

California Aquaculture Permitting Resilience Act

A Permit Reef draft bill proposal — modeled on AB 2051 (Wicks, 2025–26) and built on the Cutting Green Tape initiative

Working title: AB _ (CAPRA). Status: unofficial discussion draft, prepared by Permit Reef for the California aquaculture coalition. Not introduced legislation.

Why this bill, and why now

Assembly Bill 2051 (Wicks, 2025–26) recognized that California's coastal permitting system — a stack of overlapping CCC, BCDC, CDFW, SWRCB/Regional Boards, SLC, OHP, NOAA, USACE, and EPA authorities — has produced timelines that are functionally incompatible with **coastal resilience projects** the state itself wants built. AB 2051 convenes a Coastal Resilience Permitting Working Group and requires a Coastal Resilience Permitting Roadmap to the Governor and Legislature by January 1, 2028.

Since 2019, the California Natural Resources Agency's **Cutting Green Tape (CGT)** initiative — launched in tandem with **Executive Order N-82-20** and California's **30x30** commitment, and reinforced by the **February 2026 CGT Secretarial Memo** and the **January 2026 AB 72 Cutting Green Tape Along the Coast and San Francisco Bay** report — has proven that California can keep its environmental standards *and* move faster. CDFW's new **Restoration Management Permit (RMP)** cut Redwoods Rising's restoration timelines from years to months across 12,000+ acres. CAPRA applies the same logic to the working-waterfront industry that produces measurable coastal co-benefits.

California aquaculture is in the same trap as AB 2051's coastal resilience projects, only worse. A new shellfish or seaweed lease today takes **5–10 years** and **\$150K–\$500K+** in baseline EIR work before a single oyster or kelp blade hits the water. The OPC's 2024 California Aquaculture Action Plan, the NOAA West Coast AOA PEIS (2025), and the state's own NSTC aquaculture economic development report (2023) all document the same root causes AB 2051 names and the CGT initiative has been chipping away at on the restoration side: overlapping authorities, project-by-project baseline studies, understaffed permitting desks, no unified application, no advance mitigation, no standard practices, and no regional general permits for known low-impact gear types.

This draft bill ports AB 2051's working-group / roadmap / advisory-group architecture to **California marine aquaculture (shellfish + seaweed only — no finfish)**, formally connects it to the Cutting Green Tape effort, and adds aquaculture-specific provisions that AB 2051 does not need to address: lease tenure, species-change pathways, sublease reform (Humboldt Bay model), tribal co-stewardship, biobanking and native-species genetic provenance, restorative-aquaculture multi-benefit permitting, and food-safety integration with CDPH.

Side-by-side: AB 2051 + CGT → CAPRA

AB 2051 / CGT precedent	CAPRA (Aquaculture)
AB 2051 adds Division 20.8 to Public Resources Code, §30990 et seq.	Adds Division 20.9 to Public Resources Code, §30995 et seq. (proposed)
AB 2051 Working Group convened by Sec. Natural Resources + Sec. CalEPA	Same convening authority; adds CDFA & CDPH (food safety); expressly coordinates with the CGT initiative under the Feb. 2026 Secretarial Memo
AB 2051 members: CCC, CalEPA, RWQCBs (SF Bay, North Coast, Central Coast), CDFW, OLUCI, CNRA, OPC, BCDC, SCC, SHRC, SLC, OHP, SWRCB	All of the above plus CDFA Aquaculture Program, CDPH Shellfish/Cannery program, OSPR, NOAA NMFS WCR (advisory), USACE SPN/SPL (advisory), and at least one CA Native American tribe with coastal aquaculture interest
AB 2051 Roadmap due Jan. 1, 2028	Roadmap due Jan. 1, 2028 (aligned, same legislative window)
AB 2051 Advisory Group convened by CCC + BCDC + CDFW + RWQCBs by Apr. 1, 2027	Same convening; advisory group adds shellfish growers, kelp/seaweed growers, the CA Aquaculture Association, tribal nations, California Sea Grant, and Sustainable Conservation (Accelerating Restoration)
AB 2051 addresses: unified app, interagency PM team (BRRIT), de minimis fill, advance/in-lieu mitigation, regional general permits, executive-officer delegation, workforce assessment	All of the above scoped to aquaculture
CGT Restoration Management Permit (CDFW) — Redwoods Rising cut timelines years → months across 12,000 acres	Establishes an Aquaculture Restoration Management Permit (Aqua-RMP) scoped to restorative aquaculture: native Olympia oyster reef restoration, eelgrass-compatible bivalve culture, native kelp restoration plots
AB 72 (2024) Coastal CGT Report — Jan. 2026 OPC/CCC report identifying coastal restoration permit barriers	CAPRA Working Group shall explicitly build on AB 72 findings for shellfish and seaweed cultivation, where the same agencies and barriers apply
CGT multi-benefit permitting + restoration-aligned CEQA pathways (categorical exemptions, programmatic NDs/MNDs, Statutory Exemption §21080.56 for restoration projects)	CAPRA Roadmap shall evaluate programmatic CEQA pathways for low-impact, gear-class aquaculture and multi-benefit permitting that credits cultivation co-benefits (nitrogen removal, water clarity, carbon, habitat structure)
CAPRA-unique adds	20-yr lease floor, species-change pathway, Humboldt Bay sublease as statewide template, state-funded baseline science, native seaweed biobanking (SWFSC-711), food-safety pathway (HACCP, PFR, Prop 65 cadmium), Chumash Heritage NMS §304(d) tribal co-stewardship, finfish exclusion
AB 2051: no appropriation in introduced version; fiscal committee yes	Same posture; baseline science, biobanking, Aqua-RMP, and pilot grant authorized contingent on Budget Act

