Special Activity Permit Coral Restoration Framework

This form is designed to assist Special Activity Permit (SAP) applicants with planning and evaluating their projects in coral reef restoration. Attach a copy of **this completed form** along with any **supplemental materials** through the DAR SAP online form in the Attachments section of your online application.

Self-evaluation using the DAR Special Activity Permit Coral Restoration Framework Tool will guide applicants in justifying how their project will meet or will not meet the detailed criteria for coral restoration projects in Hawai‘i. Coral restoration criteria will be coded using a true/false dichotomous system, where:

- True Statements: Fast-tracked for approval
- False (blank) Statements: Requires further review, may not meet all legal criteria, and/or may need further justification to be approved. Justification can be written in the text box following each section.

The criteria in this form are not mandatory for all projects and you are encouraged to provide additional information for any statement your project does not meet. All information you provide will assist DAR's review of your application. Please consult the following resources before contacting SAP program staff with questions:

- DAR SAP Website: https://dlnr.hawaii.gov/dar/licenses-permits/
- SAP FAQ: https://dlnr.hawaii.gov/dar/files/2025/05/SAP_FAQ_and_Pre-Application_Guide.pdf
- Guidelines for SAP Coral Restoration Activities: https://dlnr.hawaii.gov/dar/files/2025/05/SAP_Coral_Restoration_Application_Guidelines.pdf

Department of Land and Natural Resources
State of Hawaii

Hawai‘i Division of Aquatic Resources

Department of Land & Natural Resources
DIVISION OF AQUATIC RESOURCES
1151 Punchbowl Street, Room 330
Honolulu, Hawai‘i 96813

Contents

Contents
I. Project Proposal
1. Statement of Purpose
2. Considerations for Restoration Locations
II. Administrative Plan
1. Permittee (and/or Scientific Team Lead)
III. Restoration Plan
1. Coral Collection Plan
2. Ex situ (on land) Facility and Methods
3. In situ (in ocean) Methods
4. Coral Transport and Attachment
5. Baseline Survey and Monitoring
6. Evaluation and Reporting
IV. Permit Renewal
1. Permit Renewal
V. Appendices
Appendix 1: Supplemental Documentation Checklist
Appendix 2: Regulatory Agencies and Contacts

Department of Land & Natural Resources
DIVISION OF AQUATIC RESOURCES
1151 Punchbowl Street, Room 330
Honolulu, Hawai‘i 96813

I. Project Proposal

Coral reef restoration may require many years before results can be evaluated. It is important for projects to have a goal and long-term plan for any maintenance and monitoring to verify the results of the project.

Check the box if the following statements are true for your proposal, if statements are false, provide justification in the text box at the end of the section

1. Statement of Purpose	TRUE
A. Proposal has clearly stated goals and/or objectives.	☐
B. Coral restoration is being conducted for a purpose that is aligned with the State of Hawai‘i Coral Reef Strategy and/or the Makai Restoration Action Plans (available online: https://dlnr.hawaii.gov/coralreefs/reports/).	☐
C. Project **is not** part of an emergency or damage response coordinated with DAR following a regulated coral damage event (e.g. emergency restoration under Clean Water Act or Oil Pollution Act).	☐
D. Proposal details a project timeline including monitoring efforts.	☐
E. Proposal details the long-term financial plan for the project.	☐
2. Considerations for Restoration Locations	TRUE
A. Project **does not** include collection from regulated and/or sensitive areas (**Statewide:** MLCDs, CBSFAs, FMAs, Natural Area Reserve Systems (NARS), Harbors, and Waters immediately surrounding offshore islets; **Kaua‘i**: Waters surrounding Kaula Rock, Nualolo, Lehua, Mana Barrier Reef Complex, and nearshore waters surrounding Ni‘ihau; **O‘ahu**: Paiko Lagoon Wildlife Sanctuary, Moku o Lo‘e; **Maui Nui**: Nearshore waters surrounding Moloka‘i; **Hawai‘i**: Puakō, Ka‘ūpūlehu Marine Reserve; **Northwestern Hawaiian Islands**: Northwestern Hawaiian Islands State Refuge).	☐

