

APPENDIX B | DATA GAP ANALYSIS AND FINDINGS

CONNECTING TO THE ONE WATER PLAN

This appendix provides additional detailed information that correlates to the following sections and figures.

CORRELATING SECTIONS AND INFORMATION

Sections 2–5

2 Collaboration Process

3 Islandwide Profile

4 Regional Planning District Profiles

5 Climate Hotspot Identification Process

App. B contains a summary of relevant data, including both GIS data and information from existing plans and reports. This served as the informational foundation for all initial data review and analysis.

This summary highlights existing gaps in available information and recommendations based on existing plans and reports. This knowledge informed multiple elements of the Plan.

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SECTION B.1: BACKGROUND

The purpose of this section is to provide a summary of relevant data, including both GIS data and information from existing plans and reports. Data has been gathered from members of the One Water Panel and Technical Advisory Committee (TAC), as well as GIS data for the City's utility systems and ecological and socio-cultural resources.

This summary highlights existing gaps in available information and recommendations based on existing plans and reports. It includes a review of this information organized by each of O‘ahu’s eight Regional Planning Districts, including Central O‘ahu, East Honolulu, ‘Ewa, Ko‘olau Loa, Ko‘olau Poko, North Shore, Primary Urban Center, and Wai‘anae.

This information should be used to support identification of issues, values, and needs across the districts and help inform One Water Honolulu (OWH) efforts in:

- Identifying spatial locations where climate-related concerns and existing climate-related hazards have been acknowledged
- Supporting local relevance when developing and identifying potential prioritization criteria for future project development

SECTION B.2: OVERVIEW OF EXISTING DATA

A wide range of existing data and information sources were compiled and reviewed to support this effort. These sources include geospatial datasets, planning documents, and technical reports developed by federal, state, and local agencies, as well as academic and research institutions. Collectively, these data provide a comprehensive understanding of climate hazards, infrastructure systems, and planning context, and form the foundation for identifying vulnerabilities and informing resilience strategies.

B.2.1 GIS DATA

GIS data was gathered from a number of both local and federal sources, and a list of sources is included separately in Appendix E. These data include climate hazard layers showing the extent and intensity of projected climate hazards and infrastructure layers showing the location of existing utilities and other infrastructure. These datasets span a range of hazards, including heat, wildfire, coastal and inland flooding, drought, and sea level rise, and incorporate information from sources such as the National Oceanic and Atmospheric Administration (NOAA), the Federal Emergency Management Agency (FEMA), the University of Hawai‘i, and local agencies.

These two groups of data, both climate hazard and infrastructure data, were reviewed together to determine where existing infrastructure is at risk of exposure to climate hazards. By overlaying

hazard and infrastructure datasets, the analysis identifies areas of potential exposure, including exposure to inundation, erosion, extreme heat, drought, hurricane, and wildfire. This list was later expanded to include tsunami as it is a locally relevant seismic threat. The geospatial analysis provides a consistent, islandwide understanding of climate exposure and supports prioritization of assets and locations for further evaluation and adaptation planning.

B.2.2 PLANS AND TECHNICAL REPORTS

A variety of existing plans and technical reports were also reviewed to provide context on current policies, planning efforts, and identified risks and adaptation strategies across O‘ahu, as listed at the end of this section in Table B-4. These documents include regional and watershed-level plans, countywide policies and guidance documents, and statewide studies and regulatory frameworks. Together, they describe existing conditions, document known vulnerabilities, and outline ongoing and planned initiatives related to climate adaptation, land use, water resources, and infrastructure planning.

These resources are not only critical for understanding how climate resilience is already being incorporated into planning and decision making but also for identifying opportunities to align and build upon ongoing efforts. Findings from these documents also inform the Regional Summaries, which synthesize key risks, priorities, and strategies within each of O‘ahu’s regional planning districts. The available plans and technical reports are organized by geographic scale (regional, county, state, and national) to support efficient reference and review.

SECTION B.3: DATA AND INFORMATION ANALYSIS

This section identifies the existing strengths and opportunities for each planning region across O‘ahu. The existing strengths are ongoing project efforts, policies, and programs in place within the region, identified from available data and planning documents that may help address climate risks and local challenges. Opportunities are identified from threats, gaps, and areas of concern that highlight where vulnerabilities persist. The analysis focuses on water-related systems and resilience. The overall alignment identifies similarities in strengths and opportunities across regions.

B.3.1 STRENGTHS

Existing work across the different planning districts of O‘ahu addresses and manages climate change impacts through a combination of infrastructure investments, regulatory frameworks, and programs. Many of these efforts focus on improving water supply reliability, reducing flood risks, enhancing water quality, and increasing system resilience.

To identify these strengths, Table B-1 summarizes current project efforts, as well as existing policies and programs by region, based on the reviewed available information. These efforts collectively demonstrate how agencies are already implementing elements of integrated water management.

Table B-1. Current Efforts and Policies by Region

REGION	CURRENT PROJECT EFFORTS	EXISTING POLICIES AND PROGRAMS
Central O‘ahu	• Mililani Wastewater Treatment Plant (WWTP)/Central O‘ahu Regional Park R-1 Stormwater Capture and Reuse Project • Wahiawā WWTP upgrade • Central O‘ahu Watershed Management Plan (under development) • Solid waste facility on Waipi‘o peninsula	• Community Growth Boundary framework (growth management tied to infrastructure, water demand, and resource protection)
East Honolulu	• Wailupe Stream dredging (proposed project) • Sand Island WWTP capacity upgrades • Firewise-certified neighborhoods (Kamilo Nui Valley/Mariner’s Cove, Wai‘alae Iki Ridge, Wai‘alae Iki V)	• Firewise community certification program (existing wildfire risk-reduction program) • Ongoing participation in USACE Wailupe Stream Flood Risk Management Study
‘Ewa	• Desalination plant construction (Barbers Point) • Honouliuli R-1 reservoir and pipeline • Expansion of recycled water system • Honouliuli WWTP upgrades • NPDES MS4 Best Management Practices (BMPs) (Campbell Industrial Park) • Pupu Place adaptation/retreat analysis	• NPDES MS4 permit compliance and structural BMP requirements for stormwater/trash reduction
Ko‘olau Loa	• Wailele Stream Flood Mitigation Project (City and County of Honolulu [City] Department of Design and Construction [DDC] with U.S. Army Corps of Engineers [USACE]) • Kahuku WWTP R-1 reuse (planned alternative to injection well) • Hau‘ula resiliency hub initiative • Lā‘ie WWTP produces recycled water available for reuse	• Punalu‘u Watershed Alliance partnership to coordinate streamflow management, agricultural irrigation, watershed restoration, and instream flow standard efforts in the Punalu‘u watershed
Ko‘olau Poko	• Waimānalo WWTP R-1 reuse potential • MCBH resilience review • Kawa Stream trash reduction structures • Kailua dune restoration • Highway repairs and vulnerability assessment (Hawai‘i Department of Transportation [HDOT])	• Watershed protection and prioritization program (Honolulu Board of Water Supply [BWS]) for critical recharge and surface water areas*
North Shore	• Pa‘ala‘a Kai WWTP R-1 reuse potential • Sunset Beach dune restoration	• Zoning controls restricting development in floodway, flood fringe, coastal high hazard, tsunami inundation, and floodplain areas
Primary Urban Center (PUC)	• Adapt Waikiki 2050 effort • Red Hill monitoring wells/new water source investigation • Managed aquifer recharge feasibility study (Nu‘uanu) • Watershed management planning • Ala Wai Flood Mitigation Project • Drainage and green infrastructure upgrades • Sand Island WWTP secondary treatment upgrades • New wastewater pump station (Ala Moana)	• NPDES permit compliance requirements for stormwater/wastewater systems* • Flood hazard area regulations affecting development in low-lying zones

APPENDIX B | DATA GAP ANALYSIS AND RECOMMENDATIONS

REGION	CURRENT PROJECT EFFORTS	EXISTING POLICIES AND PROGRAMS
	• Kūwili TOD and Iwilei master planning	
Wai‘anae	• Wai‘anae WWTP upgrades completed • Pursuit of aquifer designation as Ground Water Management Area	• Public Safety Power Shutoff (PSPS) program in wildfire-prone areas • Ongoing Ground Water Management Area designation process
* relevant to current regional efforts, however these policies or programs apply island-wide		

B.3.2 WEAKNESSES AND GAPS

While existing efforts demonstrate progress, this review also documents weaknesses and gaps in how climate change impacts are addressed across O‘ahu. These challenges are often associated with aging infrastructure, development pressures, and inconsistent management of water systems.

Table B-2 summarizes region-specific threats, opportunities, and locations of concern. These findings help identify where current approaches may not be sufficient to address future climate conditions or where additional coordination and investment are needed.

Table B-2. Weaknesses and Gaps

REGION	THREATS/OPPORTUNITIES	LOCATIONS OF CONCERN
Islandwide	• Changing rainfall patterns associated with climate change threaten groundwater supply and stream flow. • Concerns regarding wildfire, vegetation management, and water resource management need to be integrated into climate adaptation strategies. • Numerous cesspools pose contamination risks to groundwater and nearshore waters. • Agricultural water sources are threatened by changing precipitation patterns, and increased temperatures can affect agricultural productivity, particularly for kalo. • Wildfire risks threaten properties and ecosystems. • Encroachment of urban development on natural and agricultural lands. • Cesspools outside of service areas should be updated and replaced with septic systems. • Climate-driven coastal hazards such as sea level rise pose significant long-term problems for infrastructure located close to the ocean. • Pollution and runoff from nonpoint sources, runoff from impervious surfaces, and excessive sedimentation pose threats concerning water quality and ecosystem health. • Traditional cultural sites such as taro patches (lo‘i kalo) and fishponds (loko i‘a) require protection to maintain cultural practices and respect traditional water use. • Coastal zones are vulnerable to sea level rise and storm intensity and face risks like saltwater intrusion into freshwater sources and ecosystem disruption, requiring protective measures. • Open spaces and waterbodies provide recreation and opportunities for improved water quality. • Pollution from urban runoff and agricultural activities are affecting water quality.	Islandwide

