

Small Scale Beach Restoration (SSBR)
Permitting Program Proposal Discussion DRAFT – May 2023

Overview of Proposal

This proposal presents an update to the Small-Scale Beach Nourishment (SSBN) guidelines under which applications for identified land use HAR§13-5-22 P-16 (C-1) BEACH RESTORATION are currently evaluated. The SSBN program has been in place since 2000. Over time, the Office of Conservation and Coastal Lands (OCCL) identified gaps in the SSBN permitting program such as inadequate community consultation and cultural impact assessment requirements, lack of authority to adequately regulate sand pushing and outdated best management practices.

This Small-Scale Beach Restoration (SSBR) Permitting Program proposal presents an updated program which expands the types of activities regulated by the program to include currently underregulated activities such as sand pushing, expands community consultation and cultural resources assessment for proposed projects, incorporates improved sand quality standards and enhanced best management practices, and increases the volume of sand considered as small-scale. The proposed SSBR Permitting Program will provide a structured process for assessing proposed beach management and restoration projects that may result in ecosystem restoration and improved lateral beach access by widening the dry beach while conserving Hawaii's critical socio-cultural resources.

The proposed permitting program provides guidelines for evaluating proposed land uses on state land within the Conservation District, often makai of the certified shoreline. The shoreline shall not be altered makai of the documented shoreline as a result of any activities permitted under this program. Beach restoration activities are temporary in their effectiveness and should be considered as a short to medium term solution to coastal erosion hazards and beach loss. Beach management and maintenance activities regulated by this permitting program may provide temporary protection to backshore infrastructure as long-term managed retreat and relocation options are pursued.

This proposal is a discussion draft which incorporates input received by OCCL from stakeholders on the previous versions. Following consultation and comments on this draft, a Conservation District Use Application (CDUA) for proposed SSBR Permitting Program will be prepared for public comment and presentation to the Board of Land and Natural Resources (BLNR). The application will be available for public comment and public meetings will be scheduled prior to presentation to the BLNR for consideration.

Current SSBN Program documents: [Statewide Conservation District Use Permit ST-3000](#) authorizing the SSBN permitting program was approved by the BLNR on 27 October 2000. The SSBN guidelines for [Category I](#) and [Category II](#) projects developed following program approval by BLNR are currently in use for assessing projects for permitting. [HAR§13-5-22](#) P-16 was updated in 2011 to formalize Departmental (Chair) approval of nourishment projects up to 10,000 cubic yards.

All documents are available online at [Office of Conservation and Coastal Lands | Beach Nourishment and Restoration \(hawaii.gov\)](https://dlnr.hawaii.gov/occl/beach-restoration/).
(<https://dlnr.hawaii.gov/occl/beach-restoration/>).

Eligible Beaches

All existing and historical beaches of the six Main Hawaiian Islands will be eligible for application under this program. Every application will be individually assessed to ensure that the proposed project is appropriate to the specifics of each site. All proposed projects that may impact [Community Based Subsistence Fishing Areas \(CBSFAs\)](#) and/or [Marine Managed Areas \(MMAs\)](#) are required to consult with the community groups who administers the CBSFA or MMA and with DLNR Division of Aquatic Resources and must demonstrate that no significant impact to the existing uses of the location will occur as a result of the proposed project. All proposed nourishment projects must consult with the surrounding community and address concerns resulting from consultation as part of the application process.

Activities that are likely to have significant negative impacts on marine life, water quality, coastal processes, or shoreline access are categorically excluded from permitting under the proposed permitting program. This includes activities that, due to the location of the proposed activity, are likely to result in the take of endangered, threatened, or otherwise protected species or are likely to result in significant damage to special aquatic sites such as wetlands, vegetated shallows, mudflats, coral reefs, and seagrass beds. Additional information on ineligible activities is outlined in the **Ineligible Activities** section below.

Types of Eligible Activities

The following types of activities can be applied for under the proposed permitting program. All eligible activities are not appropriate for all eligible beaches. Every proposed project will be evaluated individually using place-based criteria to assess potential impacts and determine if it is appropriate to the proposed location and to ensure that it falls within the scope and limitations of the [Final Programmatic Environmental Assessment and Finding of No Significant Impact](#) published for the program. All activities are limited such that the equilibrium toe of the restored beach remains within the historical extent of the beach.

Beach nourishment: Placement of beach compatible carbonate sand to rebuild lost beach. Nourishment projects may include dredging of offshore sand. When considering whether nourishment is appropriate for a given location, in addition to the factors listed above, OCCL will consider factors such as:

1. Is there sand offshore that meets the sand quality and sand match standards required by this program?
2. How likely is the proposed nourishment to be effective? What time-scale might the proposed nourishment be effective on?
3. Are there broader community and natural resource benefits of the proposed action?

Sand Pushing: Moving sand through mechanical means to the dune or upper beach. Sand pushing typically involves moving sand from the lower to the upper beach to manage backshore erosion and run-up impacts, redistributed to rebuild dunes, berms, and beach slopes, and occasionally from behind the shoreline back to the active beach to mitigate loss of sand due to wave overwash. Sand pushing will not be approved in cases where the action is likely to disturb existing ecosystem dynamics.

Sand Backpassing: Moving sand within a littoral cell typically through mechanical means from an area of chronic or seasonal accretion (e.g. stream mouth) back to its source. Sand backpassing will not be approved in cases where the action is likely to disturb existing ecosystem dynamics.

Sand Bypassing: Moving sand typically through mechanical means around an obstruction to artificially facilitate littoral sand migration. Sand bypassing will not be approved in cases where the action is likely to disturb existing ecosystem dynamics.

Dune restoration: Dune restoration may be part of a beach nourishment, sand pushing, backpassing or bypassing event. All dune vegetation plans will be individually reviewed for compliance with HRS 115 to avert encroachment of vegetation into the beach transit corridor makai of the shoreline. Applications which propose utilize dune restoration plans which would reduce lateral access or publicly accessible beach will not be considered under this program. Dune restoration will likely require coordination with county planning departments for permitting of activities within the Special Management Area (SMA).

Groins: Structures that extend outward from the shoreline. Small temporary groins that are primarily buried in the sand can be applied for. “Temporary” is defined as five-years duration or less. Groins may be considered when it is clearly demonstrated that they are appropriate for the location and do not limit lateral access along the beach. Any approved groins must have an assessment and monitoring plan to determine the impacts of the structures on the surrounding environment; and a removal plan to be implemented if monitoring determines detrimental impacts and/or at the end of five years. The assessment and monitoring must be conducted for at least three years, at which point the permittee may apply for a CDUP from the BLNR for a permanent structure, if desired. Larger structures such as “t-groins” are not covered under this program and will be subject to the full Conservation District Use Permit (CDUP) permitting process with additional environmental documentation.