Department of Land & Natural Resources
DIVISION OF AQUATIC RESOURCES
1151 Punchbowl Street, Room 330
Honolulu, Hawai‘i 96813

B. Project **does not** include collection from areas with high prevalence of Aquatic Invasive Species (**Statewide:** Commercial harbors; **Kaua‘i**: Anini Beach, Kalapaki Bay; **O‘ahu**: Kāne‘ohe Bay, Pearl Harbor, and Maunalua Bay; **Hawai‘i**: Hilo Bay, Honokōhau, and Kawaihae Harbor; **Northwestern Hawaiian Islands**: Midway Atoll (Kuaihelani), Pearl and Hermes Atoll (Manawai and Holoikauaua), Kure Atoll (Hōlanikū).	☐
C. Project **does not** include outplanting to regulated and/or sensitive areas (see list in I.2.A. above).	☐

Use the space below to provide justifications for any statement that you did not check. You may refer to your application or attachments as needed.

Click or tap here to enter text.

Department of Land & Natural Resources
DIVISION OF AQUATIC RESOURCES
1151 Punchbowl Street, Room 330
Honolulu, Hawai‘i 96813

II. Administrative Plan

Due to the scientifically technical nature of coral reef restoration, all Permittees are required to either meet the qualifications below or designate a Scientific Team Lead who meets qualifications 1.B – 1.F.

Check the box if the following statements are true for your proposal, if statements are false, provide justification in the text box at the end of the section

1. Permittee (and/or Scientific Team Lead)	TRUE
A. Permittee **has not** conducted unpermitted activities that are regulated under the DAR Special Activities Permit program (e.g. unpermitted collection of regulated aquatic species, use of regulated gear, collection in regulated area) in the past five years.	☐
B. Attached a resume or curriculum vitae that details at least two years of relevant experience or graduate-level experience involving corals or coral reef organisms.	☐
C. Is knowledgeable in observational and experimental design in marine ecosystems.	☐
D. Has experience in coral reef monitoring.	☐
E. Will ensure any project staff, volunteers, or other parties working under the permit are knowledgeable of the permit conditions and are supervised to ensure compliance.	☐

Use the space below to provide justifications for any statement that you did not check. You may refer to your application or attachments as needed.

Click or tap here to enter text.

Department of Land & Natural Resources
DIVISION OF AQUATIC RESOURCES
1151 Punchbowl Street, Room 330
Honolulu, Hawai‘i 96813

III. Restoration Plan

The following criteria should be addressed in your SAP application and/or supplemental materials.

Check the box if the following statements are true for your proposal, if statements are false, provide justification in the text box at the end of the section

1. Coral Collection Plan	TRUE
A. Project will include collection site photos and maps.	☐
B. All (or at least a subset of 30 **per** collection site) collected coral specimens will be photo documented with a scale bar as follows: a. Before Collection - capture a photo of the reef area/man-made structure from which the coral is to be collected. b. Before Collection - capture a top-down photograph of coral specimens to be collected with a scale bar. c. After Collection - capture a photo of the colony after collection. d. After Collection - capture a photo of the reef area/man-made structure from which the coral was collected.	☐
C. Corals **will not** exceed 1-meter in diameter and fragments will not be collected from colonies 1-meter or greater.	☐
D. Collection **will not** include **rare coral species** including but not limited to *Leptoseris foliosa, Leptoseris hawaiiensis, Leptoseris scabra, Montipora dilatata, Porites pukoensis, Porites duerdeni, Pocillopora molokensis, and Pocillopora verrucosa.* See Appendix B of the DAR Guidelines for Coral Restoration Special Activity Permit Applications for a full list of Rare Hawaiian Corals.	☐
E. Collection is planned for months of low bleaching risk: November – June.	☐
F. Proposal includes an **Aquatic Invasive Species Mitigation Plan** that addresses disinfecting, cleaning, and drying of all gear and equipment between collection areas.	☐

G. Project will collect **corals of opportunity** (COO): *colonies or fragments of coral that have naturally or unnaturally been dislodged or unattached from the substrate and have a low chance of survival without human intervention.*	☐
a. COO collection will be distributed over an area, with no more than 20% of the target species removed.	☐
b. Only COO will be collected.	☐
If G. a. is true, continue to Section 2. "Ex-situ Facility and Methods". Otherwise, fill out H.-I.	
H. Project will collect corals attached to **man-made substrates** (i.e., moorings, piers, not including artificial reefs).	☐
I. Project will collect corals attached to **natural substrates or artificial reefs**.	☐
a. Collections **<u>will not</u>** include take from more than 20% of the population for any one species at the collection site.	☐

Use the space below to provide justifications for any statement that you did not check. You may refer to your application or attachments as needed.