REGION	THREATS/OPPORTUNITIES	LOCATIONS OF CONCERN
Central O‘ahu	- Climate-driven hazards such as flooding along streams and coastal and shoreline erosion threaten Waipahū homes and businesses and may require infrastructure improvements. - The transportation network is affected by flooding (Farrington Highway). - Sedimentation and chemical and nutrient contamination from polluted streams and nonpoint sources can negatively affect potable water, the Pearl Harbor aquifer, and agriculture. - Kaukonahua Stream (north and south forks), which drain to the North Shore, have specific regulated water quality concerns for nutrients and sediments. - New water sources are needed to support growing demand in the Primary Urban Center and sources may be developed in Waipahū and Waiawa. - Effluent can enter local streams with environmental and agricultural concerns (Schofield Barracks).	Waipahū (Waikele, Kapakahi Wailani Channel); lower Waiawa Stream; Farrington Highway; Waipahū Town; Waipahū Gardens; Royal Kunia; ash landfill and former incinerator site; Waipi‘o peninsula
East Honolulu	- Severe flooding can occur in valleys and there is inadequate flood control in Wailupe Stream. - There is a need for enhanced drainage, debris management, and flood control systems. - Threats to Kānewai Spring and rare species from urban pressures exist. - High salinity levels in recycled water from East Honolulu Wastewater Treatment Plant effluent limit its use. - Emergency shelters are not hurricane-rated or climate change resilient.	Wailupe Stream; Niu Valley; Kuli‘ou‘ou Valley; Haha‘ione Valley; Kamehame Ridge to Hawai‘i Kai Golf Course; steep hillsides; Maunaloa Bay; emergency shelters
‘Ewa	‘Ewa Plain: Low-lying region susceptible to flooding, with ongoing efforts for improved stormwater systems. - Renton, Tenney, and Varona Villages: Identified for inadequate drainage and flood risks, requiring targeted infrastructure upgrades. - Kalo‘i Ditch: Needs enhanced stormwater management to reduce runoff and flooding impacts. - Expansion of graywater and stormwater capture and reuse including areas that can leverage green infrastructure like golf courses or parks. - Additional water sources should be developed in this area, as it imports more than half of its water needs. - Erosion and sea-level rise threaten coastal areas. - Ko ‘Olina: Coastal resort area facing challenges from erosion and rising sea levels, critical for tourism resilience.	‘Ewa Plain; Renton, Tenney, and Varona Villages; Kalo‘i Ditch; Ko ‘Olina; Pupu Place; Kalaeloa; Kapolei; Barbers Point Industrial Park; ‘Ewa-Waipahū system (Kunia and Waikele Gulch wells)

REGION	THREATS/OPPORTUNITIES	LOCATIONS OF CONCERN
Ko'olau Loa	- Increasingly frequent and severe storms overwhelm drainage systems, heightening regional flood risks with flooding in the low-lying areas (Punalu'u, Hau'ula, and Kahuku) and in valleys, streams (Kahana and Kaluanui near the Sacred Falls, Mālaekahana, and Ma'akua), and school areas (Kahuku Intermediate and High School). - Sea-level rise intensifies coastal flooding (Punalu'u, Hau'ula, and Kahuku) and areas of Kamehameha Highway are sometimes not passable due to inundation. - Agricultural and potable water supply are drought-prone in areas of Ko'olau Loa. - Numerous cesspools require conversion. - Need to coordinate with existing community organizations on climate adaptation planning. - Proposed development in Lā'ie has raised concerns about water preservation and cultural heritage.	Punalu'u; Hau'ula; Kahuku; Kahana Stream; Kaluanui; Mālaekahana; Ma'akua; Kahuku High and Intermediate School; Punalu'u Valley; Kahana Valley; Kaluanui Valley; Lā'ie; coastal areas; Kamehameha Highway
Ko'olau Poko	- Protecting and promoting cultural sites and practices is of utmost importance. - Need to protect the limited drinking water sources in Ko'olau Poko, such as Waihe'e Watershed.	Kawainui Marsh; Ka'elepulu Pond; He'eia Wetland; coastal waters; Kualoa Regional Park; Waihe'e Watershed; Waikalua, He'eia, Nu'upia fishponds; Waikāne; Kāne'ohe; Kailua; Lanikai; Maunawili Valley; Ko'olau Mountains
North Shore	- Heavy rains and flooding events threaten critical infrastructure, businesses, and residences along streams. These streams also have the potential for ecological restoration. - About 40% of cesspools in Waialua-Hale'iwa are failing, and they can impact the stream and nearshore water quality. - Existing WWTPs are limited in service area and potential sources for recycled water. - Agricultural opportunities are limited by the R-2 water from Wahiawā Reservoir (Lake Wilson) that supplies irrigation water to the North Shore via the Wahiawā irrigation system; R-2 water can only be used for crops where water does not touch edible portions of plants. - Kaiwiko'ele Stream (Waimea River) poses significant concerns for natural resources and flooding impacts. - Portions of Kamehameha Highway can sometimes be closed during periods of high surf or flooding.	Waialua-Hale'iwa cesspools; Pa'ala'a Kai WWTP; Hale'iwa WWTP; Pūpūkea-Sunset Beach WWTP; Kaiwiko'ele Stream; Lake Wilson; Waialua Mill site; erosion-prone areas; agricultural lands; polluted streams; coastal zones; Waialua watershed

REGION	THREATS/OPPORTUNITIES	LOCATIONS OF CONCERN
Primary Urban Center (PUC)	- Heavy rains and flooding events threaten critical infrastructure, businesses, and residences along streams (including the 'Aiea and Hālawā Streams). These streams also have the potential for ecological restoration. - Pollutants from urban runoff affect recreational opportunities and public health; addressing this may provide restoration opportunities. - Some of the densely urbanized areas are at high-risk for flooding and coastal inundation. - Outdated infrastructure adversely impacts water, wastewater, and stormwater services, contributing to pollution. - Sea level rise impacts certain infrastructure (including Sand Island WWTP). - Water sources for drinking water need long-term protection (Honolulu and Pearl Harbor Aquifers).	'Aiea Stream; Hālawā Stream; Ala Wai Canal; Waikiki Beaches; Māpunapuna Industrial Area; Lagoon Drive; Middle Street; Waiwai Loop; Kapālama Canal; Kalihi; areas makai of Kapi'olani Blvd; Pearl Harbor shoreline; Ke'ehi Lagoon; Nu'uanu Stream; Sand Island WWTP; aquifers
Wai'anae	- Flash flooding occurs along streams and affects the roadway network. - Farrington Highway is affected by flooding and is the only typical method of ingress and egress to the region. - Saltwater inundation is threatening potable and brackish water sources. - Existing and future development puts pressure on water and wastewater infrastructure. Stormwater/drainage infrastructure is also affected. - Large areas of Wai'anae are subject to PSPS by the Hawaiian Electric Company (HECO) during periods of high risk of wildfire and wildfire prevention is needed. - Wildfire risk is very high across the region.	Farrington Highway; Kili Drive; Mākaha roads; Kepue Street; Water Street; Mākaha Stream; oceanfront drainage outlets; Nānākuli; Lualuelei; coastal areas; anchialine ponds; Nānākuli Shaft; Lualuelei Shaft; aquifer systems

B.3.3 ALIGNMENT SUMMARY

This review of strengths and weaknesses across regions shows several consistent themes and areas of alignment:

- Expansion of water reuse and alternative water supply strategies:** Many regions are advancing R-1 reuse, desalination, or managed aquifer recharge to diversify potable and non-potable supply sources.
- Investment in wastewater and stormwater infrastructure upgrades:** Multiple districts are upgrading treatment plants, drainage systems, and pump stations to improve system reliability and resilience to climate impacts.
- Emphasis on watershed-scale management and planning:** Watershed management plans and programs reflect a shift toward integrated, watershed-level approaches to water resource protection and allocation.

- **Compliance with regulatory frameworks for stormwater and flood management:** Programs such as NPDES MS4 compliance and flood hazard zoning regulations provide consistent, enforceable mechanisms across regions.
- **Use of nature-based and green infrastructure solutions:** Projects such as dune restoration, green infrastructure retrofits, and low-impact development practices support both resilience and water quality improvements.
- **Integration of climate adaptation into planning and infrastructure decisions:** Efforts such as adaptation planning, resilience hubs, and resilience-focused capital projects indicate increasing consideration of future climate risks.
- **Growing coordination across agencies and programs:** Many efforts involve collaboration between multiple departments (e.g., BWS, Department of Facility Maintenance [DFM], Department of Environmental Services [ENV], Department of Planning and Permitting [DPP]), reflecting movement toward more integrated water management.

Across regions, the threats and opportunities reveal several consistent challenges:

- **Widespread flood risk driven by aging or insufficient drainage infrastructure:** Flooding along streams, in low-lying urban areas, and along transportation corridors is a recurring issue across multiple districts.
- **Water quality degradation from nonpoint source pollution and aging infrastructure:** Sedimentation, nutrient loading, urban runoff, and failing cesspools are consistently identified as major concerns affecting both surface water and groundwater.
- **Vulnerability of coastal and low-lying areas to sea level rise and erosion:** Communities across O‘ahu face increasing risks from coastal flooding, shoreline erosion, shallow groundwater, and saltwater intrusion. In particular, the following communities in the following locations were mentioned: ‘Ewa, PUC, Ko‘olau Loa, and the North Shore.
- **Increasing stress on water supply systems due to growth and climate variability:** Several regions highlight the need for additional water sources and express concerns about drought, changing rainfall patterns, and demand growth.
- **Localized approaches to resilience and water management:** While projects exist, they are often site-specific and not fully integrated at a watershed scale. Further coordination with local entities may shed more light on community-scale efforts at the ahupua‘a level.
- **Compounding hazards requiring integrated solutions:** Regions are increasingly experiencing overlapping hazards (e.g., drought and wildfire, flooding and coastal inundation), highlighting the need for multi-benefit strategies.

- **Encroachment of development into sensitive water resource areas:** Urban expansion into floodplains, coastal zones, and recharge areas continues to increase exposure and strain infrastructure systems.

Together, these findings illustrate that while O‘ahu has a strong foundation of water-related investments and policies, there remains a need to better integrate these efforts into a cohesive, islandwide strategy that addresses both current and future climate risks. Islandwide recommendations are denoted in the implementation plan in Section 8.

SECTION B.4: MASTER LIST OF PERTINENT EXISTING PLAN RECOMMENDATIONS

This section summarizes existing plan recommendations related to climate change adaptation and One Water strategies. Table B-3 summarizes recommendations identified through the review of existing plans, studies, and policy documents relevant to water resource management, watershed health, infrastructure resilience, and environmental stewardship on O‘ahu. Recommendations were consolidated where similar themes, policies, or implementation measures were identified across multiple source documents to reduce redundancy and highlight areas of broad consensus.

For the purposes of this evaluation, recommendations have been categorized as Goals, Policies, or Projects. Goals represent broad desired outcomes or planning priorities. Policies provide guidance for future decision making, resource management, and development. Projects represent discrete studies, planning efforts, capital improvements, restoration initiatives, infrastructure investments, monitoring programs, or other implementation measures that may be undertaken to advance identified goals and policies.

Where applicable, implementation timelines, responsible agencies, supporting partners, and planning-level cost ranges have been identified to provide context regarding the potential effort required to advance each recommendation. These implementation-related attributes represent planning-level professional judgment based on the nature and scale of the recommendation and are not necessarily derived directly from the source documents. The recommendations presented herein are intended to serve as a high-level synthesis of existing planning guidance and do not replace or supersede the detailed recommendations, implementation measures, or policy language contained within the original source documents. Rather, they are intended to identify recurring themes, implementation opportunities, and potential areas where additional coordination, analysis, funding, or future investment may be warranted.

The list of existing plans and technical reports referenced are included in Table B-4.