Ineligible Activities

The following activities are not allowed under the proposed program:

- Sea walls and revetments are shoreline hardening prohibited by state law.
- Large T-head groins.
- Constructing multiple projects within the same beach.
- Activities that are likely to have significant negative impacts on marine life, water quality, coastal processes, or shoreline access.
- Activities which may cause significant adverse impacts to cultural resources including disruption of known or likely burial sites.
- Activities determined to have a significant adverse environmental impact.
- Actions likely to result in significant damage to special aquatic sites such as wetlands, vegetated shallows, mudflats, coral reefs, and seagrass beds.
- Actions impacting a CBSFA or MMA in a way that is inconsistent with the purpose

and intent of the designated area.

- Activities that would impair public access to the beach or adversely impact lateral access along the shoreline.
- Activities that are likely to result in the take of endangered, threatened, or otherwise protected species or are likely to result in significant damage to special aquatic sites such as wetlands, vegetated shallows, mudflats, coral reefs, and seagrass beds.
- Long-term beach fill stockpiling for future projects.
- Placement of any non-beach quality or compatible fill.
- Actions that would cause extreme turbidity, purposeful damage to live rock or coral, extreme eutrophication, or other long-term impairment to water quality.

Project Categories and Decision Authority

The eligible activities listed above are categorized as follows for permit application purposes. If an action is determined by OCCL to require a higher level of review, the application process may be adjusted to require greater review and scrutiny. OCCL does not have the authority to reduce the category of a proposed action.

Category IA – Sand pushing, backpassing and bypassing *above* mean high water
Review Process: OCCL Review and Decision

Category IB - Sand pushing, backpassing and bypassing *above and below* mean high water

Review Process: OCCL Review with Resource Agency consultation
 OCCL Decision

Category II: Beach nourishment $\leq 1000 \text{ yd}^3$.

Review Process: OCCL Review with Resource Agency consultation
 Publication on OCCL website for community comment
 concurrent
 with Resource Agency consultation
 OCCL Decision

Category IIIA – Beach nourishment projects $>1,000 \text{ yd}^3 \leq 10,000 \text{ yd}^3$

Review Process: OCCL Review with Resource Agency consultation
 Publication on OCCL website
 Publication in Environmental Notice
 OCCL Recommendation
 Chair Decision

Category IIIB – Beach nourishment $\leq 10,000 \text{ yd}^3$ with minor temporary groins

Review Process: OCCL Review with Resource Agency consultation
 Publication on OCCL website
 Publication in Environmental Notice
 OCCL Recommendation
 Chair Decision

Category IV: Beach nourishment $>10,000 \text{ yd}^3 \leq 20,000 \text{ yd}^3$ (with or w/out temp. groins)

Review Process: OCCL Review with Resource Agency consultation

Publication on OCCL website

Publication in Environmental Notice

Public meetings

OCCL Recommendation

Chair Decision

After three years of monitoring if an applicant seeks to make temporary groins permanent, they must apply for a CDUP from BLNR, and complete environmental documentation based on assessment and monitoring of the temporary structures. The environmental documentation for the structures will augment the existing Programmatic EA/FONSI for SSBR.

Application and Review Process

Applications for consideration under the SSBR Permitting Program will be submitted to OCCL following the guidelines and application forms currently under development (similar to the forms for [SSBN I](#) and [SSBN II](#) applications). The guidelines and forms will be finalized upon program approval and made public prior to implementation of the SSBR Permitting Program. The guidelines and application forms will standardize permit requests and provide transparency of the factors considered during OCCL and Resource Agency review.

In general, all applications will contain the following elements:

1. Applicant and contractor information,
2. Project site description and information, including physical and biological environment
3. Location maps and shoreline survey or certified shoreline maps, as appropriate. The shoreline shall not be altered makai of the documented shoreline as a result of any activities.
4. Receiving State Waters information,
5. Project description, including construction plan
6. Description of existing sedimentary environment and sediment compatibility analysis
7. Project schedule,
8. Community Consultation and Engagement Plan, and
9. A Best Management Practices Plan including BMPs contained in Appendix B; and
10. Additional Plan requirements outlined in the **Programmatic Terms and Conditions** section on page 8 of this document.

OCCL Actions on Applications:

Following receipt of an SSBR application, OCCL will review the application for completeness and compliance with program requirements, and take the following actions:

1. Incomplete applications and those that do not meet the limitations of the SSBR permitting program will be returned to the applicant and not processed further.
2. Complete applications which meet the limitations of the SSBR program will be processed in accordance with the permit category as summarized above and in Appendix B.
3. Applications will be evaluated by applying criteria published in the program guidelines (including BMP criteria detailed in Appendix B) and HAR §13-5-30.
4. OCCL will engage with the applicant/consultant for applications which meet the requirements of the program to determine the necessary site-specific quality and monitoring plans for the proposed project.
5. Applications which do not fit within the scope of the SSBR permitting program or which are determined to be likely to have significant environmental or cultural impacts during the interagency review process will be rejected under SSBR.
6. Applications that are denied by staff or the Chair may apply for consideration as an individual CDUP with project-specific ERP documentation for Board consideration.

OCCL will evaluate applications to determine if the proposed activity is compatible with the specific site, and will consider factors such as:

1. The seasonal and daily dynamics of the beach.
2. The likely effectiveness of the proposed action.
3. The timescale that the action might be effective on.
4. The cultural sensitivity of the proposed location.
5. The ecological sensitivity of the proposed location (for nourishment, this includes the locations of the sand source, placement site, and adjacent waters).
6. The potential impacts to existing human and natural resource uses at the proposed site.
7. Community input and results of applicant-led community consultation.

The application review process for each category of project is summarized in Appendix C.

Proposed Permitting Program Framework

The proposed program would enable applicants to apply for five (5) permits or authorizations in compliance with sixteen (16) different state and federal laws under one application as summarized below. OCCL will develop and enter into other Interagency Programmatic Agreements as necessary for review and permitting of individual projects to be assessed under the program as indicated below:

1. Conservation District Use Permit

Authority: HRS § 183C

Agency: State of Hawaii Department of Land and Natural Resources Office of Conservation and Coastal Lands

Status: Individual project consideration with Resource Agency consultation under a state-wide CDUP

2. Coastal Zone Management Consistency Statement

Authority: HRS § 205A-1 HRS § 205A-3 HRS § 225M-2)

Agency: State of Hawaii Office of Planning and Sustainable Development (OPSD)

Status: Interagency Programmatic Agreement to be Developed

3. General Permit

Authority: CWA §404 CWA §401 RHA §10

Agency: U.S. Army Corps of Engineers (USACE)

Status: Regional General Permit to be developed following approval by BLNR of the SSBR permitting program.

4. Water Quality Certification

Authority: CWA § 401 HRS § 342D

Agency: State of Hawaii Department of Health Clean Water Branch

Status: Water Quality Certification included in DLNR permitting for projects in compliance with SSBR program requirements by Act 162, 2021.

