCARE officers on both islands indicated the need for closer collaboration between DOCARE and DAR in the development and implementation of aquatic resource regulations.

With respect to the perceived support of community management concerns, and the perception of whether or not law enforcement assures compliance, public surveys indicated varying levels of confidence in the enforcement chain. 44% of O'ahu survey participants believed that it is "not at all likely" that a DOCARE officer will respond to reports of aquatic resource violations. In contrast, 78% of Maui participants believed it likely to some degree that a DOCARE officer would respond to a citizen's report, with only 11% stating that it is "not at all

likely" that an officer would respond. For the perception of law enforcement's assurance of mutual compliance, public surveys indicated similar variability, with 65% of O'ahu participants responding that enforcement is "not at all successful" in assuring compliance with aquatic resource laws, and 65% of Maui participants responded that enforcement is to some degree successful in assuring compliance. Only 28% of Maui participants believed that enforcement is not at all successful in assuring compliance.

Interviews indicated that the barriers facing DOCARE in its deterrence functions also inhibited its ability to better foster its ability to assure mutual compliance and support community engagement with aquatic resource management. Such barriers include the lack of administrative capacity to support community initiatives such as Makai Watch, and the lack of funding and personnel to both respond to community concerns and provide feedback on incident reports and enforcement activities. The Literature Review also indicate the need to better publicize enforcement actions, violation rates, and otherwise foster the perception of compliance provided by law enforcement for aquatic resource laws. In addition, the Literature Review indicated the need for greater development of the existing reporting reward system, whereby reporters of aquatic resource violations may be eligible to receive 50% of the fine obtained through information leading to the arrest and conviction of the violator.

Several of the Literature Review materials recognized the success of traditional Hawaiian management practices based on community-wide engagement sustainable stewardship and advocated for reinstatement of programs based on those practices. *See* Tanaka (2008); Kumabe (2006). For example, prior to Westernization, a sustainable, collaborative stewardship embodied the traditional Hawaiian fisheries management regime. This pre-Western management regime included means of both formal and informal regulation. Tanaka at 240-45. Formal regulation existed through systems of kapu or religious laws by which the ali'i nui (high chief) administered natural resources on behalf of the gods. *Id.* at 243. The kapu system prohibited fishing in certain areas at certain times based on a fish species' biology and life cycle. Kumabe at 258. Adherence to these laws was encouraged by severe punishment for violations. Tanaka at 244. Like the kapu system, imposing a seasonal ban on extraction of a particular fish species during spawning would allow fish stocks to regenerate. Kumabe at 259.

In addition to the kapu system, a sense of shared responsibility for conservation created a system of informal regulation and voluntary participation. Tanaka at 244-45. As noted in the Literature Review, restoring ahupua'a principles by involving the public and engaging community "overseers" in the current regulatory scheme could address enforcement issues absent sufficient funding. Kumabe at 262-63.

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VI. RECOMMENDATIONS

As this report suggests, the aquatic resource enforcement chain is multi-faceted and complex, and dependent upon multiple agencies with varying roles and levels of interest in the enforcement of aquatic resource laws. With their varying roles and functions, each of these agencies is necessary to the full and proper functioning of the enforcement chain. As has been illustrated by past efforts, isolating improvement efforts to only one segment or agency within the chain may fail to comprehensively address the systemic problems that appear to have inhibited the overall goals of aquatic resource enforcement in Hawai‘i. In addition, the past focus on a singular agency and link within the chain may have foreclosed the exploration of existing and potential alternative approaches to addressing aquatic resource violations.

Thus, a comprehensive, systemic approach that addresses barriers and explores opportunities throughout the complex enforcement chain may more comprehensively enhance the effectiveness of aquatic resource enforcement. In pursuit of this goal, this Part summarizes recommendations distilled from the research activity findings and enforcement chain analysis described above, focusing on (1) target priority areas for substantively increasing the effectiveness of the enforcement chain; and (2) specific staff positions that may be created to carry out or achieve these priorities.

A. Target Priority Areas

Based upon the preceding analysis, the following six priority areas contained in this section are intended to provide clear guidance to substantively address the gaps and barriers to accomplishing the goals of enforcement within the aquatic resource enforcement chain. Specific examples are provided when possible, but these activities are not to be construed as the exclusive approach to addressing such gaps. As further discussed in subsection B, below, achieving these priorities in a sustainable manner will inevitably require increased human resources to carry them out. As positions to address these priorities are filled, decision-makers should provide some deference to the insights and experiences of the individuals in these positions to expand upon or develop additional strategic priorities and activities. The recommendations provided below thus seek to provide clear, yet dynamic direction for the comprehensive improvement of the aquatic resource enforcement chain on O‘ahu, the north shore of Maui, and potentially the entire state.

1. Developing Educational Outreach Programs

Enhanced deterrence, rehabilitation, and restoration each flow from effective educational efforts by individuals at each level of the enforcement chain, including fishers, enforcement officers, prosecutors, and judges. Thus, the development and improvement of coordinated, cross-division educational outreach programs is a critical step in improving aquatic resource law enforcement.

As a preliminary matter, research activities indicate that a comprehensive and coordinated DOCARE educational program is needed at both the division level (at the Honolulu headquarters) and branch level (on each island). While DAR has an educational component to its own mission, DAR education staff on both islands indicated the critical nature of DOCARE

participation and coordination in the education function of the enforcement chain, based both on their overall authoritative enforcement role, as well as the greater presence of DOCARE officers in the field. A focus on branch level educational outreach, which would rely upon DAR education staff as well as biologists, would serve the goals of boosting officer visibility, capitalize on the local-level insights and enforcement authority of field officers, and foster necessary relationships between DAR, DOCARE, and local communities. Division level educational activities may help to coordinate educational efforts and resources between branches and divisions, and develop larger, statewide campaigns as may be appropriate.

Fostering greater interdivision collaboration between DAR and DOCARE in education and outreach on the division and branch levels was consistently cited as necessary to achieve an efficient, consistent, and stronger overall message by the DLNR as a whole. Such collaboration would additionally foster relationships that may be useful in addressing other identified barriers, such as the need for DOCARE consultation in the development and implementation of new and amended aquatic resource laws. Thus, coordination with other divisions within DLNR may particularly enhance the success of the educational activities described below.

(a) Strategic Targeted Outreach

Assuming limited financial resources, coordinated education and outreach programs should seek out the most efficient means of disseminating information both to target communities and to the public at large. For example, public surveys indicated that fishing supply stores were popular spots for acquiring information regarding aquatic resource laws. As it has in the past, DOCARE can seize the opportunity for efficient public outreach at these and similar locations, and reinforce the regulatory messages contained in DAR materials distributed through these venues. By collaborating with other divisions to create and update flyers, posters, and/or brochures, DOCARE can also target specific areas of concern with the fishing community, e.g., the consequences of fishing violations or materials aimed at specific types of violations. These strategically distributed materials would not only increase DOCARE's exposure and accessibility within the community, but could also capitalize on existing relationships among fishers and encourage them to discuss allowable fishing methods, improve their perception of enforcement presence, and encourage their support in promoting compliance.

Both DOCARE and DAR might also consider expanding the scope of its educational activities to encompass more modern methods and modes of communication. Public service announcements, promoting news stories related to major violations cases, and increased use of other media outlets, including television, radio, and social media, may allow the efficient and economic dissemination of information to a large number of resource users. Regular blotters or newsletters regarding aquatic resource laws and enforcement actions would also increase the public awareness of the environmental and personal consequences of poaching and other unlawful activities. The human interest generated by outreach on specific enforcement actions would also be conducive to greater dissemination of educational information on aquatic resource laws and their substantive justifications.

Ideally, educational materials would also be developed in multiple languages and cultural contexts, using contracted cultural navigators as appropriate to tailor messages to the demographics of the particular target communities.

(b) Educating Violators

An educational component specifically designed for those convicted of aquatic resource violations would enhance rehabilitation and restoration efforts and mitigate the disproportionate impacts of a small number of recalcitrant violators. For example, violators could be required to attend community service programs that focus specifically on aquatic resource violations, either in the form of rehabilitative courses on the relevant laws and their importance, or restoration activities that help replenish or repair diminishing resources. While the limited fines currently imposed for typical, individual violations may not contribute much to the management or restoration of nearshore ecosystems, such fines may also be replaced by "tuition" or fees for mandatory educational (and language-accessible) classes designed for first time offenders. Similar programs have already demonstrated substantial success in rehabilitating fisheries violators in Florida, reducing recidivism rates to a negligible level without the expenditure of government resources.¹⁸ Such programs would essentially bring the enforcement chain full circle and contribute to its overall success.

(c) Networking and Educating Agencies Throughout the Enforcement Chain

Ideal educational outreach programs would target multiple links in the enforcement chain, to ensure greater buy-in of enforcement goals and facilitate enforcement functions throughout the enforcement process. In particular, networking opportunities for improved educational outreach may exist for the individuals and agencies that do or may potentially enforce and adjudicate alleged resource violations (local police, sheriffs, prosecutors, public defenders, judges, attorneys general, DOCARE, and the BLNR, as some state- and local- level examples). The current enforcement chain generally lacks a coordinated educational program that targets these groups. As one example, regular "brown bag" events could be organized as educational opportunities to bring various stakeholders together with the dual goal of educating others about their respective roles and responsibilities and facilitating communication and relationships that can mutually enhance their respective functions. Brown bags could also include guest speakers or panels to discuss enforcement issues and opportunities. Short, hour-long meetings over a lunch break might be a reasonable time commitment for busy professionals, and only a small budget would be required for occasional light refreshments. Longer annual seminars and workshops could also be implemented. Hawai'i Environmental Enforcement Agencies ("HEEA") meetings, focused primarily on federal violations, are already occurring on the federal level, and may provide a replicable model for state-level resource enforcement concerns.

¹⁸ See National Park Service, Biscayne National Park Fisheries Awareness Class, <http://www.nps.gov/bisc/planyourvisit/fisheries-awareness-class.htm> (last accessed Dec. 20, 2010).

Greater buy-in from enforcement agencies may also be facilitated through other venues, utilizing the resources of existing, interested organizations. For example, prosecutor, public defender, and attorney general training on the applicable laws and ecological and economic impacts of violations could also be conducted through Hawai'i State Bar Association ("HSBA") programs, including its Natural Resources Law, Criminal Justice and Corrections, and/or Government Lawyers Sections. Training programs for judges could be developed through similar judicial education courses or activities. Makai Watch groups and members of the public may also be included in these events, further facilitating relationship building across the enforcement chain and increasing public awareness of enforcement efforts and issues.

As discussed in detail below, dedicated educational outreach position(s) at DOCARE should be created to establish and facilitate all the educational efforts mentioned here. Because education is vital at each link in the enforcement chain, and undoubtedly takes much time and effort to coordinate, a dedicated specialist that oversees these efforts across the entire chain would be particularly helpful.

2. Strengthening Interagency and Interdivision Relationships and Communication

As a corollary to educational outreach, improving interagency and interdivision relationships and communication among those involved in the enforcement chain is another priority for achieving the goals of aquatic resource law enforcement. The observed lack of communication among stakeholders (especially between DAR and DOCARE during the rulemaking process) creates gaps in the enforcement chain, particularly at the education and detection/interdiction links.

An example activity in this area includes the process of developing aquatic resource laws and rules that are practically enforceable. As research activities revealed, the lack of interagency communication has reportedly generated significant difficulty in interpreting and implementing aquatic resource rules, and required the disproportionate and redundant commitment of resources among key agencies. For example, without communication, DOCARE, DAR, and prosecutors might each interpret a single given rule in different ways, a scenario that has already led to certain aquatic resource rules that have limited practical enforceability both in the field and in the courts. DOCARE and prosecutor input in the development of rules, based on officers' and prosecutors' experiences in actually enforcing and prosecuting rules, provides a necessary "real world" filter for lawmakers and rulewriters. A working group for rulemaking, consisting of representatives from DOCARE, DAR, the Department of the Attorney General, and the county prosecutors' offices, could be established to ensure that rules are assessed pragmatically for various viewpoints. Earlier DOCARE involvement in the DAR-driven rulemaking process may also encourage greater enforcement buy-in to new or amended rules, resulting in the necessary enforcement backup cited by DAR education staff interviews. As an initial step, smaller scale, quarterly networking opportunities, similar to the "brown bag" events discussed above, could be used to facilitate and maintain interagency and interdivision communication and relationship-building.

Establishing and building on relationships with local police departments, or with police officers that have a passion for fishing or nearshore activities, is another example activity under this strategic priority. As demonstrated on Maui, a relatively strong interagency relationship between DOCARE and MPD has aided Maui DOCARE officers with their enforcement mission, while providing MPD officers with necessary equipment and support in their own mission. While both agencies strived to "take care of their own" in carrying out missions, a long-standing relationship has allowed both agencies to leverage resources and collaborate relatively freely on enforcement activities if requested. Establishing similar relationships on O'ahu, and further developing partnerships through interagency training and mission activities, may allow DOCARE to leverage the relatively vast resources of local police departments, while allowing resource-oriented county police officers the opportunity to participate in the defense of their natural environment.

Both the educational outreach and legal staff positions proposed below could improve interagency communication. Because the enforcement chain has multiple links, and a single citation involves numerous individuals and multiple agencies, an overarching, comprehensive approach to enhanced communication is invaluable.

3. Expanding the Civil (Non-Criminal) Administrative Adjudication Process

The findings of this report repeatedly emphasize the call for lessening the enforcement chain's reliance on the criminal prosecution system, in favor of an enhanced, more prominent role for DLNR's administrative adjudication processes. Expanding and strengthening the civil enforcement system should be a long-term priority for a number of compelling reasons. First, a strengthened administrative, civil enforcement process would provide the flexibility and departmental will to impose penalties more appropriate to deterring aquatic resource violations, restoring resources, and rehabilitating defendants. For example, administrative penalties could include the denial of commercial permits, community service (through settlements similar to plea deals), and meaningful financial settlements to fund resource management projects. Second, processes involving BLNR findings would be public in nature and easily accessible, with enforcement submittals available online. Such access and exposure would provide greater public awareness of enforcement actions, greater deterrence through a "shame" factor, as well as public accountability to limit potential abuse or undue penalties. Third, the "preponderance of the evidence" burden of proof in civil matters creates a lesser, more easily satisfied standard for a finding of a violation than the lofty "beyond a reasonable doubt" standard required in criminal cases; in addition, evidentiary standards would be relaxed, allowing evidence to be introduced without the disproportionate admissibility burdens of the criminal system. The combination of these relaxed standards, the "shame" factor, and the ability to resolve violations without the risk of a criminal record may provide greater incentive for violators to settle or concede liability quickly. Fourth, DLNR might be better equipped to address violations of its own specialized rules and provide more appropriate remedies that link specifically to education, deterrence, rehabilitation, and restoration focused on aquatic resource enforcement. Finally, the resolution of enforcement actions through BLNR contested cases, although presumably rare, would provide clearer and more consistent guidance on the applicability of rules to specific situations, similar to the way laws are construed through precedent-setting in the court system.

The expansion of the administrative enforcement system is, however, a long-term goal. As outlined above, the foundation for two administrative adjudication processes (CRVS and BLNR adjudication) is already in place, but CRVS currently is only equipped to handle commercial marine license violations, and clear processes have yet to be established for the BLNR process (particularly given the absence of a DAR administrator for the last three years). The first step to the expansion of the administrative enforcement system is formal rulemaking to establish penalty schedules and CRVS citation forms for aquatic resource violations other than delinquent CML catch reports within the CRVS system. Developing a streamlined and fair strategic plan for the BLNR route, including penalty options, would be an additional step. Further development of this system would require hiring additional staff, developing penalty schedules and training materials, and establishing legal authorities and accounting mechanisms. As the Literature Review materials and professional interview responses emphasized, starting small, adequately planning, ensuring timeliness, and providing enforcement goals would maximize the effectiveness and long-term sustainability of a comprehensive civil adjudication system.

As indicated by the interviews, DLNR, DAR, and/or DOCARE must build staff capacity to facilitate this long-term expansion. Dedicated deputy attorneys general to deal specifically with contested cases would be helpful. Dedicated natural resource hearing officers would also be beneficial. Marine Law Fellows could continue to provide legal research and rule drafting assistance. Ideally, a permanent legal analyst position, as detailed below, would be created to facilitate the change, serve as a legal expert and system point of contact, and evaluate legal and enforcement feasibility and compliance along the way.

4. Improving the Efficiency of the Current Enforcement Process

Because expansion of the civil, administrative enforcement system is a long-term goal, short term goals for improving the criminal prosecution system are also necessary. In addition, DOCARE officers, prosecutors, and judges all shared the view that criminal jurisdiction for resource violations should be retained to provide appropriate penalties for egregious violations, and to ensure that a speedy and reliable process exists should issues arise with the administrative alternative. The following improvements could be implemented to improve overall enforcement effectiveness of the current enforcement process in the short-term:

- (a) Revise the DOCARE reporting forms to more closely follow the forms utilized by county police officers, and provide training to officers regarding element identification. As discussed above, criminal prosecution requires evidence regarding the specific elements of a crime, broken down into conduct, attendant circumstances, the results of conduct, and the applicable mental state. County police citations and report forms use bullet points and other formatting to facilitate the quick categorization of officer observations as they relate to each element of a given crime. DOCARE forms, by contrast, invite a narrative-type report, which may be time-consuming for prosecutors to sift through and pull out legally relevant facts. A revised form tailored to provide time-limited prosecutors with quick access to available facts (and training for officers in using the form) may allow for greater

prosecution resources to be spent advocating for stronger plea deals, instead of deciphering reports and researching legal elements.

- (b) Restore DOCARE's asset forfeiture authority through rulemaking as outlined by the Hawai'i Supreme Court in *Carlisle v. One(1)Boat*, 195 P.3d 1177, 119 Hawai'i 245 (2008), and dedicate legal and/or staff resources to administer an asset forfeiture program.¹⁹ Empowering an enforcement agency to freeze, seize, and permanently confiscate assets can destroy the money base of an illegal enterprise, deter individuals from using their property to facilitate criminal activity, appropriate the proceeds of criminal activity, and rededicate money to the public good. While asset forfeiture actions are civil in nature, they may often accompany or support criminal investigations or prosecution, and the state processes for asset forfeiture are well established outside of the natural resource context.²⁰ In addition, asset forfeiture actions may prevail based on the preponderance of the evidence standard while criminal convictions fail; asset forfeiture actions also do not require the identity of the violator to be proven, such as in the case of a poacher who escapes in a marked vessel without facial identification. As has been observed in other contexts, curtailing financially motivated crimes is challenging, and conventional law enforcement methods (e.g., arrest and incarceration) often do not work to deter such perpetrators. The "shaming" potential of asset forfeiture might be particularly effective for deterrence in Hawai'i's tight-knit communities.
- (c) Facilitate improved educational outreach and enhanced communication between DOCARE or DAR and prosecutors, public defenders, and judges. For example, one prosecutor interviewed suggested that having an "expert" on aquatic resource laws whom overworked deputy prosecutors could call for quick references on legal issues would be extremely helpful in effectively managing these cases.
- (d) Develop penalty options, such as community service alternatives, that feature educational, rehabilitation, and/or restoration components specifically tailored to aquatic resource violations. For example, as discussed in more detail above, a "fish school" for first time violators might be a worthwhile model worth pursuing, and may save prosecutors time, by providing an alternative, less punitive option for violators to concede to. First steps for such a program could include developing a

¹⁹ Up until 2008, DLNR utilized asset forfeiture as it is authorized to do by Hawai'i statute. However, after the 2008 Hawai'i Supreme Court decision in *Carlisle v. One(1)Boat*, 195 P.3d 1177, 119 Hawai'i 245 (2008), DLNR was required to explicitly add asset forfeiture provisions to its administrative rules in order to validly use its forfeiture power. Restoring asset forfeiture would require only a simple rule amendment, the process for which was outlined in the *One(1)Boat* opinion. Because asset forfeiture is an effective deterrence mechanism for environmental crimes, the author suggests that DLNR divisions prioritize the insertion of the asset forfeiture language into the applicable rules. In fact, thoroughly researched asset forfeiture language has already been drafted by DAR, yet DLNR has not facilitated the rulemaking process to implement those provisions.

²⁰ Despite the lack of asset forfeiture authority for aquatic resource violations, DOCARE is already a member of the state asset forfeiture task force, a statewide, multi-agency working group that discusses and shares information on asset forfeiture issues and processes.

pilot class curriculum, building a partnership with the district court system to establish and legitimize such a school as a viable penalty alternative, and advocating for statutory amendments where necessary (such as allowing the expungement of a conviction after successful attendance). Developing similar partnerships between the courts and culturally-based, nonprofit resource stewardship organizations may also provide resource-related community service penalty options with both rehabilitative and restorative impacts.

5. Developing Enforcement Performance Measures

In general, the findings demonstrate a lack of administrative capacity within DOCARE to develop and evaluate qualitative metrics for measuring the performance and effectiveness of the agency's activities. Without tracking what is working and what is not working, progress is stunted and well-intentioned programs can easily veer off-track. Developing enforcement measures, therefore, is crucial for justifying greater investment in funding (through grants, legislative proposals, partnerships, or other means), developing programs to utilize community support of enforcement functions, and developing cross-division working groups to address compliance issues comprehensively.

While performance measures may vary, one possible option may be the development and maintenance of a database of citation and conviction data. Although tracking the citation and conviction data is not an absolute measure of the effectiveness of the system, tracking the data is invaluable in observing enforcement trends and identifying potential issues or needs. For example, the consistent dismissal of a certain type of violation may indicate an issue with the interpretation of the law, either in the courts, or in the field. Furthermore, regularly maintaining citation and conviction databases could also support greater justification for educational, rehabilitation, and restoration program, such as evaluating changes to recidivism rates and other post-conviction outcomes. The data could also be used to assess and set effective penalty amounts and develop targeted community service programs that focus on aquatic resources.

Although the data analyzed for the instant report was confined to citations within the criminal prosecution system, maintaining a similarly structured database for the administrative enforcement system would also be useful for the long-term goal of expanded administrative enforcement. The Literature Review and professional interviews stressed the importance of adequate planning and research before major system overhauls. Tracking whether the administrative enforcement avenue is indeed faster and more effective would provide important feedback during the transition phase. Accordingly, the continuation and regular review of all relevant enforcement data is recommended. The recommended outreach specialist and operational staff support positions detailed below, in addition to interns or volunteerism, could be utilized to facilitate such a program.

6. Developing Relationships with Community Groups

Another recurring theme prevalent throughout the findings of this Enforcement Chain Analysis was the call for enhanced community-based management. The premise behind community-based management is that all users are "in it together" to steward and share the

resources. Such an understanding has been recognized as providing a powerful and effective counterbalance to the tragedy of the commons, and the depletion of such resources. Fostering this shared stewardship and sense of responsibility over the conservation of commonly shared aquatic resources requires both enforcement support for immediate community concerns, as well as the mutual assurance that others will comply with the law. In turn, community groups may contribute to enforcement by acting as additional "eyes and ears" in the field, and supporting education and outreach efforts in a variety of ways.

Effective community-based management strategies begin with developing relationships with community groups. As a means of doing so, the Makai Watch program can be strengthened and should include a dedicated liaison to DOCARE; however, informal community groups, particularly those in more isolated (and fish-plentiful) areas, may also need dedicated support to protect their aquatic resources. In their interviews, Maui DOCARE officers cited strong community relationships that aided in their ability to detect and interdict violations. Linking back to the educational outreach priority, education programs, courses, and materials are also avenues for strengthening community relationships. The additional outreach specialist position proposed below could also be instrumental in connecting these links.

B. Create New Positions to Fill Multiple Enforcement Chain Gaps

The multi-dimensional structure of the aquatic resource enforcement chain demands multi-dimensional solutions. Simply adding funding or personnel at discrete segments along the chain would likely be insufficient for improving overall effectiveness. Creating new strategic outreach, legal, and operational positions at DLNR, DAR, and/or DOCARE is a critical first step in comprehensively improving the enforcement chain. Although additional funding is necessary to create new positions, specialized positions that target specific areas in need of improvement could add substantial value to resource conservation efforts by simultaneously filling multiple gaps along the enforcement chain.

The creation of new positions is indeed necessary to the long-term success of the strategies discussed thus far. As the Literature Review and professional interviews make clear, the organizational structure at DOCARE suffers from "mission creep"—i.e., its scope of responsibilities exceeds that of resource conservation—and enforcement, public assurance, and ecosystem protection have suffered. DLNR, DAR, and DOCARE staff members are already stretched too thin. Adding additional responsibilities to already existing positions would likely exacerbate the problem. While DOCARE would certainly benefit from more enforcement officers, simply adding to the workforce at the beginning of the chain will not necessarily relieve problems that arise in the middle or at the end of the chain, and may result in further systemic problems as administrative, operational support, and management needs of field enforcement exceed the capacity to address them. Even if more officers are added, a macro-structure must be created that allows the officers to succeed in their diligent efforts. Accordingly, while the addition of more officers is essential to effectively carrying out the mission of the enforcement chain, ensuring the administrative infrastructure to support them is a necessary prerequisite.

The new positions suggested below are intended to be designed to encompass tasks relating to each of the four enforcement metrics identified in this report—education, deterrence,

rehabilitation, and restoration. While also targeting the priority areas outlined above, the proposed new positions could enhance DOCARE's capacity to increase both the actual and perceived risk of violating aquatic resource laws. The focus of these new positions would be to oversee, fill in gaps and connect multiple links across the enforcement chain as opposed to piecemeal mending of individual links. The positions need to be specialized enough to allow for a clearly defined scope of work and a realistic, achievable workload, yet broad enough to touch multiple links in the chain.

