

2021

Hawai'i Annual Code Challenge (HACC)

Challenge Title	HMAR Sighting & Reporting App
Department / Organization	NIC Hawaii
Subject Matter Contact	Steffi Zacke
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The Challenge	
Describe situation to be solved	<p>Hawai'i Marine Animal Response (HMAR) is Hawaii's largest non-profit marine species conservation and response organization. Detailed and complete reporting of marine wildlife sightings is essential in supporting HMAR's mission, especially as it relates to field response and rescue & stranding activities.</p> <p>Currently, the only means of collecting information on sightings is through the public calling a hotline number.</p> <p>There are a number of issues with only using a phone hotline for this purpose:</p> <ul style="list-style-type: none">• Callers are frequently unfamiliar with official or common location names and have difficulty describing them over the phone.• Sometimes callers report a sighting after they have left the location.• Some members of the public do not feel comfortable calling.• Certain locations have poor connectivity, and environmental factors such as wind or ocean sounds can make it difficult to hear callers.• On occasion, photos of the situation are needed.• Multiple calls are sometimes received for the same animal. It's currently difficult to consolidate the information.
Preconditions <i>(How does it work now)</i>	The public calls a hotline number which leads to an Interactive Voice Response (IVR) system that directs them to the relevant volunteer. The volunteer gathers all the pertinent information about the marine wildlife sighting over the phone and logs it to a spreadsheet to be used for reporting and dispatching purposes.
Assumptions/Issues <i>(list any conditions that could impact the solution)</i>	<ol style="list-style-type: none">1. Solution should be able to function well on all mobile devices.2. Solution should be able to display potentially related sighting reports to HMAR staff and volunteers.

Current Approach <i>(how is situation currently being handled)</i>	Volunteers do their best to accurately gather information over the phone.
Users <i>(Who would use the application - employees or constituents or both? How many users would there be?)</i>	<ol style="list-style-type: none"> 1. General public 2. HMAR volunteers and staff
Business Rules	<ul style="list-style-type: none"> • Accessible 24/7 • Public to be able to choose 1 of 2 paths: sighting vs. animal in distress, with an animal in distress leading to a call to the hotline
Special Requirements	NA
Technical Platforms <i>(in use or desired to be used)</i>	NA
Data set to be used or collected	<ul style="list-style-type: none"> • Date and time of sighting • Location (island, beach name, other details/description) • GPS coordinates or map with pin • Identifying characteristics (tags, bands, applied bleach markings on animal, scars, other markings) • Animal behavior, including interactions with people and other animals • Number of beachgoers within 100 feet of the animal • Name • Phone Number • Upload photos of animal and its surroundings
Data set calculations or reporting needs	<ol style="list-style-type: none"> 1. Output format from the intake form should match current format used in spreadsheet to easily integrate with existing processes 2. Related sightings are flagged.
Solution Road Map	
Basic Flow <i>(steps of user action/system response)</i>	<ol style="list-style-type: none"> 1. User opens app and is presented with an option for reporting a sighting or an animal in distress. <ol style="list-style-type: none"> a. If sighting, direct user to the form to fill out. b. If animal is injured or entangled, direct the user to immediately call hotline. 2. User fills out form and submits it. 3. Email notification is sent out to HMAR volunteers or staff.*

	<ol style="list-style-type: none"> 4. HMAR volunteer or staff reviews submission. <ol style="list-style-type: none"> a. App suggests related sighting reports, and the volunteer can confirm and flag/manage them as such. 5. Data exported in same format as existing file <p>* If valid email provider not available, this functionality is not required.</p>
Goal of Solution	Streamline data collection for marine wildlife sightings and reduce errors in reported data.
Business Value <i>(potential financial or time savings)</i>	<ul style="list-style-type: none"> • Time savings for HMAR volunteers and staff • Improved reporting experience
Success Scenario <i>(how you know a solution is working)</i>	Improved user experience for the public and HMAR volunteers and staff
To be completed by the HACC Planning Committee	
Community/Industry Data Available	
Potential Community/Industry Co-Sponsors	