5. Environmental Assessment

Authority: HRS § 343

Agency: OPSD Environmental Review Program

Status: Programmatic Environmental Assessment (PEA) was prepared and issued a [Finding of No Significant Impact \(FONSI\)](#) in July, 2020 for the permitting program and activities regulated by the program.

The following permits and authorizations are not included in the SSBR application:

1. County permits that may be required during beach management, maintenance, or restoration, such as those needed for staging operations on fast land. OCCL may coordinate permitting with County Planning Departments for any dune restoration work proposed as part of an SSBR application which will occur mauka of the certified shoreline.
2. Land disposition from DLNR Land Division.
3. HRS Section 174C, the State Water Code, may apply and require permits for some beach restoration activities that include beneficial reuse of beach compatible fill recovered from a stream mouth.

Programmatic Terms and Conditions

If approved, the program and all projects permitted under the program will be subject to sand quality standards, the Standard Conditions (Appendix A), a Best Management Practices (BMP) Plan to include the individual BMPs (Appendix B), and quality and monitoring plans. Additional site-specific conditions and monitoring plans may be imposed based on the permit category and information provided during the application process.

Sand Quality Standards

Only beach compatible fill will be placed on the beach or in any associated dune system. Beach compatible fill should maintain the general character and functionality of the beach and the adjacent dune and coastal system and should be similar in composition, grain size distribution, color, and texture. The following table presents the sand composition and sieve analysis standards.

Sand Composition and Quality Requirements

Overall Composition	<p>Similar in composition, grain size distribution, color and texture to existing coastal system at the placement site</p> <ul style="list-style-type: none"> • may require more restrictive standards than the individual parameters listed below • if existing beach sediment is outside the individual parameters below, nourishment sand will be measured in comparison to the existing site-specific sand, rather than the parameters listed below <p>No construction debris, toxic materials, or foreign matter</p> <p>No material that results in cementation of the beach</p>
Silt, Clay or Colloids ; #230 Sieve	≤2%
Grain diameter <0.125mm; #120 Sieve	≤50%
Coarse Sediments ≥4.76mm; #4 Sieve	≤10%
Coarse gravel, cobbles, material >3/4inch (19.05mm)	≤ % on existing or native beach

Standard Conditions

All projects must comply with the standard conditions contained in Appendix A.

Best Management Practices (BMP) Plan Requirements

In addition to the Standard Conditions for all projects, permittees will be required to develop and implement a site-specific BMP Plan. The BMP plan shall be designed, implemented, operated, and maintained by the owner and/or its duly authorized representative in a manner to properly isolate, confine and control the excavation and fill activity and to contain and prevent any potential pollutant(s) discharges from adversely impacting the State waters. The BMP Plan must contain, at a minimum, the following individual BMP elements. Additional BMP Plan elements may be required as determined by OCCL in coordination with Resource Agencies for specific projects. BMP specifics are contained in Appendix B.

1. General Construction Best Management Practices
2. Public Safety Best Management Practices
3. Cultural Resources Best Management Practices
4. Air Quality Best Management Practices
5. Water Quality Best Management Practices
6. Noise Best Management Practices
7. Essential Fish Habitat Best Management Practices
8. Threatened and Endangered Species Best Management Practices

Additional Plan Requirements

As indicated by the site-specific project conditions, the following quality and monitoring plans shall be required for each of the permit categories; additional plans may be required by OCCL on a project-specific basis:

1. Ka Pa'akai Analysis: all Category II to Category IV projects
2. Sediment QA/QC Plan: all Category IB to Category IV projects
3. Turbidity Control Plan: all Category IB to Category IV projects
4. Construction QA/QC Plan: all Category IB to Category IV projects
5. Marine Ecosystem Monitoring: all Category IIIA, IIIB and IV projects
6. Project Performance Monitoring: all Category IIIB and IV projects
7. Community Engagement Plan and Report: all projects.
8. Other Plans as determined by OCCL in coordination with Resource Agencies.

Appendix A Standard Conditions

Standard Conditions

1. The permittee shall comply with all applicable statutes, ordinances, rules, and regulations of the federal, state, and county governments, and applicable parts of this chapter.
2. The permittee, its successors, and assigns, shall indemnify and hold the State of Hawai'i harmless from and against any loss, liability, claim, or demand for property damage, personal injury, and death arising out of any act or omission of the applicant, its successors, assigns, officers, employees, contractors, and agents under this permit or relating to or connected with the granting of this permit.
3. The permittee shall comply with all applicable Department of Health administrative rules, where applicable.
4. The permittee, if not a public entity, shall submit a shoreline survey which takes into account all evidence of the seasonal location of the shoreline. The shoreline survey shall be validated by DLNR. In some cases, OCCL may require a shoreline certification. The shoreline shall not be altered makai by the work completed under this permit.
5. Before proceeding with any work authorized by the department or the board, the permittee shall submit four copies of the construction plans and specifications to the chairperson or an authorized representative for approval for consistency with the conditions of the permit and the declarations set forth in the permit application. Three of the copies will be returned to the permittee. Plan approval by the chairperson does not constitute approval required from other agencies.
6. Unless otherwise authorized, any work or construction to be done on the land shall be initiated within one year of the approval of such use, in accordance with construction plans that have been signed by the chairperson and shall be completed within three years of the approval of such use. The permittee shall notify the department in writing when construction activity is initiated and when it is completed.
7. The permittee shall provide public notice prior to commencement of work and will post all permits in the project vicinity, including phone numbers for emergency contacts and public comments.
8. All representations relative to mitigation set forth in the accepted application and for the proposed use are incorporated as conditions of the permit.
9. The permittee shall notify the Office of Conservation and Coastal Lands (OCCL) in writing prior to the initiation and upon completion of the project.
10. Should historic remains such as artifacts, burials or concentration of charcoal be encountered during construction activities, work shall cease immediately in the vicinity of the find, and the find shall be protected from further damage. The contractor shall immediately contact SHPD (692-8015), which will assess the significance of the find and recommend an appropriate mitigation measure, if necessary.
11. The permittee understands and agrees that the permit does not convey any