Click or tap here to enter text.

Department of Land & Natural Resources
DIVISION OF AQUATIC RESOURCES
1151 Punchbowl Street, Room 330
Honolulu, Hawai‘i 96813

Check the box if the following statements are true for your proposal, if statements are false, provide justification in the text box at the end of the section.

2. *Ex situ* (on land) Facility and Methods	TRUE
A. Project **does not** include an *ex situ* nursery phase.	☐
If A. is true, continue to the next section. Otherwise, fill out B, a.- d.	
B. Project includes an *ex situ* nursery phase.	☐
a. *Ex situ* nursery is permitted and in compliance with all county, state, and federal regulations.	☐
b. Application details **quarantine and acclimation procedures** for collected coral specimens.	☐
c. Project **does not** include *ex situ* physiological interventions, including probiotics, phage therapy, and/or antibiotics.	☐
d. Project **does not** use *ex situ* genetic manipulation, including genetically modified/transgenic corals, selective breeding, selective collection, assisted migration, and cryopreservation.	☐

Use the space below to provide justifications for any statement that you did not check. You may refer to your application or attachments as needed.

Click or tap here to enter text.

Check the box if the following statements are true for your proposal, if statements are false, provide justification in the text box at the end of the section

3. *In situ* (in ocean) Methods	TRUE
A. Project **<u>does not</u>** include an *in situ* nursery phase.	☐
If A. is true, continue to the next page. Otherwise, fill out B. – H.	
B. Application details **quarantine and acclimation procedures** for collected coral specimens that follow DAR Guidelines for Coral Restoration Special Activity Permit Applications.	☐
C. Project includes an *in situ* nursery structure that is/will be permitted and in compliance with the Office of Conservation and Coastal Lands (OCCL) and any other required county, state, and federal permits.	☐
D. Application provides detailed information on structure placement and anchoring systems, and outlines mitigation measures to prevent environmental impacts. These measures should address potential harm to live coral, rock, or benthic organisms, and aim to minimize the risk of entanglement.	☐
E. Application details a **long-term plan** (removal or maintenance) for all nursery structure components after the project has ended.	☐
F. Application details **Hurricane and Large Storm Plan** that includes assessing anchoring components and structural integrity in the event of a large storm advisory issued from an	☐

official weather service (i.e., Central Pacific Hurricane Center, National Weather Service, NOAA National Hurricane Center).	
G. Project **does not** include *in situ* physiological interventions, including probiotics, phage therapy, and antibiotics.	☐
H. Project **does not** use *in situ* genetic manipulations, including genetically modified/transgenic corals, selective breeding, selective collection, assisted migration, and cryopreservation.	☐

Use the space below to provide justifications for any statement that you did not check. You may refer to your application or attachments as needed.

Click or tap here to enter text.

Check the box if the following statements are true for your proposal, if statements are false, provide justification in the text box at the end of the section

Department of Land & Natural Resources
DIVISION OF AQUATIC RESOURCES
1151 Punchbowl Street, Room 330
Honolulu, Hawai‘i 96813

4. Coral Transport and Attachment	TRUE
A. Application details transport method for collected corals.	☐
B. Collected corals will be transported and reattached within the same 500-meter area from which they were collected without propagation in a nursery.	☐
C. Collected corals **will not** be transported and outplanted between watersheds.	☐
D. Collected corals **will not** be transported and outplanted between islands.	☐
E. Collected corals **will not** be transported to/from outside of the Hawaiian Islands.	☐
F. Restoration site **will not** subject outplanted corals to excessive sand scour, sedimentation, and other stressors.	☐