Bill text (discussion draft)

SECTION 1.

Division 20.9 (commencing with Section 30995) is added to the Public Resources Code, to read:

DIVISION 20.9. California Aquaculture Permitting Resilience

30995.

(a) The Legislature finds and declares all of the following:

(1) California imports more than 80 percent of the seafood consumed in the state, while the state's own marine aquaculture sector — limited by statute and policy to shellfish and seaweed — produces a small fraction of its biological and economic potential.

(2) The Ocean Protection Council's 2024 California Aquaculture Action Plan identifies regulatory complexity, permit duration, and lack of baseline science as the principal barriers to responsible expansion of sustainable shellfish and seaweed cultivation.

(3) New marine aquaculture leases in California state waters routinely require five (5) to ten (10) years of preapplication study, environmental review, and interagency coordination, with applicant-borne baseline survey costs ranging from one hundred fifty thousand dollars (\$150,000) to in excess of five hundred thousand dollars (\$500,000) per project. Species changes within existing leases require two (2) to five (5) additional years.

(4) The National Oceanic and Atmospheric Administration's 2025 West Coast Aquaculture Opportunity Areas Final Programmatic Environmental Impact Statement, and the 2023 National Science and Technology Council report on aquaculture economic development, both conclude that programmatic environmental review and standardized practices materially shorten permit timelines without reducing environmental protection.

(5) The Humboldt Bay Harbor, Recreation, and Conservation District operates a master-lease and sublease framework that enables qualified small growers to begin operations in months rather than years. No comparable pathway exists in other California coastal counties.

(6) Cultivated shellfish and seaweed deliver measurable coastal co-benefits including nitrogen removal, water clarity improvement, carbon and nutrient drawdown, habitat structure, and shoreline buffering — benefits aligned with the coastal resilience objectives expressed in Division 20.8 (added by AB 2051, 2025–26 Reg. Sess.).

(7) Native California seaweed species, including but not limited to giant kelp (*Macrocystis pyrifera*), bull kelp (*Nereocystis luetkeana*), and red algae of the genera *Pyropia*, *Chondracanthus*, and *Gracilariopsis*, lack the cultivation infrastructure, genetic biobanking, and provenance-tracking systems that other producing states and nations have established. NOAA Southwest Fisheries Science Center memorandum SWFSC-711 provides a relevant scientific framework for genetic provenance in California waters.

(8) California-specific food safety guidance for cultivated seaweed intended for human consumption is incomplete relative to federal Seafood HACCP (21 CFR Part 123), the FDA Food Safety Modernization Act, and the 2026 Codex Committee on Fish and Fishery Products draft global standard, creating market-access uncertainty for California-grown seaweed.

(9) Co-stewardship with California Native American tribes — including tribes within the Chumash Heritage National Marine Sanctuary co-managed area, where ONMS §304(d) consultation applies — is essential to durable, legitimate aquaculture siting and is not adequately reflected in existing aquaculture permit sequences.