- vested right(s) or exclusive privilege.
12. In issuing the permit, the department and board have relied on the information and data that the permittee has provided in connection with the permit application. If, subsequent to the issuance of the permit such information and data prove to be false, incomplete, or inaccurate, this permit may be modified, suspended, or revoked, in whole or in part, and the department may, in addition, institute appropriate legal proceedings.
 13. When provided or required, potable water supply and sanitation facilities shall have the approval of the department of health and the county department of water supply.
 14. Where any interference, nuisance, or harm may be caused, or hazard established by the use, the permittee shall be required to take measures to minimize or eliminate the interference, nuisance, harm, or hazard.
 15. Obstruction of public roads, trails, and pathways shall be avoided or minimized. If obstruction is unavoidable, the permittee shall provide alternative roads, trails, or pathways acceptable to the department.
 16. During construction, appropriate mitigation measures shall be implemented to minimize impacts to off-site roadways, utilities, and public facilities.
 17. Artificial light from exterior lighting fixtures, including but not limited to floodlights, uplights, or spotlights used for decorative or aesthetic purposes, shall be prohibited if the light directly illuminates or is directed to project across property boundaries toward the shoreline and ocean waters, except as may be permitted pursuant to section 205A-71, HRS. All exterior lighting shall be shielded to protect the night sky.
 18. The permittee affirms that the approved work shall not hamper, impede, or otherwise limit the exercise of traditional, customary, or religious practices of native Hawaiians in the immediate area, to the extent the practices are provided for by the Constitution of the State of Hawai'i, and by Hawai'i statutory and case law.
 19. Any landscaping will shall be appropriate to the site location and shall give preference to plant materials that are endemic or indigenous to Hawai'i. The introduction of invasive plant species is prohibited.
 20. Other terms and conditions as may be prescribed by the Chairperson.
 21. Failure to comply with any of these conditions shall render this Conservation District Use Permit void under Chapter 13-5, as determined by the chairperson or board.

Appendix B: Best Management Practices for Permitted Projects

General Construction Best Management Practices

The following measures will be employed to avoid impacts and minimize negative effects caused by general construction activities:

1. The construction contractor should perform daily inspections of equipment for conditions that could cause spills or leaks; clean equipment prior to operation near the water; determine appropriate refueling and servicing sites; implement adequate spill response procedures; develop stormy weather preparation plans; and implement adequate turbidity control measures.
2. In the event of any petroleum spill on the beach or in the water, the operator must take immediate steps to contain and remove the contaminant.
3. Projects must abide by all applicable regulations concerning environmental pollution control.
4. In order to avoid impacts and minimize negative effects associated with the transport of material to the fill site, the applicant should negotiate with the dredging contractor to monitor and assess the pipeline, or any other dredge fill conveyance system used during construction. This will serve to avoid leaking of sediment from the pipeline couplings or other equipment, or other leaks that may result in sediment plumes, siltation, and/or elevated turbidity levels. The applicant must coordinate with the dredgers and have in place a mechanism to cease dredge and fill activities in the event that a substantial leak is detected (leaks resulting in turbidity that exceed state water quality standards or sedimentation). Operations may resume upon appropriate repair of affected couplings or other equipment.
5. Any construction related debris that may pose an entanglement hazard to marine protected species must be removed from the project site if not actively being used and/or at the conclusion of the construction work.
6. Beach compatible sand should not be removed from the littoral cell (either above or below mean high water) during construction activity.
7. All areas to be excavated should be surveyed and "ground-true" as necessary to identify any potential features of concern such as reef, rock, fisheries habitat, cultural resources, infrastructure, or debris. Land-based methods may include hand-held magnetometer and probing surveys, while marine-based methods may include fathometer, magnetometer, side-scan sonar, and probing surveys. The survey method, layout, and data collection frequency should be sufficient to clear the excavation area of any features that would affect future excavations.
8. The project area (i.e. both fill area and borrow area) should be surveyed before and after construction. The survey method, layout, and data collection frequency should be sufficient to adequately map topographic, bathymetric, and constructed features.
9. Other measures as agreed to in any future permits or agreements.

Cultural Resources Best Management Practices

The following measures will be employed to avoid impacts and minimize negative effects to cultural resources:

1. The permittee shall consult with the Office of Hawaiian Affairs (OHA) to assess potential impacts to Native Hawaiian rights in the project area and establish actions to reasonably protect those rights.
2. No activity will be authorized in or immediately adjacent to properties listed or eligible for listing in the National Register of Historic Places without the written consent of the **SHPD**.
3. Contractors must use the following parameters to not negatively affect or destroy any existing surface historic or cultural sites which may be near or within a project area: a minimum protective buffer of 10 feet should be maintained around surface sites, where no construction operations will be allowed, including storing or stock piling of materials or vehicular traffic. If these practices are not deemed feasible or are overly burdensome, then the SHPD should be notified to determine proper treatment and mitigation, which may include an archeological assessment.
4. If proposed activities include the repair and/or removal of potentially-historic infrastructure such as seawalls, any historic infrastructure would need to be evaluated for National Register eligibility. If deemed to have integrity and significance, in coordination with the SHPD, repairs and replacement of the historic infrastructure should be completed using Secretary of the Interiors Standards for Historic Replacement.
5. Should proposed activities include excavations, any excavations must proceed under approved applicable plans and permits. In the event that, during the course of the project, it becomes necessary for land-based excavation to extend beyond the historic extent of beach erosion and/or substantial excavation becomes warranted for unplanned activities, such as the creation of dewatering basins due to loss of subaerial beach, then the SHPD should be notified to determine proper mitigation procedures, which may include archaeological monitoring.
6. Contractors must use the following parameters to not negatively affect or destroy any existing submerged historic or cultural sites which may be near or within a project area: A minimum protective buffer of 500 feet should be maintained around submerged sites, where no beach fill recovery operations will be allowed. If these practices are not deemed feasible or are overly burdensome, then the SHPD should be notified to determine proper treatment and mitigation, which may include an archeological assessment.
7. Permit holders should suspend all work if historic properties, including sub-surface cultural deposits and burials, are uncovered during a project and proceed in coordination with the SHPD. The DLNR will also direct a permit holder to suspend all work if the DLNR is notified by the public or another agency that historic properties or burials are being adversely affected by the project. If historic properties or burials are being affected, work must be suspended or modified to

the extent necessary to mitigate any adverse effects. If human remains are discovered, the permit holder must contact the SHPD immediately.

8. The Department has the right to require the presence of an on-site archaeological monitor during sand excavation and sand placement.
9. Other measures as agreed to in any future permits or agreements.

Public Safety Best Management Practices

The following measures will be employed to avoid impacts and minimize negative effects to public safety:

1. Public access along the shoreline during active construction shall be maintained within the limitations necessary to ensure safety.
2. Project area should be cordoned off and marked with posted signs during construction. Signs must include contact information, specifics regarding the permitting and scope of the project.
3. Other measures as agreed to in any future permits or agreements.

Air Quality Best Management Practices

The following measures will be employed to avoid impacts and minimize negative effects to air quality:

1. Dust should be prevented from becoming airborne at all times including non-working hours, weekends, and holidays. Typical dust-preventing measures include sprinkling.
2. Construction vehicles should use emission control devices.
3. Beach nourishment activities using hydraulic dredges should employ direct fill placement procedures when possible to avoid excessive emissions created when mechanically transporting dewatered fill.
4. Other measures as agreed to in any future permits or agreements.