G. All (or at least a subset of 30) outplanted coral specimens from each outplant site will be **photo documented** with a scale bar as follows: a. Before Attachment - Capture a top-down photo of each colony with a scale bar included for reference. b. Outplant Site Preparation - Capture an image of the projected attachment area with a scale bar for reference before outplanting. c. After Attachment - Photograph each coral specimen in its restoration location with a scale bar for size reference.	☐
H. Project details application of marine-grade materials for adhering/attaching corals, including Material Safety Data Sheets.	☐
I. Coral specimen attachment is planned for months of low bleaching risk: November – June.	☐

Use the space below to provide justifications for any statement that you did not check. You may refer to your application or attachments as needed.

Click or tap here to enter text.

Check the box if the following statements are true for your proposal, if statements are false, provide justification in the text box at the end of the section

5. Baseline Survey and Monitoring	TRUE
A. Application details completed or planned **baseline survey(s)** for coral restoration sites (and control/reference sites if applicable) utilizing a combination of landscape and close-up photos to provide data on habitat metrics. If available, DAR encourages projects to utilize Structure-from-Motion (SFM) photogrammetry and 3D orthomosaics.	☐
a. Ecological footprint area (m^2) of reef where corals will be outplanted and/or reattached.	☐
b. Depth range of restoration site.	☐
c. Comparison of mean, minimum, and maximum monthly water temperatures at depth at the collection site and restoration site for the duration of the project.	☐

d. Benthic survey with quantifiable metrics: i. Substrate characterization ii. Coral community composition and cover iii. Presence absence of target outplant species and approximate sizes iv. Species assemblages of coral predators	☐
B. Application identifies the presence and details the extent of acute (i.e., ship grounding, contaminant spill) stressors that have driven coral degradation at the restoration site.	☐
C. Application identifies the presence of chronic (i.e., stream runoff, sedimentation) stressors that have driven coral degradation at the restoration site.	☐
D. Application details a **Monitoring Plan** that includes:	☐

a. For restoration site <u>and</u> control/reference sites (if applicable): i. Depth range of site ii. Comparison of mean, minimum, and maximum monthly water temperatures at depth iii. Substrate characterization iv. Species assemblages of coral predators, competitors, and facilitators v. Percent survivorship of coral colonies and percent live coral tissue	☐
b. For all or a subset of 30 outplanted coral specimens: i. Unique identifier for outplants ii. Measurements of maximum specimen length, width, and height iii. Percent live coral tissue per colony iv. Coral specimen health score v. All (or at least a subset of 30) restored coral specimens from each restoration site will be **photo documented** with a scale bar (photos will be available to DAR by request at the conclusion of the project.) 1. Top-down photo with a scale bar of coral specimens	☐
E. Monitoring will take place at the time of outplanting activities, and after outplanting within 1-week (pilot projects only), 1-month, 3-months, 1-year, 2-years, and 3-years after outplanting.	☐

Department of Land & Natural Resources
DIVISION OF AQUATIC RESOURCES
1151 Punchbowl Street, Room 330
Honolulu, Hawai‘i 96813

Use the space below to provide justifications for any statement that you did not check. You may refer to your application or attachments as needed.

Click or tap here to enter text.

Department of Land & Natural Resources
DIVISION OF AQUATIC RESOURCES
1151 Punchbowl Street, Room 330
Honolulu, Hawai‘i 96813

Check the box if the following statements are true for your proposal, if statements are false, provide justification in the text box at the end of the section

6. Evaluation and Reporting	TRUE
A. Application includes a detailed methodology for measuring the project's success.	☐
B. Application includes **performance measures** relevant to the goals and objectives of the project, including: a. Estimated restored coral % survivorship and % live coral cover/produced during (*in situ/ex situ)* nursery phase. b. Estimated restored coral % survivorship and % live coral cover at 1-month post-outplanting. c. Estimated restored coral % survivorship and % live coral cover at 3-months post-outplanting. d. Estimated restored coral % survivorship and % live coral cover at 1-year post-outplanting.	☐
C. The monitoring plan includes sufficient data to evaluate the project's success relative to the outlined project proposal and objectives.	☐
D. Application includes a plan to submit an **Annual Report** to DAR detailing all activities including the following: a. Project narrative b. Reporting spreadsheet c. Methodology photo documentation i. Gear, nursery area, materials, fieldwork, laboratory space, protocols, etc. d. Coral photo documentation i. Collection ii. Transplant/reattachment/outplant phases iii. Monitoring e. Baseline survey findings f. Monitoring data (including performance measures of % survivorship and % live coral tissue for individual colonies) g. Evaluation of performance measures (estimated and realized survivorship analysis)	☐