In particular, the following three additional categories of positions could be used to readily and simultaneously fill multiple gaps within the enforcement chain:

1. Education and Outreach Specialist(s) (Branch and Division Level)

(a) Goals and Tasks

The general scope of work for education and outreach specialists should include developing educational programs, improving and facilitating interagency communication, developing relationships with community members, establishing and routinely reviewing performance measures, and analyzing citation trends. Outreach specialists may also design education materials, research and pursue funding opportunities, and prepare grant proposals. Insofar as some of these efforts are currently carried out by field officers with varying levels of institutional knowledge, such outreach positions would have the added benefit of freeing field officers to engage in more fieldwork, thereby enhancing the educational, deterrence, and relationship-building exposure of the officers themselves. Meanwhile, branch-level outreach specialists would have the benefit of field officers' experience in the field, with both users and resources. Furthermore, outreach specialists could be tasked with developing community service programs tailored specifically to aquatic resource rehabilitation and restoration, in collaboration with other specialists as well as the legal analyst(s). A division-level education and outreach specialist could supervise the branch-level specialists, act as the point person for interagency collaboration at the state level, and coordinate activities and resources as appropriate. As discussed in greater detail above, such programs could be tied to changing the violators' attitudes toward aquatic resource laws, i.e., rehabilitation and restoration functions.

(b) Qualifications

An ideal candidate for the outreach specialist position will have experience with the local community and in educational outreach, communication and facilitation, coordinating and managing multi-dimensional projects, and writing funding proposals and grant reports. Multilingual or multicultural candidates would be particularly qualified, as would candidates with excellent writing and public speaking skills.

2. Legal Analyst(s) (Division Level)

(a) Goals and Tasks

Generally, the Literature Review findings note that enforcement effectiveness could be improved by increased attention to legal principles—i.e., informed rule-making and foresight

regarding challenges at the prosecutorial and judicial stages of enforcement. In other words, science and conservation-based approaches may not be enough; consideration of potential legal outcomes and legal feasibility and enforceability of rules and regulations is also necessary.

While working to expand and strengthen the administrative adjudication system(s) as a long-term goal, the legal analyst would strive for improving the effectiveness of the criminal prosecution system as a short-term goal, using the strategic priority recommendations outlined above. In the long-term, the legal analyst would support the development of the civil administrative enforcement process, improve transparency in the interpretation of rules, and work with Marine Law Fellows to facilitate interagency and interdivision communication in the development of new or amended aquatic resource rules. Such a person could also screen and prepare cases for administrative adjudication before the BLNR board, and screen and prepare asset forfeiture actions. The legal analyst would also serve as a legal "expert" for DOCARE officers and prosecutors. The latter activity would facilitate relationships conducive to the formation of both a rulemaking working group, as well as the brown bag events proposed above. As such, the legal analyst could work with outreach specialists to propose and/or assist in coordinating and facilitating the "brown bag" events described above.

The legal analyst position could be modeled after or build upon the existing Marine Law Fellowship position. Marine Law Fellows have been invaluable in conducting legal research, drafting rules, and offering legal recommendations. Because of the highly specialized nature of the position, which emphasizes expertise in the relevant legal principles, a more permanent position is ideal. Indeed, the Marine Law Fellowship program would be a valuable supplement to a more permanent position.

(b) Qualifications

An ideal candidate for this position would possess a law degree and specialized experience in resource conservation and administrative rulemaking. Furthermore, professional or educational background in the natural sciences would be a positive attribute, as would familiarity with fishing and/or hunting activities.

3. DOCARE Operational Support Staff

(a) Goals and Tasks

In addition to funding for field personnel, DOCARE officers and administration in both study areas cited the need for operational support positions to manage and support officers and ensure that DOCARE operations can occur effectively and efficiently. Many of the operational support positions within county police departments are absent in DOCARE offices. For example, without mechanics on staff, field officers and their supervisors must themselves ensure their vehicles and vessels are maintained and in working order. Similarly, without procurement specialists, officers must spend valuable time attending procurement training classes, researching vendors, drafting and administering bids, and engaging in other administrative tasks to obtain necessary equipment. One Maui officer noted that the Maui Police Department also retains a full-time asset forfeiture officer tasked with navigating state asset forfeiture laws to facilitate the seizure and disposition of equipment used in violating an applicable law. As the 2006 DOCARE

Audit suggested, DOCARE officers spent too much time performing administrative duties, in large part because the manual entry methods used by DOCARE are cumbersome, archaic, and duplicative. Operational support staff could target the problem areas and develop updated systems, further freeing field officers and other DOCARE staff to focus on their primary responsibilities.

(b) Qualifications

An ideal operational support candidate will have several years of institutional, administrative and/or clerical experience in an office environment. Specialized knowledge, such as familiarity with database technology, may also be required depending upon the nature of the tasks individual support staff members would be expected to achieve. Knowledge of DOCARE's operations and responsibilities would also be a desirable attribute.

VII. CONCLUSION

A series of recent studies have sought to shed greater light on the economic value provided by Hawai'i's nearshore ecosystem. While acknowledging the danger of discounting the intrinsic and unquantifiable cultural significance inherent in these waters, these studies have confirmed what many have long understood intuitively—that to an island state, the health of nearshore resources provides a far-reaching and fundamental economic foundation that counsels the highest levels of planning and management for its protection. For example, a 2000 study looking only at the nearshore ulua (trevally) fishery estimated direct annual expenditures of over \$20 million by recreational fishers; using a "commonly accepted multiplier," this indicated an annual impact of \$31 million on the state's economy from this single fishery alone.²¹ Studies conducted in 2002 and 2003 found an overall contribution of \$800 million in revenue generated from Hawai'i's reefs and coastal resources, with an added recreational, amenity, fishery, biodiversity, and educational value of \$364 million per year.²² Part of this value included that of marine tourism, an industry estimated to host over 1,000 active commercial operators in 2005.²³ Most recently, a 2011 report utilizing "innovative economic survey techniques" found that across U.S. households, the economic value of protecting Hawai'i's reefs through establishing marine protected areas and actively restoring coral damage from vessel grounding incidents could be estimated at \$34 billion a year.²⁴

While numbers and methodologies may vary, these studies make clear the long-held understanding that Hawai'i's nearshore ecosystems are intrinsic to the economy and social character of the state, and that a decline in the health of these aquatic resources may have untold and far-reaching impacts across all local industries. In the face of ever-increasing numbers of users and types of uses, the need for intensive aquatic resource management should by now be

²¹ Rick Gaffney, EVALUATION OF THE STATUS OF THE RECREATIONAL FISHERY FOR ULUA IN HAWAII, AND RECOMMENDATIONS FOR FUTURE MANAGEMENT 2 (2000).

²² Carlie S. Weiner, Mark D. Needham, & Paul Wilkinson, *Hawaii's real marine life park: interpretation and impacts of commercial marine tourism in the Hawaiian Islands*, 12 CURRENT ISSUES IN TOURISM 489, 489-90 (2009) citing P.J. van Beukering & H.S. Cesar, *Ecological economic modeling of coral reefs: Evaluating tourist overuse at Hanauma Bay and algae blooms at the Kihei Coast, Hawaii*'i 58 PAC. SCIENCE 243 (2007); A.M. Friedlander et. al., *The state of coral reef ecosystems of the main Hawaiian Islands* in THE STATE OF CORAL REEF ECOSYSTEMS IN THE UNITED STATES AND PACIFIC FREELY ASSOCIATED STATES 222-269 (2005), K. DAVIDSON, M. HAMNET, & C. MINATO, ECONOMIC VALUE OF HAWAII'S NEARSHORE REEFS (2003), available at [http://nature.forestry.oregonstate.edu/sites/default/files/2009-2%20CIT%20-%20Wiener%20Needham%20Wilkinson%20\(2009\).pdf](http://nature.forestry.oregonstate.edu/sites/default/files/2009-2%20CIT%20-%20Wiener%20Needham%20Wilkinson%20(2009).pdf); HERMAN CESAR, PIETER VAN BEUKERING, SAM PINTZ, JAN DIERKING, ECONOMIC VALUATION OF THE CORAL REEFS OF HAWAII FINAL REPORT 74 (2002), available at http://www.coralreef.gov/meeting18/evhcri_samoa_2007.pdf.

²³ Weiner et. al., *supra* note 22 at 489.

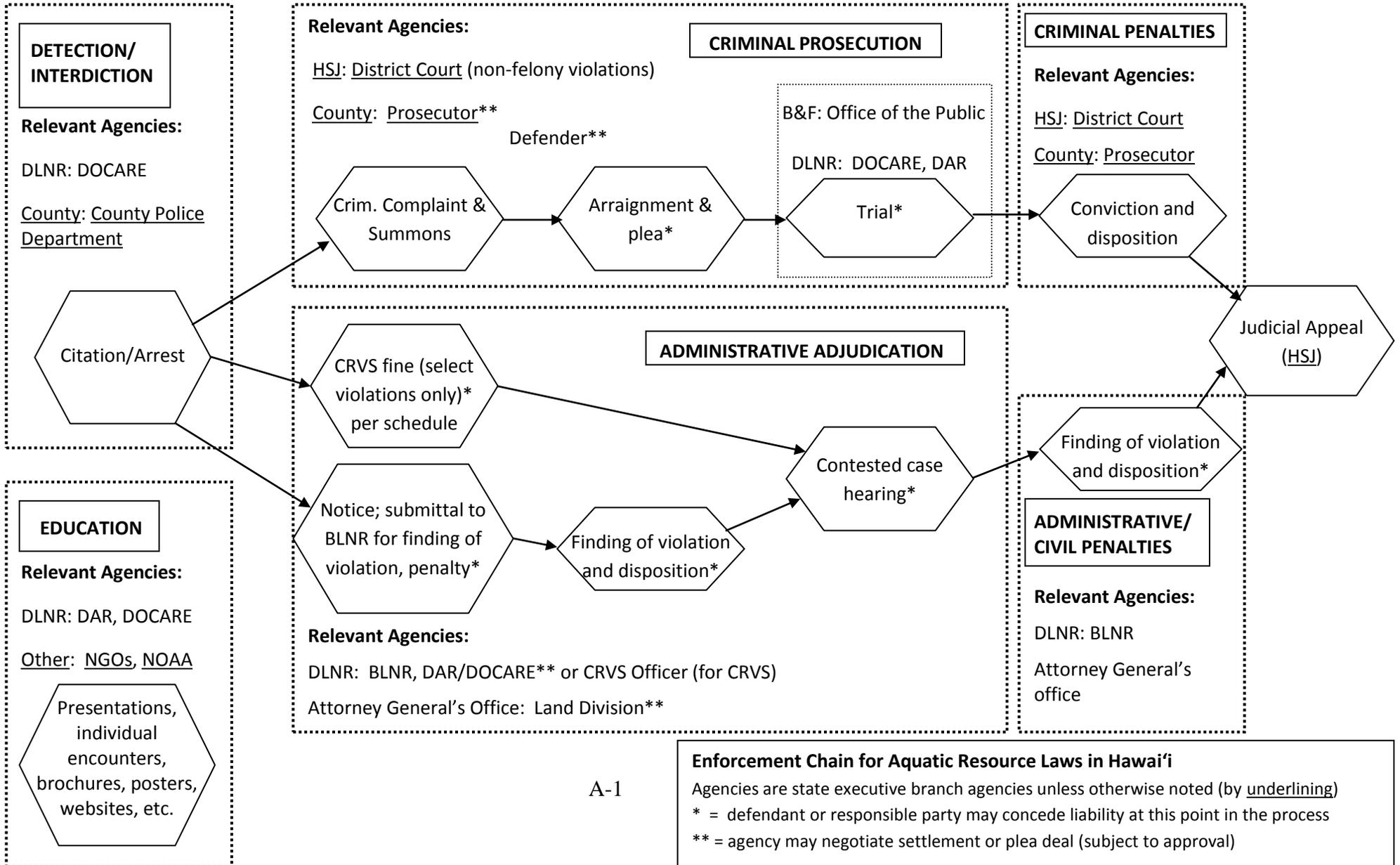
²⁴ RICHARD C. BISHOP, DAVID J. CHAPMAN, BARBARA J. KANNINEN, JON A. KROSNICK, BOB LEEWORTHY, AND NORMAN F. MEADE, TOTAL ECONOMIC VALUE FOR PROTECTING AND RESTORING HAWAIIAN CORAL REEF ECOSYSTEMS: EXECUTIVE SUMMARY (2011), available at http://coralreef.noaa.gov/aboutrcrp/news/featuredstories/oct11/hi_value/resources/protecting_restoring_hawaiian_creef.pdf.

self-evident and highlight the state's constitutional responsibility to protect these public trust resources.²⁵ While appropriate investment in the research and policy-making side of aquatic resource management is beyond the scope of this report, any type of management through today's form of laws requires an enforcement system that is effective in its goals and functions. It is therefore the hope of this report that the clearly identified gaps and barriers to effective aquatic resource enforcement, combined with an ever-growing consciousness as to the intrinsic and fragile value of Hawai'i's nearshore resources, will help to foster the first steps towards sustained, appropriate, and comprehensive investment in protecting the resources that sustain these islands.

²⁵ See HAW. CONST. art. XI §§ 1, 6.

APPENDIX A

MAP OF ENFORCEMENT CHAIN FOR AQUATIC RESOURCE LAWS IN HAWAI‘I



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APPENDIX B

LITERATURE REVIEW

I. INTRODUCTION AND METHODOLOGY

Although there are no studies identical to the instant Enforcement Chain Analysis of Aquatic Resource Enforcement on O‘ahu Island and North Shore Maui ("ECA"), several authors and scholars have commented on Hawai‘i aquatic resource enforcement issues in other capacities. As a foundation for the instant ECA, and to provide the appropriate context in which to view its findings and conclusions, various research materials were gathered and summarized. As a preliminary step, criteria were developed for selecting materials to be included in the Literature Review. Research materials meeting the following criteria were selected for inclusion:

- (a) Focuses on Hawai‘i;
- (b) Discusses nearshore aquatic resource as regulated by the State of Hawai‘i and/or discusses the State agencies tasked with enforcing nearshore aquatic resource regulations—e.g., the Department of Land and Natural Resources ("DLNR"), the Division of Conservation and Resources Enforcement ("DOCARE"), or the Division of Aquatic Resources ("DAR");
- (c) Comprised of comprehensive analyses and/or in-depth studies—as a general guideline, consider ten or more sources;
- (d) Discusses effectiveness of enforcement operations and/or aquatic resource management; and
- (e) Offers recommendations or suggestions for improved enforcement and/or management.

Based on these criteria, materials such as news articles, blog postings, and studies from other jurisdictions were not included. In gathering the materials, the researchers consulted both electronic and print sources, conducted internet research, and searched the Libraries of the University of Hawai‘i catalog, the William S. Richardson School of Law Library catalog, and Westlaw and LexisNexis legal databases.

Applying the criteria outlined above, six (6) reports and/or studies were analyzed, summarized, and used to inform the recommendations provided in the instant ECA. The vast majority of the materials encountered were opinion-based overviews rather than studies comprising quantitative analysis. The summaries provided in this Literature Review seek to encompass the key points articulated in the various research materials as those points relate to the enforcement focus of the ECA. The summaries, provided below in chronological order, are not intended to be comprehensive overviews of all points covered in the materials. Furthermore,

the abstracts and summaries are written from the perspective of the articles' authors and do not necessarily represent the collective opinions of the ECA team.

A. Rick Gaffney & Associates, DIVISION OF AQUATIC RESOURCES TECHNICAL REPORT 20-02: EVALUATION OF THE STATUS OF THE RECREATIONAL FISHERY FOR ULUA IN HAWAI‘I, AND RECOMMENDATIONS FOR FUTURE MANAGEMENT (2000).¹

(i) Abstract

In this 2000 technical report prepared by Rick Gaffney and Associates for the Department of Land and Natural Resources ("DLNR"), Department of Aquatic Resources ("DAR"), the author summarizes the recreational fishery of the ulua (jacks and trevallies) and identifies management options for its protection. Noting a decline in the ulua population and the shortcomings of science-based management studies and policies, the author recommends the following: (a) empowering community-based management for an increasing number of contiguous, homogeneous coastlines across Hawai‘i; (b) evaluating and establishing harvest refugia; (c) implementing biologically appropriate minimum lengths, reduced bag limits, and a ban on the commercial sale of several species of ulua; (d) the hiring of new DAR staff specialists for ulua and for recreational fishing; (e) expanding the study of the biology and ecology of ulua; and (f) collecting and archiving recreational fishing data.

(ii) Summary

As background for the proposed recommendations, the author notes an estimated 80% reduction in the catch of coastal species in Hawai‘i since 1900. The reported landings of ulua/pāpio² (jacks and trevallies) have also shown a significant decline, e.g., from reported catches of 652,000 pounds in 1900 to 102,300 pounds in 1986—an 84% reduction in harvest. By 1998, reported landings of all species of jacks totaled just over 29,000 pounds.

In focusing the report on the recreational fishery of ulua, the author describes the fishes' biology, outlines the characteristics of various species of ulua (genera *Caranx*, *Alectis*, *Psuedocaranx*, *Gnathanodon*, and *Carangoides*), and explains the ulua's importance in Hawaiian culture and religion. Furthermore, ulua are important ecologically as apex predators in Hawai‘i's nearshore ecosystem. Historically and contemporarily, ulua are also revered game fishes. Data from the U.S. Fish and Wildlife Service indicate that in 1996, there were 32,000 recreational ulua fishers in Hawai‘i. Based on other data from the same 1996 survey, as well as earlier studies, the author opines that recreational sportfishing provides greater economic benefits to Hawai‘i than the commercial fishing sector; this applies to recreational sportfishing in general and particularly to ulua sportfishing. The author asserts that additional studies of the biology and ecology of ulua species are needed both for fisheries management and an improved understanding of their respective ecosystems.

¹ The Gaffney report is publicly available online at: <http://hawaii.gov/dlnr/dar/pubs/ulua02.pdf>.

² Hawaiians use different names for different growth stages of ulua: pāpio (young), pā‘ū‘ū (intermediate), and ulua (adult).

Despite extensive expenditure on efforts to understand and regulate human impact on ocean resources, such efforts have not led to development and/or implementation of sustainable management strategies that adequately protect marine ecosystems. Greater public participation and cooperation among all affected parties—i.e., the federal, state, and local governments, academic institutions, private industry, and other interest groups—is needed to supplement science-based studies. Community-based management programs help to decentralize the management process. There have been small scale attempts at community-based management at Mo‘omomi on Moloka‘i and a large scale attempt through the legislative establishment of the West Hawai‘i Fishery Council on the west coast of the Big Island of Hawai‘i; these attempts have been deemed successful to varying degrees.

In addition to empowering community based management, the author also proposes establishing "harvest refugia" or marine protection ("no-take") areas to enhance fish populations, sustain fishery yields, simplify enforcement, provide controlled areas for monitoring demographic and ecological trends, protect genetic diversity, insure against uncertainties in management, and preserve whole ecosystems. The author asserts that the expected level of success and benefits of the refugia would need to be identified and evaluated prior to implementation. Social, cultural, economic, and political factors must also be considered before implementation. Potential risks of establishing harvest refugia include "leakage" of older fish from protected to non-protected areas, increased fishing in open areas, unreasonable expectations of effectiveness in the process of advocating for refugia establishment, attraction of illegal fishing, and large and ongoing costs of establishing and monitoring the refugia. The plan to establish harvest refugia should be phased in, expanded over several years, and evaluated periodically. Agency involvement and enforcement would be necessary, but the need could be lessened by public education and social pressure from other stakeholders.

Based on the review of various studies and critiques of fisheries management systems, the author reinforces the cultural, ecological, and economic value of ulua and makes the following recommendations to restore ulua/pāpio populations in Hawai‘i:

1. Create new DAR staff positions for a full-time ulua specialist and a full-time recreational fishery specialist;
2. Conduct additional studies of ulua biology and ecology with particular attention to dispersal, survival rate of released fish, and the study of predation of various introduced species by ulua/pāpio;
3. Include recreational fishing data as an important component of management decision-making. Recommendations for gathering valuable recreational catch data are:
 - (a) devising a tournament catch record and requiring that organizations or individuals holding any fishing tournament in Hawai‘i waters submit a complete tournament catch record containing specified catch and effort data upon completion of the event (to be compiled in a DAR database);

- (b) enabling a process for compiling all ulua data (as either chronicled in Hawai‘i Fishing News or collected by various fishing clubs/tournaments) and entering the compiled data into a regularly-updated database;
 - (c) enabling a process under which select individual ulua fishers on each island are asked to voluntarily maintain an annual catch and effort log book;
4. Design fishing tournaments around scientific objectives to provide a variety of high quality data that would otherwise be difficult to obtain. Such tournaments would also provide an opportunity for resource users to participate in data collection and interact with the scientific community;
 5. Establish new community-based management programs incorporating "lessons learned" from the programs in Mo‘omomi, Moloka‘i, and West Hawai‘i. Such programs should empower new community managers to establish harvest refugia (marine protected areas). DAR should seek to forge new relationships based on a collaborative approach by:
 - (a) changing the structures, processes, and styles of working with stakeholders to ensure that their input is heard, valued, and included in any new framework;
 - (b) placing the focus on people by enhancing technical knowledge with facilitation skills;
 - (c) providing user friendly information to stakeholders on the fishery ecosystem in order to enable them to effectively participate in dialogue and in decision-making; and
 - (d) supporting new methods for stakeholders to take responsibility for managing fishing methods and recognizing the obligations that go with such methods;
 6. Revisit and reconsider current marine protected areas in Hawai‘i—i.e., Marine Life Conservation Districts, Fishery Management Areas, Fishery Replenishment Areas, Natural Area Reserves, etc.—in light of current resource conservation needs and community interests. The various conservation areas may need to be adjusted to reflect current needs/impacts and improve the overall efficiency of a statewide system of refugia;
 7. Ban the commercial sale of white ulua (*Caranx ignobilis*) and bluefin trevally (*C. melampygyus*) to reserve the catch of these two species for subsistence and recreational fishers only; and
 8. Establish new minimum lengths for *Caranx ignobilis* and *C. melampygyus* that are more reflective of their length at sexual maturity, decrease the bag limit for all species, and encourage the release of all undersize fish.

(iii) General Comments and ECA Implications

The author offers general recommendations regarding fisheries management but framed through the analysis of a particular group of species. While analyzing fisheries management through the lens of the ulua fishery, the author suggests that community-based management that involves various stakeholders is needed to supplement science-based programs. The author advocates for establishing harvest refugia, or permanent "no-take" areas, but notes substantial costs of implementation and effectiveness monitoring. The author also recognizes the prevalent uncertainty regarding scientific data and whether marine protected areas would be successful management tools—i.e., he identifies the potential for success but emphasizes that additional information is needed prior to implementation. Also warranting further research is whether the author's recommendations would apply also to other fisheries/fish species.

B. Koalani Kaulukukui, comment, *Establishing an Environmental Court in Hawaii: Lessons from the Environmental Courts of the United States (2005) (unpublished) (on file with author)*.

(i) Abstract

This 2005 scholarly article outlines Hawai‘i's current environmental law enforcement structure and analyzes the feasibility of establishing an environmental court in Hawai‘i. Noting that environmental courts in other jurisdictions can be used as models, the author stresses that any environmental court or specialized docket established in Hawai‘i must be uniquely tailored to allow for smooth incorporation into Hawai‘i's current system. The author's research materials and sources include law review articles, legal cases, and government agency reports. Although the author also discusses and assesses anti-pollution regulations, the summary below focuses on the author's analysis that pertains to fisheries management.

(ii) Summary

As a preliminary matter, the author identifies a lack of uniformity in Hawai‘i's current legal framework for environmental law enforcement. First, implementation and enforcement of environmental laws are undertaken by different state agencies using different enforcement methods. Second, individual divisions within the same agencies can choose from a range of penalty options, including criminal, administrative, or both. Third, different levels of the judiciary are invoked in adjudicating natural resource laws. This fragmented structure poses challenges for creating a specialized environmental court in Hawai‘i.

Noting the State's affirmative duty to maintain public trust resources,³ the author outlines the State's prescriptive laws that prohibit direct taking of protected resources and the administrative regulations used to control land use, zoning, and resource uses that impact the environment. As an example, the author describes the prescriptive laws and penalties in fisheries management. Under Hawai‘i Revised Statutes ("HRS") § 188-70, penalties for certain fishing violations are categorized as petty misdemeanors and are part of a graduated sentencing scheme that imposes a mandatory minimum of \$100 for a first offense, \$200 for a second offense, and

³ For additional background on the public trust doctrine, see footnote 10, below.

\$500 for subsequent offenses. Although the Department of Land and Natural Resources ("DLNR") has statutory authority to impose administrative penalties, most fishing regulation laws enforced by DLNR'S Division of Conservation and Resources Enforcement ("DOCARE") are criminally prosecuted at the district court level. The district courts in Hawai'i assume exclusive jurisdiction over offenses that are punishable by fine or imprisonment not exceeding one year. There are thirteen district courts around the islands and in various communities, including rural areas.

The author outlines various environmental courts in other states and analyzes whether such examples could be used in developing a similar system in Hawai'i. Specific examples include the environmental courts in Memphis, Tennessee, and the state environmental court in Vermont. The Memphis environmental court, for example, was created in response to concerns regarding inner-city pollution and urban environmental degradation. Most environmental courts within the United States are modeled after the Memphis environmental court and are situated at the city or county level of their respective judiciaries—e.g., there are municipal and/or county environmental courts in Indiana, Georgia, Ohio, and Alabama. The state of Vermont is home to the only state-level environmental court in the United States. In Vermont, what began as an effort to consolidate administrative procedures eventually morphed into an environmental court that provided a forum for aggrieved defendants to appeal unfavorable agency administrative orders. The Vermont court system employs full-time environmental judges.