Noise Mitigation Best Management Practices

The following measures will be employed to avoid impacts and minimize negative effects to noise:

1. Noise should be kept within acceptable levels at all times in conformance with HAR Title 11 § 46 Community Noise Control, State Department of Health, Public Health Regulations. Construction equipment should be equipped with suitable mufflers to maintain noise within levels complying with applicable regulations. Starting of construction equipment meeting allowable noise limits should not be done prior to 7:00 a.m. without prior approval. Equipment exceeding allowable noise limits should not be started prior to 7:30 a.m.
2. Other measures as agreed to in any future permits or agreements.

Water Quality Best Management Practices

The following measures will be employed to avoid impacts and minimize negative effects to water quality:

1. Only beach compatible fill should be placed on the beach or in any associated dune system. Beach compatible fill should maintain the general character and functionality of the beach and the adjacent dune and coastal system. Beach fill should be similar in composition, grain size distribution (sand grain frequency, mean and median grain size, and sorting coefficient), color, and texture, and must conform to the following standards:

Overall Composition	<p>Similar in composition, grain size distribution, color and texture to existing coastal system at the placement site;</p> <ul style="list-style-type: none"> • may require more restrictive standards than the individual parameters listed below, • if existing beach sediment is outside the individual parameters below, nourishment sand will be measured in comparison to the existing site-specific sand, rather than the parameters listed here <p>No construction debris, toxic materials or foreign matter</p> <p>No material that results in cementation of the beach</p>
Silt, Clay or Colloids ; #230 Sieve	≤2%
Grain diameter <0.125mm; #120 Sieve	≤50%
Coarse Sediments ≥4.76mm; #4 Sieve	≤10%
Coarse gravel, cobbles, material >3/4inch (19.05mm)	≤ % on existing or native beach

If the native or existing beach exceeds any of the limiting parameters listed above, then the beach fill should not exceed the measured level for that parameter. More restrictive values for the sediment parameters may be considered on a project specific basis to ensure that the placed beach fill is similar in composition, grain size distribution, color, and texture to the sediment in the coastal system at the placement site. Beach fill that falls outside of these limits should be considered unacceptable and may be subject to remediation.

2. Drainage outlets at the shoreline should be maintained to minimize erosion and pollution of waterways during construction. Surface runoff should be controlled to minimize silt and other contaminants entering the water. Should excessive siltation or turbidity result from the contractor's method of operation, the contractor must implement turbidity control

measures as necessary to correct the problem.

3. Visual monitoring should be conducted during construction and include ongoing inspections for turbidity outside the project area, which is to be identified in the project permit application. In the event that excessive turbidity is observed outside the project area, work should be suspended or modified to the extent necessary to mitigate any adverse effects.
4. The applicant should demonstrate that the beach fill was obtained from an approved source.
5. All placed beach fill should be free of contaminants of any kind including: excessive silt, sludge, anoxic or decaying organic matter, turbidity, temperature or abnormal water chemistry, clay, dirt, organic material, oil, floating debris, grease or foam or any other pollutant that would produce an undesirable condition to the beach or water quality. Should the OCCL determine the beach fill quality inferior, the applicant may be asked to provide better quality fill or screen the existing fill for contaminants at their own expense.
6. For all Permit Categories except IA, geotechnical investigations that provide adequate data to define the character of the native or existing (if native sand is not available) and fill sediments should be conducted. An analysis of the native or existing beach sediment and the sediment within the proposed fill source must demonstrate compatibility. Beach fill compatibility should be determined as follows:
 - o Grain size distributions of proposed and constructed projects should be analyzed by a standard laboratory wet sieve technique (ASTM D-1140-92) and tested at a qualified facility. Grain size distributions of proposed projects should include an analysis of fill source (i.e. borrow area) and native beach, when available, or existing beach (i.e. if the beach has been previously nourished) to define beach fill compatibility specifications. Grain size distributions of constructed projects should include an analysis of placed beach fill to document as-built conditions and confirm placed beach fill complies with compatibility specifications. The survey method, layout, and sampling distribution should be sufficient to adequately describe and map the character of the existing beach, fill source, and restored/nourished beach sediments.
 - o Nearshore borrow areas and offshore borrow areas with a shallow cut depth may be characterized using surface grab samples and jet probes, while offshore borrow areas with a deep cut depth should be characterized using an appropriate sub-bottom profiler and rigid vibracores. Sub-bottom profile surveys may be necessary for nearshore borrow areas and offshore borrow areas with a shallow cut depth that are located near headlands, hardground areas, or bottom structures. The survey method, layout, and sampling distribution should be sufficient to adequately map the character of the sediment within the borrow area and design

the borrow area cuts so the beach fill meets compatibility specifications.

- o Fill area sediment samples of the existing (i.e. pre-construction) and restored/nourished (i.e. post-construction) beach should be spaced uniformly alongshore, though tighter spaced samples may be necessary to appropriately characterize smaller stretches of beach or beaches that are cellularized by natural or man-made features. The existing beach composite sediment samples should be surface grab samples collected along the active profile at the following cross-shore morphodynamic zones when present: dry beach (i.e. berm crest - 1 foot below surface), beach face (i.e. swash zone), and beach toe (i.e. base of foreshore near the low tide level). The restored/nourished beach sediment samples should be surface grab samples collected along the constructed beach (i.e. berm crest - 1 foot below surface). The survey method, layout, and sampling distribution should be sufficient to adequately map the character of the sediment within the fill area to appropriately define beach fill compatibility specifications and verify compliance.
 - o All samples should be evaluated visually for color, composition, and texture and sieved in accordance with the applicable sections of ASTM D422-63 (Standard Test Method for Particle-Size Analysis of Soils), ASTM D1140-54 (Standard Test Method for Amount of Material in Soils Finer than No. 230 Sieve), and ASTM D2487-17 (Classification of Soils for Engineering Purposes). The samples should be sieved using the following U.S. Standard Sieve Numbers: 3/4", 5/8", 7/16", 5/16", 3.5, 4, 5, 7, 10, 14, 18, 25, 35, 45, 60, 80, 120, 170, 200, and 230. The range of sieve openings must span the range of sediment sizes to be sieved. All sediment statistics should be calculated using the moment method as detailed in Folk (1974).
 - o Beach fill compatibility specifications should take into account the variability of the sediment on the native or existing beach. Compatibility may be demonstrated when the grain size distribution of the proposed beach fill is within twenty percent (20%) of the native or existing beach sediment, as measured by a percent finer than or coarser than value. For example, if 45% of the existing beach sediment is finer than the #100 sieve, the proposed beach fill could contain between 25% and 65% sediment finer than the #120 sieve.
7. For all Permit Categories except IA, an appropriate sediment quality assurance/quality control (QA/QC) plan should be prepared to ensure beach fill placed meets compatibility specifications. This plan should

outline the responsibilities of each stakeholder in the project as they relate to the placement of beach fill. The plan should specify the minimum construction oversight, inspection, and reporting requirements to be undertaken to observe, sample, and test the placed fill to verify that it meets compliance specifications. The plan should describe the methods and means to monitor and control the quality and characteristics of the fill material.