Use the space below to provide justifications for any statement that you did not check. You may refer to your application or attachments as needed.

Click or tap here to enter text.

IV. Permit Renewal

If you will be seeking a renewal and there are changes to your project, please ensure you communicate with DAR staff the requested changes to collection amounts, activities, methodologies, locations, etc.

Check the box if the following statements are true for your proposal, if statements are false, provide justification in the text box at the end of the section

1. Permit Renewal	TRUE
A. Project will submit the required Annual Report to qualify for a permit renewal.	☐

Department of Land & Natural Resources
DIVISION OF AQUATIC RESOURCES
1151 Punchbowl Street, Room 330
Honolulu, Hawai‘i 96813

Use the space below to provide justifications for any statement that you did not check. You may refer to your application or attachments as needed.

Click or tap here to enter text.

Department of Land & Natural Resources
DIVISION OF AQUATIC RESOURCES
1151 Punchbowl Street, Room 330
Honolulu, Hawai‘i 96813

V. Appendices

Appendix 1: Supplemental Documentation Checklist

The items below are requested in the following sections of this form. Use the checklist to help organize your application's supplemental materials and provide these details of interest for your application's evaluation.

I.	**Project Proposal**	
☐	1.A.	Goals and/or objectives
☐	1.D.	Project timeline
☐	1.E.	Long-term financial plan
☐	2.	Project location(s)
II.	**Administrative Plan**	
☐	1.B.	Curriculum Vitae or Resume detailing qualifying experience of at least two years.
III.	**Restoration Plan**	
☐	1.	Coral Collection Plan
☐	1.A	Collection site photos and maps
☐	1.B.	Aquatic Invasive Species Mitigation Plan
☐	2.	*Ex situ* quarantine and acclimation procedures (if applicable)
☐	3.	*In situ* quarantine and acclimation procedures (if applicable)
☐	3.E.	Hurricane and Large Storm Plan
☐	3.F.	*In situ* long-term plan
☐	4.	Coral transport and outplanting plan
☐	5.A.	Baseline surveys for control and restoration sites
☐	5.D.	Monitoring plan
☐	6.A.-B.	Methodology for measuring project's success including performance measures

Department of Land & Natural Resources
DIVISION OF AQUATIC RESOURCES
1151 Punchbowl Street, Room 330
Honolulu, Hawai‘i 96813

Appendix 2: Regulatory Agencies and Contacts

The table below outlines recommended agencies, along with contacts for further consultation regarding permitting requirements. It is the Permittee's responsibility to consult with the appropriate county, state, or federal agencies to ensure compliance with all applicable permits. The approval of a Special Activity Permit (SAP) may depend on securing the necessary authorizations from the relevant authorities for the proposed activities.

Agency and Permit	**Contact**
State Agencies	
Hawai‘i State Department of Land and Natural Resources (DLNR)	
Division of Aquatic Resources (DAR) • Special Activity Permit	Website: https://dlnr.hawaii.gov/dar/licenses-and-permits/special-activity-permit/ Phone: (808) 587-2270 Email: dar.sap@hawaii.gov Program Staff: Cathy Gewecke, Aquatic Biologist (catherine.a.gewecke@hawaii.gov)
State Historic Preservation Division (SHPD) (National Historic Preservation Act) • HRS 6E Review • Section 106	Website: https://dlnr.hawaii.gov/shpd/ Phone:(808) 692-8015 Email: dlnr@hawaii.gov
Land Division (LD) • Shoreline Certification	Website: https://ags.hawaii.gov/survey// Phone: (808) 587-0419 Email: landsurvey@hawaii.gov
Office of Conservation and Coastal Lands (OCCL) • Site Plan Approval (SPA) • Conservation District Use Application (CDUA)	Website: https://dlnr.hawaii.gov/occl/ Phone: (808) 587-0377
Department of Forestry and Wildlife (DOFAW) • NARS Special-Use Permit, Section 195	Website: https://dlnr.hawaii.gov/dofaw/sap_landing_page/