Table B-3. Existing Plan Recommendations

#	RECOMMENDATION	CATEGORY	SOURCE DOCUMENT(S)	TIMELINE	IMPLEMENTATION STATUS	LEAD AGENCY	SUPPORT AGENCIES	ESTIMATED COST
1	Protect and enhance water quality in groundwater, surface waters, wetlands, estuaries, and nearshore environments.	Goal	East Honolulu Watershed Management Plan; ‘Ewa Watershed Management Plan; Wai‘anae Watershed Management Plan Update; North Shore Watershed Management Plan; Ko‘olau Poko Watershed Management Plan; Ko‘olau Loa Watershed Management Plan; Water Resource Protection Plan; Hawai‘i Nonpoint Source Management Plan	N/A	Ongoing	Commission on Water Resource Management (CWRM)	BWS; Department of Health (DOH) Clean Water Branch; Department of Land and Natural Resources (DLNR); DPP; DFM; Office of Hawaiian Affairs (OHA)	Not specified
2	Protect and enhance water quantity through sustainable groundwater, surface water, and watershed management.	Goal	East Honolulu Watershed Management Plan; ‘Ewa Watershed Management Plan; Wai‘anae Watershed Management Plan Update; North Shore Watershed Management Plan; Ko‘olau Poko Watershed Management Plan; Ko‘olau Loa Watershed Management Plan; Water Master Plan; Water Resource Protection Plan	N/A	Ongoing	BWS	CWRM; DPP; DFM; DLNR Division of Forestry and Wildlife (DOFAW); DOH	Not specified
3	Promote healthy and functioning watersheds from mauka to makai.	Goal	Wai‘anae Watershed Management Plan Update; North Shore Watershed Management Plan; Ko‘olau Poko Watershed Management Plan; Ko‘olau Loa Watershed Management Plan; Climate Ready O‘ahu; Water Resource Protection Plan	N/A	Ongoing	BWS	DLNR-DOFAW; CWRM; Watershed Partnerships; DPP; DOH	Not specified
4	Support long-term water supply reliability and meet future water demands through conservation, reuse, and diversified supply sources.	Goal	Water Master Plan; East Honolulu Watershed Management Plan; ‘Ewa Watershed Management Plan; Wai‘anae Watershed Management Plan Update; ‘Ewa Development Plan; Primary Urban Center Development Plan; Central O‘ahu Sustainable Communities Plan	N/A	Ongoing	BWS	CWRM; DPP; DFM; DOH; ENV	Not specified
5	Protect Native Hawaiian traditional and customary practices, cultural resources, and community relationships associated with water resources.	Goal	Wai‘anae Watershed Management Plan Update; North Shore Watershed Management Plan; Ko‘olau Poko Watershed Management Plan; Ko‘olau Loa Watershed Management Plan; Water Resource Protection Plan; Wai‘anae Sustainable Communities Plan; North Shore Sustainable Communities Plan	N/A	Ongoing	CWRM	BWS; OHA; State Historic Preservation Division (SHPD); DPP; DLNR; Community Organizations	Not specified
6	Increase community resilience to climate change, drought, flooding, wildfire, sea level rise, and other water-related hazards.	Goal	Climate Ready O‘ahu; Multi-Hazard Pre-Disaster Mitigation Plan; East Honolulu Watershed Management Plan; Wai‘anae Watershed Management Plan Update; ‘Ewa Watershed Management Plan; Mākaha Special Area Plan	N/A	Ongoing	Office of Climate Change, Sustainability and Resiliency (CCSR)	Department of Emergency Management (DEM); DPP; DFM; BWS; CWRM; DOH	Not specified
7	Promote sustainable development patterns that protect water resources and avoid increasing flood, runoff, and water demand impacts.	Goal	‘Ewa Development Plan; Primary Urban Center Development Plan; North Shore Sustainable Communities Plan; Wai‘anae Sustainable Communities Plan; Central O‘ahu Sustainable Communities Plan; East Honolulu Sustainable Communities Plan	N/A	Ongoing	DPP	BWS; DFM; CWRM; DOH; Department of Transportation Services (DTS)	Not specified
8	Strengthen community stewardship, education, and public participation in water resource management.	Goal	East Honolulu Watershed Management Plan; Wai‘anae Watershed Management Plan Update; North Shore Watershed Management Plan; Ko‘olau Poko Watershed Management Plan; Climate Ready O‘ahu; Storm Water Strategic Plan	N/A	Ongoing	BWS	DFM; DOH; DPP; CCSR; Neighborhood Boards; Community Organizations	Not specified

#	RECOMMENDATION	CATEGORY	SOURCE DOCUMENT(S)	TIMELINE	IMPLEMENTATION STATUS	LEAD AGENCY	SUPPORT AGENCIES	ESTIMATED COST
9	Improve interagency coordination and data sharing for One Water planning, implementation, and adaptive management.	Goal	Water Master Plan; Water Resource Protection Plan; Storm Water Strategic Plan; Climate Ready O’ahu; City Storm Water Management Program Plan; Hawai’i Nonpoint Source Management Plan	N/A	Ongoing	CCSR	BWS; CWRM; DFM; DOH; DPP; ENV	Not specified
10	Reduce flood risk in flood-prone watersheds, valleys, urban areas, and low-lying coastal communities.	Goal	East Honolulu Watershed Management Plan; ‘Ewa Watershed Management Plan; Wai’anae Watershed Management Plan Update; Mākaha Special Area Plan; Primary Urban Center Development Plan; Multi-Hazard Pre-Disaster Mitigation Plan	N/A	Ongoing	DFM	DPP; BWS; DEM; CCSR; CWRM	Not specified
11	Improve stormwater management and runoff control through site design, retention, detention, infiltration, and BMPs.	Goal	Storm Water Strategic Plan; City Storm Water Management Program Plan; ‘Ewa Development Plan; Primary Urban Center Development Plan; North Shore Sustainable Communities Plan; East Honolulu Watershed Management Plan	N/A	Ongoing	DFM	DPP; DOH; BWS; DTS	Not specified
12	Increase groundwater recharge and infiltration where consistent with water quality protection.	Goal	‘Ewa Watershed Management Plan; North Shore Watershed Management Plan; Ko’olau Poko Watershed Management Plan; Water Resource Protection Plan; Storm Water Strategic Plan	N/A	N/A	BWS	CWRM; DPP; DFM; DOH; DLNR	Not specified
13	Reduce pollutant loading from urban, agricultural, industrial, and transportation-related runoff.	Goal	Hawai’i Nonpoint Source Management Plan; City Storm Water Management Program Plan; Storm Water Strategic Plan; North Shore Watershed Management Plan; Wai’anae Sustainable Communities Plan; Primary Urban Center Development Plan	N/A	N/A	DOH	DFM; DPP; BWS; HDOT; Department of Agriculture (DOA); Agricultural Stakeholders	Not specified
14	Reduce sediment loading to streams, wetlands, Pearl Harbor, and nearshore receiving waters.	Goal	North Shore Watershed Management Plan; Central O’ahu Sustainable Communities Plan; Hawai’i Nonpoint Source Management Plan; Storm Water Strategic Plan; Wai’anae Watershed Management Plan Update	N/A	N/A	DOH	DFM; DLNR; DPP; BWS; HDOT	Not specified
15	Expand recycled water and non-potable water use where feasible.	Goal	Water Master Plan; East Honolulu Watershed Management Plan; ‘Ewa Watershed Management Plan; ‘Ewa Development Plan; Primary Urban Center Development Plan; Central O’ahu Sustainable Communities Plan	N/A	Ongoing	BWS	ENV; DOH; DPP; CWRM; DFM	Not specified
16	Improve wastewater treatment and reduce water quality impacts from cesspools and onsite sewage disposal systems.	Goal	East Honolulu Watershed Management Plan; North Shore Sustainable Communities Plan; North Shore Watershed Management Plan; Hawai’i Nonpoint Source Management Plan; Water Resource Protection Plan	N/A	Ongoing	DOH	ENV; DPP; BWS; CWRM; Property Owners	Not specified
17	Improve resilience of water, wastewater, drainage, transportation, and emergency response infrastructure.	Goal	Climate Ready O’ahu; Multi-Hazard Pre-Disaster Mitigation Plan; Water Master Plan; ‘Ewa Watershed Management Plan; Mākaha Special Area Plan; Primary Urban Center Development Plan	N/A	Ongoing	CCSR	DEM; BWS; DFM; ENV; DPP; DTS; HDOT	Not specified
18	Improve hazard preparedness for flooding, wildfire, drought, sea level rise, and tsunami events.	Goal	Climate Ready O’ahu; Multi-Hazard Pre-Disaster Mitigation Plan; Mākaha Special Area Plan; Wai’anae Watershed Management Plan Update; North Shore Watershed Management Plan; East Honolulu Watershed Management Plan	N/A	Ongoing	DEM	CCSR; Honolulu Fire Department (HFD); DPP; BWS; DFM; HDOT	Not specified

#	RECOMMENDATION	CATEGORY	SOURCE DOCUMENT(S)	TIMELINE	IMPLEMENTATION STATUS	LEAD AGENCY	SUPPORT AGENCIES	ESTIMATED COST
19	Improve water resource monitoring, data collection, and adaptive management.	Goal	Water Resource Protection Plan; Water Master Plan; East Honolulu Watershed Management Plan; 'Ewa Watershed Management Plan; Wai'anae Watershed Management Plan Update; North Shore Watershed Management Plan; Ko'olau Poko Watershed Management Plan; Ko'olau Loa Watershed Management Plan; Storm Water Strategic Plan; Hawai'i Nonpoint Source Management Plan	N/A	N/A	CWRM	BWS; DOH; DFM; DLNR; University of Hawai'i (UH); U.S. Geological Survey (USGS)	Not specified
20	Increase public awareness of water conservation, pollution prevention, watershed health, and hazard preparedness.	Goal	East Honolulu Watershed Management Plan; 'Ewa Watershed Management Plan; Wai'anae Watershed Management Plan Update; North Shore Watershed Management Plan; Ko'olau Poko Watershed Management Plan; Ko'olau Loa Watershed Management Plan; Climate Ready O'ahu; Storm Water Strategic Plan; Hawai'i Nonpoint Source Management Plan; City Storm Water Management Program Plan	N/A	Ongoing	BWS	DFM; DOH; CCSR; DEM; DPP; Community Organizations	Not specified
21	Protect aquifer recharge areas and drinking water sources from contamination and incompatible land uses.	Goal	Water Resource Protection Plan; 'Ewa Watershed Management Plan; North Shore Watershed Management Plan; Central O'ahu Sustainable Communities Plan; 'Ewa Development Plan	N/A	Ongoing	CWRM	BWS; DPP; DOH; DLNR	Not specified
22	Protect wetlands, estuaries, stream corridors, natural drainageways, and coastal ecosystems.	Goal	Wai'anae Watershed Management Plan Update; North Shore Watershed Management Plan; Ko'olau Poko Watershed Management Plan; 'Ewa Watershed Management Plan; Mākaha Special Area Plan; Climate Ready O'ahu	N/A	Ongoing	DLNR	BWS; CWRM; DPP; DOH; DFM; OHA	Not specified
23	Improve drought preparedness and reduce potable water demand.	Goal	Water Master Plan; Wai'anae Watershed Management Plan Update; Mākaha Special Area Plan; Climate Ready O'ahu; 'Ewa Development Plan; East Honolulu Watershed Management Plan	N/A	Ongoing	BWS	CWRM; CCSR; DPP; DOH	Not specified
24	Support green infrastructure and nature-based solutions to manage stormwater, flooding, and water quality.	Goal	Storm Water Strategic Plan; Climate Ready O'ahu; Mākaha Special Area Plan; East Honolulu Watershed Management Plan; Primary Urban Center Development Plan	N/A	Ongoing	DFM	CCSR; DPP; BWS; DOH; Community Organizations	Not specified
25	Improve coastal and nearshore water quality by reducing land-based pollutants.	Goal	Hawai'i Nonpoint Source Management Plan; Wai'anae Watershed Management Plan Update; North Shore Watershed Management Plan; Ko'olau Poko Watershed Management Plan; Primary Urban Center Development Plan	N/A	N/A	DOH	DFM; DLNR; BWS; DPP; Community Organizations	Not specified
26	Support watershed restoration and invasive species management to protect water resources.	Goal	Wai'anae Watershed Management Plan Update; North Shore Watershed Management Plan; Ko'olau Poko Watershed Management Plan; Ko'olau Loa Watershed Management Plan; Climate Ready O'ahu	N/A	Ongoing	DLNR-DOFAW	BWS; Watershed Partnerships; CWRM; DOH; Community Organizations	Not specified
27	Improve water-related emergency access, evacuation, and lifeline infrastructure.	Goal	Mākaha Special Area Plan; Multi-Hazard Pre-Disaster Mitigation Plan; Wai'anae Sustainable Communities Plan; East Honolulu Watershed Management Plan; North Shore Watershed Management Plan	N/A	Ongoing	DEM	DTS; HDOT; HFD; DPP; BWS; DFM	Not specified