8. For all Permit Categories except IA, an appropriate turbidity control plan, which includes turbidity control measures and monitoring methods, should be prepared to ensure turbidity is controlled and limited during construction. This plan should outline the responsibilities of each stakeholder in the project as they relate to the control of turbidity within and outside the project area. The plan should specify the minimum construction oversight, inspection, and reporting requirements to be undertaken to observe, sample, and test turbidity to verify turbidity remains within acceptable limits. The plan should describe the methods and means to monitor and control turbidity.
9. Other measures as agreed to in any future permits or agreements.

Essential Fish Habitat Best Management Practices

The following measures will be employed to avoid impacts and minimize negative effects to essential fish habitat:

1. For all Permit Categories, except IA, the spatial extent of marine, benthic, and terrestrial habitat types within the project area should be delineated utilizing high-resolution aerial photography, existing data, and/or habitat maps provided by NOAA or others.
2. The design of the beach fill placement and recovery areas should be governed by sediment characteristics, appropriate buffers around any significant biological or cultural resources, and the avoidance of any unmitigated effects to coastal processes or recreational resources.
3. The equilibrium toe of the restored beach should remain within the historical extent of the beach.
4. Contractors must use these best practices to not negatively affect or destroy any existing essential fish habitat which may be near or within a project area as identified in the detailed mapping required to fulfill BMP 1 above.
5. All dredging in recovery areas should be designed to ensure that dredging will not occur within a pre-determined buffer to protect any significant hardground areas or bottom structures.
6. For projects that include dredging, a navigation and positioning system should be used by the contractor to track the dredge location in relation to a predetermined recovery area considering reef, hardbottom, and/or cultural resources and any designated buffer protection zones. The dredge contractor should be required to track and log dredge and anchor locations whenever dredging is conducted. Dredging must not occur, and anchors must not be placed within any designated buffer protection zone.
7. Project designs should be evaluated using existing information such as historical erosion and sediment transport trends from the University of Hawai'i Coastal Geology Group, the USACE, and others. However, additional field measurements and numerical modeling may be required for Category III and IV projects where insufficient data is available to understand sediment transport processes and/or where beach stabilization structures (e.g. groins) are proposed.
8. For all Permit Categories except IA, an appropriate construction quality assurance/quality control (QNQC) plan should be prepared to ensure the project template is constructed as designed to minimize negative effects to essential fish habitat. This plan should outline the responsibilities of each stakeholder in the project as they relate to the control of beach fill recovery and placement. The plan should specify the minimum construction oversight, inspection, surveying, analysis, and reporting requirements to be undertaken to verify the project is constructed per design and permit specifications. The plan should describe the methods and means to monitor and control project construction.
9. For Permit Category IIIB and IV, an appropriate project performance monitoring plan shall be prepared to monitor, analyze, and document

shoreline and volume changes within and adjacent to the project area. This plan should outline the responsibilities of each stakeholder in the project as they relate to monitoring project performance. The plan should specify the minimum post construction monitoring, surveying, analysis, and reporting requirements to be undertaken to evaluate project performance. The plan should describe the methods and means to monitor beach fill placed and document its transport.

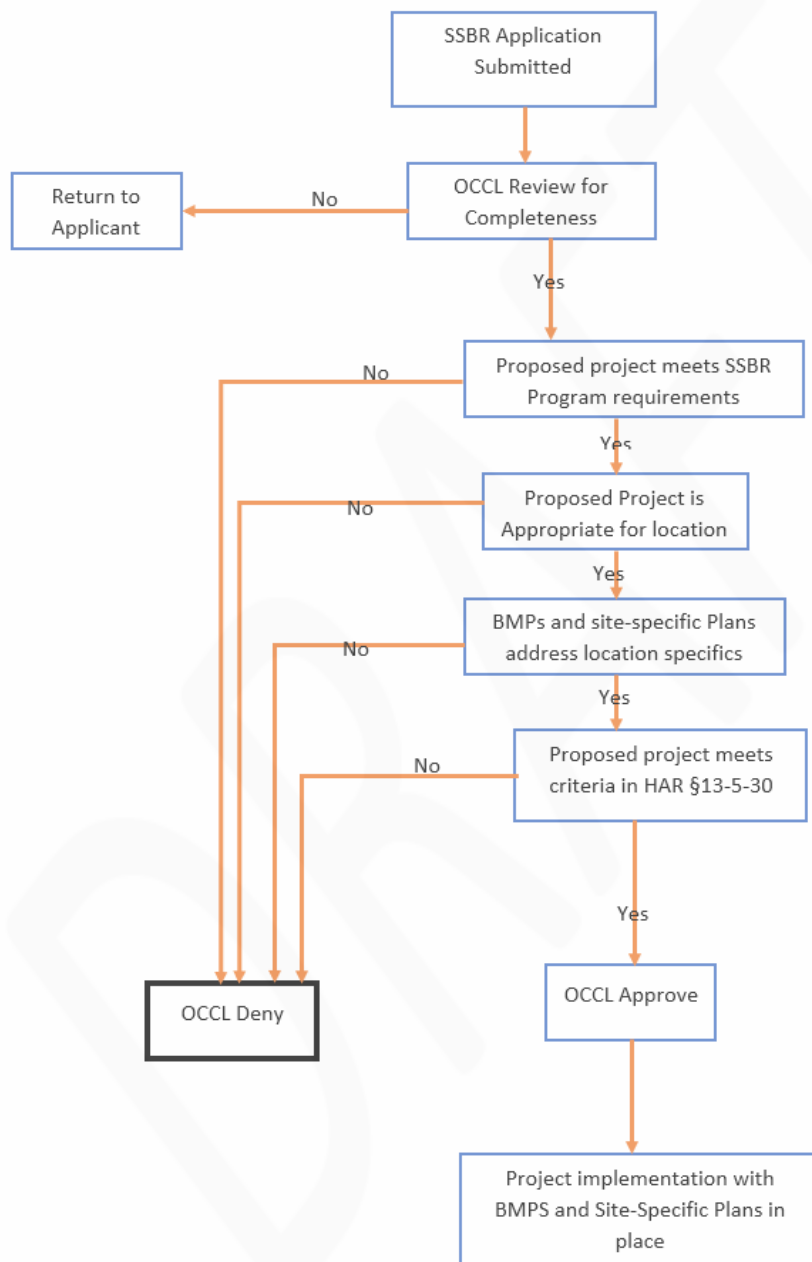
10. For Permit Category IIIB and IV, an appropriate marine ecosystems monitoring plan shall be prepared to monitor, analyze, and document project related effects upon significant biological resources within and adjacent to the project area. This plan shall outline the responsibilities of each stakeholder in the project as they relate to monitoring marine ecosystem effects. The plan should specify the minimum control, baseline (preconstruction), and post-construction monitoring, surveying, analysis, and reporting requirements to be undertaken to evaluate marine ecosystem effects. The plan should describe the methods and means to monitor significant biological resources within and adjacent to the project area.
11. Other measures as agreed to in any future permits or agreements.

