

THE ILLUSION OF ABUNDANCE: HOW HATCHERIES MASK ALASKA’S WILD SALMON CRISIS

BY

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Alaska’s reputation for sustainable salmon management rests increasingly on a statistical mirage. Annual harvests buoyed by hatchery fish—especially pink salmon in Prince William Sound (PWS)—create the appearance of plenty while many wild stocks decline. The disconnect risks converting the Alaska Constitution’s sustained-yield mandate into a numbers game indifferent to genetic diversity, ecological function, or intergenerational equity. This Blog argues that Alaska’s hatchery programs, commonly labeled “enhancement,” should be understood as experimental ocean ranching with foreseeable risks to wild salmon resilience, and that continuing their operation without rigorous trust-based, science-backed safeguards violates Alaska’s constitutional fiduciary duties for wild salmon management.

I. Introduction

Alaskans’ connections to wild salmon are profound—economically, culturally, and ecologically. Wild salmon deliver nutrients that power coastal forests and keystone food webs.² Their value to Alaska’s seafood economy is measured in billions,³ and to Alaska Native communities in ways not captured by markets.⁴ The framers of Alaska’s constitution embedded these realities in Article VIII’s “common use” and “sustained yield” clauses, making the State a

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² Guido Rahr, *Why Protect Salmon*, WILD SALMON CENTER, <https://wildsalmoncenter.org/why-protect-salmon/> (last visited Oct. 6, 2025) (“From orcas to grizzly bears, at least 137 different species depend on the marine-rich nutrients that wild salmon provide.”); Dominick A. DellaSala, *Protecting The Tongass Rainforest, Older Forests, And Large Trees Nationwide For The U.S. Nationally Determined Contribution To The Paris Climate Agreement*, WILD HERITAGE 2–3 <https://roar-assets-auto.rbl.ms/documents/35723/Tongasssclimaterellevance-dellasala-3-30-21.pdf> (last visited Oct. 10, 2025) (explaining that, on a global scale, Alaska’s salmon fisheries play a key role in climate change mitigation as a vital nutrient conveyor belt to key carbon sinks including the Tongass National Forest, which stores the equivalent of 44% of the total ecosystem carbon for the entire national forest system).

³ McKinley Research Group, *The Economic Value of Alaska’s Seafood Industry*, ALASKA SEAFOOD MARKETING INSTITUTE 12 (Jan. 2022), https://www.alaskaseafood.org/wp-content/uploads/MRG_ASMI-Economic-Impacts-Report_final.pdf (in 2019, the total Alaskan salmon first wholesale value was \$1.73 billion).

⁴ See *Connections To The Wild Salmon Resource in Southwest Alaska*, THE SALMON PROJECT 1–2, figs. 1 & 2 (July, 2013), <https://salmonproject.org/wp-content/uploads/2016/06/Alaskans-and-Salmon-in-the-Southwest-Region.pdf> (finding that nine in 10 Alaskans viewed their connection to wild salmon as important, and three-quarters as very important and three-quarters of the statewide population said they felt connected to wild salmon).

trustee obligated to preserve wild fish for the “maximum benefit” of the people.⁵ Alaska courts have repeatedly recognized these public-trust duties.⁶

Yet the State’s hatchery apparatus—scaled up in the 1970s to overcome past depletion—now risks permanently altering the genetic and ecological foundations of wild populations. Recent empirical scientific studies conducted by Alaskan biologists show that hatchery strays can demographically “boost” wild abundance while eroding genetic diversity and reducing relative fitness.⁷ When the State aggregates harvest or escapement without disaggregating hatchery from wild, it mistakes production for preservation, creating an illusion of abundance.

The sustained-yield clause should be enforced as a fiduciary duty that extends to hatchery decisions. Alaska’s agencies and courts must treat hatchery permitting, releases, and straying controls as trust actions subject to a “hard look” based on scientific, ecological and genetic considerations. Alaska should cease calling these projects “enhancement” and recognize them for what they are: experimental ocean ranching requiring strict trust-consistent oversight.

II. Alaska’s Constitutional Public Trust Framework: Common Use, Sustained Yield, and the “Hard Look” Doctrine

Alaska’s Constitution reserves fish “in their natural state” to the people for common use⁸ and commands management of replenishable resources on the sustained yield principle.⁹ The

⁵ ALASKA CONST. art. VIII, § 3. (establishing the “common use clause,” which provides that “wherever occurring in their natural state, fish, wildlife, and waters are reserved to the people for common use.”); ALASKA CONST. art. VIII, § 4. (establishing the “sustained yield clause,” which announces that “fish, forests, wildlife, grasslands, and all other replenishable resources belonging to the State shall be utilized, developed, and maintained on the sustained yield principle.”).