#	RECOMMENDATION	CATEGORY	SOURCE DOCUMENT(S)	TIMELINE	IMPLEMENTATION STATUS	LEAD AGENCY	SUPPORT AGENCIES	ESTIMATED COST
28	Support community-based stewardship of streams, fishponds, wetlands, and watershed resources.	Goal	Koʻolau Poko Watershed Management Plan; Waiʻanae Watershed Management Plan Update; North Shore Watershed Management Plan; Water Resource Protection Plan	N/A	Ongoing	BWS	OHA; DLNR; DOH; DPP; Community Organizations; Fishpond Stewardship Groups	Not specified
29	Improve equity in water-related infrastructure, hazard mitigation, and community resilience investments.	Goal	Climate Ready Oʻahu; Multi-Hazard Pre-Disaster Mitigation Plan; Waiʻanae Sustainable Communities Plan; Primary Urban Center Development Plan	N/A	N/A	CCSR	DPP; DFM; BWS; DEM; DOH; Community Organizations	Not specified
30	Protect aquifer recharge areas from incompatible land use and development.	Policy	Water Resource Protection Plan; ʻEwa Watershed Management Plan; North Shore Watershed Management Plan; Central Oʻahu Sustainable Communities Plan; ʻEwa Development Plan	N/A	N/A	DPP	CWRM; BWS; DOH; DLNR	Not specified
31	Promote low impact development standards and site design practices that retain and treat stormwater onsite.	Policy	East Honolulu Watershed Management Plan; Primary Urban Center Development Plan; Storm Water Strategic Plan; ʻEwa Development Plan; Central Oʻahu Sustainable Communities Plan	N/A	Ongoing	DPP	DFM; DOH; BWS; CCSR	Not specified
32	Promote green infrastructure and nature-based drainage solutions to increase infiltration and reduce runoff.	Policy	Mākaha Special Area Plan; Storm Water Strategic Plan; Climate Ready Oʻahu; Primary Urban Center Development Plan; East Honolulu Watershed Management Plan	N/A	Ongoing	DFM	DPP; CCSR; BWS; DOH	Not specified
33	Require future development to address existing drainage capacity and avoid worsening downstream flooding.	Policy	Mākaha Special Area Plan; ʻEwa Development Plan; Primary Urban Center Development Plan; East Honolulu Sustainable Communities Plan; Waiʻanae Sustainable Communities Plan	N/A	Ongoing	DPP	DFM; BWS; CCSR; DTS	Not specified
34	Encourage water-efficient fixtures, appliances, and plumbing systems in new development and retrofits.	Policy	Water Master Plan; Mākaha Special Area Plan; East Honolulu Watershed Management Plan; ʻEwa Development Plan; Central Oʻahu Sustainable Communities Plan	N/A	Ongoing	BWS	DPP; ENV; CWRM; CCSR; Developers	Not specified
35	Promote drought-tolerant, xerophytic, and native landscaping to reduce irrigation demand.	Policy	Mākaha Special Area Plan; Water Master Plan; Climate Ready Oʻahu; East Honolulu Watershed Management Plan; Waiʻanae Sustainable Communities Plan	N/A	Ongoing	BWS	DPP; CCSR; DLNR; Community Organizations	Not specified
36	Support conversion of cesspools and onsite sewage disposal systems to systems that provide a higher level of treatment.	Policy	East Honolulu Watershed Management Plan; North Shore Sustainable Communities Plan; North Shore Watershed Management Plan; Hawaiʻi Nonpoint Source Management Plan	By 2050	Ongoing	DOH	ENV; DPP; BWS; CWRM; Property Owners	Not specified
37	Promote recycled water and non-potable water use for irrigation, landscaping, industrial, and other appropriate uses.	Policy	Water Master Plan; ʻEwa Watershed Management Plan; East Honolulu Watershed Management Plan; ʻEwa Development Plan; Central Oʻahu Sustainable Communities Plan; Primary Urban Center Development Plan	N/A	Ongoing	BWS	ENV; DOH; DPP; CWRM; DFM	Not specified
38	Protect natural stream corridors, stream banks, and waterways from degradation.	Policy	Mākaha Special Area Plan; Waiʻanae Watershed Management Plan Update; North Shore Watershed Management Plan; Koʻolau Poko Watershed Management Plan; East Honolulu Watershed Management Plan	N/A	Ongoing	DLNR	DPP; DFM; BWS; CWRM; DOH	Not specified
39	Protect wetlands, estuaries, anchialine pools, fishponds, and other aquatic habitats.	Policy	Waiʻanae Watershed Management Plan Update; Koʻolau Poko Watershed Management Plan; ʻEwa Watershed	N/A	Ongoing	DLNR	DOH; BWS; DPP; OHA; CWRM; Community Organizations	Not specified

#	RECOMMENDATION	CATEGORY	SOURCE DOCUMENT(S)	TIMELINE	IMPLEMENTATION STATUS	LEAD AGENCY	SUPPORT AGENCIES	ESTIMATED COST
			40Management Plan; North Shore Watershed Management Pla41n; Water Resource Protection Plan					
40	Promote agricultural BMPs to minimize erosion, sedimentation, nutrients, pesticides, and other runoff impacts.	Policy	North Shore Sustainable Communities Plan; North Shore Watershed Management Plan; Central O’ahu Sustainable Communities Plan; Hawai’i Nonpoint Source Management Plan	N/A	Ongoing	DOH	DOA; DFM; BWS; CWRM; Agricultural Stakeholders	Not specified
41	Promote stormwater BMPs for public and private projects to reduce pollutants and runoff.	Policy	City Storm Water Management Program Plan; Storm Water Strategic Plan; Primary Urban Center Development Plan; Wai’anae Sustainable Communities Plan; East Honolulu Watershed Management Plan	N/A	Ongoing	DFM	DOH; DPP; BWS; DTS	Not specified
42	Incorporate climate change projections into land use, drainage, water supply, and infrastructure planning.	Policy	Climate Ready O’ahu; East Honolulu Watershed Management Plan; ‘Ewa Watershed Management Plan; Wai’anae Watershed Management Plan Update; Multi-Hazard Pre-Disaster Mitigation Plan	N/A	Ongoing	CCSR	DPP; BWS; DFM; CWRM; DEM	Not specified
43	Incorporate wildfire prevention and mitigation measures into future development and watershed management.	Policy	Mākaha Special Area Plan; Wai’anae Watershed Management Plan Update; North Shore Watershed Management Plan; Multi-Hazard Pre-Disaster Mitigation Plan; Climate Ready O’ahu	N/A	Ongoing	HFD	DEM; DPP; DLNR-DOFAW; BWS; CCSR	Not specified
44	Promote watershed partnerships and interagency collaboration for watershed protection and restoration.	Policy	East Honolulu Watershed Management Plan; Wai’anae Watershed Management Plan Update; North Shore Watershed Management Plan; Ko’olau Poko Watershed Management Plan; Water Master Plan	N/A	Ongoing	BWS	DLNR-DOFAW; CWRM; DPP; DOH; Watershed Partnerships	Not specified
45	Support public education and outreach related to water conservation, water quality, and climate resilience.	Policy	East Honolulu Watershed Management Plan; ‘Ewa Watershed Management Plan; Wai’anae Watershed Management Plan Update; North Shore Watershed Management Plan; Ko’olau Poko Watershed Management Plan; Ko’olau Loa Watershed Management Plan; Climate Ready O’ahu; City Storm Water Management Program Plan; Storm Water Strategic Plan; Hawai’i Nonpoint Source Management Plan	N/A	Ongoing	BWS	DFM; DOH; CCSR; DEM; DPP; Schools; Community Organizations	Not specified
46	Promote groundwater monitoring and protection in areas vulnerable to contamination, salinity, and over-extraction.	Policy	Water Resource Protection Plan; ‘Ewa Watershed Management Plan; Wai’anae Watershed Management Plan Update; Central O’ahu Sustainable Communities Plan; Water Master Plan	N/A	Ongoing	CWRM	BWS; DOH; DPP; USGS; UH	Not specified
47	Promote water quality monitoring in streams, wetlands, coastal waters, and stormwater receiving areas.	Policy	Hawai’i Nonpoint Source Management Plan; Storm Water Strategic Plan; North Shore Watershed Management Plan; Wai’anae Watershed Management Plan Update; Ko’olau Poko Watershed Management Plan	N/A	Ongoing	DOH	DFM; DLNR; BWS; CWRM; UH	Not specified
48	Protect cultural resources and access to natural resources associated with water, coastal areas, streams, and traditional practices.	Policy	Wai’anae Watershed Management Plan Update; Ko’olau Poko Watershed Management Plan; North Shore Watershed Management Plan; Water Resource Protection Plan; ‘Ewa Watershed Management Plan	N/A	Ongoing	DPP	OHA; SHPD; DLNR; BWS; CWRM; Community Organizations	Not specified