In transitioning to a discussion of a proposed environmental court in Hawai'i, the author notes that the Hawai'i State Legislature is constitutionally authorized to (1) establish "other courts" from time to time and (2) define the jurisdiction of each court, whether constitutionally or statutorily created. The legislature has largely only taken advantage of the second power through the creation of specialty courts within the existing judiciary. The author summarizes a bill introduced, but ultimately killed, in the 2005 Hawai'i legislative session that proposed creating a new, separate environmental court. However, to more readily fit into Hawai'i's current system, and to eliminate the need for a complete overhaul, the author suggests instead defining specialized environmental jurisdiction for already existing courts, e.g., establishing specialized environmental dockets in the district courts. Such specialized dockets could be tailored to the specific concerns of policymakers and government agencies. In other words, the dockets could focus on the types of environmental law violations for which regulators are most concerned. The specialized docket structure may result in less disruption than the 2005 proposal for a separate environmental court within the circuit courts.

In addition to advocating for specialized dockets, the author also comments that defining a goal for a proposed "court"⁴—i.e., identifying the most pressing environmental issues—and tailoring the court's jurisdiction to address those specific issues are critical first steps. While the Memphis environmental courts were created to address urban environmental concerns, Hawai'i's system might be more appropriately tailored to fisheries management and the prevention of

⁴ The author notes that "[a]lthough the word 'court' often conjures images of a traditional courtroom in one's mind, the term can describe something less than a formal venue, such as a specialized docket, positioned as a subset of the formalized judiciary. Most of the environmental courts in the United States have emerged as this informal type of court, born as small, specialized dockets within the larger municipal courts." Kaulukukui at 24.

further anthropogenic destruction of natural resources. The author suggests following in Vermont's footsteps in starting small, e.g., establishing environmental "courts" focused only on prescriptive laws that prohibit direct take of public resources.

The choice of judges is also an important consideration in any proposal. Although expertise and experience in environmental law would not be required for judges in a proposed environmental court,⁵ having such knowledge might increase a judge's appreciation for environmental regulation enforcement. The author opines that a mere desire to meet the goals of the specialized court should suffice. The author notes a general inconsistency among various district court judges' application of aquatic resource laws. Practically speaking, there may be an inherent perception among judges that aquatic resource violations are less serious than the traffic, domestic, violence-based, and/or alcohol-related violations they more frequently encounter. In conclusion, the author reemphasizes the importance of developing a judicial enforcement mechanism that is specifically tailored to the particular environmental issues and concerns in Hawai'i.

(iii) General Comments and ECA Implications

The article provides a thorough discussion of the state judiciary and particular challenges of judicial enforcement of environmental regulations. The author compares and contrasts environmental courts in other jurisdictions that possibly could be used as models in Hawai'i. The article also acknowledges the emphasis on criminal, as opposed to administrative, enforcement in Hawai'i's regulatory scheme and recognizes the challenge of engaging judges in aquatic resource enforcement. The author advocates for a Hawai'i-specific approach that considers Hawai'i's unique environmental issues and incorporates the lessons learned from other jurisdictions.

C. THE AUDITOR, OFFICE OF THE AUDITOR, MANAGEMENT AUDIT OF THE DIVISION OF CONSERVATION AND RESOURCES ENFORCEMENT (2006).⁶

(i) Abstract

In 2005, as requested by the Hawai'i State Legislature, the State of Hawai'i Auditor conducted a management audit of the Department of Land and Natural Resources ("DLNR"), Division of Conservation and Resources Enforcement ("DOCARE") (hereinafter "2006 State Audit" or "audit"). The findings of the audit, published in 2006, revealed that DLNR and DOCARE had not achieved full and effective enforcement. The audit concludes that a lack of strategic planning has led to mission expansion that diverts attention and resources away from conservation enforcement and that DOCARE leaders need to develop more efficient methods of performing enforcement operations. The audit summarizes a multitude of purported departmental and divisional issues and provides detailed recommendations for both DLNR and DOCARE for improved effectiveness and efficiency.

⁵ As the author comments, state environmental laws are not as technical or complicated as federal environmental laws.

⁶ The full 2006 State Audit is publicly available online at: <http://hawaii.gov/auditor/Reports/2006/06-01.pdf>.

(ii) Summary

In its 2005 Regular Session, the Hawai‘i State Legislature introduced a measure calling for a management audit of DOCARE’s operations. The objectives of the audit, published and presented to the Legislature in 2006, were to (1) assess the effectiveness and efficiency of DLNR and DOCARE’s conservation and resources enforcement operations and (2) make appropriate recommendations based on the audit’s findings. Between May 2005 and December 2005, the auditors visited DLNR and DOCARE offices, reviewed relevant documents on management of enforcement programs, conducted interviews, reviewed pertinent laws, rules, policies, and procedures, and accompanied enforcement officers on both land and water patrols at all branches. The audit reviewed DOCARE branches on all islands but conducted a more detailed review of O‘ahu, while recognizing that the workforce on other islands is stretched even thinner.

As background for its findings and recommendations, the 2006 State Audit outlines the organization, mission, and resources of DLNR and DOCARE, noting in particular that DOCARE has extensive responsibilities under the organizational structure in place at the time of publication. DOCARE officers are collectively expected to cover land from the mountain tops, down to the coastline, and out to three miles from shore. Within that expansive geographical range, DOCARE officers are responsible for the following:

- Investigating complaints, gathering evidence, and conducting investigations;
- Cooperating with enforcement authorities and county, state, and federal government search and rescue agencies;
- Verifying all leases, permits, and licenses issued by DLNR;
- Enforcing laws related to firearms, ammunition, and dangerous weapons;
- Enforcing laws related to operating a vessel in state waters while intoxicated; and
- Enforcing rules in the areas of boating safety, conservation, and search and rescue relative to State boating facilities, ocean waters, navigable streams, and beaches.

The audit concludes that DOCARE is understaffed and underfunded. DOCARE does not have enough officers on duty to patrol land and waterways and also respond to hotline calls. The audit found that there were not enough officers to provide full coverage 24 hours a day, seven days a week for the nearly 1.3 million acres of State lands, beaches, and nearshore waters and the 750 miles of coastline within its geographical range of responsibility. Furthermore, DOCARE branches typically do not have officers on duty during late evening and early morning hours—a popular time for poaching and other illegal activity. Insufficient enforcement coverage contributes to the deterioration of natural resources and puts the public at risk. Thus, the audit recommends periodically scheduling officers to work evening and morning hours. According to the audit, public perception is that DLNR and DOCARE are unable to effectively enforce conservation laws, which leads to diminished likelihood of the public’s voluntary compliance.

The audit identifies a lack of strategic planning and effective leadership as key sources of DOCARE’s management issues. First, the audit notes that DOCARE’s mission has expanded

immensely, yet additional resources to support the expanded missions have not followed. Since 1996, several new conservation districts, fisheries management areas, and state parks have been added but additional resources have not. Moreover, DLNR has directed DOCARE to take on additional law enforcement tasks—e.g., cruise ship security and crime prevention aimed at marijuana eradication and teenage drinking and drug use—that are only loosely connected to DOCARE's mission of protecting the State's natural and cultural resources. In other words the enforcement workforce is spread too thin, and DOCARE's mission has shifted away from protecting natural and cultural resources towards deterring illegal and criminal activity.

Second, the audit concludes that DOCARE lacks meaningful performance measures to determine whether progress is being made in achieving compliance. DLNR and DOCARE leaders have not established goals and objectives that focus on results and outcomes. Measurable goals and objectives should be established on a continuum, starting at the operational level with inputs, activities, and outputs, and moving up to higher departmental levels to encompass both immediate and long-term outcomes. By developing higher-level, outcome-oriented performance measures and articulating those results in annual reports to the Legislature, DLNR and DOCARE leaders can present more convincing arguments for additional resources and funding. Without measures of effectiveness, the Legislature is unable to conduct a cost-benefit analysis while allocating resources.

To further tackle funding issues, DLNR and DOCARE leaders should more proactively seek federal grants. Specifically, the audit identifies two federal grants as potential sources for additional resources:

1. *Cooperative Enforcement Program*—offered by the U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service, Office of Law Enforcement. The grant seeks to improve federal maritime conservation enforcement while strengthening state marine enforcement resources; and
2. *Conservation Law Enforcement Training Assistance*—offered by the U.S. Department of Interior, Fish and Wildlife Service. The grant provides special agents to assist in conservation law enforcement training.

Noting that enforcement is only one piece of a compliance program, the audit also recommends DOCARE's collaboration with DLNR's other divisions in adopting rules to establish goals and objectives focused on achieving compliance. The audit proposes that DLNR establish cross-division working groups to address the wide range of factors influencing compliance. Key practices in facilitating effective collaboration include:

- defining and articulating a common outcome;
- establishing joint strategies to achieve an outcome;
- identifying and addressing needs by leveraging resources;
- establishing compatible policies and procedures to operate across boundaries; and

- establishing mechanisms to monitor, evaluate, and report the results of collaborative efforts.

In turning its discussion to leadership issues, the audit comments that DLNR and DOCARE leaders do not strategically manage their staff. First, leaders have not made sure there are appropriate numbers of enforcement officers to achieve compliance. In fact, the number of enforcement officers needed is unknown. Admittedly, determining a precise number is difficult, but the question could be answered if leaders began measuring progress against the overall statewide objective of protecting, restoring, and enhancing natural resources.

Second, leaders have not ensured that there are skilled information technology personnel on staff. More precisely, DLNR does not provide department-wide information technology services, it does not employ any business systems analyst capable of studying business operations and translating the information into management systems requirements, and it does not have any radio system engineers. The audit singles out DOCARE as having particularly low knowledge of information technology systems. To fill this gap, the audit recommends that DLNR perform a review to determine the types and quantities of information technology positions needed for modernizing, operating, and maintaining a department-wide system.

Next, the audit emphasizes that more efficient methods of performing enforcement operations are needed to maximize the limited resources available. The branches visited during the audit spent too much time performing administrative duties, in large part because the manual entry methods used by DOCARE are cumbersome, archaic, and duplicative. Although feasibility may be an issue, the audit recommends that DOCARE seek guidance and additional funding to acquire computers for use in the field, allowing officers to prepare and forward reports in real-time rather than weeks or months later.

The audit also found that about a quarter of enforcement officers are unproductive and that the Kaua'i branch was particularly unproductive. The audit notes that DOCARE leaders and branch chiefs do not evaluate productivity or hold subordinates accountable for specific levels of performance. To enhance accountability, the audit reemphasizes the importance of establishing high-level/statewide objectives and goals that relate specifically to achieving compliance and resource protection. The enforcement chief should translate those high-level objectives and goals into branch expectations addressing the specific geographic area and missions within the branch's control. These expectations should relate to the specific enforcement actions necessary to achieve compliance, e.g., quality and timeliness; number of arrests, citations, investigations, inspections, parking tickets, warnings; number of contacts, boat boarding, education sessions, marijuana eradication raids, cruise ship security activities; etc.

Furthermore, branch chiefs should strengthen control over the daily activities of their field supervisors and enforcement officers. Field supervisors and enforcement officers are typically free to go anywhere during their shifts without having to account for their time or whereabouts. Many interviewed during the audit were frustrated by the lack of accountability because the system is open for abuse. Increasing radio or cell phone contact between branch chiefs and the field workforce during work shifts could rectify accountability issues. So too could more specificity of officers' performance expectations.

As another critical piece linked to officers' performance, the audit found a number of training inadequacies. Unlike other law enforcement branches, DOCARE does not have a formal "initial entry" training program. DOCARE typically hires individuals that have worked in other police entities—e.g., the Honolulu Police Department or other county police forces. Although these officers have the knowledge and skills needed for law enforcement activities, the new recruits rarely have any conservation enforcement experience. Because conservation and resources laws are extensive, complex, and cannot be learned without rigorous study, DOCARE should establish a formal training program for new recruits. Recordkeeping of "sustainment," or continuing education, training also needs improvement—at the time of publication, there was no method in place to determine who received such training. In addition, there are no sustainment training programs in place that address conservation enforcement.⁷

In conclusion, the audit reiterates the imminent deterioration of Hawai'i's natural and cultural resources. To provide more effective enforcement, the audit urges DLNR and DOCARE leaders to adopt more long-term strategic thinking and focus attention on resources and conservation enforcement operations. Furthermore, enforcement responsibilities must be shared by the various divisions of DLNR through collaborative procedures and processes.

(iii) General Comments and ECA Implications

The report specifically targets DLNR and DOCARE enforcement effectiveness and provides an in-depth analysis of DOCARE's enforcement operations. The audit incorporated office/branch site visits and interviews with DOCARE supervisors and enforcement officers. DOCARE is likely familiar with the audit's conclusions, critiques, and recommendations—i.e., aware of the enforcement issues identified and/or considering ways to address those issues. The report also recognizes funding challenges even prior to the 2008 economic recession.

D. Brooke Kumabe, *Protecting Hawai'i's Fisheries: Creating an Effective Regulatory Scheme to Sustain Hawai'i's Fish Stocks*, 29 U. HAW. L. REV. 243 (2006).

(i) Abstract

This 2006 law review article discusses the Hawai'i fisheries regulatory system and concludes that the State of Hawai'i should expand its regulations to include all commercially sold fish. The author proposes that the State of Hawai'i should resurrect ancient Hawaiian management practices like imposing seasonal fishing prohibitions to allow fish stocks to naturally replenish and encouraging community-based groups to take greater responsibility for specific fishing grounds. The author further advocates for the imposition of a tax scheme on all commercially sold fish to provide funds for conservation measures.

⁷ The available sustainment training programs mentioned in audit include: firearm qualification; use of force; Oleoresin Capsicum Spray; pressure point control tactics; and specialized training in diving, repelling, and canine handling.

(ii) Summary

As background for the article, the author summarizes the cultural and economic importance of fishing in Hawai‘i. The author notes that in ancient Hawai‘i, fishing was important for sustenance and religious purposes. In contemporary local culture, fishing remains important for food consumption, recreation, and its economic benefit to the State. Despite Hawai‘i's dependence on its ocean resources, scientific data and the observations of fishers and other ocean users reveal significant declines in Hawai‘i's fish stocks.

In summarizing the applicable fisheries laws, the author notes that the State of Hawai‘i has the authority to regulate marine resources (including fisheries) within three miles of its shorelines.⁸ The Hawai‘i State Legislature has designated the Department of Land and Natural Resources ("DLNR") as the primary authority for managing marine resources. The enabling legislation gives DLNR broad management authority including the rulemaking authority to prohibit or severely limit fishing and access, impose size and catch limits, seasonal prohibitions, and limitations on fishing gear, gather information, and enforce fishing laws. DLNR's current⁹ management strategies include limitations on take, gear, size, and season, as well as area restrictions, bottom-fishing restrictions, and species-specific regulations.

The author comments that despite the many management strategies in place, the current regulatory system is inadequate, and additional regulation is necessary. Problems with DLNR's current fisheries management, as identified in its 2005 strategic plan, include inadequate funding, limited capacity for enforcement, understaffing, too many responsibilities for the Division of Conservation and Resources Enforcement ("DOCARE"), and a lack of catch information from recreational users leading to inaccurate or unavailable population estimates (the Hawai‘i licensing program does not require recreational fishers to report their catches).

To improve Hawai‘i's regulatory scheme, the author advocates for resurrecting various components of the ancient Hawaiian fisheries management regime. The author highlights the success of traditional Hawaiian fisheries management in noting that fisheries in Hawai‘i were resilient and healthy prior to Western contact, even with a population of over one million people. First, the author proposes seasonal fishing prohibitions reminiscent of the kapu system employed by ancient Hawaiians. The kapu system prohibited fishing in certain areas at certain times based on a fish species' biology and life cycle. Like the kapu system, imposing a seasonal ban on extraction of a particular fish species during spawning would allow fish stocks to regenerate. Currently, only a few fish species are seasonally regulated; thus, more comprehensive seasonal limitations are needed. As an extension of that proposal, the author also suggests expanding fishing regulations to encompass all commercially sold fish (noting that many "highly desirable" fish, such as ‘aweoweo, mahi mahi, ono, opah, and a‘u, are unregulated).

Second, the author advocates for community-based management through the restoration of ahupua‘a principles. In ancient Hawai‘i, land was divided into sections of land called ahupua‘a that ran from mountain to sea and could independently sustain the inhabitants within

⁸ The federal government maintains authority to regulate fisheries between 3 to 200 miles from the shore.

⁹ For purposes of this summary, "current" or "currently" means as of the 2006 publication date of the article.

them. The author states that in each ahupua‘a, a konohiki, or lesser chief, was responsible for enforcing the fishing kapu. Similarly, involving the public and engaging community "overseers" in the current regulatory scheme could address enforcement issues absent sufficient funding. As one form of community-based management, the author suggests establishing an "adopt-a-fishing-ground" program similar to the "adopt-a-highway" program already in place in the State. Rather than cleaning up highway debris, groups involved in the "adopt-a-fishing-ground" program would be responsible for sponsoring educational activities directed at specific fishing grounds. The author opines that encouraging community groups to steward and protect specific fishing grounds is a first step in creating an effective community-based management system.

The author also suggests implementation of a neighborhood-watch-type program to assist in reporting fishing violations to DLNR. Such a program, however, would require adequate training of its participants. Furthermore, because many members of the fishing community are concerned with conservation and are likely willing to participate in community-based programs, DLNR should take advantage of this opportunity to delegate some of its responsibility in sustaining marine resources to such groups.

Finally, the author proposes that the State implement a tax scheme on all commercially sold fish to provide funds for conservation measures. The tax could take on a form similar to the State of Washington commercial tax scheme that requires commercial fishermen catching fish in the open ocean to pay a 4.84% tax on the selling price of the fish. Alternatively, the tax could be imposed on fish consumers, similar to the "highway fund" tax on fuel, the revenue of which is used by the State to construct and maintain roadways. The proceeds from either proposed tax could be placed in a special fund that supports conservation and sustainability management programs, thereby generating additional funding for DLNR enforcement.

(iii) General Comments and ECA Implications

The article recognizes the importance of engaging the community and encouraging community-based management. It calls specifically for increased responsibility of DLNR in managing enforcement operations. The article also acknowledges the success of ancient Hawaiian practices in managing and maintaining sustainable fisheries. Although nearshore fisheries are discussed, the article is not solely focused on such fisheries. Furthermore, the article was written prior to the 2008 economic recession and may not factor in the economic realities of present-day management. For example, the article does not address the political challenges and public disfavor of imposing a tax and increasing the regulatory role of the government.

E. Wayne Tanaka, *Ho‘ohana aku, Ho‘ōla aku: First Steps to Averting the Tragedy of the Commons in Hawai‘i’s Nearshore Fisheries*, 10 ASIAN-PAC. L. & POL’Y J. 235 (2008).

(i) Abstract

This 2008 law review article compares and contrasts the traditional Hawaiian fisheries management regime, governed by communal stewardship and religious reverence, with the now-prevalent Western management practices focused on resource commodification and free

exploitation. The author comments that Western practices have created an imminent "tragedy of the commons" scenario in Hawai'i's nearshore fisheries. The author suggests that improving the effectiveness of Hawai'i's enforcement system requires that resource users are assured (1) of the nature of the problem, (2) that coordinated strategies exist to effectively reduce the risk of serious harm to common resources, (3) of the likelihood of mutual trust and reciprocity, and (4) that expected decision-making costs less than the benefits derived from exploitation. The author offers specific recommendations for addressing each of these four factors.

(ii) Summary

In this 2008 publication based on legal research and analysis, the author asserts that Hawai'i's nearshore fisheries are faced with an imminent "tragedy of the commons." Coined by Garrett Hardin, the theory of the "tragedy of the commons" describes the process by which multiple individuals, acting independently and "rationally," exploit a common resource to the point of collapse. An incentive to exploit stems from both the nature of a common resource itself (i.e., the common resource belongs to everyone) and the economic mentality of Western "logic" or economic self-interest (i.e., the full benefit of an individual's appropriation of the resource goes directly to that individual).

As background for his analysis, the author explains that prior to Westernization, a sustainable, collaborative stewardship embodied the traditional Hawaiian fisheries management regime. Prior to Westernization, the management regime included means of both formal and informal regulation. Formal regulation existed through systems of kapu or religious laws by which the ali'i nui (high chief) administered natural resources on behalf of the gods. Adherence to these laws was encouraged by severe punishment for violations. In addition to the kapu system, a sense of shared responsibility for conservation created a system of informal regulation and voluntary participation. The effectiveness of this stewardship-minded system stemmed, in large part, from the intimate knowledge of Hawaiian fishers based on their long-term observation of the fisheries. The author notes that the incompatible Western concepts of the public trust doctrine¹⁰ and *ferae naturae*¹¹ eventually replaced the traditional Hawaiian management system and depleted the once sustainable fishery stocks.

The author explains that it is from these Western management concepts that an imminent "tragedy of the commons" scenario has emerged with respect to Hawai'i's fisheries. By the time of Annexation, the native island population had been severely diminished, and with such

¹⁰ According to the "public trust doctrine," certain resources belong to and are preserved for the public; the government is required to maintain those resources for the public's reasonable use. The author notes that "[a]lthough reminiscent of the ancient Hawaiian concept of divine stewardship, the Western public trust doctrine traditionally focused not on conservation, but on limiting private ownership of trust resources." Tanaka at 247. The basic principles of the nineteenth century Western public trust doctrine defined the ocean and its fisheries as common resources to which the public has a right to open access and are subject to free exploitation.

¹¹ *Ferae naturae* is a nineteenth century legal doctrine under which "individual ownership of fish and other wild animals could only be established by reducing them to personal possession." Tanaka at 249. The underlying "first in time" policy creates an incentive for immediate harvesting for personal value, encouraging exploitation of the resource. Furthermore, as the author notes, "given the exclusive property interests at stake, the nearing depletion of a resource only increase[s] the personal value of capturing what one can[.]" Tanaka at 250.

diminution came an influx of newcomers with little knowledge of local fisheries or traditional principles. The author comments that economic mentalities have shifted, and "widespread disregard for stewardship principles" has yielded destructive practices. Furthermore, the introduction of new fishing technologies, such as inexpensive monofilament gill nets, SCUBA, spear guns, power boats, and sonar fish finders has enabled small groups of individuals to overharvest nearshore fisheries.

In the legal analysis portion of his article, the author comments that the current regulatory structure in Hawai'i is inadequate. Referencing the 2006 State Audit report, the author points out that the State of Hawai'i Department of Land and Natural Resources ("DLNR") has received severe criticism of its capacity to protect fisheries due to ineffective enforcement, inadequate funding, lack of information, and the continued degradation of nearshore habitats.

In offering proposed solutions, the author builds upon researcher Elinor Ostrom's *Rudiments of a Theory of Common-Property Institutions*, in which Ostrom asserts that avoiding a tragedy often requires the emergence of an organized group of users to collectively manage the common-pool resource. For such a group to emerge, a sufficient consensus of users must realize the following four factors:

1. Continuance of their independent strategies will seriously harm an important resource upon which they all depend;
2. Coordinated strategies exist that effectively reduce the risk of serious harm to the common-pool resource;
3. Most of the other appropriators from the common-pool resource can be counted on to change strategies if they themselves promise to do so; and
4. The cost of decision making about future coordinated strategies is less than the benefits to be derived from the adoption of coordinated strategies.

The author examines each of the four factors, applies them to the situation in Hawai'i, and suggests ways to address and remove barriers to their achievement.

Applying the first factor to Hawai'i, the author notes that the psychological effects of uncertainty about the health of the fisheries (i.e., uncertain scientific data that a threat actually exists) and uncertainty about the effectiveness of resource protection practices inhibit users' realization that their independent actions will inevitably harm the fisheries. An effective solution must resolve the uncertainty regarding both the health of the nearshore commons and the need for individual action to prevent overexploitation (as opposed to the "halo effect" created when users excuse their individual strategies by blaming other sources of exploitation). The author recommends the following solutions to tackle the first factor:

- (a) invest in low cost user-oriented scientific studies to gather more information about the resources through semi-independent, long-term data collection. Recreational and commercial users with demonstrated enthusiasm about participating in data collection and the availability of federal funds would lower research costs. Additional research focusing on non-fishing impacts (i.e., impacts of private

development and other sources of non-direct exploitation) may be needed to shed light on the depth of the commons problem. If non-fishing impacts are objectively acknowledged by government entities, nearshore users' deference to government regulatory authority may improve;

- (b) shift the focus from uncertain losses to certain losses, either ecological or social. For example, proposing anti-fishing legislative "solutions" could mobilize users to organize for collective action based on an apparent certainty of social loss. Such anti-fishing proposals would need to cast a wide enough net to threaten a sufficient number of user-stakeholders and prevent divisiveness among different user types. Constitutional and political feasibility would likely prevent the actual implementation of an extreme proposal, yet the threat of certain destruction of users' collective interests could spur their collective action;
- (c) help visualize future loss by focusing on current costs. Media announcements showcasing serious fisheries regulation violators might help to focus users' attention on immediate costs of overuse; and
- (d) open and maintain lines of communication between Hawai'i nearshore users through both formal and informal networks. Improved lines of communication could enable users to express their own positions more fully and could dispel misperceptions held by others.

Realizing Ostrom's second factor requires users' familiarity with actual management success stories. Although there is a lack of common knowledge of successful management strategies, the historical success of the traditional Hawaiian system of sustainable management and the statutory recognition of stewardship principles within the state's basic governance framework offer opportunities to promote and publicize successful management solutions.