	omg Program Staff: Cara Oba (cara.m.oba@hawaii.gov) and Jaianne Rimando (jaianne.z.rimando@hawaii.gov)	
Hawai‘i Office of Planning and Sustainable Development		
State Coastal Zone Management Program • HRS Ch. 205A Special Management Area (SMA) Permit • Sect 307 Coastal Zone Management Act Federal Consistency Review	Website: https://planning.hawaii.gov/ Phone: (808) 587-2846 Email: dbedt.op.czm@hawaii.gov	County Office Contacts: - Hawai‘i County East: (808) 961-8288; West: (808) 323-4770 - Kaua‘i County (808) 241-4050 - Maui County (808) 270-7735 - Honolulu County (808) 768-8015
Environmental Review Program • Hawai‘i Environmental Protection Act (HEPA) ○ Environmental Assessment / Environmental Impact Statement / Exemption	Website: https://planning.hawaii.gov/erp/ Phone: (808) 586-4185 Email: https://planning.hawaii.gov/erp/	
Hawai‘i State Department of Health (DOH)		
Clean Water Branch (CWB) (EPA Section 404(e) and 401 of the Clean Water Act) • National Pollutant Discharge Elimination System (NPDES) Permit • Section 401 Water Quality Certification (WQC)	Website: https://health.hawaii.gov/cwb Phone: (808) 586-4400	
Federal Agencies		
U.S. Fish and Wildlife		
U.S. Fish and Wildlife (USFWS) Coordination Act • Coordination Report	Website: https://www.fws.gov/law/fish-and-wildlife-coordination-act	
NOAA		
Essential Fish Habitat (EFH) Provisions of the Magnuson-Stevens Fishery Conservation Management Act (MSA)	Website: https://www.fisheries.noaa.gov/national/habitat-conservation/essential-fish-habitat#consultations Email: efhesaconsult@noaa.gov	

• Consultation in the Pacific Islands	Specific questions can be directed to EFH Consultation Biologist, Dr. Alexandria Barkman, (alexandria.barkman@noaa.gov)
Section 7 Endangered Species Act (ESA) • Consultation in the Pacific Islands	Website: https://www.fisheries.noaa.gov/pacific-islands/endangered-species-conservation/esa-consultations-pacific-islands Email: nmfs.pir.esa.info@noaa.gov / efhesaconsult@noaa.gov
Section 307 of the Coastal Zone Management Act (CZMA) • Federal Consistency Review *See **State Office of Planning and Sustainable Development (OP)** in table above for more info.*	Website: https://planning.hawaii.gov/czm/federal-consistency/
U.S. Environmental Protection Agency (EPA)	
• **Pacific Island Office, Region 9**	Website: https://www.epa.gov/hawaii Phone: (808) 541-2710 Email: r9info@epa.gov
U.S. Army Corps of Engineers (USACE)	
Regulatory Branch • Nationwide Permit (NWP) 27 [1] Pre-Construction Notice (PCN)	Website: https://www.usace.army.mil/missions/civil-works/Regulatory-Program-and-permits/Obtain-a-Permit/ Phone: (808) 835-4303 Email: CEPOH-RO@usace.army.mil

[1] The NWP 27 is also covered under full concurrence for the WQC and CZM.

This project is supported by Capacity Building to Implement Coral Restoration Action Plans in the U.S. Pacific Islands Grant Opportunity with the National Marine Sanctuary Foundation under Federal Award NA20NMF4630328 and the United States Environmental Protection Agency (U.S. EPA) under assistance agreement 99T93801 to the Department of Land and Natural Resources. The contents of this document do not necessarily reflect the views and policies of the Environmental Protection Agency, nor does the EPA endorse trade names or recommend the use of commercial products mentioned in this document.