#	RECOMMENDATION	CATEGORY	SOURCE DOCUMENT(S)	TIMELINE	IMPLEMENTATION STATUS	LEAD AGENCY	SUPPORT AGENCIES	ESTIMATED COST
49	Support alternative water supplies, including brackish water, desalination, stormwater reuse, and recycled water where appropriate.	Policy	Water Master Plan; ‘Ewa Development Plan; Wai‘anae Watershed Management Plan Update; ‘Ewa Watershed Management Plan; Primary Urban Center Development Plan	N/A	Ongoing	BWS	CWRM; DOH; DPP; ENV; DFM	Not specified
50	Preserve natural drainageways, floodplains, open spaces, and flood storage areas.	Policy	Mākaha Special Area Plan; ‘Ewa Development Plan; Primary Urban Center Development Plan; North Shore Sustainable Communities Plan; East Honolulu Sustainable Communities Plan	N/A	Ongoing	DPP	DFM; BWS; DLNR; CCSR	Not specified
51	Encourage infiltration, retention, and detention practices that reduce peak flows and improve water quality.	Policy	Storm Water Strategic Plan; Primary Urban Center Development Plan; ‘Ewa Development Plan; Mākaha Special Area Plan; East Honolulu Watershed Management Plan	N/A	Ongoing	DFM	DPP; BWS; DOH; CCSR	Not specified
52	Reduce urban runoff pollution from roads, parking areas, developed lands, and public infrastructure.	Policy	City Storm Water Management Program Plan; Storm Water Strategic Plan; Primary Urban Center Development Plan; Airport Area TOD Plan; Downtown TOD Neighborhood Plan; Ala Moana TOD Neighborhood Plan	N/A	Ongoing	DFM	DPP; DTS; HDOT; DOH; BWS	Not specified
53	Protect drinking water sources from land use activities that may increase contamination risk.	Policy	Water Resource Protection Plan; Central O‘ahu Sustainable Communities Plan; ‘Ewa Development Plan; North Shore Watershed Management Plan; Water Master Plan	N/A	Ongoing	CWRM	BWS; DOH; DPP; DLNR	Not specified
54	Promote resilient design standards for water, wastewater, drainage, and emergency facilities.	Policy	Climate Ready O‘ahu; Multi-Hazard Pre-Disaster Mitigation Plan; Water Master Plan; ‘Ewa Watershed Management Plan; Primary Urban Center Development Plan	N/A	Ongoing	CCSR	BWS; DFM; ENV; DEM; DPP; DOH	Not specified
55	Support emergency access and evacuation planning in flood-, tsunami-, wildfire-, and coastal-hazard-prone communities.	Policy	Multi-Hazard Pre-Disaster Mitigation Plan; Mākaha Special Area Plan; Wai‘anae Sustainable Communities Plan; East Honolulu Watershed Management Plan; North Shore Watershed Management Plan	N/A	Ongoing	DEM	DTS; HDOT; HFD; DPP; BWS; CCSR	Not specified
56	Promote interagency data sharing and common data platforms to support One Water decisions.	Policy	Storm Water Strategic Plan; Water Resource Protection Plan; Climate Ready O‘ahu; Water Master Plan	N/A	Ongoing	CCSR	BWS; CWRM; DFM; DOH; DPP; ENV	Not specified
57	Support community-based stewardship of streams, wetlands, fishponds, and nearshore resources.	Policy	Ko‘olau Poko Watershed Management Plan; Wai‘anae Watershed Management Plan Update; Water Resource Protection Plan; North Shore Watershed Management Plan	N/A	Ongoing	BWS	DLNR; OHA; DOH; DPP; Fishpond Stewardship Groups; Community Organizations	Not specified
58	Protect riparian habitat and native ecosystems that support water quality and watershed function.	Policy	Wai‘anae Watershed Management Plan Update; North Shore Watershed Management Plan; Ko‘olau Poko Watershed Management Plan; Ko‘olau Loa Watershed Management Plan; Water Resource Protection Plan	N/A	Ongoing	DLNR-DOFAW	BWS; CWRM; DOH; DPP; Watershed Partnerships	Not specified
59	Support funding mechanisms for stormwater, resilience, and community water-related projects.	Policy	Storm Water Strategic Plan; Climate Ready O‘ahu; City Storm Water Management Program Plan	N/A	Ongoing	DFM	CCSR; DPP; BWS; DOH; Budget and Fiscal Services	Not specified
60	Coordinate stream maintenance responsibilities across agencies, landowners, and communities.	Policy	Storm Water Strategic Plan; Wai‘anae Watershed Management Plan Update; North Shore Watershed Management Plan	N/A	Ongoing	DFM	DLNR; DPP; BWS; CWRM; Private Landowners; Community Organizations	Not specified
61	Conduct hydrologic modeling in watersheds and drainage areas with recurring flooding.	Project (Future Study)	East Honolulu Watershed Management Plan; ‘Ewa Watershed Management Plan; Mākaha Special Area Plan; Multi-Hazard Pre-Disaster Mitigation Plan	Near-Term (0–5 Years)	N/A	DFM	BWS; DPP; CCSR; DEM; Consultants	\$500K–\$5M

#	RECOMMENDATION	CATEGORY	SOURCE DOCUMENT(S)	TIMELINE	IMPLEMENTATION STATUS	LEAD AGENCY	SUPPORT AGENCIES	ESTIMATED COST
	Priority Areas: Mākaha Stream watershed; Kaupuni Stream watershed; Nānākuli drainage basin; Wailupe-Niu watershed.							
62	Conduct hydraulic modeling for flood control, stream capacity, culverts, channels, and drainage infrastructure. Priority Areas: Mākaha Stream watershed; Kaupuni Stream watershed; Nānākuli drainage basin; Wailupe-Niu watershed.	Project (Future Study)	East Honolulu Watershed Management Plan; Mākaha Special Area Plan; Primary Urban Center Development Plan; Storm Water Strategic Plan	Near-Term (0–5 Years)	N/A	DFM	DPP; DTS; BWS; DEM; Consultants	\$500K–\$5M
63	Develop drainage master plans and watershed-based flood mitigation strategies for priority communities. Priority areas: Mākaha Valley and Mākaha Stream; Wai‘anae and Kaupuni Stream; Nānākuli drainage basin; Farrington Highway coastal drainage corridors.	Project (Future Study)	Mākaha Special Area Plan; East Honolulu Watershed Management Plan; Wai‘anae Sustainable Communities Plan; Primary Urban Center Development Plan; Storm Water Strategic Plan	Mid- to Long-Term (5–10+ Years)	N/A	DFM	DPP; BWS; CCSR; DEM; Community Organizations	\$500K–\$5M
64	Upgrade and maintain flood control infrastructure, including channels, basins, culverts, and drainage systems. Priority areas: Wailupe Stream flood control system; Kuli‘ou‘ou and Haha‘ione concrete-lined channels; Mākaha Stream embankments and drainage infrastructure; Farrington Highway drainage crossings.	Project	East Honolulu Watershed Management Plan; Primary Urban Center Development Plan; Mākaha Special Area Plan; Multi-Hazard Pre-Disaster Mitigation Plan	Near- to Mid-Term (0–10 Years)	Ongoing	DFM	DPP; DTS; BWS; DEM	\$25M+
65	Construct green drainageways, bioswales, and infiltration features to reduce runoff. Priority areas: Mākaha green drainageways; Kapolei and East Kapolei Transit-Oriented Development (TOD) areas; Kalaeloa Community Development District; Civic Center/Kaka‘ako TOD.	Project	Mākaha Special Area Plan; Storm Water Strategic Plan; Climate Ready O‘ahu; Primary Urban Center Development Plan	Mid-Term (5–10 Years)	Ongoing	DFM	DPP; CCSR; BWS; DOH	\$500K–\$25M
66	Restore stream channels, stream banks, and natural drainage functions where feasible. Priority areas: Mākaha Stream; Kaupuni Stream; Wai‘anae Valley streams; Anahulu Stream.	Project	Mākaha Special Area Plan; North Shore Watershed Management Plan; Wai‘anae Watershed Management Plan Update; East Honolulu Watershed Management Plan	Mid- to Long-Term (5–10+ Years)	Ongoing	DLNR	DFM; DPP; BWS; CWRM; Community Organizations	\$500K–\$25M
67	Restore wetlands, estuaries, anchialine pools, and coastal habitats that support water quality and flood resilience. Priority areas: Kawainui Marsh; Hamakua Marsh; He‘eia wetlands and fishpond; Waikalua Loko I‘a.	Project	Wai‘anae Watershed Management Plan Update; ‘Ewa Watershed Management Plan; Ko‘olau Poko Watershed Management Plan; North Shore Watershed Management Plan; Climate Ready O‘ahu	Mid- to Long-Term (5–10+ Years)	Ongoing	DLNR	DOH; BWS; CWRM; DPP; OHA; Community Organizations	\$5M–\$25M
68	Implement stormwater BMPs for public facilities, streets, construction sites, and redevelopment areas. Priority areas: Civic Center/Kaka‘ako TOD; Kalihi TOD; Airport Area TOD; Downtown TOD.	Project	City Storm Water Management Program Plan; Storm Water Strategic Plan; Primary Urban Center Development Plan; ‘Aiea-Pearl City TOD Neighborhood Plan; Civic Center Kaka‘ako TOD; Kalihi TOD Neighborhood Plan; Airport Area TOD Plan; Downtown TOD Neighborhood Plan; East Kapolei TOD Neighborhood Plan; Hālawa TOD Neighborhood Plan; Ala Moana TOD Neighborhood Plan; ‘Ewa Development Plan	Ongoing	Ongoing	DFM	DPP; DTS; HDOT; DOH; BWS	\$500K–\$25M
69	Implement agricultural BMPs to reduce erosion, sediment, nutrient, and pesticide runoff.	Project	North Shore Sustainable Communities Plan; Central O‘ahu Sustainable Communities Plan; Hawai‘i Nonpoint Source Management Plan; North Shore Watershed Management Plan	Ongoing	Ongoing	DOH	DOA; United States Department of Agriculture – Natural Resources Conservation Service (USDA-	Not specified