(10) The state's **Cutting Green Tape (CGT) initiative**, launched in 2019 by the California Natural Resources Agency in tandem with Executive Order N-82-20 and the 30x30 commitment, and most recently reinforced by the February 2026 CGT Secretarial Memo and the January 2026 *Cutting Green Tape Along the Coast and San Francisco Bay* report prepared pursuant to AB 72, has demonstrated that California can accelerate ecological restoration and stewardship without weakening environmental standards. The Department of Fish and Wildlife's Restoration Management Permit has reduced restoration permitting timelines from years to months, including for the Redwoods Rising project across more than 12,000 acres in Humboldt and Del Norte Counties.

(11) Cultivated shellfish and seaweed, when sited and operated consistent with state policy, deliver measurable restoration co-benefits — nitrogen and nutrient removal, water-clarity improvement, biogenic habitat structure, native-species recovery (including Olympia oyster reefs and bull kelp), and shoreline buffering — and are therefore properly understood as candidates for the multi-benefit permitting pathways developed under the CGT initiative.

(b) Given the climate, food-security, working-waterfront, and coastal co-benefit value of sustainable shellfish and seaweed cultivation, and consistent with the state's Cutting Green Tape commitment, the Secretary of the Natural Resources Agency shall develop a **California Aquaculture Permitting Roadmap** with recommendations for process improvements and legislative reforms that will enable efficient and timely delivery of environmental approvals for these projects, as provided in Section 30996.

30996.

(a) (1) The Secretary of the Natural Resources Agency, in consultation with the Secretary for Environmental Protection, the Secretary of Food and Agriculture, and the State Public Health Officer, shall convene a **California Aquaculture Permitting Working Group** for the purpose of developing a California Aquaculture Permitting Roadmap for shellfish and seaweed cultivation projects proposed along the California coast, in the San Francisco Bay, and in and adjacent to state and federal waters.

(2) The Working Group shall consist of representatives from federal, state, and local agencies, including, but not limited to:

(A) The Department of Fish and Wildlife (Marine Region; Aquaculture and Bay Management Project).

(B) The California Coastal Commission.

(C) The San Francisco Bay Conservation and Development Commission.

(D) The State Lands Commission.

(E) The State Water Resources Control Board and the Regional Water Quality Control Boards with jurisdiction over the coast and San Francisco Bay (North Coast, San Francisco Bay, Central Coast, Los Angeles, San Diego).

(F) The Department of Food and Agriculture.

(G) The Department of Public Health (shellfish sanitation; processed food registration; cannery program).

(H) The Office of Spill Prevention and Response.

(I) The Ocean Protection Council.

(J) The State Coastal Conservancy.

(K) The State Office of Historic Preservation.

(L) The Governor's Office of Land Use and Climate Innovation.

(M) The Natural Resources Agency.

(N) Federal partners invited as ex-officio members, including the National Marine Fisheries Service West Coast Region, the U.S. Army Corps of Engineers (San Francisco and Los Angeles Districts), the U.S. Environmental Protection Agency Region 9, the U.S. Food and Drug Administration, and the Office of National Marine Sanctuaries (including Chumash Heritage NMS staff).

(O) Not fewer than two (2) representatives of California Native American tribes drawn from the contact list administered by the Native American Heritage Commission, with preference for tribes with documented coastal stewardship interests, including tribes participating in the Chumash Heritage NMS Intergovernmental Policy Council.

(3) Development of the Roadmap shall incorporate, but not delay, ongoing permit reviews for pending shellfish and seaweed applications.

(b) (1) On or before **January 1, 2028**, the Secretary of the Natural Resources Agency shall submit the California Aquaculture Permitting Roadmap to the Governor and the relevant fiscal and policy committees of the Legislature.

(2) The Roadmap shall be submitted in compliance with Section 9795 of the Government Code.

(3) Pursuant to Section 10231.5 of the Government Code, this subdivision shall become inoperative on January 1, 2032.

(c) The Roadmap shall include, at a minimum, recommendations that address all of the following:

(1) Administrative reforms within existing agency authority, including:

(A) Streamlining the completeness-determination process, with limits on additional information requests and statutory timelines for initial and successive reviews — modeled on AB 2051 §30991(c)(1)(A).

(B) A **unified aquaculture application** with a predictable sequence and timeline of permitting information requests and interagency reviews, jointly accepted by CDFW, SLC, CCC or BCDC, the relevant RWQCB, and USACE.

(C) An **interagency aquaculture project management team**, modeled on the Bay Restoration Regulatory Integration Team (BRRIT) referenced in AB 2051 §30991(c)(1)(C).

(D) **Gear-class general permits** and programmatic agreements for known categories of low-impact cultivation, including suspended longline kelp, off-bottom oyster bag-and-rack, FLUPSY-based nursery, and mussel raft systems.