Realizing Ostrom's third factor requires either mutual trust among users or formal enforcement to ensure compliance. The author notes that in Hawai'i, there may be too many users with diverse interests to foster mutual participation through trust alone and that formal enforcement has done little to assure users that others will similarly follow regulations. In summarizing the 2006 State Audit report of DLNR's enforcement branch, the Division of Conservation and Resource Enforcement ("DOCARE"), the author notes the report's findings of enforcement officer shortages and the public perception that state authorities are unable to respond effectively to violations. The 2006 State Audit also noted a lack of public visibility of DOCARE's programs—distributed brochures lacked key information regarding the enforcement hotline and its mauka-makai watch program. The public's perception of a lack of enforcement might also be fueled by the minimal number of convictions and/or penalties imposed through the judicial system.

To combat such challenges, the author recommends increased incentives to foster community-supported enforcement programs. Such programs might encompass: (1) posting signs and publishing brochures in multiple languages with contact numbers and information to assist enforcement officers in establishing probable cause for inspections; (2) ensuring access to fishing areas, especially at night, to allow for additional monitoring; and/or (3) providing

rewards from levied fines for individual users. Ultimately, however, the critical task for addressing the third factor is directly tackling the issues raised in the 2006 State Audit. Proposals to enhance the role of the judiciary have included establishing environmental courts to hear cases and preside over administrative proceedings related to environmental law. Others have proposed reaching out to district court judges and providing them with educational opportunities to instill a greater sense of judicial responsibility.

Finally, a comprehensive proposal for realizing the fourth factor is difficult because of the factor's abstract and uncertain nature. The author suggests that a preliminary step might be developing a framework for a representative, all-inclusive coalition of local fishing clubs and other community networks that has both regulatory authority and a cost-efficient means of resolving conflicts. Furthermore, continuous dialogue between user representatives could help alter the perception that future decision-making would be costly.

In conclusion, the author stresses that the aforementioned proposals are neither exclusive nor exhaustive but rather initial steps toward improving user-based community management. Addressing Ostrom's four factors would pave the way for additional targeted and proactive solutions. The author reemphasizes the critical state of Hawai'i's fisheries and asserts that any solution will require financial and personal initiatives by members of the government and the community alike.

(iii) General Comments and ECA Implications

The author frames enforcement issues through the well-established "tragedy of the commons" concept and addresses theoretical and psychological aspects of the "commons" problem. The article not only identifies challenges of the current system, but also offers explicit, targeted strategies for addressing those issues. In doing so, the author identifies the central role of public perception and links to both scientific and sociological challenges of aquatic resource enforcement. The author's research and recommendations incorporate the findings and suggestions in the 2006 State Audit Report (also summarized as part of this Literature Review). Furthermore, the article describes the historical success of traditional Hawaiian stewardship management, which provides persuasive support for restoring community-based management.

F. Joanne Sheng, *DOCARE, or No Care? Improving the Effectiveness of Conservation Resource Enforcement in Hawaii*, Asian-Pac. L. & Pol'y J. (forthcoming 2013).

(i) Abstract

In this law journal article scheduled to be published in 2013, the author incorporates various legal sources, reports, news articles, and interviews with interested persons—including prosecuting attorneys, enforcement officers, regulators, etc.—into a comprehensive analysis of the effectiveness of resource enforcement in Hawai'i with a focus on fisheries management. The author emphasizes a lack of public assurance in the system as a key contributor to the system's ineffectiveness. The author identifies a general lack of funding, over-reliance on a criminal enforcement system, and deficiencies in interagency and interdivision communication as the most prevalent problems with Hawai'i's current system. Specific suggestions with the goal of

improving effectiveness and shifting public perception are offered with respect to each identified problem.

(ii) Summary

The author begins by emphasizing the widespread dissatisfaction with Hawai'i's current resource enforcement system, both from the public's standpoint and that of the Division of Conservation and Resources Enforcement ("DOCARE") officers tasked with enforcement. In particular, the author opines that public perception of enforcement is central to any system's effectiveness regardless of whether that perception is factually accurate. As background for the analysis, the author summarizes Elinor Ostrom's theory that "common pool resources" suffer degradation or destruction unless a group of resource users share a common understanding (1) of the nature of the problem, (2) of the alternatives for coordination available to them, (3) of the likelihood of mutual trust and reciprocity, and (4) that expected decision-making costs less than the benefits derived from exploitation. This article focuses mainly on the third factor, the importance of which is further reinforced by Carlisle Runge's Assurance Model. The predicate factor of Runge's model is the mutual assurance between resource stakeholders that all will conform to more costly, coordinated strategies. A lack of enforcement or the public perception of a lack of enforcement diminishes mutual assurance.

Before discussing the current system's problems and offering suggested solutions, the author outlines DLNR's structure, which encompasses multiple divisions—i.e., divisions specializing in aquatics, state parks, historic preservation, boating, and forestry and wildlife. Prior to 1978, each division was assigned its own enforcement officers, but responsibility for enforcement has since been unified under DOCARE. Presently, DOCARE's responsibilities are organized into twelve categories: (1) Division of Forestry and Wildlife, (2) Division of Aquatic Resources, (3) Division of Boating and Ocean Recreation, (4) Division of State Parks, (5) Land Division, (6) Civil Defense, (7) Commission on Water Resource Management, (8) Homeland Security, (9) Marijuana Eradication, (10) Kaho'olawe Island Reserve Commission, (11) Office of Conservation and Coastal Lands, and (12) State Historic Preservation Division. The author notes that DOCARE's expanded jurisdiction, which now includes responsibilities beyond the original fish and game warden tasks, has resulted in diminished attention to core resource enforcement responsibilities. The author also notes that a number of managerial and leadership issues exist (e.g., the recent juggling of leaders in DOCARE's Administrator position) but that such issues are not the focus of the article.

Rather, the article focuses on three prevalent issues that frustrate efforts towards effective natural resource enforcement: (1) a lack of funding, (2) overreliance on a criminal enforcement system, and (3) deficiencies in interagency and interdivision communication. In discussing the first identified problem, the author comments that DLNR and DOCARE's operational funding is inadequate. As an environmental agency, DLNR is a low priority for funding, especially during times of economic recession. In the current economic climate, the DLNR and DOCARE budgets have been drastically cut. DOCARE lacks the funding necessary for additional officers, facilities, and vehicles to appropriately increase patrol and enforcement coverage.

In offering recommendations to tackle the funding problem, the author advocates for restoring DOCARE's forfeiture authority to remove poacher tools and equipment. Curtailing

financially motivated crimes is challenging, and conventional law enforcement methods (e.g., arrest and incarceration) often do not work to deter such perpetrators. Empowering an enforcement officer to freeze, seize, or confiscate assets can destroy the money base of an illegal enterprise, deter individuals from using their property to facilitate criminal activity, appropriate the proceeds of criminal activity, and rededicate money to the public good. The "shaming" potential of asset forfeiture might be particularly effective for deterrence in Hawai'i's tight-knit communities. Up until 2008, DLNR utilized asset forfeiture as it is authorized to do by Hawai'i statute. However, after the 2008 Hawai'i Supreme Court decision in *Carlisle v. One(1)Boat*, 195 P.3d 1177, 119 Hawai'i 245 (2008), DLNR was required to explicitly add asset forfeiture provisions to its administrative rules¹² in order to validly use its forfeiture power. Restoring asset forfeiture would require only a simple rule amendment, the process for which was outlined in the *One(1)Boat* opinion. Because asset forfeiture is an effective deterrence mechanism for environmental crimes, the author suggests that DLNR divisions prioritize the insertion of the asset forfeiture language into the applicable rules. In fact, thoroughly researched asset forfeiture language has already been drafted by DAR, yet DLNR has not facilitated the rulemaking process to implement those provisions. Because *One(1)Boat* requires that the forfeiture language be in DLNR's administrative rules, legislative attempts at adding forfeiture language to state statutes may be futile.

Turning to the second identified problem, the author comments that DLNR currently relies almost exclusively on an ineffective criminal enforcement system for adjudicating natural resource violation cases. DLNR resource violation cases typically result in one of the following criminal levels of offenses: (1) misdemeanor, (2) petty misdemeanor, and (3) violation. A misdemeanor results in one year in jail and/or a \$2,000 fine. A petty misdemeanor results in thirty days in jail and/or a \$1,000 fine. A violation is akin to a traffic ticket that results in a fine and does not appear in a criminal record.

In contrast, DLNR underutilizes its available administrative enforcement system, which could be more effectively used for government inspections, violation notices, administrative orders, and imposition of administrative money sanctions/penalties for violations. DLNR currently has two administrative penalty infrastructures in place: (1) its original administrative process, and (2) the Civil Resource Violations System ("CRVS") that was established in 2009. Under the original system, a DOCARE officer first refers a resource violation case to the Board of Land and Natural Resources ("BLNR"). If BLNR determines that there was a violation and chooses to pursue the case, the BLNR can impose a civil fine. Most offenders that go through this process choose to pursue settlement, but they also have the option to file a contested case for an additional hearing before the BLNR. Alternatively, the CRVS program was created to handle DLNR's minor violation cases with a main goal of providing a speedy, cost-effective manner to resolve such cases through a system much like the traffic violations system. The author opines that natural resource violation cases are too complex and involve too many variables to be processed through a "traffic ticket" type system. CRVS forces the BLNR to adhere to a schedule of inadequately low penalties and minimizes BLNR and DOCARE officers' discretion to

¹² Statutes are enacted by the State Legislature through its constitutional authority, whereas administrative rules are made by government agencies. Statutes can authorize an agency to create its own rules and guidelines. If authorized to do so, an agency will proceed through the specified rulemaking process and establish rules and/or regulations for the affairs of the agency.

effectively remedy damages of particularly egregious cases. Moreover, the CRVS was not thoroughly researched prior to its creation, nor has it been fully implemented as initially intended.

The author advocates for increased and more strategic utilization of the original administrative system (currently overshadowed by the criminal enforcement system). The original administrative enforcement system has been shown to result in more profitable settlements for DLNR, whereas approximately 95% of CRVS cases become contested cases that clog the enforcement chain. Currently, offenders need only check a box on the violation form in order to indicate their desire to contest the case, which in turn is handled by BLNR and the Attorney General's office. A proper administrative system would deter contested cases by encouraging settlement.

Collecting civil penalties through an administrative enforcement system could help by (1) providing an essential and traditional source of income that could be used by other natural resource enforcement agencies, (2) consolidating resource violation cases into the agency tasked with natural resource responsibilities, (3) providing the public with greater transparency regarding resource enforcement action, and (4) allowing the adaptive implementation of policy to the extent allowed through administrative deference. Furthermore, administrative procedures need not adhere to the more stringent rules of evidence and criminal procedure that result in high hurdles of proof in the typical criminal case. Although advocating for this approach, the author emphasizes the need for proper planning and interdivision communication before increasing reliance on an administrative system. Additional considerations for an ideal administrative system include scheduling monthly hearings on all islands and incorporating a penalty system if violators fail to show up for those hearings or fail to comply with imposed sanctions.

Regarding the third identified problem with natural resource enforcement, the author calls for improved interdivision and interagency communication and collaboration. Natural resource enforcement rulemaking occurs within the policymaking division of DLNR, but DOCARE is not consulted until after the fact. Officers are often frustrated by their inability to halt even blatant poaching because of poorly drafted rules that were created without DOCARE's valuable input (the author uses the lay net rules as one example of ineffective rules with loopholes that prevent adequate enforcement). Officer frustration contributes to low morale and negative public perception of DLNR.

The author also identifies logistical challenges and miscommunications between DOCARE and attorneys tasked with prosecuting resource violation cases. Although some DOCARE officers view Prosecutors as helpful, those interviewed for the article also noted a lack of knowledge as to the applicable rules. The Prosecutors consulted for the article described DOCARE officers as passionate about resource protection but expressed frustration with the narrative-type report currently used. The DOCARE citation form invites a narrative-type report, and Prosecutors with high-volume caseloads stated that they do not have the time to sift through reports to pull out legally significant facts. Prosecutors preferred the citation forms used by the Honolulu Police Department, which present legally significant facts in bullet-point form. In many instances, Prosecutors noted that DOCARE officers fail to develop legally actionable cases because of poorly drafted rules, the aforementioned limitations of the DOCARE citation form, and the necessity for improved officer training on what Prosecutors need to process a case. The

author also notes that district court judges are not maximizing the available, albeit lenient, penalties for fisheries violations. As a typical example, in 2010, offenders in cases allowing for penalties up to \$1,000 were only administered fines of \$50.

The author recommends the following strategies for improving interdivision collaboration:

1. Establishing a consultation process or rule-drafting procedure to ensure enforceability of rules promulgated by other divisions. Continuing DLNR's monthly inter-departmental meetings and including DOCARE in rulemaking would further this goal;
2. Organizing regular training sessions for Prosecutors, organizing a Prosecutor's division dedicated to natural resource cases, and/or developing a more comprehensive legal fellowship program at DLNR. Until a well-planned administrative system is developed, regular training sessions for Prosecutors would improve communication, build stronger ties with DOCARE, help Prosecutors become more familiar with DLNR rules, and help DOCARE officers write more effective reports. Developing an environmental division within the Department of the Prosecutor could be modeled after successful programs in other states. As currently structured, environmental cases are handled by the Traffic and Misdemeanor division, which is already plagued with a high volume of cases. Establishing a DLNR Marine Law Legal Fellow would fill critical functions in providing targeted legal research and drafting services to DLNR. Past fellows have been instrumental in revising rules and bringing enforcement actions before the BLNR. Legal fellows that are part of an established program could handle administrative cases and contribute to the longevity and consistency of an administrative system. If successful, the program could lay the foundation for creating permanent state positions; and
3. Educating district court judges on the importance of imposing penalties for natural resource violation cases. Three potential ways to do so include: (a) participating in monthly Education Committee meetings, (b) organizing judicial symposia, and (c) drafting a written guide to be submitted to the Judicial Education Office.

Finally, the author reemphasizes the importance of improving public assurance in the enforcement system and increasing community participation. DLNR's Makai Watch Programs, similar to neighborhood watch programs, have the potential to engage community members. More eyes and ears, however, yield more reported violations; thus, policymakers must consider the entire enforcement chain in developing further policies. In offering solutions, the author also urges policymakers to avoid an O'ahu-centric viewpoint. Because each of DOCARE's branches (Maui, Hawai'i, Kaua'i, and O'ahu) faces unique challenges based on population, culture, history, and topography, any proposed solutions must factor in such differences.

(iii) General Comments and ECA Implications

The article provides a comprehensive overview of the current enforcement system and a thorough, in-depth analysis of the system from various angles and perspectives. In particular, the

author acknowledges judicial efficiency gaps. As summarized above, the article not only identifies problems but offers specific suggestions for addressing those problems. Like the ECA report, the author incorporated agency and enforcement officer interviews into her research. Many interviewees were also those consulted for the instant ECA project. Throughout the article, the author stresses the importance of adequate planning before implementation of management programs.

II. CONCLUDING COMMENTS

Collectively, the Literature Review materials identified problems at each level of the enforcement chain. A lack of adequate funding and resources for enforcement operations was emphasized throughout the various materials. Judicial efficiency gaps were another common theme. In addition, multiple studies identified a need to establish or improve community-based management. Several recognized the success of Hawaiian management practices based on sustainable stewardship and advocated for reinstatement of programs based on those practices. Generally, the Literature Review materials note that enforcement effectiveness could be improved by increased attention to legal principles—i.e., informed rule-making and foresight regarding challenges at the prosecutorial and judicial stages of enforcement. In other words, science and conservation-based approaches may not be enough.

APPENDIX C

ADDITIONAL RESOURCES

The following non-exhaustive list encompasses additional research materials that are topically related but do not meet the Literature Review criteria for inclusion in this Hawai‘i-specific and enforcement-focused study (See Methodology, Literature Review).

Hawai‘i Fisheries:

Samuel G. Pooley & Ralph E. Townsend, *A Community Corporation Approach to Management of Marine Fisheries With Some Potential Applications to Hawai‘i*, in MANAGING THE COMMONS 154 (John A. Baden & Douglas S. Noonan eds., 1998).

M. Kimberly Lowe, *The Status of Inshore Fisheries Ecosystems in the Main Hawaiian Islands at the Dawn of the Millennium: Cultural Impacts, Fisheries Trends and Management Challenges*, in STATUS OF HAWAII'S COASTAL FISHERIES IN THE NEW MILLENNIUM: PROCEEDINGS OF THE 2001 FISHERIES SYMPOSIUM SPONSORED BY THE AMERICAN FISHERIES SOCIETY, HAWAI‘I CHAPTER 12 (Alan M. Friedlander rev. ed. 2004), available at http://ccma.nos.noaa.gov/publications/c1851_fish.pdf.

Alan M. Friedlander and Eric Brown, *Marine Protected Areas and Community-based Fisheries Management in Hawai‘i*, in STATUS OF HAWAII'S COASTAL FISHERIES IN THE NEW MILLENNIUM: PROCEEDINGS OF THE 2001 FISHERIES SYMPOSIUM SPONSORED BY THE AMERICAN FISHERIES SOCIETY, HAWAI‘I CHAPTER 208 (Alan M. Friedlander rev. ed. 2004), http://ccma.nos.noaa.gov/publications/c1851_fish.pdf.

Richard Shomura, *A Historical Perspective of Hawai‘i's Marine Resources, Fisheries, and Management Issues over the Past 100 Years*, in STATUS OF HAWAII'S COASTAL FISHERIES IN THE NEW MILLENNIUM: PROCEEDINGS OF THE 2001 FISHERIES SYMPOSIUM SPONSORED BY THE AMERICAN FISHERIES SOCIETY, HAWAI‘I CHAPTER 6 (Alan M. Friedlander rev. ed. 2004), available at http://ccma.nos.noaa.gov/publications/c1851_fish.pdf.

Steward D. Allen & Nicole Bartlett, PACIFIC ISLANDS FISHERIES SCIENCE CENTER, NATIONAL MARINE FISHERIES SERVICE, NOAA, ADMIN. REP. 08-04, *Hawaii Marine Recreational Fisheries Survey, How Analysis of Raw Data Can Benefit Regional Fisheries Management and How Catch Estimates Are Developed: An Example Using 2003 Data* (2008), available at http://www.pifsc.noaa.gov/library/pubs/admin/PIFSC_Admin_Rep_08-04.pdf.

David S. Jordan & Barton W. Evermann, *An Investigation of the Fishes and Fisheries of the Hawaiian Islands: A Preliminary Report*, *U.S. Fish Commission Report for 1901* (Washington, D.C.: U.S. Government Printing Office, 1902), available at http://penbay.org/cof/cof_1901_19.pdf.

John N. Cobb, The Commercial Fisheries of the Hawaiian Islands, *Bulletin of the U.S. Fish Commission for 1903* (1905), available at http://penbay.org/cof/cof_1901_20.pdf.

Environmental Courts:

PACE ENVIRONMENTAL LAW REVIEW, *Environmental Courts and Tribunals: Improving Access to Justice and Protection of the Environment Around the World*, Volume 29, Issue 2 (Winter 2012), available at <http://digitalcommons.pace.edu/pelr/vol29/iss2/>.

Paul S. Gillies, *The Vermont Environmental Court: A History*, 36 VERMONT BAR JOURNAL & LAW DIGEST 8 (Winter 2011).

George (Rock) Pring & Catherine (Kitty) Pring, GREENING JUSTICE: CREATING AND IMPROVING ENVIRONMENTAL COURTS AND TRIBUNALS (Access Initiative 2009), available at <http://www.law.du.edu/documents/ect-study/greening-justice-book.pdf>.

David K. Frankel, *Enforcement of Environmental Laws in Hawaii*, 16 UNIVERSITY OF HAWAI'I LAW REVIEW 85 (1994).

Enforcement, Generally:

CONTEMPORARY PUNISHMENT: VIEWS, EXPLANATIONS, AND JUSTIFICATIONS (Rudolph J. Gerber & Patrick D. McAnany, eds. 1972).

Conservation Law Enforcement:

Richard M. Moore, FLORIDA DEPT. OF LAW ENFORCEMENT SENIOR LEADERSHIP PROGRAM, SLP-11, *Applying Community Oriented Policing to the Conservation Law Enforcement Profession* (2006), available at <http://www.fdle.state.fl.us/Content/getdoc/b2ff4968-0574-4bae-8446-d22499bf5f52/Moore,-richard-paper-pdf.aspx>.

Charles E. Sullivan, Jr., & Joseph H. Looby, *Perspectives on New York State Environmental Enforcement*, 5 ALBANY LAW ENVIRONMENTAL OUTLOOK JOURNAL 21 (Fall/Winter 2000).

Jeremy Firestone, *Enforcement of Pollution Laws and Regulations: An Analysis of Forum Choice*, 27 HARVARD ENVIRONMENTAL LAW REVIEW 105 (2003).

APPENDIX D

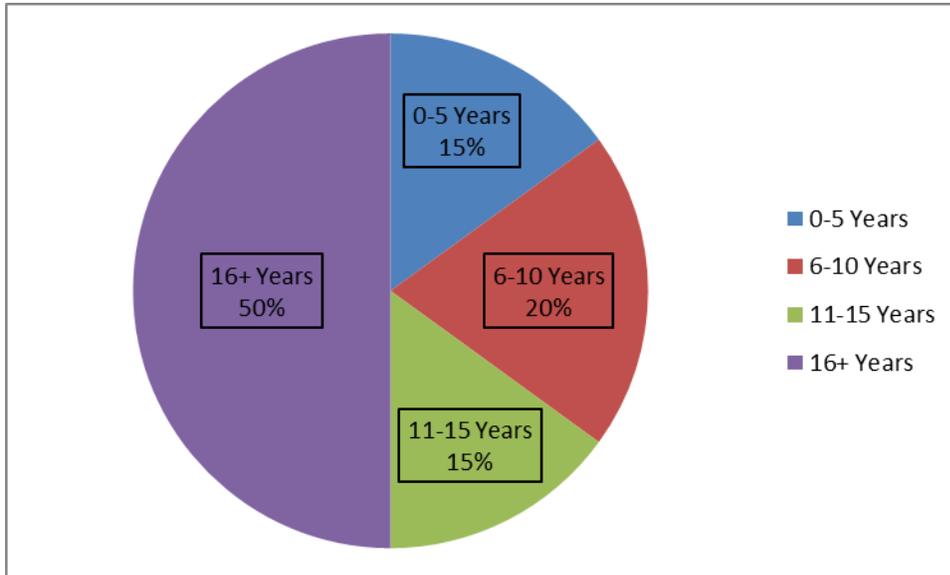
O‘AHU FISHER SURVEY DETAILED SUMMARY

Question 1: What island do you live on?

99 of the total 101 O‘ahu participants live on O‘ahu. Two live on Maui.

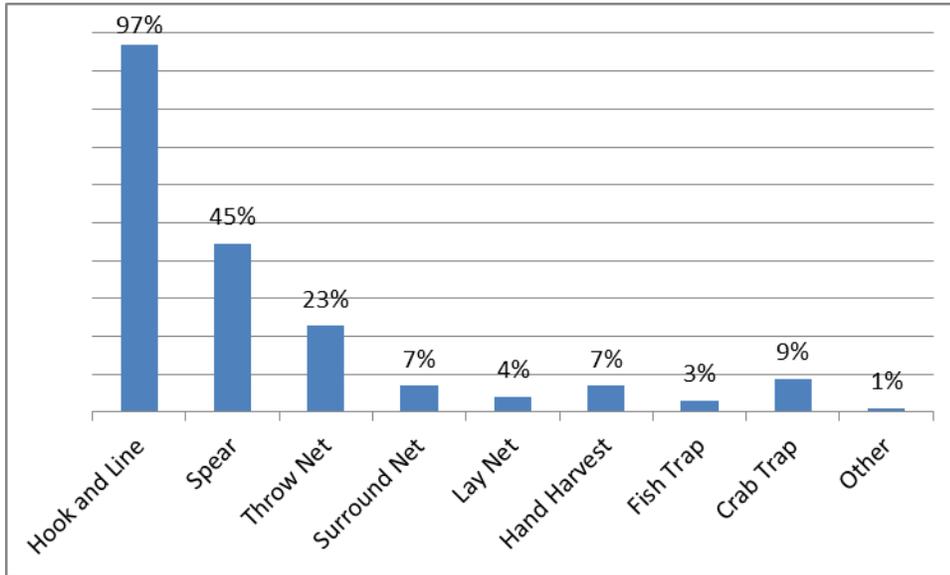
Question 2: How long have you fished in Hawai‘i?

85% of the participants have fished for 6 or more years in Hawai‘i with half fishing 16 or more years.



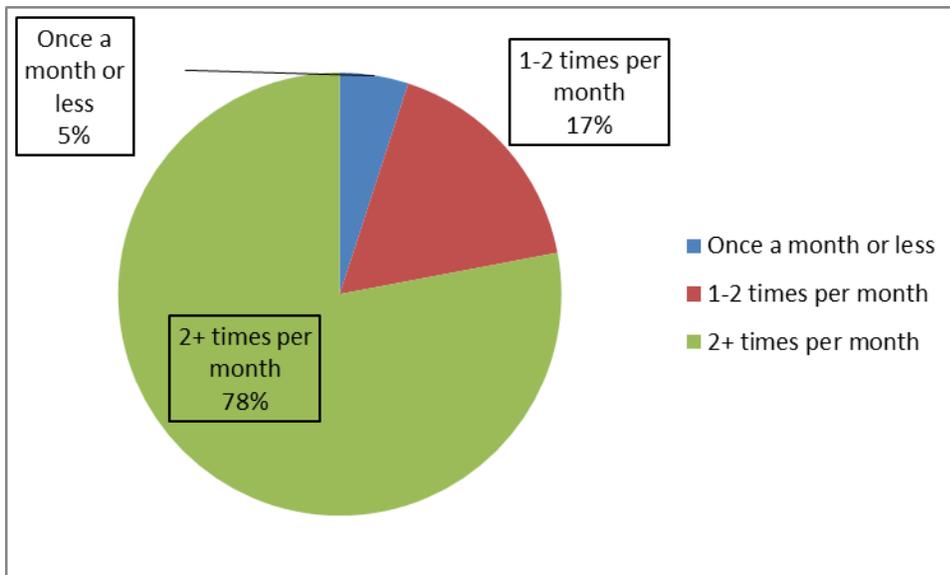
Question 3: What fishing methods do you normally engage in (check all that apply)?