#	RECOMMENDATION	CATEGORY	SOURCE DOCUMENT(S)	TIMELINE	IMPLEMENTATION STATUS	LEAD AGENCY	SUPPORT AGENCIES	ESTIMATED COST
	Priority areas: Waialua and Hale‘iwa agricultural lands; North Shore agricultural lands; Central O‘ahu agricultural lands; Waiāhole Ditch service area.						NRCS); BWS; DPP; Agricultural Stakeholders	
70	Expand groundwater monitoring for water levels, chloride, nitrate, pesticides, salinity, and other indicators. Priority areas: Pearl Harbor Aquifer Sector; Honolulu Aquifer Sector; ‘Ewa Caprock Aquifer; Wai‘anae and Mākaha Aquifer System Areas.	Project	Water Resource Protection Plan; Water Master Plan; ‘Ewa Watershed Management Plan; Wai‘anae Watershed Management Plan Update; Central O‘ahu Sustainable Communities Plan	Ongoing	Ongoing	CWRM	BWS; DOH; USGS; UH; DPP	\$500K–\$5M
71	Expand streamflow and surface water monitoring in priority watersheds. Priority areas: Wai‘anae Valley streams; Mākaha Stream; Kaupuni Stream; Anahulu Stream.	Project	Water Resource Protection Plan; Wai‘anae Watershed Management Plan Update; North Shore Watershed Management Plan; Ko‘olau Poko Watershed Management Plan; Ko‘olau Loa Watershed Management Plan	Ongoing	Ongoing	CWRM	BWS; DLNR; DOH; USGS; UH	\$500K–\$5M
72	Expand water quality monitoring for streams, wetlands, coastal waters, and stormwater receiving waters. Priority areas: Ala Wai Canal and Waikiki nearshore waters; Pearl Harbor; Kāne‘ohe Bay; Kailua Bay.	Project	Hawai‘i Nonpoint Source Management Plan; Storm Water Strategic Plan; North Shore Watershed Management Plan; Ko‘olau Poko Watershed Management Plan; Wai‘anae Watershed Management Plan Update	Ongoing	Ongoing	DOH	DFM; DLNR; BWS; CWRM; UH	\$500K–\$5M
73	Convert cesspools and other onsite sewage disposal systems to higher treatment systems in priority areas. Priority areas: Pūpūkea-Sunset Beach area; Waialua-Hale‘iwa; East Honolulu shoreline areas with narrow depth to groundwater; Waimānalo.	Project	East Honolulu Watershed Management Plan; North Shore Sustainable Communities Plan; Hawai‘i Nonpoint Source Management Plan; Water Resource Protection Plan	January 2050	Ongoing	DOH	ENV; DPP; BWS; CWRM; Property Owners	Not specified
74	Upgrade wastewater infrastructure to reduce groundwater and nearshore water quality impacts. Priority areas: Pūpūkea-Sunset Beach area; Waialua-Hale‘iwa wastewater service basin; East Honolulu WWTP service area; Sand Island WWTP service area.	Project	East Honolulu Watershed Management Plan; North Shore Sustainable Communities Plan; Water Master Plan; Hawai‘i Nonpoint Source Management Plan	10+ Years	Ongoing	ENV	DOH; BWS; DPP; CWRM	\$25M+
75	Expand recycled water systems and non-potable distribution infrastructure. Priority areas: Honouliuli Water Recycling Facility service area; ‘Ewa Plain; Kapolei Regional Growth Area; Kalaeloa Community Development District.	Project	Water Master Plan; ‘Ewa Watershed Management Plan; East Honolulu Watershed Management Plan; ‘Ewa Development Plan; Primary Urban Center Development Plan	10+ Years	Ongoing	BWS	ENV; DOH; DPP; CWRM; Developers	\$25M+
76	Replace aging water infrastructure and improve system reliability. Priority areas: Primary Urban Center distribution system; East Honolulu water system; ‘Ewa and Kapolei growth areas; Waipahū and Waiawa source development areas.	Project	Water Master Plan; Primary Urban Center Development Plan; East Honolulu Sustainable Communities Plan; ‘Ewa Development Plan	10+ Years	Ongoing	BWS	DPP; DFM; DTS; ENV	\$25M+
77	Conduct climate vulnerability assessments for water, wastewater, stormwater, transportation, and emergency facilities. Priority areas: Sand Island WWTP; Honouliuli WWTP; coastal pump stations; low-lying storm drain outfalls.	Project (Future Study)	Climate Ready O‘ahu; Multi-Hazard Pre-Disaster Mitigation Plan; ‘Ewa Watershed Management Plan; East Honolulu Watershed Management Plan	Near-Term (0–5 Years)	Ongoing	CCSR	BWS; DFM; ENV; DEM; DPP; DTS	\$500K–\$5M
78	Conduct sea level rise exposure and adaptation assessments for coastal water-related infrastructure. Priority areas: Waikiki; Ala Wai Canal watershed; Sand Island; Honolulu Harbor.	Project (Future Study)	Climate Ready O‘ahu; ‘Ewa Watershed Management Plan; Wai‘anae Sustainable Communities Plan; East Honolulu Watershed Management Plan; Primary Urban Center Development Plan	Near-Term (0–5 Years)	Ongoing	CCSR	BWS; ENV; DFM; DPP; CWRM; DOH	\$500K–\$5M

#	RECOMMENDATION	CATEGORY	SOURCE DOCUMENT(S)	TIMELINE	IMPLEMENTATION STATUS	LEAD AGENCY	SUPPORT AGENCIES	ESTIMATED COST
79	Conduct drought vulnerability assessments and develop drought response strategies. Priority areas: Wai‘anae and Mākaha Aquifer System Areas; Nānākuli and Lualualei; Wai‘anae Coast; North Shore agricultural areas.	Project (Future Study)	Water Master Plan; Wai‘anae Watershed Management Plan Update; Climate Ready O‘ahu; Water Resource Protection Plan	N/A	N/A	BWS	CWRM; CCSR; DEM; DOH	\$500K–\$5M
80	Conduct wildfire risk assessments in watersheds, wildland-urban interface areas, and communities with limited access. Priority areas: Mākaha Valley; Nānākuli; Wai‘anae Coast; Mākua Valley.	Project (Future Study)	Wai‘anae Watershed Management Plan Update; North Shore Watershed Management Plan; Mākaha Special Area Plan; Multi-Hazard Pre-Disaster Mitigation Plan; Climate Ready O‘ahu	Ongoing	Ongoing	HFD	DLNR-DOFAW; DEM; DPP; BWS; CCSR	\$500K–\$5M
81	Develop wildfire management, fuel reduction, and community preparedness programs. Priority areas: Mākaha Valley; Nānākuli; Wai‘anae Coast; Wai‘anae Mountains.	Project	Wai‘anae Watershed Management Plan Update; North Shore Watershed Management Plan; Mākaha Special Area Plan; Multi-Hazard Pre-Disaster Mitigation Plan	Ongoing	Ongoing	HFD	DLNR-DOFAW; DEM; DPP; BWS; Community Organizations	\$500K–\$25M
82	Develop tsunami preparedness, evacuation, public education, and response plans. Priority areas: Hale‘iwa; Waialua; Mokulē‘ia; Waimea River lower reach.	Project	Multi-Hazard Pre-Disaster Mitigation Plan; East Honolulu Watershed Management Plan; Wai‘anae Watershed Management Plan Update; North Shore Watershed Management Plan	Ongoing	Ongoing	DEM	DTS; HDOT; HFD; DPP; CCSR; Community Organizations	\$500K–\$5M
83	Improve emergency evacuation routes and access in vulnerable coastal and rural communities. Priority areas: Farrington Highway corridor from Nānākuli to Mākaha and Ka‘ena Point; proposed Wai‘anae secondary access to Kunia Road; Kamehameha Highway corridor from Hale‘iwa to Pūpūkea/Sunset Beach; Kalaniana‘ole Highway corridor from Hawai‘i Kai to Waimānalo.	Project	Mākaha Special Area Plan; Wai‘anae Sustainable Communities Plan; Multi-Hazard Pre-Disaster Mitigation Plan; East Honolulu Watershed Management Plan	10+ Years	N/A	DTS	HDOT; DEM; HFD; DPP; BWS; DFM	\$25M+
84	Implement water conservation programs, rebates, audits, and public education. Priority areas: Islandwide BWS service area; ‘Ewa and Kapolei growth areas; Wai‘anae and Mākaha demand areas; East Honolulu residential and commercial areas.	Project	Water Master Plan; East Honolulu Watershed Management Plan; Mākaha Special Area Plan; Climate Ready O‘ahu	Ongoing	Ongoing	BWS	DPP; CCSR; Community Organizations; Schools	Not specified
85	Restore native watershed forests and high-elevation recharge areas. Priority areas: Wai‘anae Mountains; Ko‘olau Mountains; North Shore watersheds above Hale‘iwa, Waialua, and Waimea; Ko‘olau Poko watersheds above Kāne‘ohe, Kailua, and Waimānalo.	Project	Wai‘anae Watershed Management Plan Update; North Shore Watershed Management Plan; Ko‘olau Poko Watershed Management Plan; Ko‘olau Loa Watershed Management Plan; Climate Ready O‘ahu	Ongoing	Ongoing	DLNR-DOFAW	BWS; Watershed Partnerships; CWRM; DOH; Community Organizations	\$5M–\$25M
86	Control invasive species that reduce watershed function, increase erosion, or increase wildfire risk. Priority areas: Wai‘anae Mountains; Ko‘olau Mountains; North Shore forested and grassland areas; Wai‘anae Coast WUI areas.	Project	Wai‘anae Watershed Management Plan Update; North Shore Watershed Management Plan; Ko‘olau Poko Watershed Management Plan; Ko‘olau Loa Watershed Management Plan	Ongoing	Ongoing	DLNR-DOFAW	BWS; Hawai‘i Invasive Species Council (HISC); Watershed Partnerships; HFD; Community Organizations	\$500K–\$25M
87	Increase groundwater infiltration and recharge projects where water quality can be protected. Priority areas: ‘Ewa Caprock Aquifer recharge areas; Pearl Harbor Aquifer recharge areas; Central O‘ahu high-rainfall recharge areas; North Shore aquifer recharge areas.	Project	‘Ewa Watershed Management Plan; North Shore Watershed Management Plan; Storm Water Strategic Plan; Water Resource Protection Plan	N/A	N/A	BWS	CWRM; DFM; DPP; DOH; DLNR	\$5M–\$25M

#	RECOMMENDATION	CATEGORY	SOURCE DOCUMENT(S)	TIMELINE	IMPLEMENTATION STATUS	LEAD AGENCY	SUPPORT AGENCIES	ESTIMATED COST
88	Construct or improve detention and retention facilities to reduce peak flows and pollutant discharge. Priority areas: ‘Ewa Plain and Kapolei drainage systems; East Kapolei TOD; Primary Urban Center redevelopment areas; Mākaha drainage system.	Project	Primary Urban Center Development Plan; ‘Ewa Development Plan; Mākaha Special Area Plan; Storm Water Strategic Plan	N/A	N/A	DFM	DPP; DTS; BWS; DOH	\$5M–\$25M
89	Remove debris and contaminants from waterways and drainage systems. Priority areas: Ala Wai Canal watershed; Kalihi Stream; Kapālama Canal; Mākaha Stream.	Project	City Storm Water Management Program Plan; Storm Water Strategic Plan; Primary Urban Center Development Plan	Ongoing	Ongoing	DFM	DOH; DPP; Community Organizations; Neighborhood Boards	\$50,000 per stream per year
90	Clean and restore impaired waterways and polluted waterbodies. Priority areas: Ala Wai Canal; Waikīkī nearshore waters; Pearl Harbor drainage receiving waters; Central O‘ahu streams affected by sediment.	Project	Primary Urban Center Development Plan; Hawai‘i Nonpoint Source Management Plan; Storm Water Strategic Plan; Ko‘olau Poko Watershed Management Plan	Ongoing	Ongoing	DOH	DFM; DLNR; BWS; DPP; Community Organizations	\$50,000 per stream per year
91	Assess drainage capacity of existing systems before approving future development. Priority areas: Mākaha Valley; ‘Ewa and Kapolei growth areas; Primary Urban Center infill/redevelopment areas; East Honolulu valleys.	Project (Future Study)	Mākaha Special Area Plan; ‘Ewa Development Plan; Primary Urban Center Development Plan; East Honolulu Sustainable Communities Plan	Ongoing	Ongoing	DPP	DFM; BWS; DTS; Developers	\$500K–\$5M
92	Assess stream embankments, old drainage structures, settling ponds, and related infrastructure. Priority areas: Mākaha Stream embankments; Mākaha drainage infrastructure and settling ponds; Wailupe Stream flood control system; East Honolulu drainage channels.	Project (Future Study)	Mākaha Special Area Plan; East Honolulu Watershed Management Plan; Storm Water Strategic Plan	N/A	N/A	DFM	DPP; BWS; DEM; Consultants	\$500K–\$5M
93	Develop watershed management partnerships and community stewardship programs. Priority areas: Wai‘anae watersheds; North Shore watersheds; Ko‘olau Poko watersheds; Ko‘olau Loa watersheds.	Project	East Honolulu Watershed Management Plan; Wai‘anae Watershed Management Plan Update; North Shore Watershed Management Plan; Ko‘olau Poko Watershed Management Plan	Ongoing	Ongoing	BWS	DLNR-DOFAW; CWRM; DOH; DPP; Community Organizations	\$500K–\$5M
94	Develop monitoring frameworks and performance metrics for watershed, stormwater, and water quality outcomes. Priority areas: Islandwide; priority metrics for Ala Wai Canal watershed, Pearl Harbor, Kāne‘ohe Bay, Wai‘anae watersheds, North Shore watersheds, Ko‘olau Poko/Loa watersheds, PUC/TOD drainage systems, and priority aquifer sectors.	Project	Storm Water Strategic Plan; Water Resource Protection Plan; Hawai‘i Nonpoint Source Management Plan; Water Master Plan	N/A	N/A	CWRM	BWS; DFM; DOH; CCSR; UH	\$500K–\$5M
95	Develop shared data management systems and public-facing One Water information hubs. Priority areas: Islandwide; public project/data hub organized by community plan district, watershed, aquifer sector, shoreline area, and agency program; priority data layers for monitoring, flood risk, water quality, water supply, reuse, stormwater, and climate exposure.	Project	Value Themes; Climate Ready O‘ahu; Storm Water Strategic Plan	N/A	N/A	CCSR	BWS; DFM; DOH; DPP; CWRM; ENV	\$500K–\$5M