(E) Delegation of permit issuance to executive officers, and expanded use of consent calendars, where commission or board action would otherwise be required.

(F) Standard, scaled construction- and operations-conditions for gear deployment, anchoring, marine-mammal interaction monitoring, harvest cycles, and end-of-life gear removal.

(2) State-funded baseline science. A program — administered by the Ocean Protection Council in coordination with California Sea Grant and the State Coastal Conservancy — to develop and maintain **publicly available regional baseline datasets** (eelgrass, benthic, water quality, marine mammal use, cultural-resource sensitivity) for aquaculture-appropriate zones, so that individual small-farm applicants are not required to fund project-specific baseline studies that duplicate public knowledge.

(3) Lease tenure and species-change reform. Statutory and regulatory recommendations to:

(A) Establish minimum initial state water-bottom lease terms sufficient to amortize capital investment (recommended floor: twenty (20) years) with reasonable renewal terms.

(B) Create an expedited species-change pathway for adding a species to an existing lease where the additional species is of a similar trophic class and gear footprint and has been previously approved at a comparable site, with a statutory determination timeline.

(4) The Humboldt Bay sublease pathway as a statewide template. Authorize and provide implementation guidance for **master-lease/sublease frameworks** administered by qualified local entities (harbor districts, ports, conservancies, tribal governments) in additional California coastal counties, modeled on the Humboldt Bay Harbor, Recreation, and Conservation District program.

(5) Standardized compensatory mitigation, in-lieu fees, and advance mitigation, including engineering-with-nature and a de minimis fill policy that allows de minimis fill within defined thresholds without project-specific compensatory mitigation, consistent with AB 2051 §30991(c)(1)(D) and §30991(c)(2).

(6) Tribal co-stewardship, including:

(A) Early, government-to-government engagement protocols separate from and additional to AB 52 / §106 review.

(B) Specific procedures for projects within the Chumash Heritage National Marine Sanctuary co-managed area, recognizing the ONMS §304(d) consultation overlay and the Intergovernmental Policy Council.

(C) Funding mechanisms for tribal staff participation in aquaculture permit review.

(7) Native species and biobanking. A California Native Seaweed Cultivation and Biobanking Program, administered by CDFW in coordination with California Sea Grant and academic partners, that:

(A) Establishes genetic-provenance rules for cultivated native seaweed consistent with the framework of NOAA SWFSC-711.

(B) Funds a seed bank / culture collection for native species including, at minimum, *Macrocystis pyrifera*, *Nereocystis luetkeana*, *Pyropia* spp., *Chondracanthus* spp., and *Gracilariopsis* spp.

(C) Restricts cultivation of non-native or genetically modified seaweed in state waters except under permitted research conditions.

(8) Food-safety pathway integration. A coordinated CDPH–CDFW–CDFA pathway for cultivated seaweed intended for human consumption, including:

(A) California-specific guidance equivalent in scope to federal Seafood HACCP (21 CFR Part 123) and the FDA Food Safety Modernization Act preventive controls (21 CFR Part 117), addressing identified gaps for macroalgae.

(B) Recommended contaminant limits for cadmium, lead, arsenic, and iodine in cultivated seaweed, drawing on EU Regulation 2023/915 and the Codex CCFFP37 (2026) draft global standard.

(C) Mandatory domoic-acid testing protocols during *Pseudo-nitzschia* bloom periods.

(D) A Proposition 65 safe-harbor pathway for compliant cultivated seaweed products to reduce litigation exposure relative to imported product.

(9) Workforce assessment. A workforce and funding analysis for regulatory staffing positions across CDFW, CCC, BCDC, RWQCBs, SLC, and CDPH, consistent with AB 2051 §30991(c)(6), including pay-scale analysis sufficient to recruit and retain permitting staff with the marine-science, food-safety, and cultural-resource expertise required.

(10) Pilot program. If needed to test alternative approaches, a **California Aquaculture Permitting Pilot Program** — recommended initial sites: Humboldt Bay, Morro Bay, Santa Barbara Channel — to evaluate the effectiveness of recommended reforms and environmental protection prior to statewide adoption.

(11) Consolidated permit evaluation. An evaluation of whether a consolidated aquaculture permit, similar to the consolidated offshore-wind framework referenced in AB 2051 §30991(c)(5) and Division 20 of this code, would facilitate timely permits for shellfish and seaweed operations.