97% of the survey participants are hook and line fishers. Of the hook and line fishers, more than half use at least one other method, primarily spears.



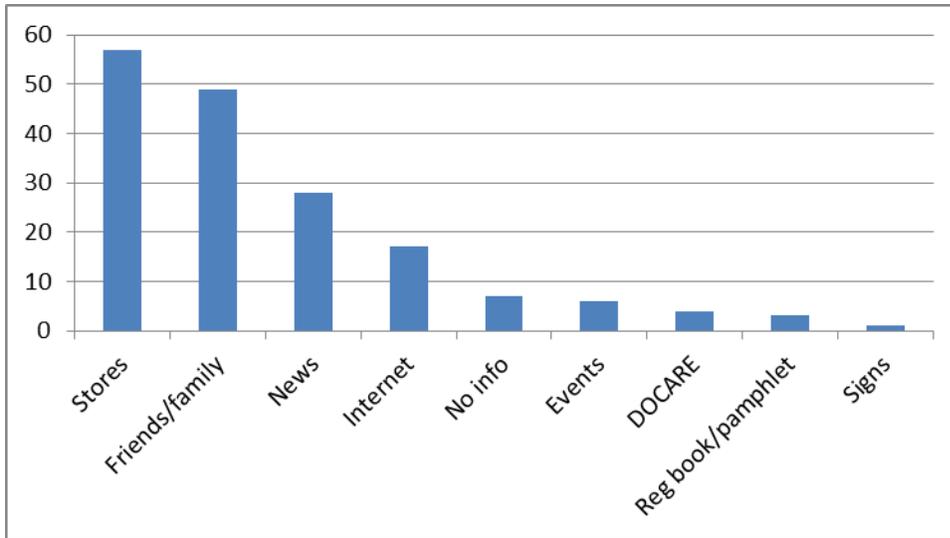
Question 4: On average, how often do you fish on O‘ahu?

More than three-quarters of the participants fish more than twice per month, with very few fishing once a month or less.



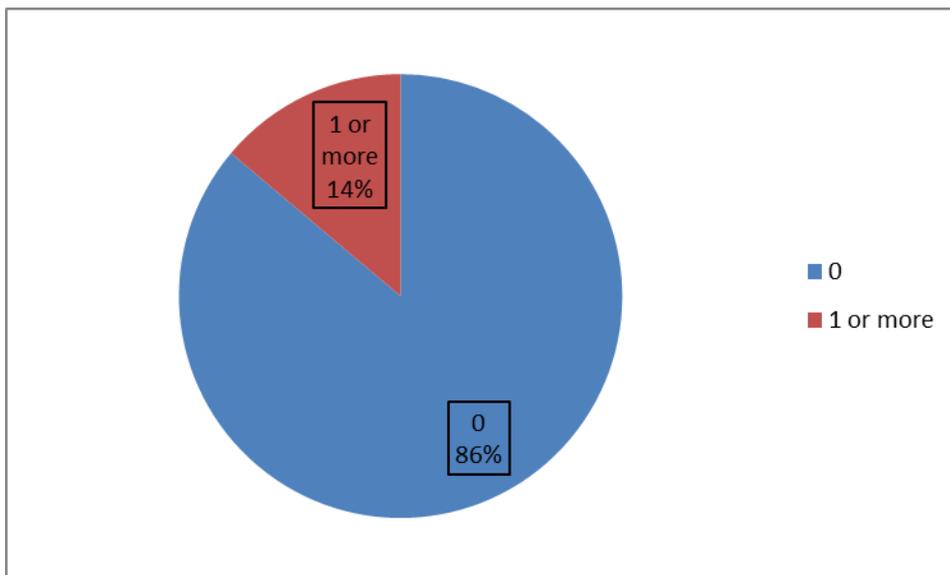
Question 5: How do you normally get information about Hawai‘i's fishing laws (check all that apply)?

The survey indicates that more than 90% of the participants have some information about Hawai‘i's fishing laws. The majority of participants get their information at fishing supply stores and from friends and family. About a quarter get their information from the news, and about 15% receive their information from the internet and online forums. 4% got their information from a resources enforcement officer.



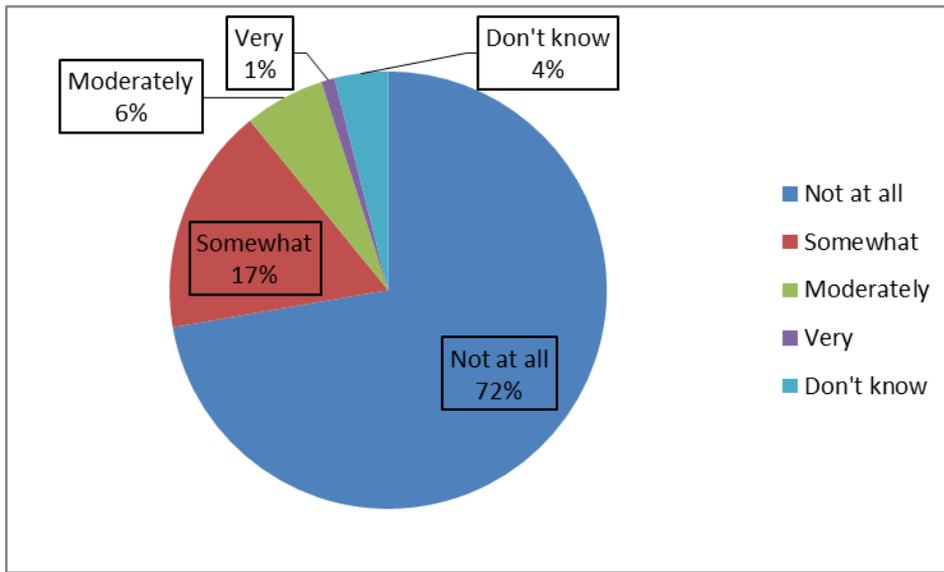
Question 6: In the past year, how many times has a resources enforcement officer given you information about Hawai‘i's fishing laws?

86% of the participants received no information about Hawai‘i's fishing laws from a resources enforcement officer.



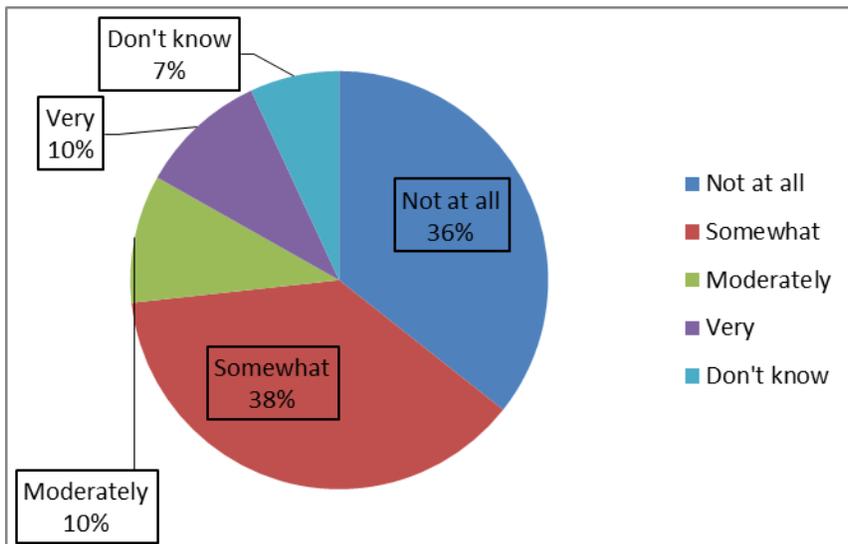
Question 7: On a scale of 1-4, in your opinion, if a person breaks a fishing law, how likely is it that he will be caught?

72% of the survey participants believe that it is not at all likely that a person breaking a fishing law will be caught. Less than a quarter of the participants think it is likely to any degree that a violator will be caught.



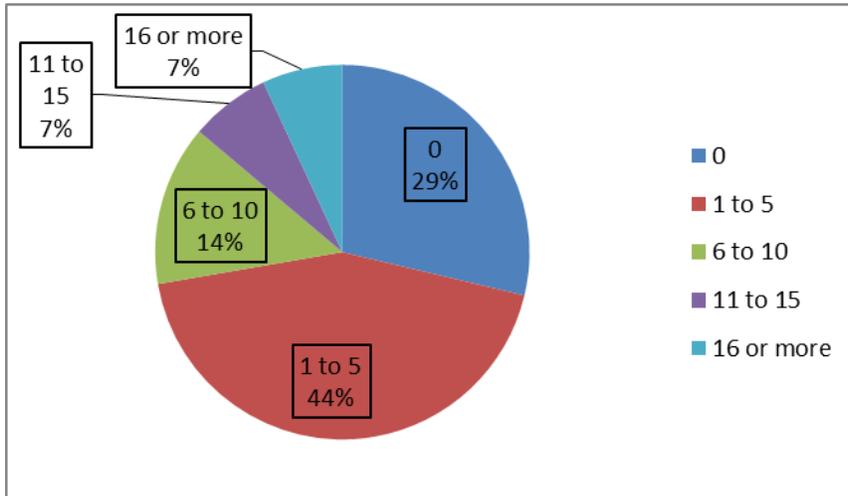
Question 8: On a scale of 1-4, in your opinion, if a person is caught breaking a fishing law, how likely is it that he will be convicted or subject to a penalty?

58% of the participants believe it is likely to some degree that a violator who is caught would be convicted or subject to a penalty. 36% believe it is not at all likely the violator would be convicted or subject to penalty.



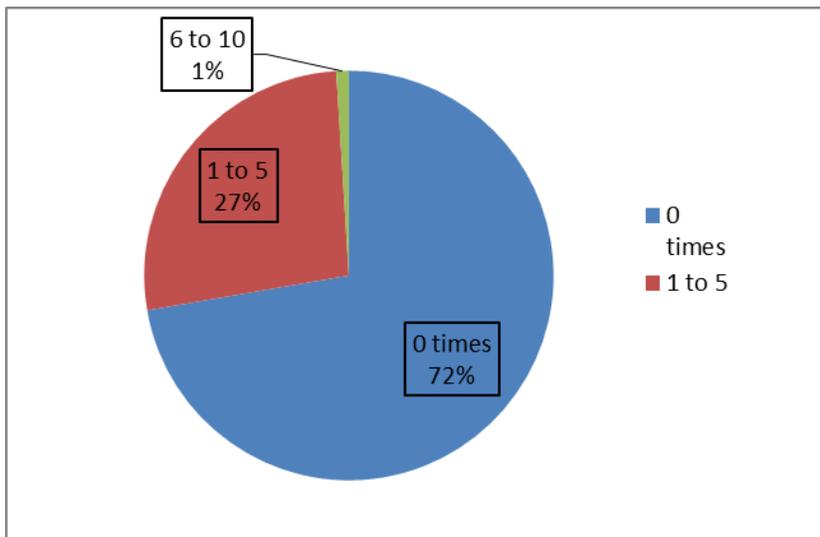
Question 9: In the past year, how many fishing law violations have you heard about or witnessed?

Nearly three-quarters of the participants have heard about or witnessed at least one fishing law violation in the past year, with 44% hearing about or witnessing one to five, and 28% hearing about or witnessing more than six.



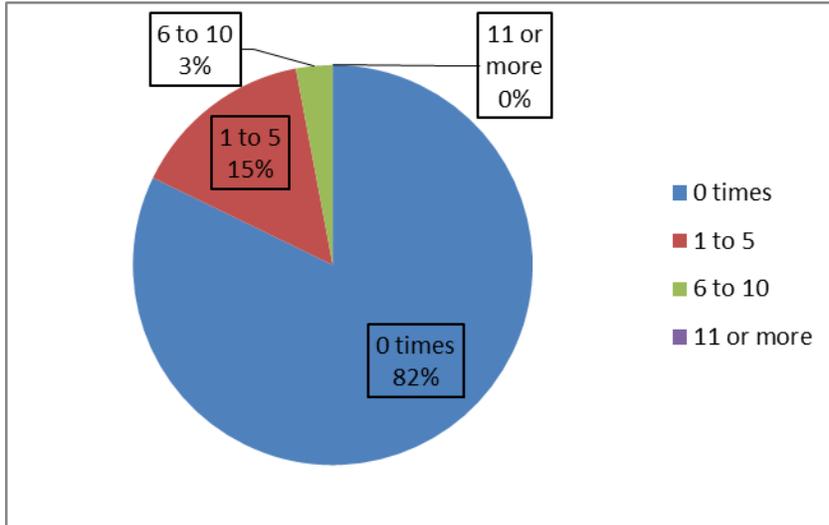
Question 10: In the past year, how many times have you heard about or witnessed a resources enforcement officer give a warning for a fishing violation?

Nearly three-quarters of the participants have never heard about or witnessed a resources enforcement officer give a warning for a fishing violation in the past year. A little more than a quarter heard about or witnessed a resources enforcement officer give at least one warning.



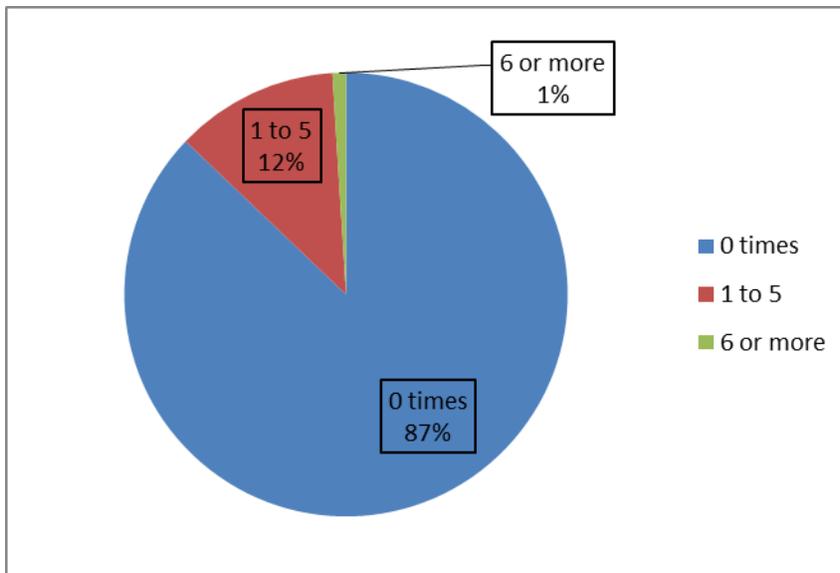
Question 11: In the past year, how many times have you heard about or witnessed a resources enforcement officer give a citation for a fishing violation?

In the past year, 82% of the participants never heard about or witnessed a resources enforcement officer give a citation for a fishing violation. 18% heard about or witnessed a resources enforcement officer give at least one citation.



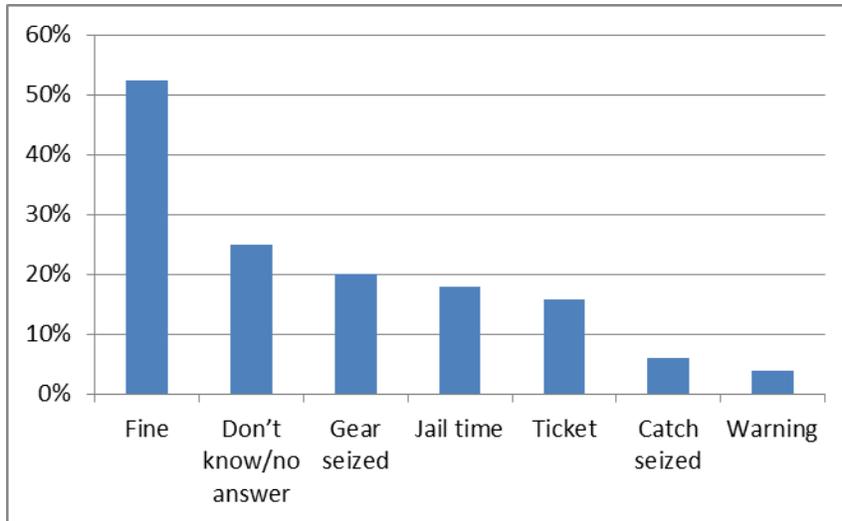
Question 12: In the past year, how many convictions for fishing violations have you heard about or witnessed?

87% of the participants have not heard about a conviction for a fishing violation in the last year. 13% have heard about at least one conviction.



Question 13: To the best of your knowledge, what are the potential penalties for state fishing law violations? Please be as specific as possible.

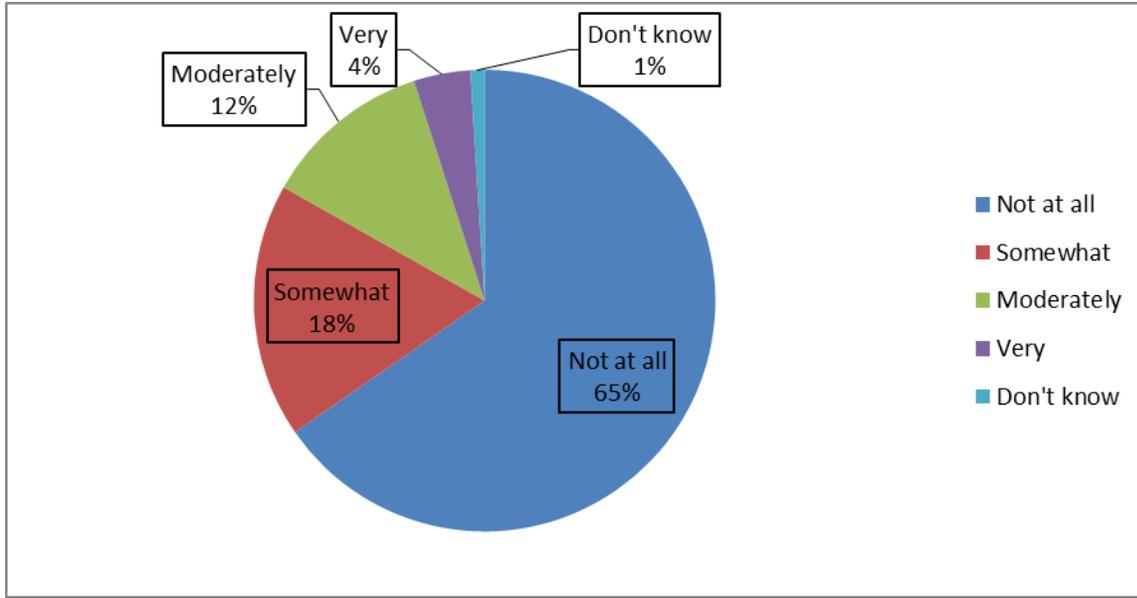
A quarter did not know any potential penalties for fishing law violations. A little over half are aware that monetary fines are a potential penalty; some specifying fines involve "big money." 20% believe their gear could be seized, 18% believe jail is a possibility, and 6% believe their catch could be seized. 16% think they could get a ticket and 4% believe they could get a warning.



Question 14: In your opinion, do you think that Hawai‘i's current law enforcement system is successful in assuring that people follow fishing laws (i.e., the entire process from detecting violations to convicting and punishing violators)?

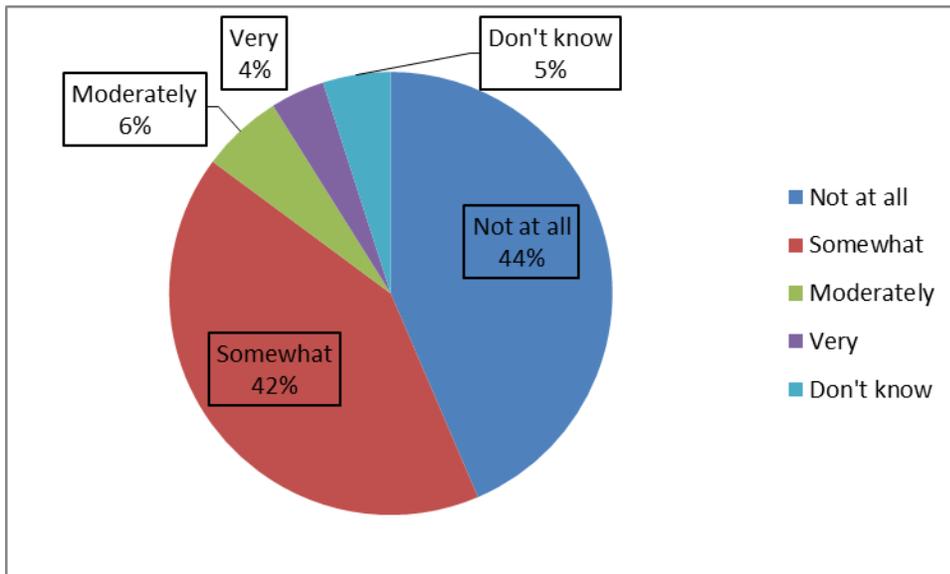
65% believe Hawai‘i's current law enforcement system is not at all successful in assuring that people follow fishing laws. Of those who do not believe the system is successful, nearly half state it is due to a lack of enforcement, manpower, and resources particularly since DOCARE does not have a weekend or evening presence. One said, "most rules are broken when the office is closed," another explained that the system is "too corrupt, everybody got family or friends." One participant opined that "people are hardly caught, and if they are its a slap on the wrist."

34% of the O‘ahu participants believe Hawai‘i's current law enforcement system is to some degree successful in assuring that people follow fishing laws. Of these, 4% believe the system is very successful, 12% believe it is moderately successful, and 18% believe it is somewhat successful. Of those who believe the system was successful, several believe other fishers care about the resources and want to follow the laws. One indicated seeing enforcement officers, and others indicate the system must be working because they do not see many violations.



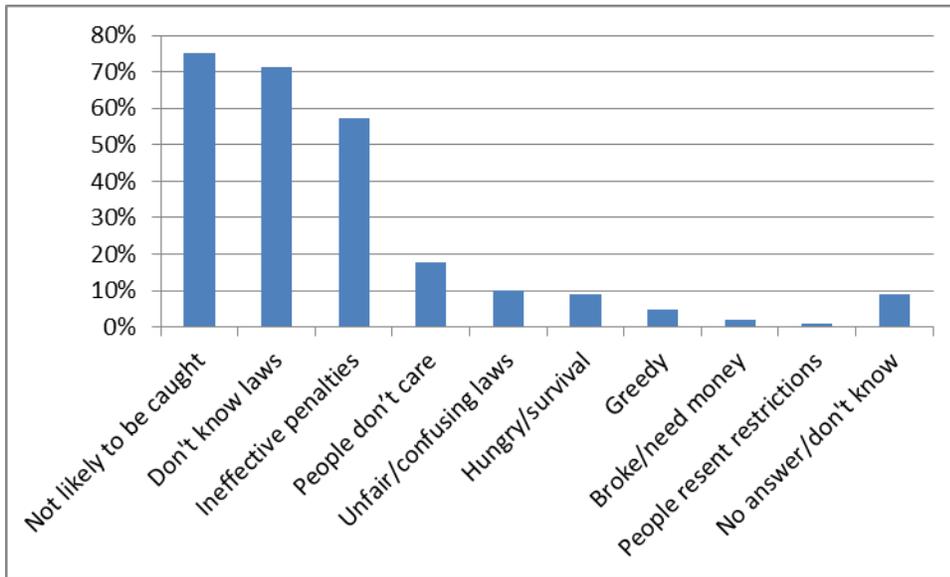
Question 15: On a scale of 1-4, in your opinion, if someone reports a fishing law violation, how likely is it that a resources enforcement officer will respond or follow up?

44% believe it is not at all likely that a resources enforcement officer will respond or follow up. 52% of the participants believe it is likely to some degree that a resources enforcement officer will respond or follow up to the report of a violation. Of the 42% that found it somewhat likely that a resources enforcement officer would respond, two shared that the response would come "too late."



Question 16: What do you think are the top three reasons people violate Hawai‘i's fishing laws?

75% believe one of the top three reasons people violate fishing laws is that they are not likely to be caught, 71% said it is because people lack knowledge of the rules. 57% believe people violate laws because penalties are ineffective and 10% because the rules are unfair or do not make sense. 9% believe people violate fishing laws because of necessity or survival. 18% said it is because people do not care, with some specifying people don't "care enough to respect the laws," "they don't care because won't get caught," and people "don't give a shit." 4% said it is because people are greedy.