#	RECOMMENDATION	CATEGORY	SOURCE DOCUMENT(S)	TIMELINE	IMPLEMENTATION STATUS	LEAD AGENCY	SUPPORT AGENCIES	ESTIMATED COST
96	Implement low-impact development (LID) and green infrastructure demonstration projects in public rights-of-way, parks, and redevelopment areas. Priority areas: Kaka‘ako TOD; Kalihi TOD; Airport Area TOD; Downtown TOD.	Project	Storm Water Strategic Plan; Primary Urban Center Development Plan; ‘Aiea-Pearl City TOD Neighborhood Plan; Civic Center Kaka‘ako TOD; Kalihi TOD Neighborhood Plan; Airport Area TOD Plan; Downtown TOD Neighborhood Plan; East Kapolei TOD Neighborhood Plan; Hālawā TOD Neighborhood Plan; Ala Moana TOD Neighborhood Plan; Climate Ready O‘ahu; City Storm Water Management Program Plan	Ongoing	Ongoing	DFM	DPP; DTS; CCSR; BWS; DOH	\$500K-\$25M
97	Evaluate brackish water, desalination, stormwater reuse, and other alternative water supply opportunities. Priority areas: Nānākuli Shaft; Lualualei Shaft; Glover Tunnel/Mākaha non-potable system; ‘Ewa Caprock Aquifer.	Project (Future Study)	Water Master Plan; Wai‘anae Watershed Management Plan Update; ‘Ewa Watershed Management Plan; ‘Ewa Development Plan; Primary Urban Center Development Plan	Ongoing	Ongoing	BWS	CWRM; DOH; ENV; DPP; Consultants	\$500K-\$5M
98	Conduct recycled water feasibility studies and identify priority reuse customers. Priority areas: Honouliuli Water Recycling Facility service area; ‘Ewa Plain irrigation users; Kalaeloa; Kapolei and East Kapolei.	Project (Future Study)	East Honolulu Watershed Management Plan; ‘Ewa Watershed Management Plan; Water Master Plan; Primary Urban Center Development Plan	Ongoing	Ongoing	BWS	ENV; DOH; DPP; CWRM; Major Water Users	\$500K-\$5M
99	Conduct watershed condition assessments to prioritize restoration, management, and investment. Priority areas: Wai‘anae watershed areas; Mākaha Valley; Wai‘anae Valley; North Shore watersheds including Anahulu, Waimea, Kaukonahua, Ki‘iki‘i, and Kaiwiko‘ele.	Project (Future Study)	Wai‘anae Watershed Management Plan Update; North Shore Watershed Management Plan; Ko‘olau Poko Watershed Management Plan; Ko‘olau Loa Watershed Management Plan; Water Resource Protection Plan	Ongoing	Ongoing	BWS	DLNR-DOFAW; CWRM; DOH; Watershed Partnerships; UH	\$500K-\$5M
100	Conduct erosion and sediment source studies in priority watersheds and drainage basins. Priority areas: Central O‘ahu streams affected by sediment; North Shore agricultural watersheds; Wai‘anae and Mākaha watersheds; Kaukonahua Stream.	Project (Future Study)	North Shore Watershed Management Plan; Central O‘ahu Sustainable Communities Plan; Wai‘anae Watershed Management Plan Update; Hawai‘i Nonpoint Source Management Plan	N/A	N/A	DOH	DFM; DLNR; BWS; CWRM; Agricultural Stakeholders	\$500K-\$5M
101	Coordinate and fund neighborhood-level water stewardship programs, including stream cleanups and rain barrel or water conservation workshops. Priority areas: Islandwide; Waialua-Hale‘iwa; Pūpūkea-Sunset Beach; Wai‘anae and Nānākuli.	Project	City Storm Water Management Program Plan; Storm Water Strategic Plan; East Honolulu Watershed Management Plan; ‘Ewa Watershed Management Plan; Wai‘anae Watershed Management Plan Update; North Shore Watershed Management Plan; Ko‘olau Poko Watershed Management Plan; Ko‘olau Loa Watershed Management Plan	N/A	N/A	BWS	DFM; DOH; Neighborhood Boards; Community Organizations; Schools	\$500K-\$5M
102	Develop a grant clearinghouse or support mechanism for community water-related projects. Priority areas: Islandwide; priority support for frontline communities, watershed groups, fishpond organizations, schools, neighborhood boards, and community-based organizations implementing water, green infrastructure, stewardship, or resilience projects.	Project	Climate Ready O‘ahu; Storm Water Strategic Plan	N/A	N/A	CCSR	BWS; DFM; DOH; DPP; Community Organizations	\$500k
103	Conduct cultural sensitivity, Native Hawaiian rights, and historic preservation training related to water resource projects. Priority areas: Islandwide; priority for agency staff, project managers, consultants, and regulatory reviewers working on stream, watershed, fishpond, groundwater,	Project	Water Resource Protection Plan; Wai‘anae Watershed Management Plan Update; Ko‘olau Poko Watershed Management Plan	Ongoing	Ongoing	DPP	OHA; SHPD; BWS; CWRM; DLNR; Community Organizations	\$500k

#	RECOMMENDATION	CATEGORY	SOURCE DOCUMENT(S)	TIMELINE	IMPLEMENTATION STATUS	LEAD AGENCY	SUPPORT AGENCIES	ESTIMATED COST
	coastal, drainage, and infrastructure projects affecting Native Hawaiian rights and cultural resources.							

Table B-4. Links to OWH Relevant Plans and Technical Reports

CATEGORY	DOCUMENT TITLE	LINK
Regional	“Aha Moku” video	Current Projects - Ko'olaupoko Hawaiian Civic Club (koolaulupoko-hcc.org) , https://youtu.be/2tV9N4FePW0
Regional	Adapt Waikiki	https://www.honolulu.gov/dpp/planning/area-adaptation-plans/adapt-waikiki-2050/
Regional	‘Aiea-Pearl City Livable Communities	https://www.honolulu.gov/dpp/wp-content/uploads/sites/56/2025/11/AieaPearlCityLCP.pdf
Regional	‘Aiea-Pearl City TOD Neighborhood Plan	https://www.honolulu.gov/tod/neighborhoods/aiea-pearl-city/
Regional	Airport Area TOD Plan	https://www.honolulu.gov/tod/neighborhoods/airport/
Regional	Ala Moana TOD Neighborhood Plan	https://www.honolulu.gov/tod/neighborhoods/ala-moana/
Regional	Ala Wai Watershed Collaboration (Project & Index, Mālama Implementation Tool, Feasibility Study)	Ala Wai Watershed Collaboration (arcgis.com)
Regional	Central O‘ahu Sustainable Communities Plan	https://www.honolulu.gov/dpp/planning/applying-for-changes/dp-scp/central-oahu/
Regional	Central O‘ahu Watershed Management Plan	https://www.boardofwatersupply.com/water-resources/water-planning/watershed-management-plan/central-oahu-plan
Regional	Civic Center Kakaako TOD (HCDA)	https://dbedt.hawaii.gov/hcda/transit-oriented-development/
Regional	Downtown TOD Neighborhood Plan	https://www.honolulu.gov/tod/neighborhoods/downtown/
Regional	East Honolulu Sustainable Communities Plan	https://www.honolulu.gov/dpp/planning/applying-for-changes/dp-scp/east-honolulu/
Regional	East Honolulu Watershed Management Plan	https://www.boardofwatersupply.com/water-resources/water-planning/watershed-management-plan/watershed-management-plan-archive/east-honolulu-plan/
Regional	East Kapolei TOD Neighborhood Plan	https://www.honolulu.gov/tod/neighborhoods/east-kapolei/
Regional	‘Ewa Development Plan	https://www.honolulu.gov/dpp/planning/applying-for-changes/dp-scp/ewa/

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CATEGORY	DOCUMENT TITLE	LINK
Regional	‘Ewa Villages Master Plan	https://www.honolulu.gov/rep/site/dpp/pd/pd_docs/1992_Ewa_Villages_Master_Plan_Exec_Summary.pdf
Regional	‘Ewa Watershed Management Plan	https://www.boardofwatersupply.com/water-resources/water-planning/watershed-management-plan/watershed-management-plan-archive/%CA%BBewa-plan/
Regional	Hālawā TOD Neighborhood Plan	https://www.honolulu.gov/tod/neighborhoods/halawa.html
Regional	Kahalu‘u Community Master Plan	https://www.honolulu.gov/rep/site/dpp/pd/pd_docs/KahaluuCommunityMasterPlan2007_Compressed.pdf
Regional	Kalaeloa Redevelopment Plan	https://www.honolulu.gov/rep/site/dpp/pd/pd_docs/KalaeloaSpecialArea2000_Compressed.pdf
Regional	Kalihi TOD Neighborhood Plan	https://www.honolulu.gov/tod/neighborhoods/kalihi.html
Regional	Kalihi-Palama Action Plan	https://www.honolulu.gov/rep/site/dpp/pd/pd_docs/Kalihi_Palama_Action_Plan_2004.pdf
Regional	Kāne‘ohe Town Plan	https://www.honolulu.gov/rep/site/dpp/pd/pd_docs/KaneoheTownPlan(2009)_Compressed.pdf
Regional	Ko‘olau ‘Āina Inventory	KO‘OLAU ‘ĀINA INVENTORY nohopapa
Regional	Ko‘olau Poko Sustainable Communities Plan	Ko‘olau Poko (honolulu.gov)
Regional	Ko‘olau Poko Watershed Management Plan	https://www.boardofwatersupply.com/water-resources/water-planning/watershed-management-plan/watershed-management-plan-archive/ko%CA%BBolau-poko-plan/
Regional	Ko‘olau Loa Plan	https://www.boardofwatersupply.com/water-resources/water-planning/watershed-management-plan/koolau-loa-plan
Regional	Mākaha Special Area Plan	https://www.honolulu.gov/rep/site/dpp/pd/pd_docs/MakahaSAP2009_Compressed.pdf
Regional	North Shore Sustainable Communities Plan	https://www.honolulu.gov/dpp/planning/planning-documents/north-shore.html
Regional	North Shore Watershed Management Plan	https://www.boardofwatersupply.com/water-resources/water-planning/watershed-management-plan/watershed-management-plan-archive/north-shore-plan/