(12) Aquaculture Restoration Management Permit (Aqua-RMP). Modeled on the Department of Fish and Wildlife's Restoration Management Permit developed under the Cutting Green Tape initiative, an Aqua-RMP shall be designed for **restorative aquaculture projects**, including but not limited to native Olympia oyster (*Ostrea lurida*) reef restoration, eelgrass-compatible bivalve culture, and native kelp (*Macrocystis pyrifera*, *Nereocystis luetkeana*) restoration plots. The Roadmap shall recommend eligibility criteria, application contents, conditions sufficient to safeguard sensitive resources, and an interagency review timeline targeting **months, not years**, consistent with the Redwoods Rising precedent.

(13) Restoration-aligned CEQA pathways. An evaluation of available CEQA pathways for low-impact, gear-class aquaculture and restorative aquaculture, including the statutory exemption for habitat restoration projects under Public Resources Code §21080.56, categorical exemptions, programmatic Negative Declarations and Mitigated Negative Declarations, and tiering off the NOAA West Coast AOA Final PEIS (2025), to reduce duplicative project-level CEQA review where appropriate.

(14) Multi-benefit permitting and ecosystem-services crediting. A framework — coordinated with the Cutting Green Tape initiative, the Ocean Protection Council, and the State Water Resources Control Board — for **multi-benefit permitting** that recognizes documented co-benefits of cultivation (nitrogen and nutrient removal, water-clarity improvement, biogenic habitat, carbon drawdown, shoreline buffering) within permit conditions, mitigation accounting, and any future nutrient-credit or blue-carbon programs.

(15) Coordination with the Cutting Green Tape initiative. The Working Group shall coordinate with, and not duplicate, ongoing CGT efforts, including the work directed by the **February 2026 CGT Secretarial Memo** and the **January 2026 AB 72 Cutting Green Tape Along the Coast and San Francisco Bay** report. Where CGT has produced tools — interagency permit-coordination teams, standardized conditions, the Restoration Management Permit, multi-benefit permitting guidance, the Sustainable Conservation "Accelerating Restoration" pathway library — the Roadmap shall recommend specific aquaculture applications of those tools rather than parallel inventions.

(d) Aquaculture Permit Advisory Group. On or before **April 1, 2027**, the Department of Fish and Wildlife, the California Coastal Commission, and the San Francisco Bay Conservation and Development Commission, in collaboration with the State Lands Commission, the State Water Resources Control Board, the Department of Public Health, and the Department of Food and Agriculture, shall convene a California Aquaculture Permit Advisory Group. Membership shall include, but not be limited to, representatives of:

- (1) Current California shellfish growers, including small and limited-resource operators.
 - (2) Current and prospective California seaweed growers.
 - (3) The California Aquaculture Association and other producer organizations.
 - (4) California Sea Grant and academic researchers.
 - (5) The Humboldt Bay Harbor, Recreation, and Conservation District and other harbor districts or ports operating or contemplating master-lease frameworks.
 - (6) California Native American tribes drawn from the contact list administered by the Native American Heritage Commission.
 - (7) Sustainable Conservation and other nonprofit organizations participating in the Cutting Green Tape initiative's Accelerating Restoration work.
 - (8) Local governments, environmental organizations, environmental justice organizations, commercial and recreational fishers, and members of the public.
- (e)** The convening agencies shall conduct a series of public workshops with the Advisory Group, or subgroups thereof, to:
- (1) Solicit feedback regarding challenges with existing aquaculture permitting processes, and recommendations and concerns from permittees and prospective applicants regarding streamlining proposals.
 - (2) Review and seek comment on draft reform proposals from the Working Group's California Aquaculture Permitting Roadmap.

30997.

(a) Implementation of this division shall not authorize the cultivation of finfish in California state marine waters. This division applies solely to shellfish and seaweed cultivation.

(b) Nothing in this division supersedes the authority of the California Coastal Commission, the San Francisco Bay Conservation and Development Commission, the State Lands Commission, the Department of Fish and Wildlife, the Department of Public Health, the State Water Resources Control Board or its Regional Boards, the Office of National Marine Sanctuaries, or any federally recognized tribal government.

(c) Implementation of subdivision (c)(2) (state-funded baseline science), subdivision (c)(7) (biobanking), and subdivision (c)(10) (pilot program) of Section 30996 is contingent upon an appropriation by the Legislature for those purposes in the annual Budget Act.