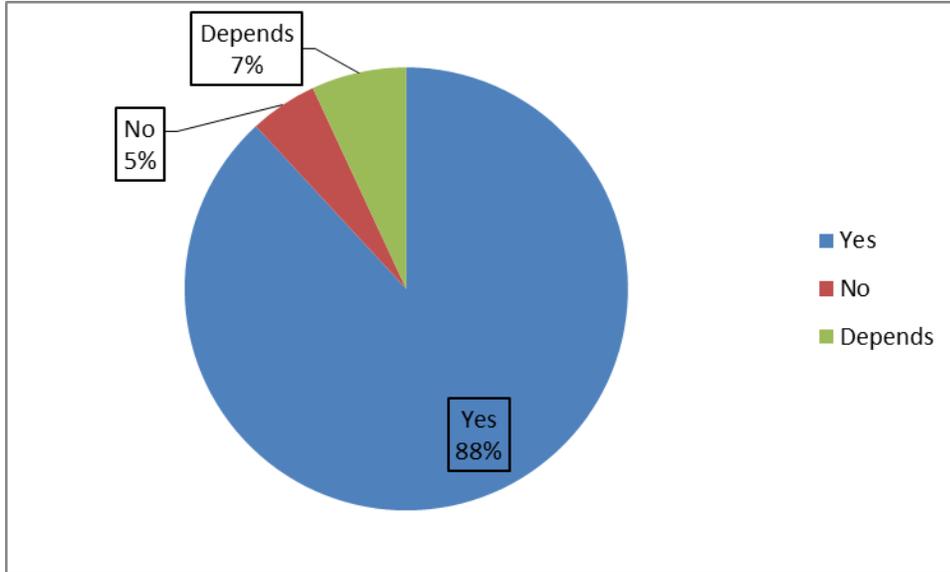


Others had unique opinions on why people violated fishing laws, including:

- "The amount of money they make makes up for the fine they could receive"
- "Too many places closed not fair"
- "Too many restrictions people resent it"
- "That's how things always were"
- "Only way they can catch"
- "Easy"

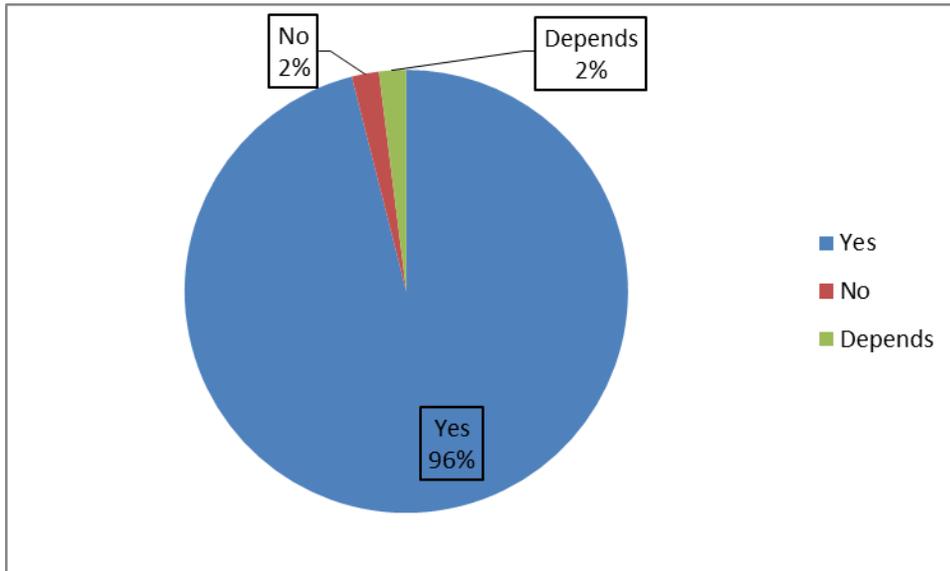
Question 17: Do you support bag limits?

88% of O‘ahu participants support bag limits without qualification. 7% might support bag limits in certain circumstances. 7% opposed bag limits.



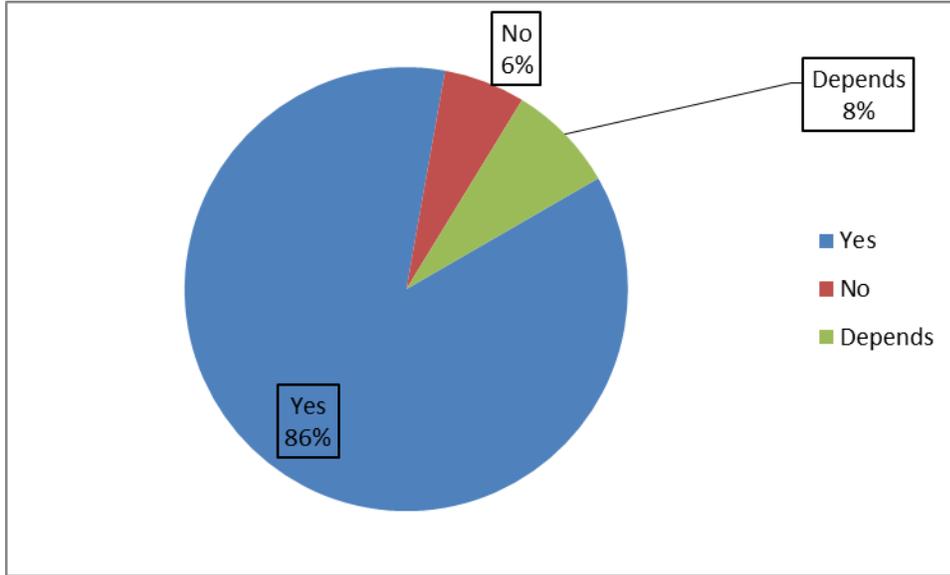
Question 18: Do you support size limits?

96% of O‘ahu participants support size limits without qualification. 2% might support size limits in certain circumstances. 2% opposed size limits.



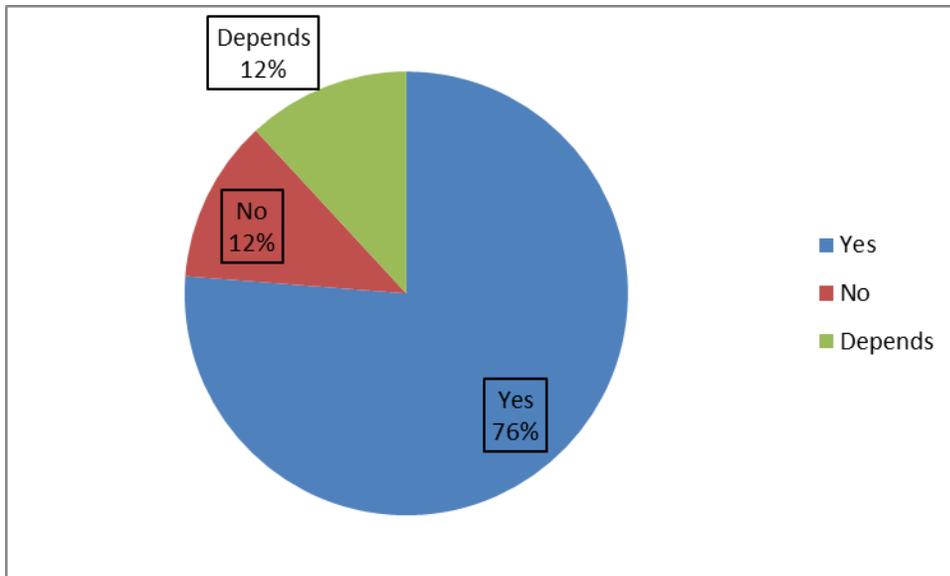
Question 19: Do you support open/closed seasons?

86% of O‘ahu participants support open/closed seasons without qualification. 8% might support open/closed seasons in certain circumstances. One limited support for open/closed seasons to commercial fishing. 6% opposed open/closed seasons.



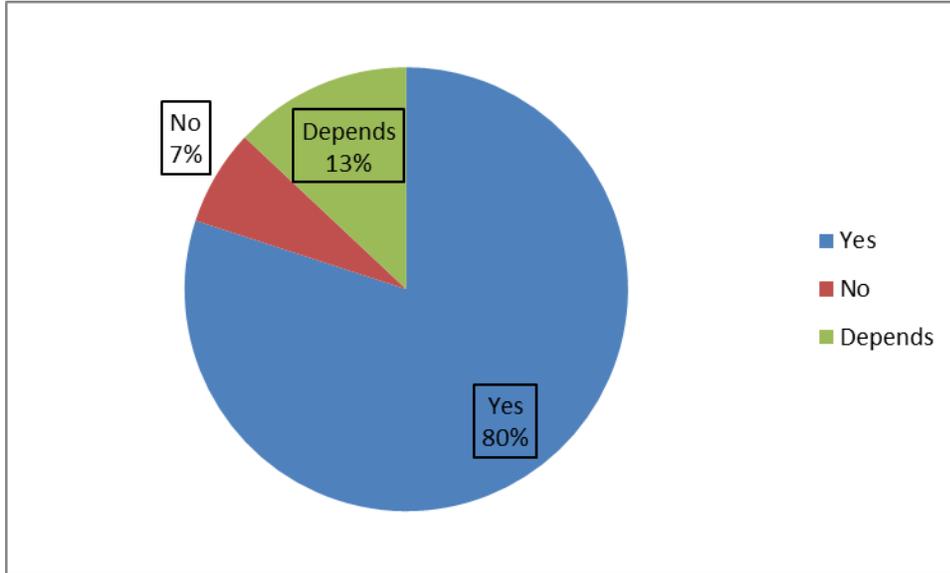
Question 20: Do you support gear restrictions?

76% of O‘ahu participants support gear restrictions without qualification. 12% might support gear restrictions in certain circumstances. Two specified support for restrictions on nets. 12% opposed gear restrictions.



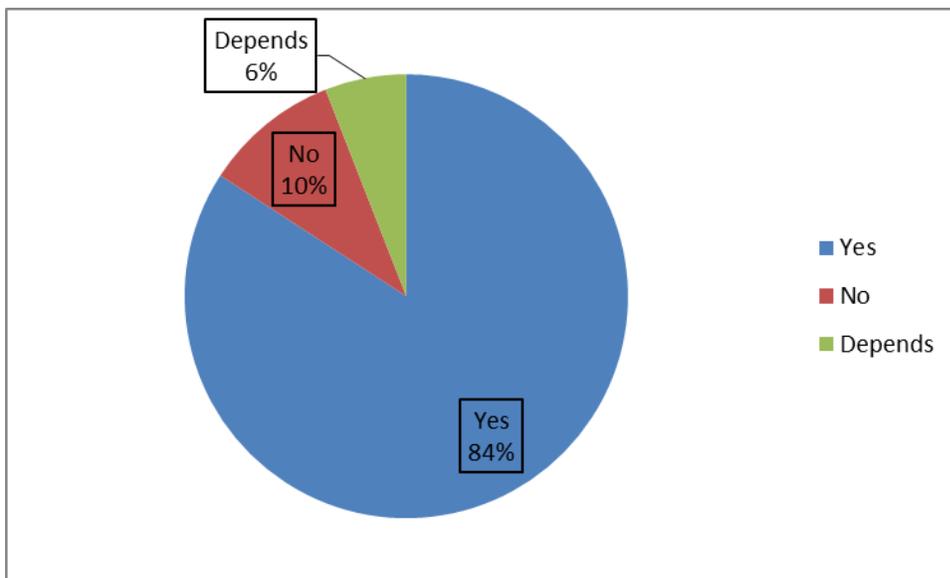
Question 21: Do you support fisheries management areas?

80% of O‘ahu participants support fisheries management areas without qualification. 13% might support fisheries management areas in certain circumstances. 7% opposed fisheries management areas.



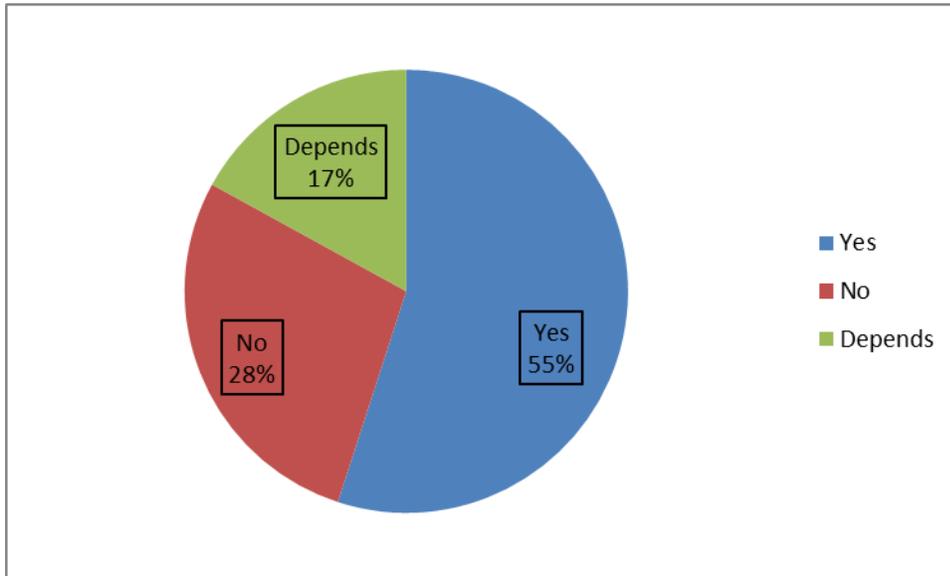
Question 22: Do you support marine life conservation districts?

84% of O‘ahu participants support marine life conservation districts without qualification. 6% might support marine life conservation districts in certain circumstances. 10% opposed marine life conservation districts.

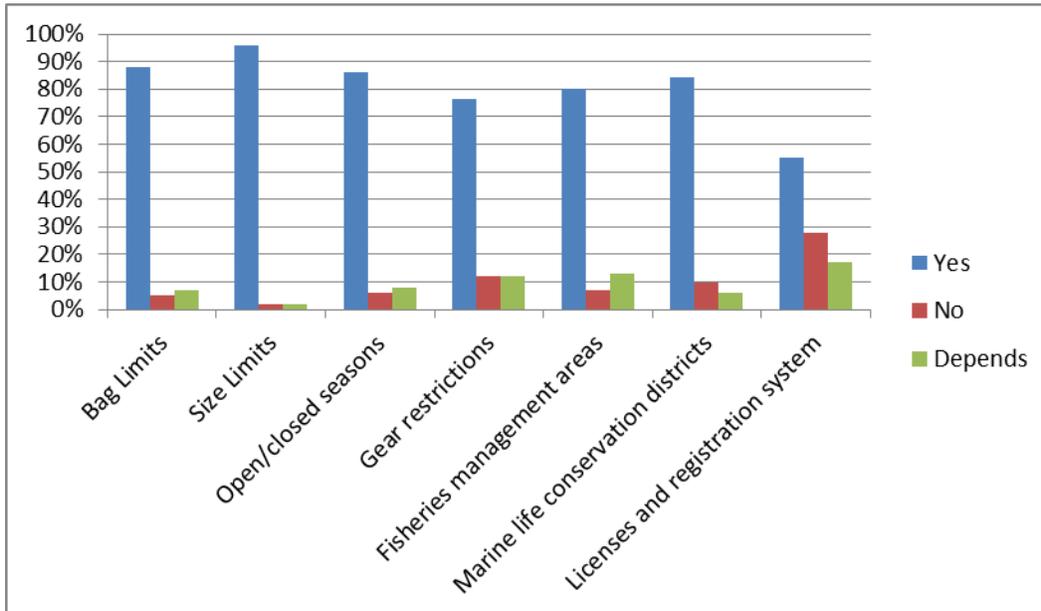


Question 23: Do you support licenses and registration requirements?

55% of O‘ahu participants support licenses and registration requirements without qualification. 17% might support licenses and registration requirements in certain circumstances. Some supported licenses and registration requirements for laynets, while others specified that they supported licenses and registration requirements for commercial purposes only. 28% opposed licenses and registration requirements.

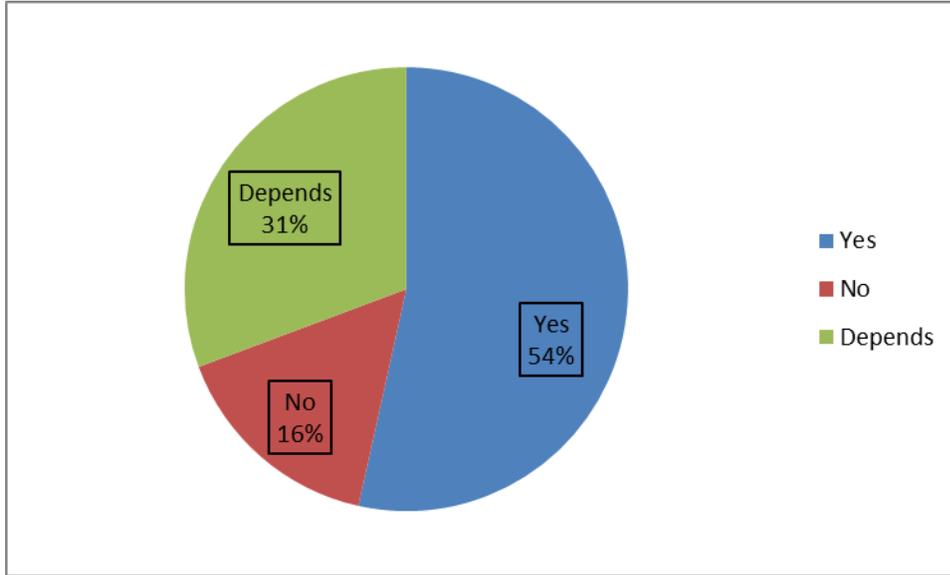


Question 17-Question 23 summary:



Question 24: If you witnessed a fishing violation, would you report it to DLNR?

54% would report a fishing law violation to DLNR. Several participants that said they would report indicated they have called in the past but received no response. 31% said it would depend. 16% said they would not report a fishing violation.



For those participants that responded they would report a violation, they did so because:

- "Fishing is my life, if someone is taking too small of or too many fish. It has an effect on everyone."
- "Everyone should . . . Small chance that they will show up."
- "Not only does it effect me but everyone around"
- "Because everyone should be able to enjoy their right to fish. If no one turns them in they will continue to break the rules."
- "Its unfair to people that do follow the rules."
- "Fishing is for everyone to enjoy."
- "Over the years I've noticed the near shore fish population has gone down. I'm sure its cause of lay nets."
- "I don't support illegal activity."
- "As a fishermen its my responsibility."
- "Gotta try to make rules stick"
- "Yes but would probably be a waste of time"
- "It's not right, it's already fished out"
- "Everybody obeys laws the population will come back"

For many who answered that it would depend if they were to report a violation, they clarified that it would depend on the severity of the violation. Other explanations included:

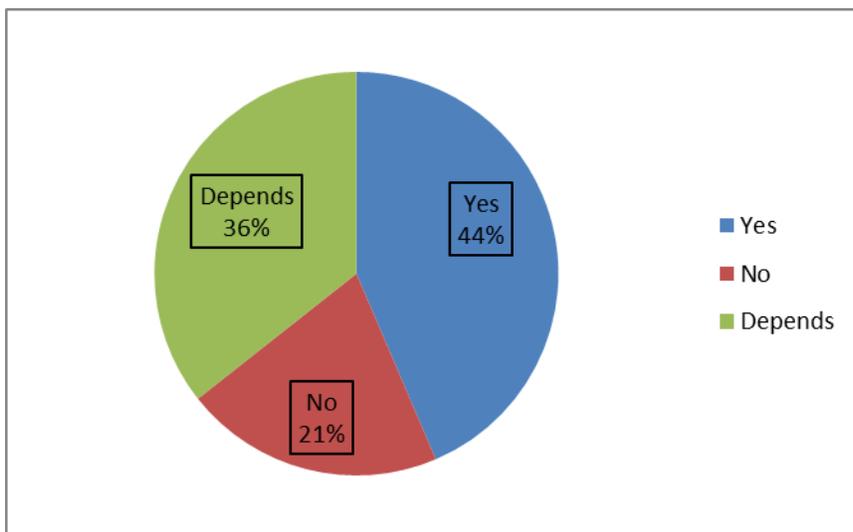
- "Only lay nets. One small fish won't have an effect, but a whole net full needs to be stopped."
- "Only lay nets . . . I hate lay nets"
- "Rules I see broken happen at late eve or night time. They don't work at night."
- "Because when I have they didn't show up."
- "If my report is made unseen."
- "Only if its on a large scale. One fish isn't a big deal."
- "Because it might be a family member fishing."
- "Endangered species and abundance"

These were some of the reasons given by those who responded they would not report a violator to DLNR:

- "On numerous occasions no one answers the phone or even followed up."
- "The few times I have they gave me the run around."
- "Don't have the number."
- "Not my business"
- "Waste of time"
- "Just talk to the person"
- "I would tell them to stop"
- "Nothing would happen"
- "Live and let live, nobody will come"
- "Might be my friend"

Question 25: If you witnessed a fishing violation, would you be willing to be a witness in a prosecution?

44% would be willing to serve as a witness in a prosecution, 36% said it would depend, and 21% would not be willing to serve as a witness.



Of those that would be willing, some explanations included:

- "It should be every fishermen's responsibility."
- "I want to put people like that in jail. Most of all guys laying net."
- "Fishing is Sharing!"
- "To put a stop to illegal activity one case at a time."
- "They don't deserve to fish."
- "Everybody should follow the rules"
- "Not enough fish gotta enforce the laws"
- "If I called it in I would follow through"
- "Gotta be responsible"
- "Enforcement is important because it educates people that they do something wrong. The Micronesian people don't follow any rules this upsets the locals"
- "It's our hobby we don't want people to ruin it"
- "It's not right, it's already fished out"
- "There's no fish left so of course"
- "Everybody obeys the law the population will come back"

Those that would not be willing explained they would not serve as a witness for reasons including:

- "We need to learn our own self 1st."
- "I shouldn't have to. DLNR should have a better system."
- "I would not want to run into them fishing again."
- "I don't want them to know i made the report."
- "I wouldn't want the violators to know who made the report."
- "Don't want to go to court"
- "Don't want to be a rat"
- "No time"
- "It's pointless because nothing happens"
- "Not gonna be a rat"

For those that said it depended whether or not they would be a witness, for many, it depended on who the violator was and/or how severe the violation was:

- "If it will help."
- "Lay nets only."
- "No one likes a rat. If it means the case will be thrown out by my absence, I would show up."
- "Again only lay nets, i wish DLNR would put a state wide ban on them."
- "Only if they were laying net."
- "If i get paid for it i would."
- "Depends on the degree of the violation."
- "If it would help to convict them i would."
- "If they took a big school of small fish or a bag of small tako i would."
- "A lot of people know who I am. I feel if I did I'd get beat up."

Appendix D – O'ahu Fisher Survey Detailed Summary

- "Depends on severity"
- "Depends on the situation, the people involved"
- "On severity and the guy"

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APPENDIX E

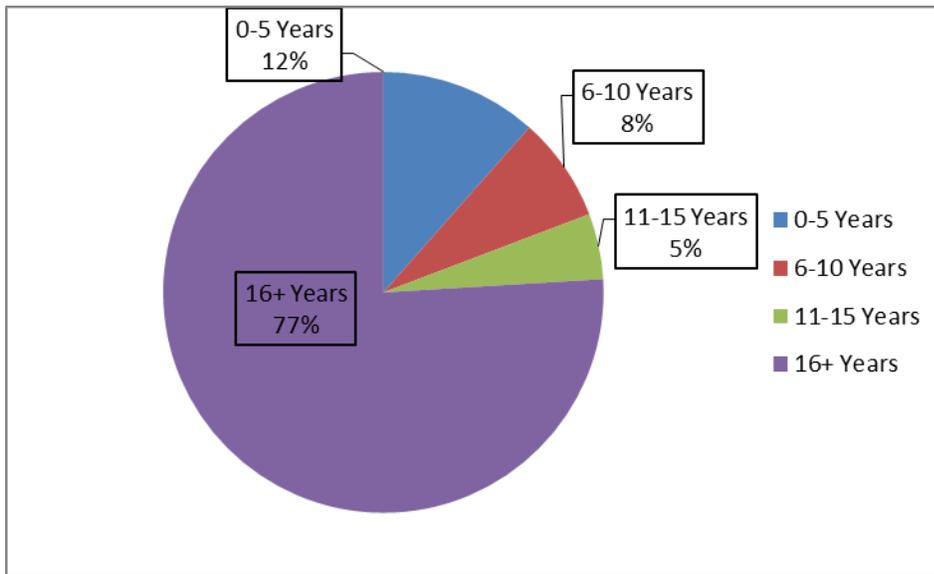
MAUI FISHER SURVEY DETAILED SUMMARY

Question 1: What island do you live on?

100% of the 104 Maui survey participants live on Maui. One participant lives on Lāna‘i, in addition to Maui.

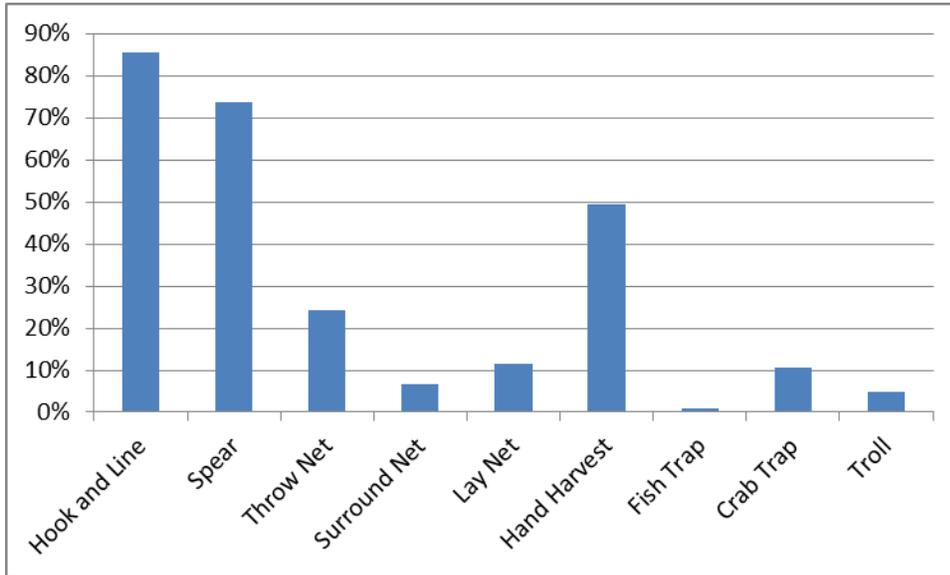
Question 2: How long have you fished in Hawai‘i?

90% of the participants have fished for 6 or more years in Hawai‘i, with 76% fishing 16 or more years.