Threatened and Endangered Species Best Management Practices

The following measures will be employed to avoid impacts and minimize negative effects to threatened and endangered species:

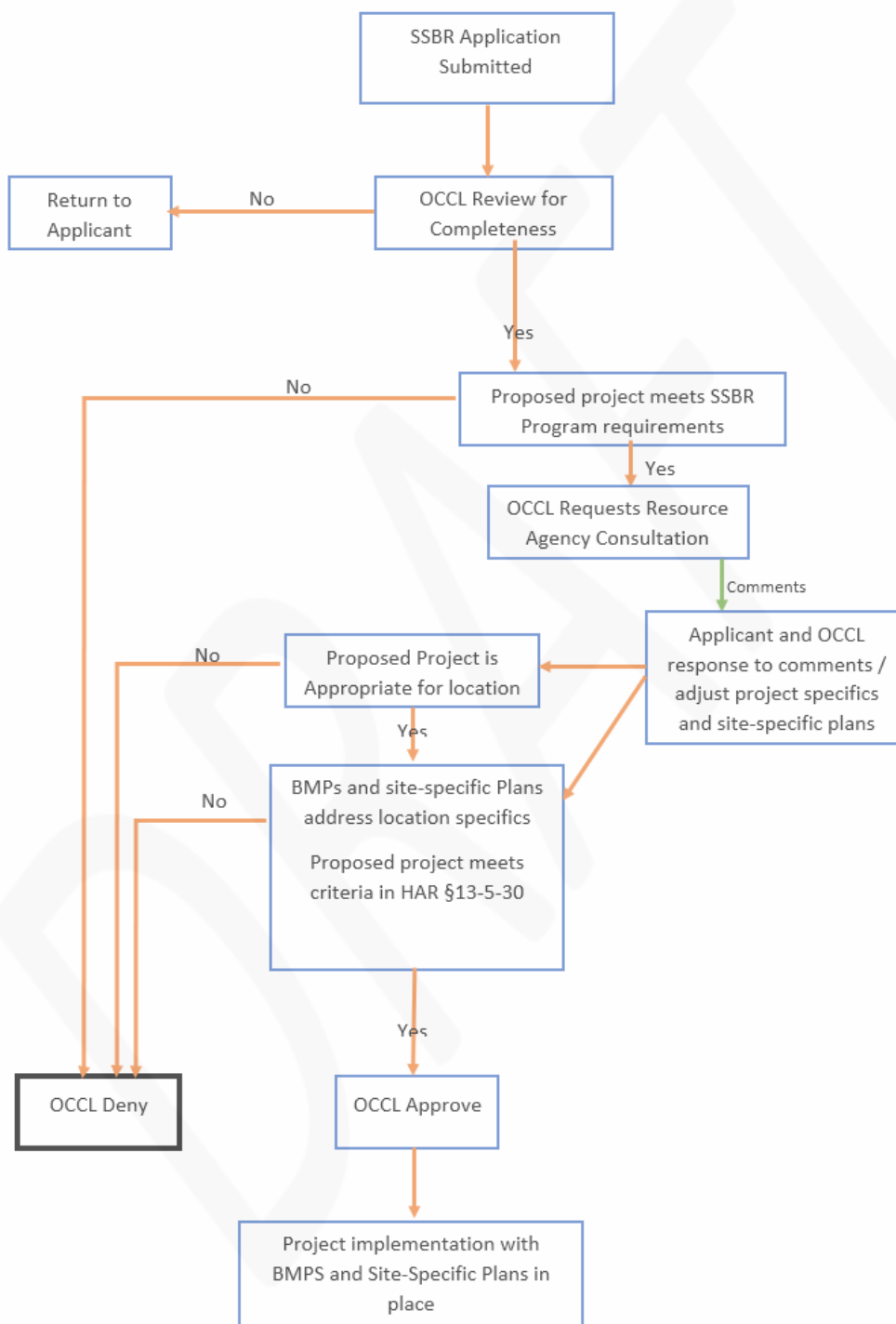
1. A competent observer shall be designated to survey the marine areas adjacent to the proposed action for ESA-listed marine species, including but not limited to the green sea turtle, hawksbill sea turtle, and Hawaiian monk seal.
2. Visual surveys for ESA-listed marine species shall be made prior to the start of work each day, and prior to resumption of work following any break of more than one half hour, to ensure that no protected species are in the area (typically within 50 yards of the proposed work).
3. Upon sighting of a monk seal or turtle within the safety zone during project activity, activity shall be immediately halted until the animal has left the zone.
4. No construction may occur at night to reduce the possibility of disrupting and disorienting nesting and hatching sea turtles and fledgling seabirds.
5. Predator-proof trash receptacles will be installed and maintained at all beach access points used for the project construction to minimize the potential for attracting predators of sea turtles.
6. Escarpment formation and sand compaction must be monitored and beach maintenance (e.g. grading, tilling) should be conducted if needed to reduce the likelihood of affecting nesting and hatchling sea turtles.
7. If a hopper dredge is used, special conditions must be developed to ensure proper monitoring of dredging equipment to prevent any effects to sea turtles or other protected species.
8. Contractors must use the preceding best practices to not harm or take threatened and endangered species.
9. Other measures as agreed to in any future permits or agreements.

Appendix C – Proposed Permitting Process Diagrams
Category 1A Projects
General Permit Review Process