Drafting notes (for the coalition, not the bill)

- **Section numbering** (Division 20.9 / §30995–30997) is illustrative — Legislative Counsel will renumber.
 - **Why a 20-year lease floor in §30996(c)(3)(A)?** Aligns with capital-amortization periods documented in the OPC Aquaculture Action Plan and the 2018 CA Seaweed Economic Feasibility Study; today's shorter terms make small-farm financing functionally impossible.
 - **Why finfish exclusion in §30997(a)?** Preserves the existing CA policy line, avoids killing the bill in committee, and keeps the coalition intact.
 - **Tribal §30996(c)(6)(B)** intentionally cites the **Intergovernmental Policy Council** for Chumash Heritage NMS so the bill anchors to a real, named co-stewardship body rather than generic language.
 - **AB 2051 alignment is deliberate.** Same timelines (Apr. 1, 2027 advisory group; Jan. 1, 2028 roadmap), same BRRIT-style PM team, same advance-mitigation and de minimis-fill design.
 - **CGT alignment is the other half of the pitch.** The Restoration Management Permit cut Redwoods Rising from years to months across 12,000 acres without weakening environmental standards. Aqua-RMP (§30996(c)(12)) asks the state to do for restorative aquaculture what it already proved it can do for restorative forestry. Combined elevator pitch: *"If you supported AB 2051 for coastal resilience and the CGT Restoration Management Permit for restoration, CAPRA is the parallel framework for the working-waterfront industry that produces both."*
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Sources

- **CA AB 2051 (Wicks, 2025–26)** — Coastal Resilience Permitting Working Group. <https://legiscan.com/CA/text/AB2051/id/3367254> and https://leginfo.legislature.ca.gov/faces/billStatusClient.xhtml?bill_id=202520260AB2051
- **CNRA Cutting Green Tape initiative** — landing page and resource library. <https://resources.ca.gov/Initiatives/Cutting-Green-Tape>
- **February 2026 CGT Secretarial Memo (Crowfoot).** <https://resources.ca.gov/-/media/CNRA-Website/Files/Initiatives/Green-Tape/CGT-Secretarial-Memo-20260227.pdf>
- **January 2026 Cutting Green Tape Along the Coast and San Francisco Bay (AB 72 report, OPC/CCC).** <https://opc.ca.gov/wp-content/uploads/2026/01/AB-72-Coastal-CGT-Report-508.pdf>
- **March 2022 CGT Progress Report** — *Transforming Environmental Restoration*. <https://resources.ca.gov/-/media/CNRA-Website/Files/Initiatives/Green-Tape/update-20220317/CNRA-Report--Transforming-Environmental-Restoration--Progress-on-the-Cutting-Green-Tape-Initiative.pdf>
- **November 2020 CGT report** — *Regulatory Efficiencies for a Resilient Environment*. <https://calandscapestewardshipnetwork.org/sites/default/files/2020-12/CGTFINALhires.pdf>

- **CDFW Cutting Green Tape page** — Restoration Management Permit and projects.
<https://wildlife.ca.gov/Conservation/Cutting-Green-Tape>
- **Sustainable Conservation — Accelerating Restoration.** <https://acceleratingrestoration.org/>
- **Executive Order N-82-20 (2020)** — 30x30 and natural-and-working-lands strategy.
<https://www.gov.ca.gov/wp-content/uploads/2020/10/10.07.2020-EO-N-82-20-.pdf>
- **OPC California Aquaculture Action Plan (2024).**
<https://www.opc.ca.gov/programs-summary/sustainable-fisheries/sustainable-aquaculture/>
- **NOAA West Coast AOA Final PEIS (2025).**
<https://www.fisheries.noaa.gov/west-coast/aquaculture/california-aquaculture-opportunity-areas>
- **NSTC Aquaculture Economic Development Report (2023).** <https://www.whitehouse.gov/wp-content/uploads/2023/12/NSTCAESCAquaculture-Economic-Development-Report-Dec2023.pdf>
- **NOAA SWFSC-711** — Genetic provenance framework for native CA seaweed cultivation.
- **EU Regulation 2023/915** — Maximum levels for contaminants in food (cadmium/lead in seaweed).
- **Codex CCFFP37 (2026)** — Draft global standard for dried seaweed and seaweed products.
- **21 CFR Part 123** (Seafood HACCP); **21 CFR Part 117** (FSMA preventive controls).
- **AB 52 / §106** — Tribal and historic-resources consultation baselines.
- **Public Resources Code §21080.56** — CEQA statutory exemption for habitat restoration projects.
- **National Marine Sanctuaries Act §304(d)** — Federal-agency consultation for actions affecting sanctuary resources; applies to Chumash Heritage NMS co-managed area.