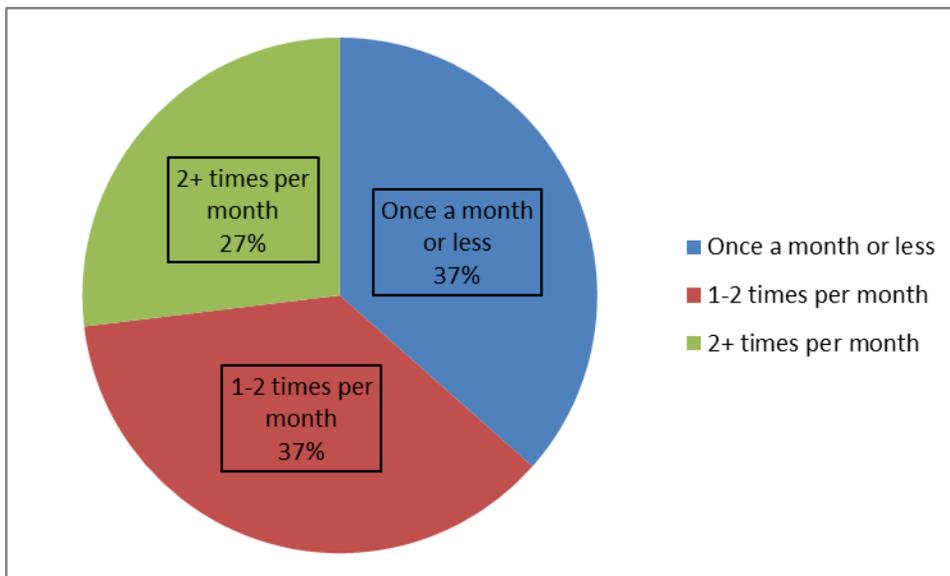
Question 3: What fishing methods do you normally engage in (check all that apply)?

85% of the survey participants are hook and line fishers. Of the hook and line fishers, 71% use at least one other method, primarily spears. Half of the participants hand harvest near-shore resources like seaweed and opihi.



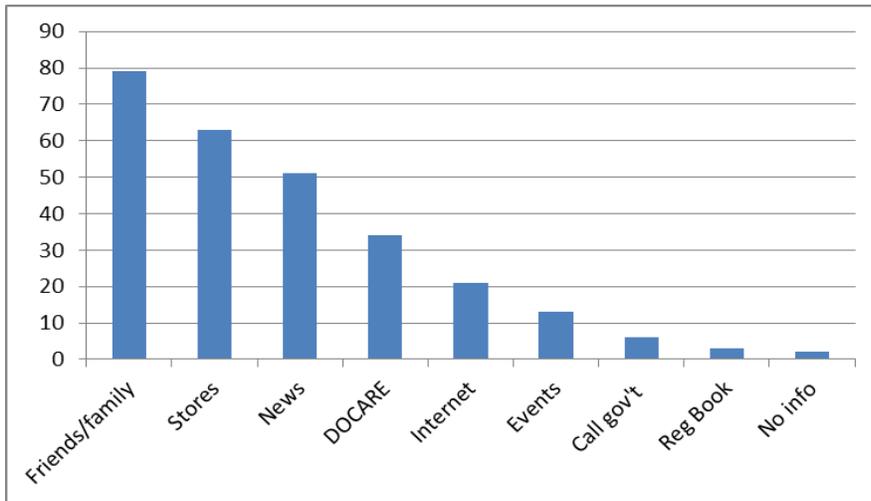
Question 4: On average, how often do you fish on the North Shore of Maui (Wai‘ehu – Waihe‘e – Kahului – Pā‘ia –Ha‘iku – Huelo)?

27% of the participants fish on the North Shore of Maui more than twice per month, with 37% fishing once a month or less, and 37% going 1 to 2 times per month.



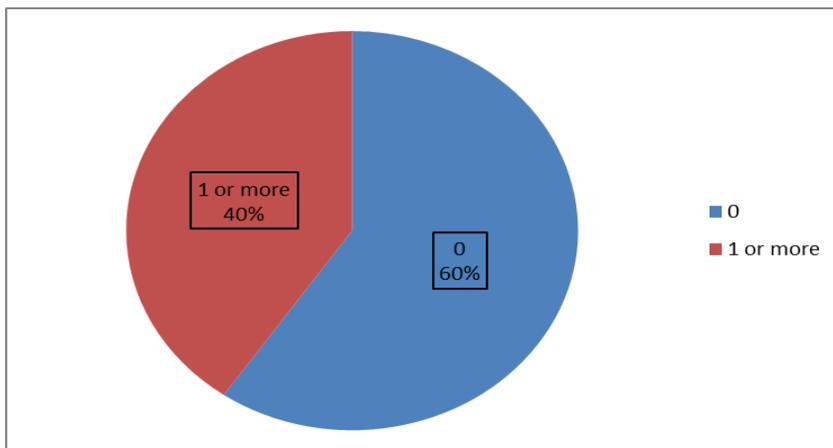
Question 5: How do you normally get information about Hawai‘i's fishing laws (check all that apply)?

The survey indicates that 98% of the participants have some information about Hawai‘i's fishing laws. The majority of participants get their information from friends and family and at fishing supply stores. About half get their information from the news. 42% get their fishing information from government sources, including resources conservation officers and fishing regulation handbooks. 21% receive their information from the internet and online forums. 13% get their information from events. One survey participant suggested commercial fishermen and boat owners receive notices about fishing laws by mail.



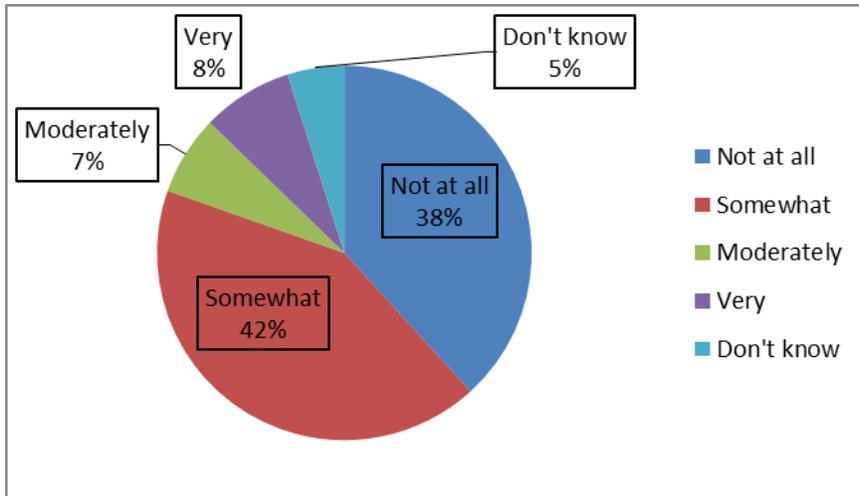
Question 6: In the past year, how many times has a resources enforcement officer given you information about Hawai‘i's fishing laws?

40% of the participants received information about Hawai‘i's fishing laws at least once from a resources enforcement officer.



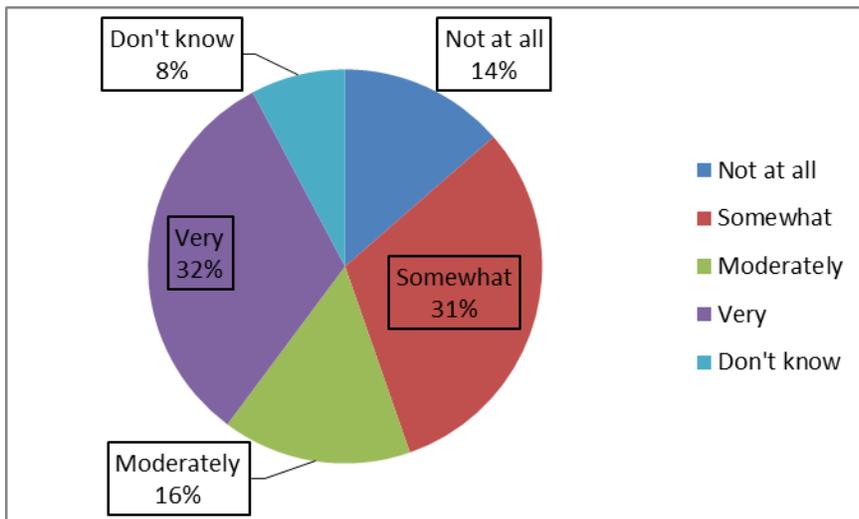
Question 7: On a scale of 1-4, in your opinion, if a person breaks a fishing law, how likely is it that he will be caught?

More than half of the participants think it is likely to any degree that a violator would be caught. 38% of the survey participants believe it is not at all likely that a person breaking a fishing law will be caught. One participant did not pick a supplied choice, but created a new category, "depends on person/focused on certain people." Another participant believed it "depends on where; not at all likely in Kaupo, very likely in Wailea, Lahaina, Kahului."



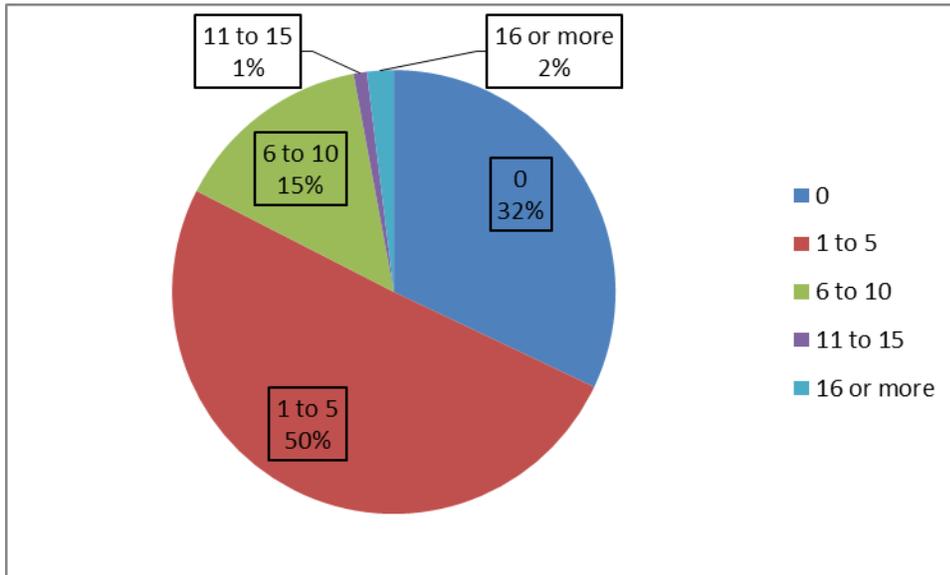
Question 8: On a scale of 1-4, in your opinion, if a person is caught breaking a fishing law, how likely is it that he will be convicted or subject to a penalty?

79% of the Maui participants believe it is likely to some degree that a violator who is caught will be convicted or subject to a penalty. 14% believe it is not at all likely a violator will be convicted or subject to penalty. One participant believes it "depends on where; not at all likely in Kaupo, very likely in Wailea, Lahaina, Kahului."



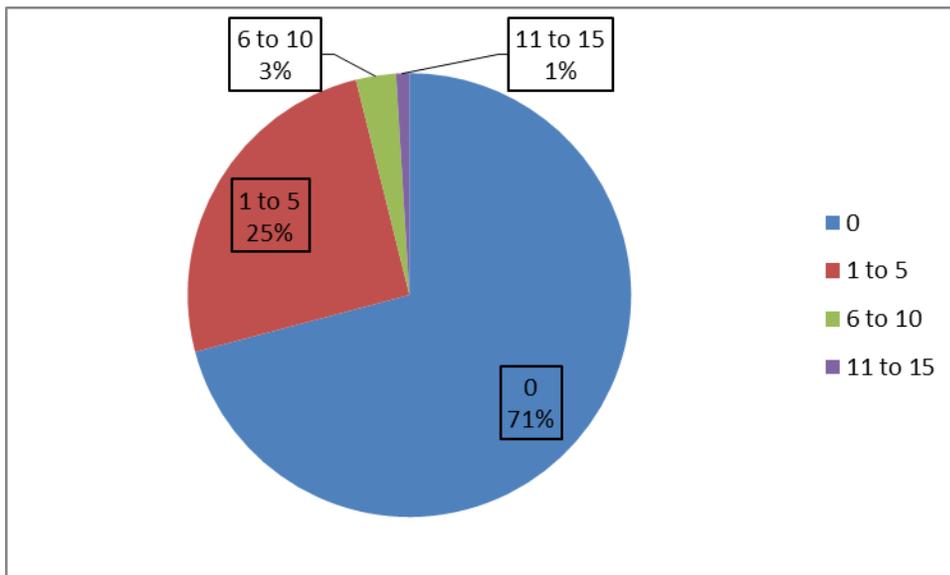
Question 9: In the past year, how many fishing law violations have you heard about or witnessed?

68% of the participants have heard about or witnessed at least one fishing law violation in the past year, with 50% hearing about or witnessing one to five, and 18% hearing about or witnessing more than six.



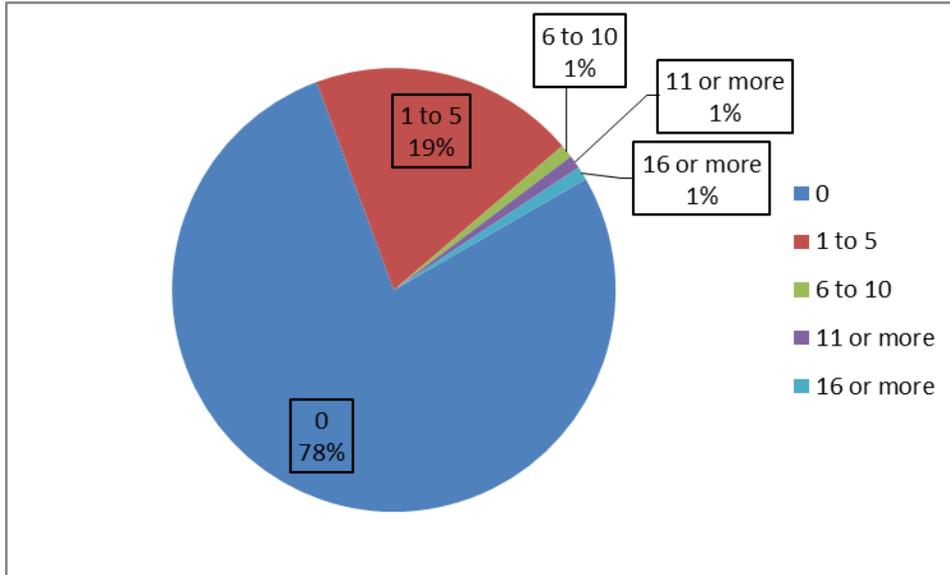
Question 10: In the past year, how many times have you seen a resources enforcement officer give a warning for a fishing violation?

71% of the participants have never seen a resources enforcement officer give a warning for a fishing violation in the past year. A little more than a quarter saw a resources enforcement officer give at least one warning.



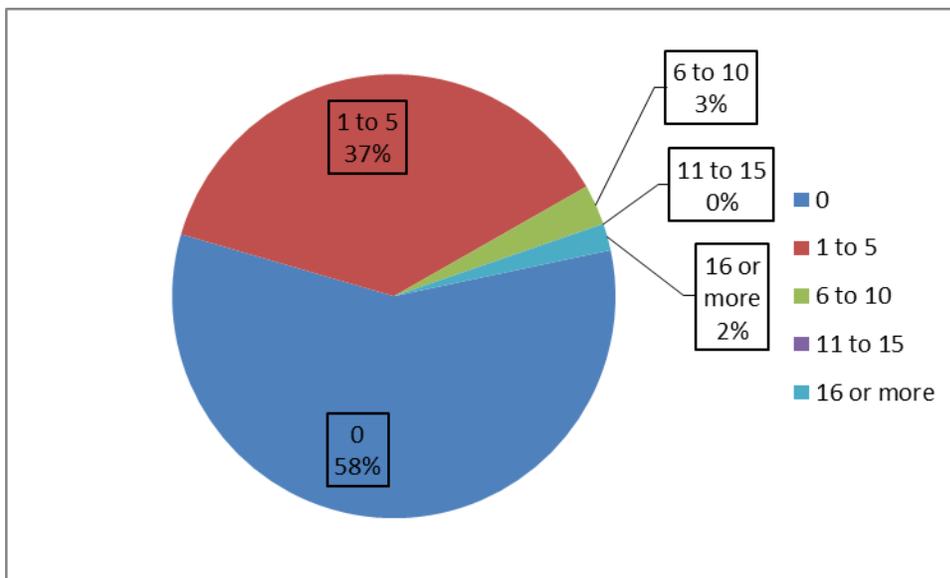
Question 11: In the past year, how many times have you seen a resources enforcement officer give a citation for a fishing violation?

In the past year, 78% of the participants never saw a resources enforcement officer give a citation for a fishing violation. 22% saw a resources enforcement officer give at least one citation. One participant noted that "DOCARE cites divers more than other type fisherman."



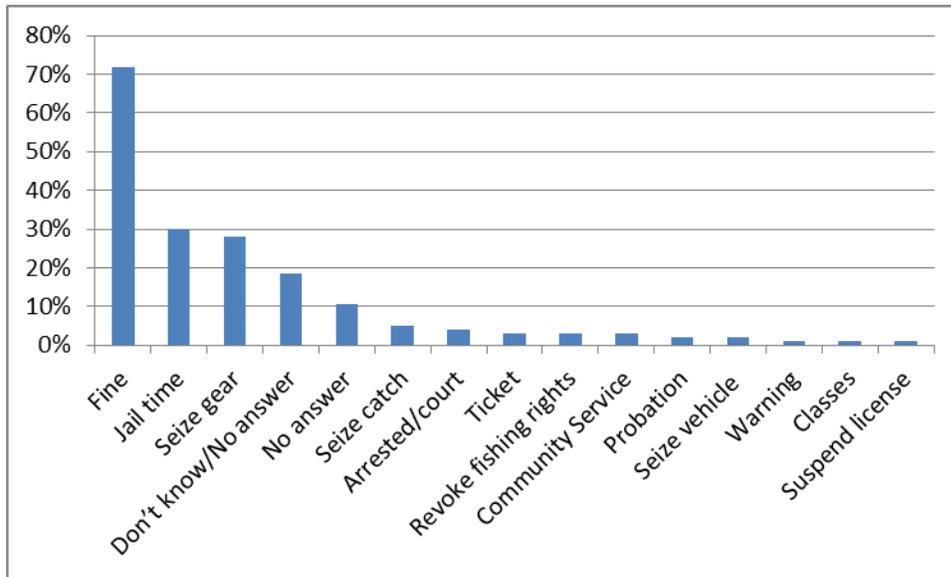
Question 12: In the past year, how many convictions for a fishing violation have you heard about or witnessed?

58% of the participants did not hear about or witness any convictions for a fishing violation in the last year. 42% heard about or witnessed at least one conviction.



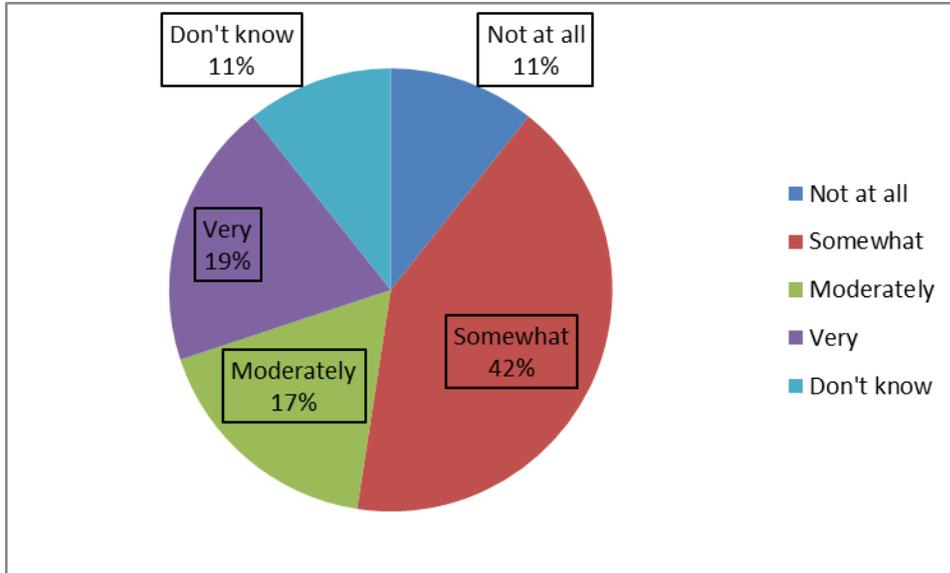
Question 13: To the best of your knowledge, what are the potential penalties for state fishing law violations? Please be as specific as possible.

19% did not know any potential penalties for fishing law violations or did not answer the question. 72% believe monetary fines are a potential penalty, with some specifying the amount ranges from "\$100 per offense plus court fees" to "\$1,000 dollar fine per illegal removed resource," and one specifying that the fine would apply per fish. 31% believe jail is a possibility, and 28% believe their gear could be seized. Less than 5% of the participants believe penalties could include seizure of catch, receiving a warning or a ticket, getting arrested, going to court, or probation. 3% believe their fishing rights/privileges could be revoked, one specifying "a ban for a limited amount of time." One participant believes license suspension is a potential penalty. Others named community service and "classes to prevent" violations as possibilities. One participant simply answered the question "none." Another responded, "DLNR steals fish for themselves."



Question 14: In your opinion, do you think that Hawai‘i's current law enforcement system (i.e., the entire process from detecting violations to convicting and punishing violators) is successful in assuring that people follow fishing laws?

65% of the participants believe Hawai‘i's current law enforcement system is to some degree successful in assuring that people follow fishing laws, with 7% believing the system is very successful, 21% believing it is moderately successful, and 38% believing it is somewhat successful. 28% believe Hawai‘i's current law enforcement system is not at all successful in assuring that people follow fishing laws.



20% clarified that there is not enough enforcement. Some specified that enforcement was necessary at night, e.g., "they don't work night time when illegal stuff happens" and "enforcement is not a 9-5 job!" One participant indicated there was "too much enforcement." Participant's ideas for better enforcement include:

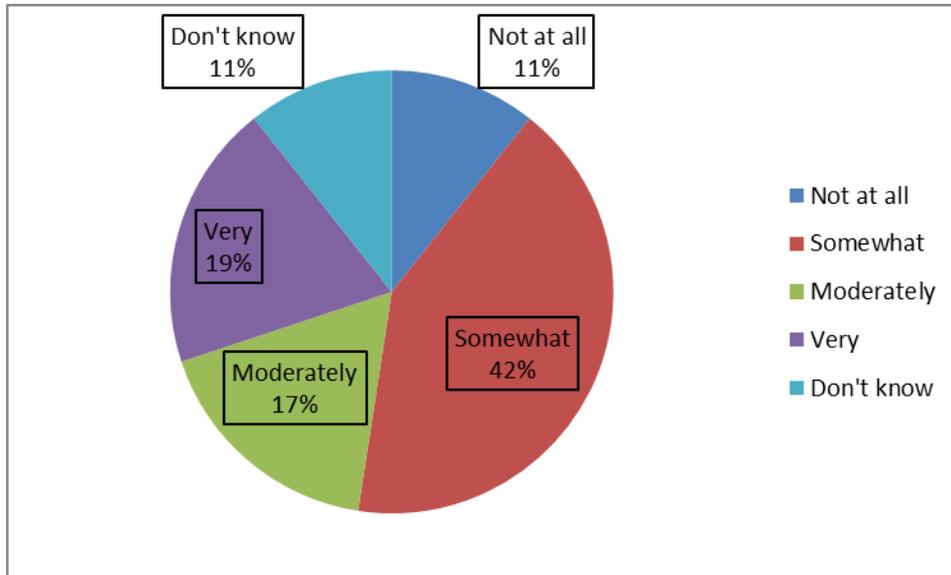
- "More enforcement staff"
- "24 hr hotline on each island, not an Oahu number"
- Give the public details about the perpetrator, crime, and punishment ("We (the public) never hear about violators being punished. When law enforcement is notified of violations, they seldom if ever show up. When violators get caught red-handed, we hear about the "bust" but that's the extent of it. The public never hears any more about who they are, what was the violation? What did they catch? How many? Where? What was the punishment? Shit!! I can handle that kind of treatment too. No embarrassment, no shame- who cares? I'll do it again.")

Other identified problems include:

- "Hostess bars buy a lot of seafood from poachers. Can someone look into this?"
- "Fishing supply stores also buy tako from divers who don't even have a G.E. license. We need to penalize the buyers as well."
- "Our resources do not seem to be thriving."

Question 15: On a scale of 1-4, in your opinion, if someone reports a fishing law violation, how likely is it that a resources enforcement officer will respond or follow up?

78% of the participants believe it is likely that a resources enforcement officer will respond or follow up to the report of a violation. 11% believe it is not at all likely that a resources enforcement officer will respond or follow up. One said it depends where; a response from a resources enforcement officer was "not at all likely in Kaupo, very likely in Wailea, Lahaina."



Question 16: What do you think are the top three reasons people violate Hawai‘i's fishing laws?

82% believe one of the top three reasons people violate fishing laws is that they are not likely to be caught, 77% said it is because people lack knowledge of the rules. 37% believe people violate laws because penalties are ineffective and 24% because the rules are unfair or do not make sense. 31% believe people violate fishing laws because of necessity or survival, although one participant said necessity is "not really good excuse. Get a fricken job!" 6 participants wrote in the lack of DOCARE presence, including at popular fishing spots like boat ramps. The lack of follow-up was also specifically mentioned. 5% said it is because people do not care, with some specifying "people don't care about rules," people "don't care about authority," and "some people just don't care." 4% said it is because people are greedy.