⁶ *Owsichek v. State, Guide Licensing & Control Bd.*, 763 P.2d 488, 495 (Alaska 1988) (concluding that the Alaska constitution “impos[es] upon the state a trust duty to manage the fish, wildlife, and water resources of the state for the benefit of all the people.”); *Pullen v. Ulmer*, 923 P.2d 54, 60 (Alaska 1996) (explaining that “common law principles incorporated in the common use clause impose upon the state a trust duty to manage the fish, wildlife and water resources of the state for the benefit of all the people.”); *Metlakatla Indian Community, Annette Island Reserve v. Egan*, 362 P.2d 901, 915 (Alaska 1961) *aff’d* 369 U.S. 45, 82 S. Ct. 552, 7 L. Ed. 2d 562 (1962); *Pullen v. Ulmer*, 923 P.2d 54, 60 (Alaska 1996).

⁷ *See, e.g.*, Ingerid J. Hagen et al., *Evaluation of Genetic Effects on Wild Salmon Populations from Stock Enhancement*, 78 ICES J. MARINE SCI. 900 (2021) (providing empirical evidence that high hatchery contribution on spawning grounds reduces the recipient population’s effective genetic diversity, with the mechanism and strength of effect quantified across cohorts); Samuel A. May et al., *Salmon Hatchery Strays Can Demographically Boost Wild Populations at the Cost of Diversity: Quantitative Genetic Modelling of Alaska Pink Salmon*, ROYAL SOC’Y OPEN SCI., July 2024, at 13 (a multi-generational study of hatchery–wild interactions showing loss of phenotypic variation from hatchery-origin pinks on wild populations). *See generally* Kyle R. Shedd et al., *Reduced Relative Fitness in Hatchery-Origin Pink Salmon in Two Streams in Prince William Sound, Alaska*, 15 EVOLUTIONARY APPLICATIONS 429 (2022) (discussing reduced fitness of hatchery-origin pinks in Prince William Sound).

⁸ ALASKA CONST. art. VIII, § 3 (establishing the “common use” clause, which provides that “[w]herever occurring in their natural state, fish, wildlife, and waters are reserved to the people for common use”); *id.* § 4 (establishing the “sustained yield” clause, which announces that “[f]ish, forests, wildlife, grasslands, and all other replenishable resources belonging to the State shall be utilized, developed, and maintained on the sustained yield principle . . .”).

⁹ ALASKA CONST. art. VIII, § 4. (establishing the “sustained yield clause,” which announces that “fish, forests, wildlife, grasslands, and all other replenishable resources belonging to the State shall be utilized, developed, and maintained on the sustained yield principle.”).

legislature must manage resources for the maximum benefit of Alaskans,¹⁰ and ADF&G’s Commissioner is required to “manage, protect, maintain, improve, and extend” the State’s fish resources.¹¹

The Alaska Supreme Court has long read these clauses as creating trustee duties. In *Owsichek v. State*, the court recognized the State’s constitutional trust duty to manage fish and wildlife for the benefit of all Alaskans.¹² *Pullen v. Ulmer* located that duty in common-law public-trust principles incorporated by the framers.¹³ In *Native Village of Elim*, the court upheld the Board’s sustained-yield decisions in managing the False Pass salmon fishery without presenting mathematically precise determinations of sustained yield where the record showed consideration of available science—underscoring that the constitutional duty constrains discretion through reasoned, science-based decision-making without demanding exact numbers for yield.¹⁴

When Article VIII decisions are challenged, Alaska courts apply the “hard look” doctrine that polices process and rationality, not outcomes.¹⁵ The “hard look” doctrine applies “[w]hen an executive agency decision about natural resources is challenged under Article VIII[,]” and “[i]n such cases [the court] review[s] the decision to ensur[e] that the agency has taken a hard look at all factors material and relevant to the public interest.”¹⁶ Courts will not dictate policy, but they will require best-available information, transparent reasoning, and precaution where uncertainty threatens conservation. Alaska’s Sustainable Salmon Policy codifies this precautionary approach and directs managers to protect habitats and wild stocks from adverse effects of artificial propagation.¹⁷ These principles collectively demand that hatchery policies—given their scale, genetic consequences, and competitive effects—receive the same or greater level of fiduciary scrutiny as harvest regulations, season openings and closures, and habitat authorizations, but that is not what current practice delivers.

¹⁰ ALASKA CONST. art. VIII, § 2 (“The legislature shall provide for the utilization, development, and conservation of all natural resources belonging to the State, including land and waters, for the maximum benefit of its people.”).

¹¹ ALASKA STAT. § 16.05.020(2) (2024) (the ADF&G Commissioner shall “manage, protect, maintain, improve, and extend the fish, game and aquatic plant resources of the state in the interest of the economy and general well-being of the state”).