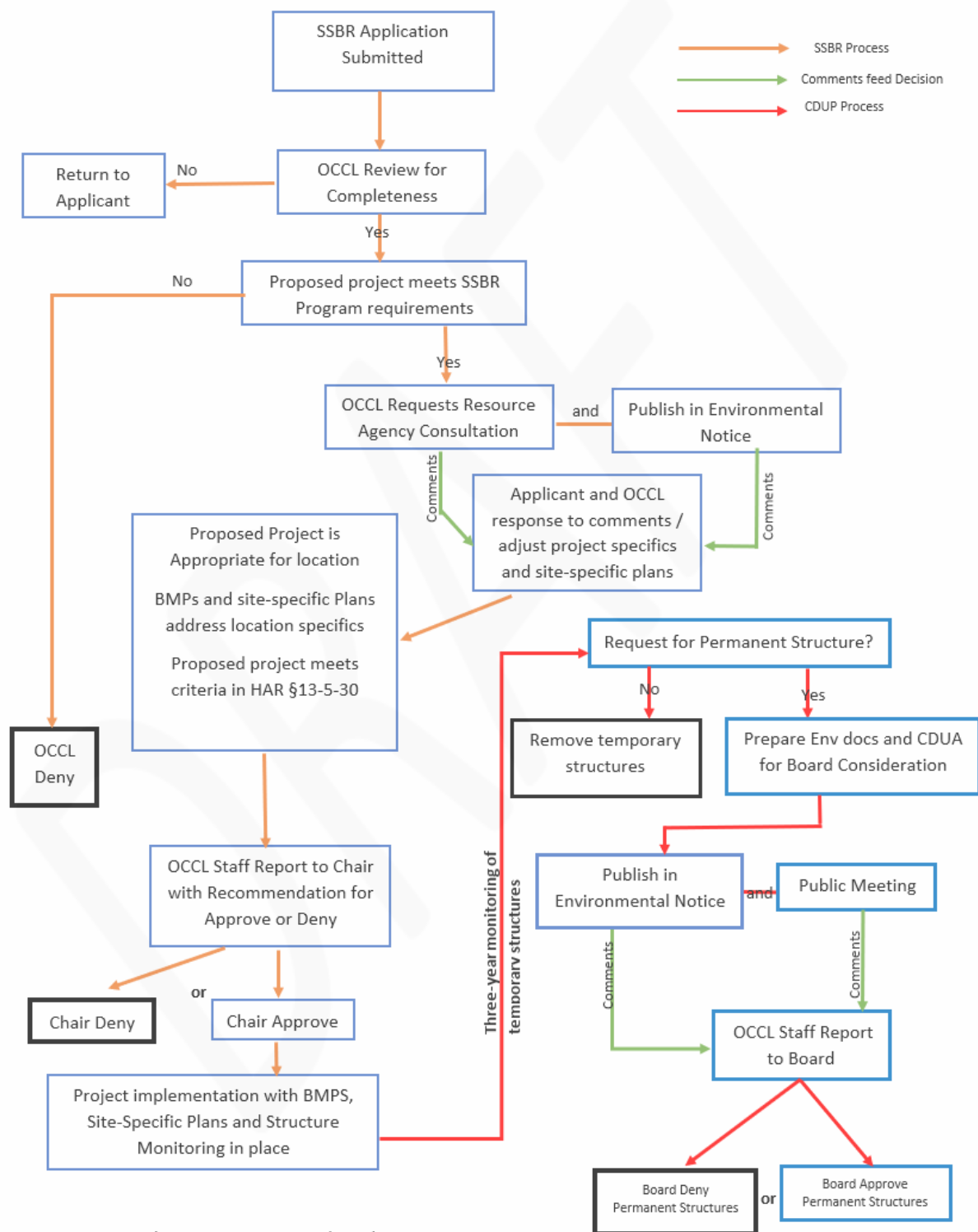
Category 1A: management above water line

Category 1B, 2 and 3A Projects General Permit Review Process

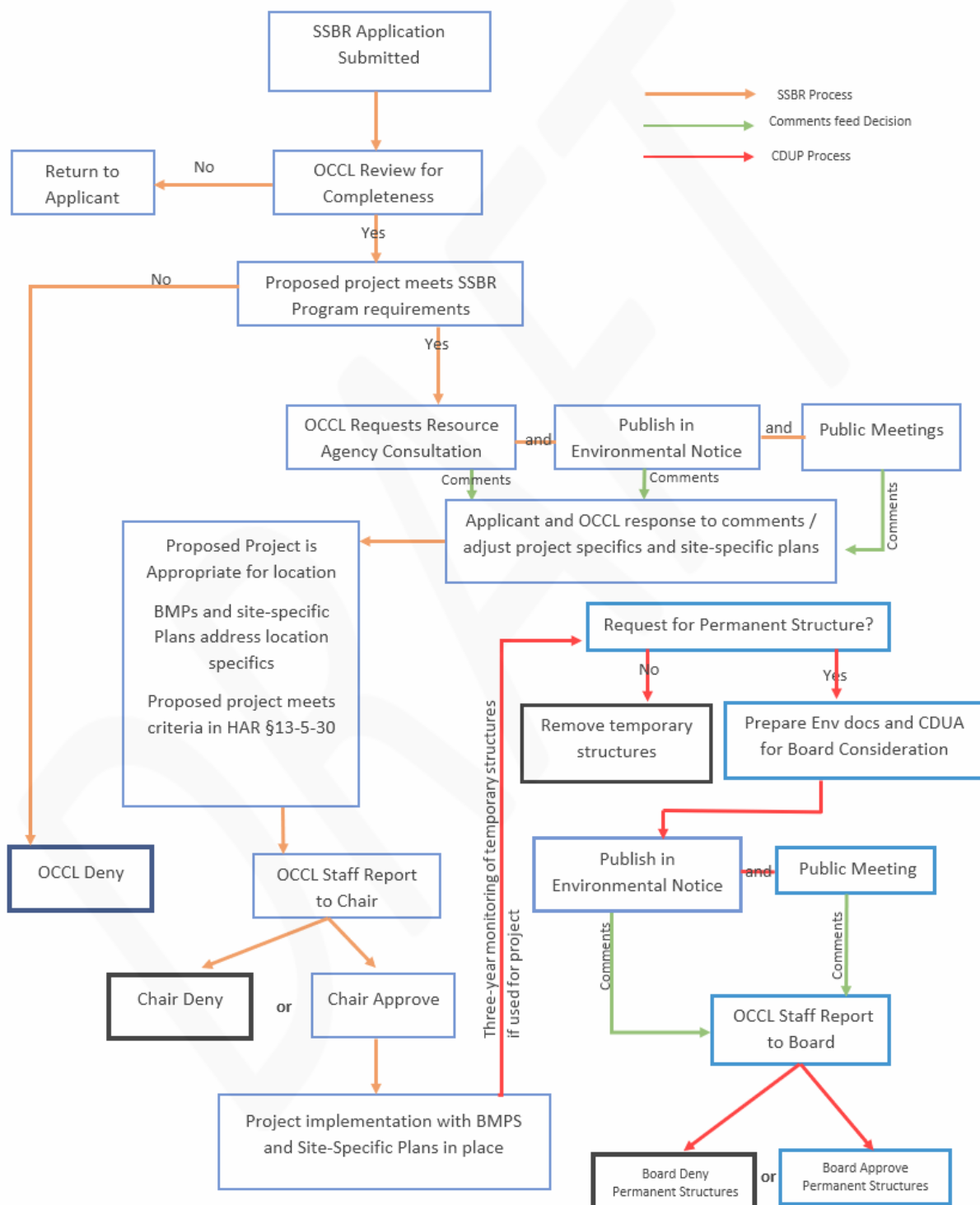


Category 1B: management above and below water line
 Category 2: nourishment only up to 1,000yd³
 Category 3A: nourishment only up to 10,000yd³

Category 3B Projects General Permit Review Process



Category 4 Projects General Permit Review Process



Category 4: nourishment up to 20,000 yd3 with or without temporary structures