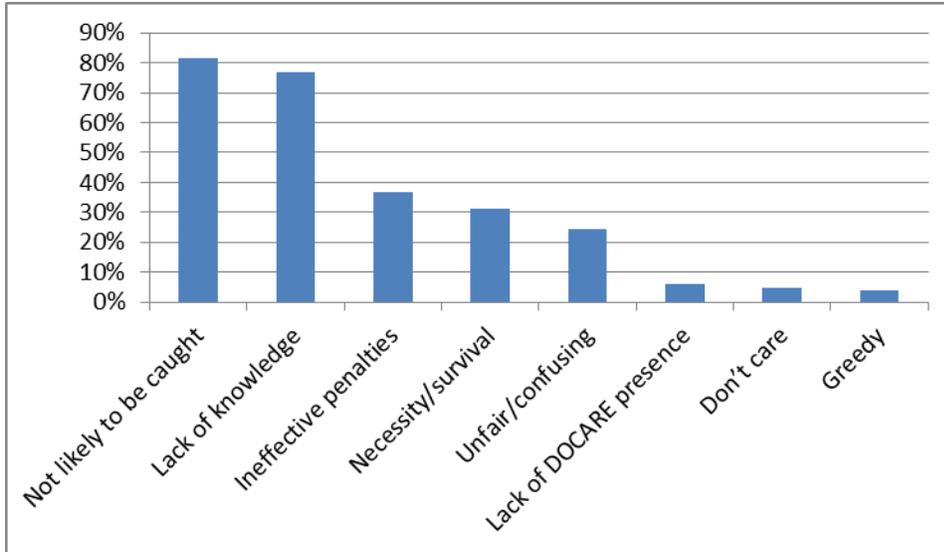
One participant expressed that there is a "sense of entitlement by some who feel like the land is theirs to do as they like." Another participant thought there are "locals that feel they don't have to follow rules."

Others had unique opinions on why people violated fishing laws, including:

- "Not enough legal, catchable fish, so people turn to catching illegal fish as in poaching reserves"

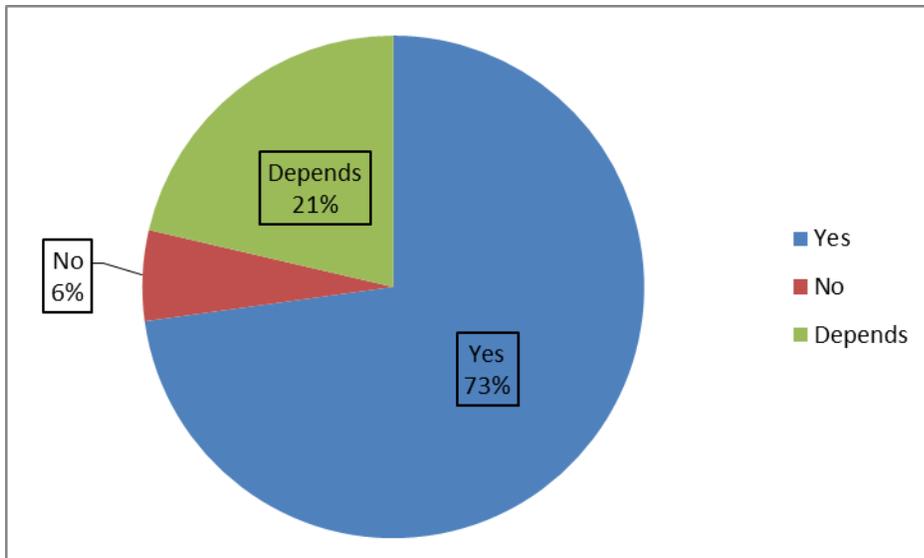
Appendix E – Maui Fisher Survey Detailed Summary

- "Drug users needing drug money"
- "They change the rules and never inform the fishermen"
- "Not afraid of paying the fine"
- "Accidental"
- "Not enough information about fishing at stores that sell fishing equipment"
- "In general I think most fishermen are following the rules. Some guys bend the rules but most won't break a regulation for example they might shoot a 9" plus kumu but not a 6" one."



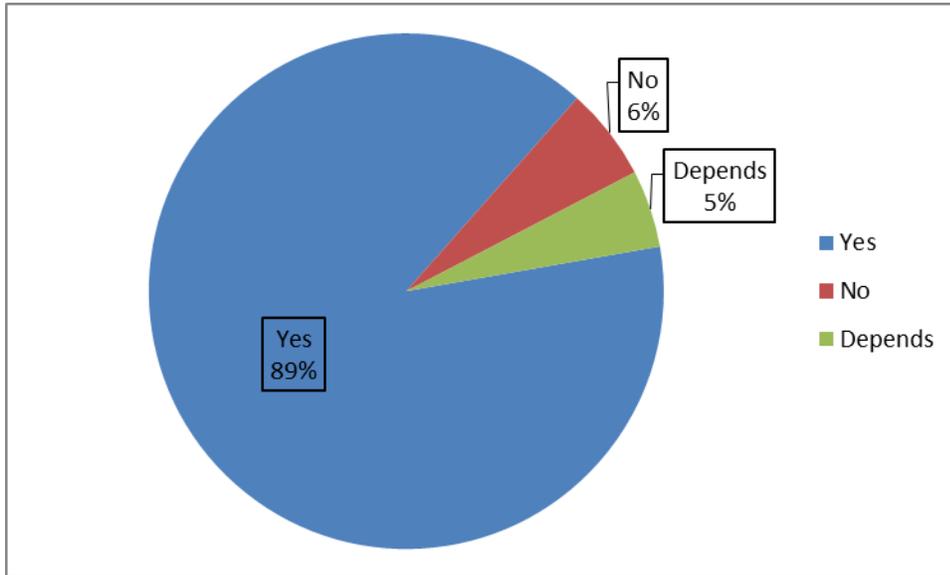
Question 17: Do you support bag limits?

73% of Maui participants support bag limits without qualification, one enthusiastically, "Hell yeah!! Gotta be done NOW!" One participant that supports bag limits commented, "commercial take is wiping things out so why make small time fisherman take only a few." Another supporter believes that "people can get around it." 21% might support bag limits in certain circumstances. 6% oppose bag limits.



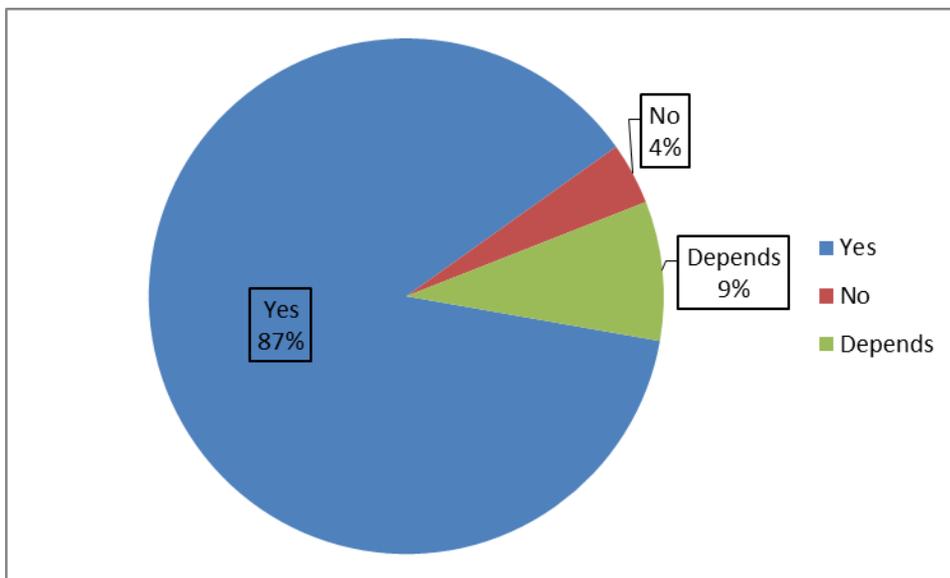
Question 18: Do you support size limits?

89% of Maui participants support size limits without qualification. 5% might support size limits in certain circumstances. For example, one participant would support a limit on taking the "biggest" and "babies." 6% oppose size limits.



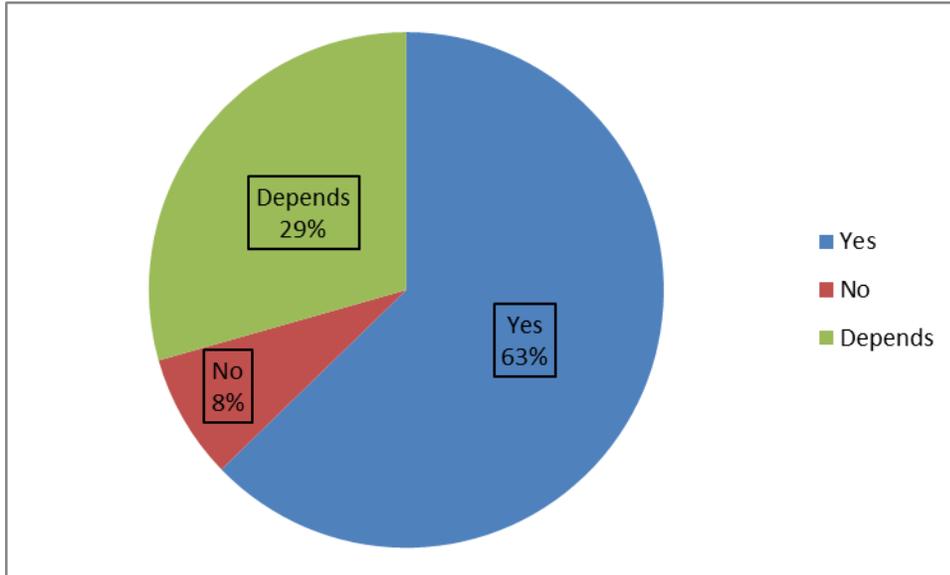
Question 19: Do you support open/closed seasons?

87% of Maui participants support bag limits without qualification, while 9% might support bag limits in certain circumstances. One clarified their support was "provided a bonafide study to determine breeding seasons." Another supported open/closed seasons for "especially limu." 4% opposed open/closed seasons.



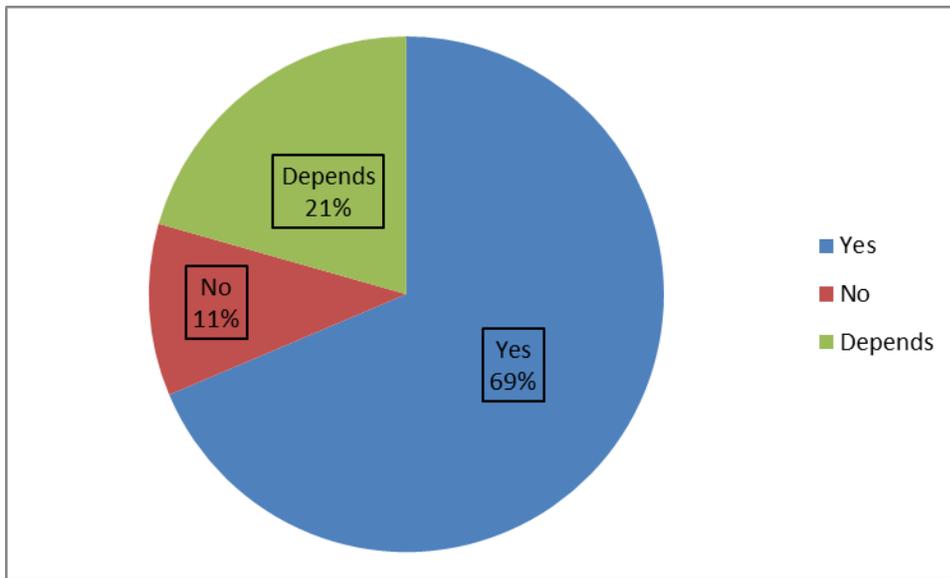
Question 20: Do you support gear restrictions?

63% of Maui participants supported gear restrictions without qualification. 29% said they might support gear restrictions limits in certain circumstances. Some of these depended on the type of gear, with some specifying gill nets, surround nets, and overnight nets. 8% oppose gear restrictions.



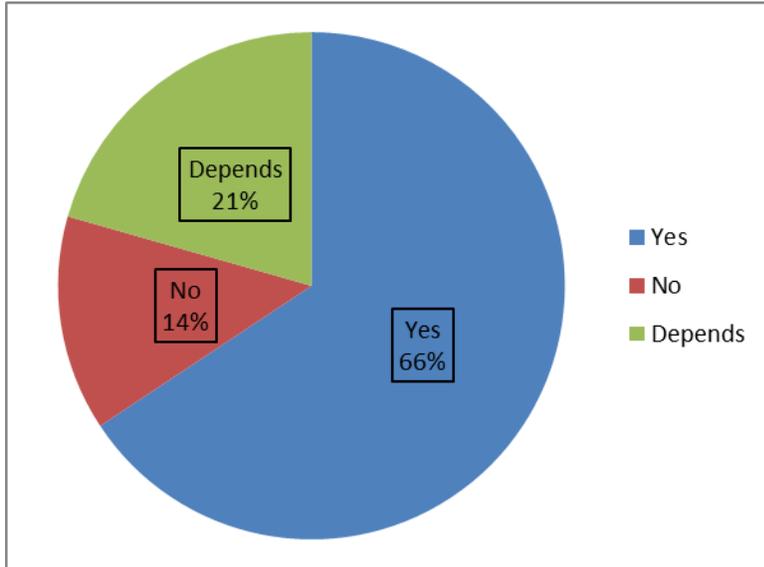
Question 21: Do you support fisheries management areas?

69% of Maui participants support fisheries management areas without qualification. 21% might support fisheries management areas in certain circumstances, one specifying "if educated on how." 11% oppose fisheries management areas.



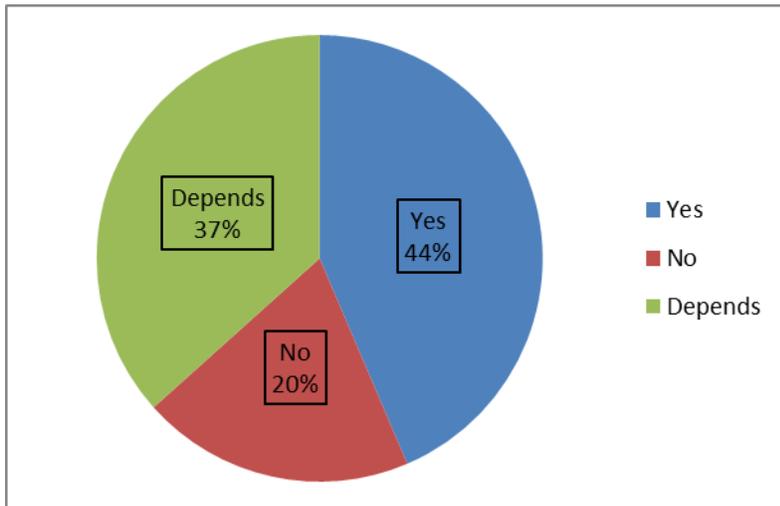
Question 22: Do you support marine life conservation districts?

66% of Maui participants support marine life conservation districts without qualification, while 21% might support marine life conservation districts in certain circumstances. One said it depends because "sometimes they get on a roll, the agencies get too much restrictions and violate fisherman's trust." 14% oppose marine life conservation districts.

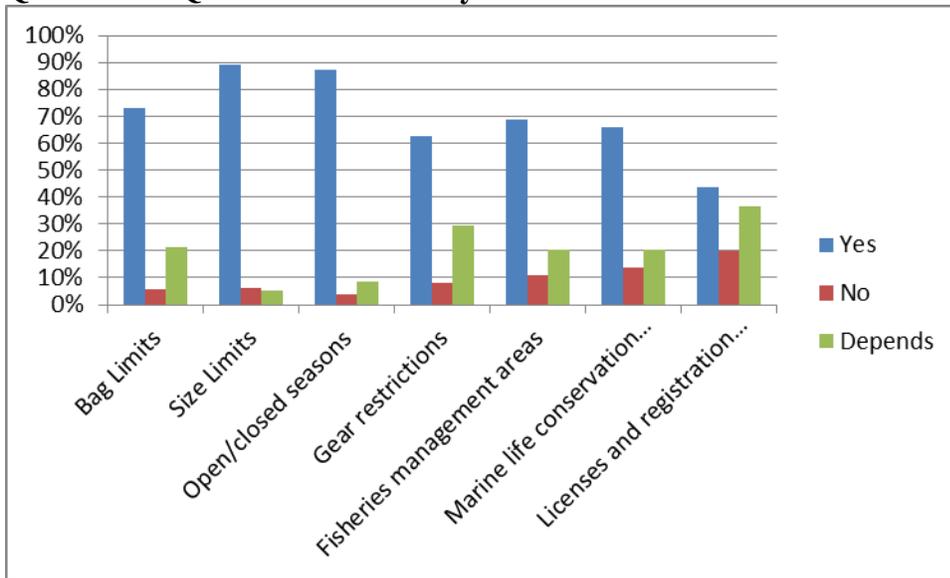


Question 23: Do you support licenses and registration requirements?

44% of Maui participants support licenses and registration requirements without qualification. 37% might support licenses and registration requirements in certain circumstances. Two specified they would only support license and registration requirements for commercial purposes, and one said "for boats only." Another thought, "they do it on the mainland. Funds could be used towards enforcement." 20% oppose licenses and registration requirements.

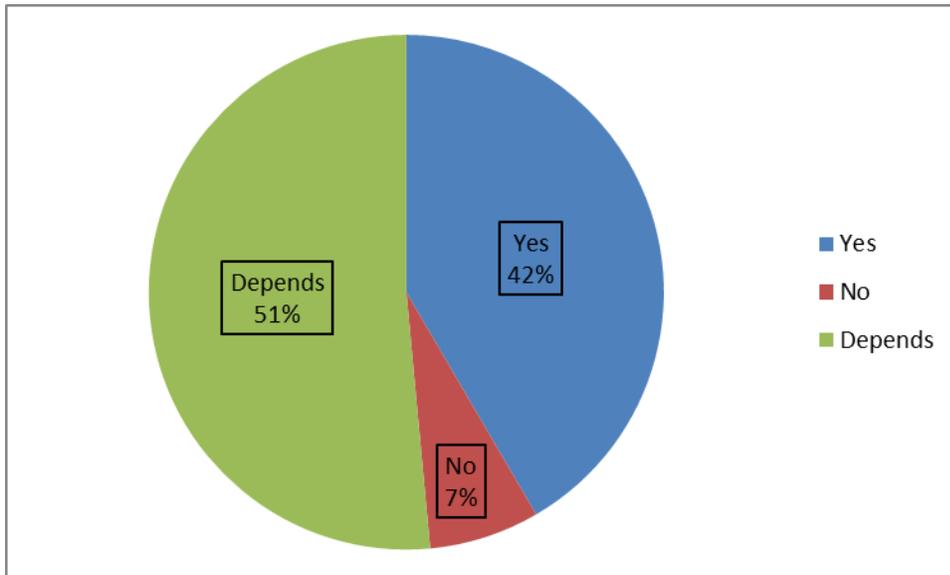


Question 17-Question 23 summary:



Question 24: If you witnessed a fishing violation, would you report it to DLNR?

42% would report a fishing law violation to DLNR; several indicated that had already done so and would do so again. 51% said it would depend.



For those participants that responded they would report a violation, they did so because:

- "Yes, because I strongly believe in conservation and doing things by the creed."
- "Wrong is wrong - gotta obey the laws. A lot of violations are not witnessed though, you only hear about them. If reported, can Enforcement Office look into it?"
- "if they screw up it screws us all up"
- "We need to be all part of the solution. Take responsibility"

- "We need these fish to remain and spawn for the future of fishing/survival. Restrictions are necessary. Violators should be prosecuted and fined to realize this need. Plus none of these fisherman are starving just getting fish to eat fish."
- "Because I want to see marine life be the same for my kids' generation"
- "To help keep our resources from diminishing"
- "Only hurts everyone, when others don't follow the rules"
- "We all need to do our part to ensure that the future generations have the same resources that we had"
- "Need to support program for future of fishing"
- "The enforcement people cannot be everywhere at all times. If more of the public is willing to step up and participate, these scum-bag violators will think twice before they do anything."
- "Because it is not right."
- "Resources these days are getting depleted fast and if you don't practice conservation next generation won't have these resources."
- "We all need to be fair"
- "to protect our fishing"
- "Because that person is wrong. The person screwing things up for everyone else."
- "If they catch all the fish we not going have nothing"
- "So the fish population can stay high"
- "Need to preserve for future generations"

For many who answered that it would depend if they were to report a violation, they clarified that it would depend on the violation and the violator. Explanations included:

- "If flagrant, yes for sure"
- "Depends on who it is"
- "Depends on how severe"
- "If I feel if it was right or wrong; lay nets and guys leaving their nets overnight, yes!"
- "Would have to be major enough"
- "Depends on circumstances, if the guy hungry he should eat it"
- "Why maybe/depends because I say this Hawai'i land and we should be able to fish and be able to live off the land."
- "Depends on violation"
- "I would report a violation if the fish (animal) was endangered."
- "Depends on the seriousness of it and if they (DLNR) are nearby."
- "Depends if it was a little or a big violation"
- "Some rules seem unjustified with no scientific backing; i.e., female species banning (lobsters; etc.) I feel endemic species should be protected but worldwide species should be less restricted."
- "Depends on what kind of violation. Example-see someone w/100 lobsters in off season- I will report, but just 1 no need"
- "Depends on who violates it and how much they abuse the law (I believe in certain people having gathering rights)"

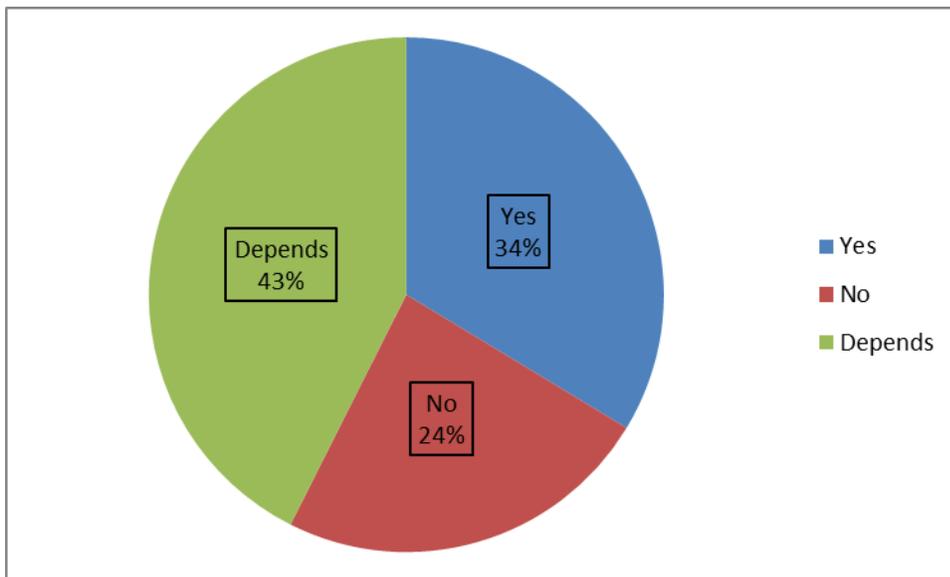
- "I personally don't trust the system here in Hawai'i. I feel it is too connected and that certain people are singled out more than others. Sometimes it seems better to let things be, but if it's blatant rape of the ocean I would 100% report it."
- "It depends on the situation and the rule broken and who breaks the law"
- "I would not report net fishermen"

These were some of the reasons given by those who responded they would not report a violator to DLNR:

- "I would talk to them face to face and ask them if they knew"
- "Personal conflict"
- "Not a rat"
- "Seems like the DLNR is only out there to harass our local people. So why should we call or report anything to DLNR."

Question 25: If you witnessed a fishing violation, would you be willing to be a witness in a prosecution?

34% would be willing to serve as a witness in a prosecution, 43% said it would depend, and 24% would not be willing to be a witness.



Of those that would be willing, some explanations included:

- "To help keep our resources from diminishing"
- "To ensure a penalty is given"
- "Cause its bad to take small fish"
- "Laws are made to be followed/enforced and punishments must be issued for this to work"
- "Need to support program which support fishing in Maui. Want my grandkids to be able to fish like I do and enjoy fishing as I do"

- "Because if I get a chance to talk to a judge I will use that opportunity to impress upon him the significance and gravity of the issue at hand. I do not think prosecutors or judges give a shit!"
- "It is our responsibility to take care of the ocean. We are slowly killing it. And we must bring justice to those who deserve it."

Those that would not be willing explained they would not serve as a witness for reasons including:

- "Not my job"
- "Not a rat"
- "fear of retaliation"
- "I work and support my family"

For those that said it depended whether or not they would be a witness, for many, it depended on who the violator was and/or how severe the violation was:

- "Depends on the person or people involved with the violations."
- "Depending on who is the violator, I would be afraid of retaliation. For example, the 'Hui' on the East Side have many followers."
- "Small island!"
- "Depending on severity of violation, I may or may not want to be involved. Ex: if it is a very minimal violation, I would not, but if it is something major, then possibly I would if it would strengthen the case and solidify a conviction."
- "Dolphins, tortoise, whale, or seal – yes"
- "Depends on seriousness of violation"
- "Depends on the seriousness and amount of fish or tako or crab/lobsters taken"
- "Retaliation"
- "Depends if they were affecting the reef in a way that it would be better for them not to be fishing. If I knew they were purposely do it over and over again."
- "Depends on the person and the crime. The fishing community on the islands are very tightly knit and no one want to sell out their brothers."
- "If I don't know the person I would testify"