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CATEGORY	DOCUMENT TITLE	LINK
Regional	Pearl Harbor Historic Trail Master Plan	https://www.honolulu.gov/rep/site/dpp/pd/pd_docs/Pearl%20Harbor%20Historic%20Trail(2001)_Compressed.pdf
Regional	Primary Urban Center Development Plan	https://www.honolulu.gov/dpp/planning/planning-documents/primary-urban-center.html
Regional	Primary Urban Center Watershed Management Plan	https://www.boardofwatersupply.com/water-resources/water-planning/watershed-management-plan/primary-urban-center-plan
Regional	Waialua Town Master Plan	https://www.honolulu.gov/rep/site/dpp/pd/pd_docs/WaialuaTownMasterPlan2005.pdf
Regional	Wai'anae Sustainable Communities Plan	https://www.honolulu.gov/dpp/planning/planning-documents/waianae.html
Regional	Wai'anae Watershed Management Plan Update (2009)	https://www.boardofwatersupply.com/bws/media/files/waianae-wmp-final-report-full-2009-08.pdf
Regional	Waimānalo Community Business Center Study	https://www.honolulu.gov/rep/site/dpp/pd/pd_docs/WaimanaloCBC2008.pdf
Regional	Waipahū Livable Communities Initiative	https://www.honolulu.gov/rep/site/dpp/pd/pd_docs/WaipahuLivableCommunities1998.pdf
Regional	Waipahū Town Plan	https://www.honolulu.gov/rep/site/dpp/pd/pd_docs/WaipahuTownPlan1995.pdf
County	2024 Annual Sustainability Report – City and County of Honolulu	https://static1.squarespace.com/static/5e3885654a153a6ef84e6c9c/t/662856d8bd5ec02ed840cb51/1713919715773/Honolulu+Annual+Sustainability+Report+2024.pdf
County	Action 15: Resilience Hub Network	https://drive.google.com/file/d/1ovCV5bR9gYulLA3Tjwp6janWLRqRZ7vy/view?usp=sharing
County	City Climate Change Brief	https://www.honolulu.gov/rep/site/dpptod/dpptod_docs2/Mayors_Directive_18_2.pdf
County	City Sea Level Rise Guidance	https://www.honolulu.gov/rep/site/dpptod/dpptod_docs2/Mayors_Directive_18_2.pdf
County	Climate Ready O'ahu	Climate Ready O'ahu — Resilience Office - City and County of Honolulu Office of Climate Change, Sustainability and Resiliency (resilientoahu.org)
County	City and County of Honolulu Climate Adaptation Design Principles for Urban Development (December 2020)	Microsoft PowerPoint - 210719 Climate Adaptation Design Principles_State CCC.pptx (hawaii.gov)

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CATEGORY	DOCUMENT TITLE	LINK
County	City Rules Related to Water Quality	DPP Rules Relating to Water Quality (honolulu.gov)
County	City Storm Water Management Plan	https://www4.honolulu.gov/docushare/dsweb/View/Collection-8762
County	Honolulu Complete Streets Design Manual (September 2016)	160908 Honolulu Complete Streets Design Manual_Final.pdf
County	Local Hazard Mitigation Plan – City	Local Hazard Mitigation Plan Update (honolulu.gov)
County	Mayor’s Directive No. 18-02 on the City and County of Honolulu Actions to Address Climate Change and Sea Level Rise (July 16, 2018)	Mayor's Directive 18-2 (honolulu.gov)
County	Multi-Hazard Pre-Disaster Mitigation Plan for the City and County of Honolulu	Multi-Hazard Pre-Disaster Mitigation Plan — Resilience Office - City and County of Honolulu Office of Climate Change, Sustainability and Resiliency (resilientoahu.org)
County	O’ahu General Plan	document-download (ehawaii.gov)
County	O’ahu Resilience Strategy	Ola_Oahu_Resilience_Strategy.pdf (squarespace.com)
County	Resilient Streetscape Transition Zone Design Principles (January 2022)	SLR Trans Zone (honolulu.gov)
County	Storm Water Strategic Plan	https://www8.honolulu.gov/swq/wp-content/uploads/sites/32/2023/11/sw-strategic-plan.pdf
County	The City Storm Water BMP Guide for New and Redevelopment	CHAPTER 16: BUILDING CODE (amlegal.com)
County	TOD Special Design District Guidelines: Special District Design Guidelines, Greening Iwilei and Kapālama (2018)	TOD Design (honolulu.gov)
County	Water Master Plan (summary final 2019)	https://www.boardofwatersupply.com/media/05epicf0/bws-water-master-plan-summary-final-2019-09-23.pdf
State	2023 Hawai’i Climate Change Mitigation and Adaptation Commission Annual Report	2 2 (hawaii.gov)
State	Assessing the Feasibility and Implications of Managed Retreat Strategies for Vulnerable Coastal Areas in Hawai’i Final Report 2019	https://www.waterrf.org/research/projects/assessing-state-knowledge-and-research-needs-stormwater-harvesting

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CATEGORY	DOCUMENT TITLE	LINK
State	Effects of Drought and Cloud-Water Interception on Groundwater Recharge and Wildfire Hazard for Recent and Future Climate Conditions, Kaua'i, O'ahu, Moloka'i, Maui, and the Island of Hawai'i	Effects of drought and cloud-water interception on groundwater recharge and wildfire hazard for recent and future climate conditions, Kaua'i, O'ahu, Moloka'i, Maui, and the Island of Hawai'i (usgs.gov)
State	Estimated Groundwater Recharge for Mid-Century and End-of-Century Climate Projections, Kaua'i, O'ahu, Moloka'i, Lāna'i, Maui, and the Island of Hawai'i	Estimated groundwater recharge for mid-century and end-of-century climate projections, Kaua'i, O'ahu, Moloka'i, Lāna'i, Maui, and the Island of Hawai'i (usgs.gov)
State	Guidance for Addressing Sea Level Rise in Community Planning in Hawai'i 2020 and Guidance for Using the Sea Level Rise Exposure Area in Local Planning and Permitting Decisions 2020, supplement to report	PowerPoint Presentation (hawaii.gov)
State	Hawai'i Sea Level Rise Vulnerability and Adaptation Report 2022 Update	https://climate.hawaii.gov/wp-content/uploads/2023/04/Sea-Level-Rise-Adaptation-and-Vulnerability-2022-Update_Final2-1.pdf
State	Hawai'i Highways Climate Adaptation Action Plan Strategies for a More Resilient Future 2021 (and Exposure Assessments)	HDOT-Climate-Resilience-Action-Plan-and-Appendices-May-2021.pdf (hawaii.gov)
State	Hawai'i Nonpoint Source Mitigation Plan 2021–2025	https://health.hawaii.gov/cwb/files/2021/04/2021-HI-NPS-Management-Plan.pdf
State	Nature-Based Resilience and Adaptation to Climate Change in Hawai'i: A Climate Ready Hawai'i Working Paper 2021	CRHI-Working-Paper-V5.pdf (hawaii.gov)
State	Ordinance 20-47, Revised Ordinance of Honolulu (ROH): One Water Policy, Principles, and Procedures for City Departments and Agencies (Chapter 2, Article 10, Section 2-10.12 Climate action and Section 2-10.13 Climate change adaptation)	ORD20-047.pdf (honolulu.gov)
State	Revised Ordinance of Honolulu (ROH) Chapter 14 Public Works Infrastructure	CHAPTER 14: PUBLIC WORKS INFRASTRUCTURE (amlegal.com)
State	ROH Chapter 16 Building Code	CHAPTER 16: BUILDING CODE (amlegal.com)
State	ROH Chapter 17 Electrical Code	CHAPTER 17: ELECTRICAL CODE (amlegal.com)

CATEGORY	DOCUMENT TITLE	LINK
State	ROH Chapter 18A Grading, Soil Erosion, and Sediment Control	CHAPTER 18A: GRADING, SOIL EROSION, AND SEDIMENT CONTROL (amlegal.com)
State	ROH Chapter 19 Plumbing Code	CHAPTER 19: PLUMBING CODE (amlegal.com)
State	ROH Chapter 21 Land Use Ordinance	CHAPTER 21: LAND USE ORDINANCE (amlegal.com)
State	ROH Chapter 21A Flood Hazards Areas	CHAPTER 21A: FLOOD HAZARD AREAS (amlegal.com)
State	ROH Chapter 24 Development Plans	CHAPTER 24: DEVELOPMENT PLANS (amlegal.com)
State	ROH Chapter 25 Special Management Areas	CHAPTER 25: SPECIAL MANAGEMENT AREAS (amlegal.com)
State	ROH Chapter 26 Shoreline Setbacks	CHAPTER 26: SHORELINE SETBACKS (amlegal.com)
State	ROH Chapter 28 Special Improvement Districts	CHAPTER 28: SPECIAL IMPROVEMENT DISTRICTS (amlegal.com)
State	ROH Chapter 43 Sewers, Drainage, and Cesspools	CHAPTER 43: SEWERS, DRAINAGE, AND CESSPOOLS (amlegal.com)
State	Social Vulnerability to Climate Change in Hawai'i Data, Indicators, and "Gap" Assessment Report	Microsoft Word - SCOVl Report Final 5_4_22_Clean.docx (hawaii.gov)
State	State of Hawai'i 2023 Hazard Mitigation Plan	2023-1101-State-Hazard-Mitigation-Plan-released.pdf
State	Water Quality Rules (Administrative Rules Title 20 Chapter 3)	SWQ - Forms, Regulations, & Resources Department of Planning and Permitting
State	Water Resource Protection Plan	WRPP_ALL_201907.pdf (hawaii.gov)
National	Assessing the State of Knowledge and Research Needs for Stormwater Harvesting (WRF #4841)	Stormwater Harvesting (WRF)
National	Leveraging the Role of Pretreatment Programs in One Water Initiatives: Synthesis of Best Practices and Path Forward (WRF #4971)	Pretreatment Programs in One Water Initiatives (WRF)

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CATEGORY	DOCUMENT TITLE	LINK
National	One Water Cities: A Self-Assessment Framework (WRF #4969)	One Water Cities- WRF