¹² See *Owsichek*, supra note 6, at 495.

¹³ *Pullen v. Ulmer*, 923 P.2d 54, 60 (Alaska 1996) (explaining how the framers incorporated common law principles in the common use clause to impose upon a trust duty on the state) (citing *Metlakatla Indian Cmty., Annette Island Rsrv.*, 362 P.2d 901, 914 (Alaska 1961) at 915) (“[M]igrating schools of fish, while in inland waters, are the property of the state, held in trust for the benefit of all the people of the state, and the obligation and authority to equitably and wisely regulate the harvest is that of the state.”).

¹⁴ *Native Vill. of Elim v. State*, 990 P.2d 1, 7–9 (Alaska 1999).

¹⁵ *Sagoonick v. State*, 503 P.3d 777, 782–03 (Alaska 2022); *Sitka Tribe of Alaska v. Alaska Dep’t of Fish & Game*, 540 P.3d 893, 900–02 (Alaska 2023).

¹⁶ *Sitka Tribe of Alaska*, 540 P.3d at 900 (internal quotations omitted) (citing *Sagoonick v. State*, 503 P.3d 777, 782 (Alaska 2022)); *Hammond v. N. Slope Borough*, 645 P.2d 750, 759 (Alaska 1982) (explaining that the “hard look” standard ensures agencies “genuinely engage in reasoned decision making” on “all factors material and relevant to the public interest) (citing *Kleppe v. Sierra Club*, 427 U.S. 390, 410 n.21(1976)); *Kachemak Bay Conservation Soc’y v. State*, 6 P.3d 270, 275 (Alaska 2000) (“[O]ur duty is to ensure that DNR has taken a hard look at the salient problems and has genuinely engaged in reasoned decision making.”) (internal quotations omitted).

¹⁷ Sustainable Salmon Policy, ALASKA ADMIN. CODE tit. 5, § 39.222(d) (2025) (“The principles and criteria for sustainable salmon fisheries shall be applied, by the department and the board using the best available information . . .”); ALASKA STAT. § 16.05.251 (2024) (establishing the framework for the Board of Fisheries to adopt regulations).

III. From “Enhancement” to “Experimental Ocean Ranching”

Alaska’s hatchery programs were created in the 1970s as a response to severely depleted wild salmon runs.¹⁸ The Alaska Legislature established the Division of Fisheries Rehabilitation, Enhancement, and Development (FRED) in 1971 to develop hatcheries, and by 1974, authorized private nonprofit corporations to operate hatcheries under state oversight.¹⁹ In 2024, the commercial fleet caught 30.3 million Alaska hatchery-produced and released 1.9 billion juvenile salmon.²⁰

Alaska touts hatcheries as economic engines that enhance sustainability.²¹ But “enhancement” is a misnomer; production metrics can hide ecological costs and relabel depletion as success. Hatchery releases into open oceans amount to experimental ocean ranching: propagation, imprinting, release, and large-scale harvest of semi-domesticated fish that interact with wild populations in ways managers cannot fully control. Calling this “enhancement” obscures tradeoffs and dulls fiduciary vigilance. The 2024 returns in Prince William Sound illustrate volatility: PWSAC’s pink run came in ~70% below forecast, while wild pink harvests were ~75% below forecast—a sobering reminder that artificial production doesn’t insure wild resilience.²²

Moreover, PWS hosts the largest pink salmon hatchery program in the world,²³ and the system’s economics—cost-recovery harvests and enhancement taxes—create structural incentives to prioritize output.²⁴ Further, Board of Fisheries hatchery regulations prioritize production over science-based safeguards for wild salmon.²⁵ When ADF&G grants millions in

¹⁸ MARK STOPHA, ALASKA SALMON FISHERIES ENHANCEMENT ANNUAL REPORT 2017, at 3 (2017), ALASKA DEP’T OF FISH & GAME, <https://www.adfg.alaska.gov/FedAidPDFs/RIR.5J.2018.02.pdf> [<https://perma.cc/J9NF-PWLG>] (explaining the origins of Alaska’s modern hatchery program and noting that in order to allow limited entry to state fisheries and permitted salmon harvests for broodstock and hatchery cost recovery, in 1972, “Alaska voters approved an amendment to the state Constitution (Article 8, section 15), providing for an exemption to the ‘no exclusive right of fishery’ clause[.]”).

¹⁹ *Id.*

²⁰ LORNA WILSON, REGIONAL INFORMATION REPORT NO. 5J25-02: ALASKA SALMON FISHERIES ENHANCEMENT ANNUAL REPORT, 2024 ALASKA DEP’T OF FISH & GAME DIVISION OF COMMERCIAL (2025), <https://www.adfg.alaska.gov/FedAidPDFs/RIR.5J.2025.02.pdf>.

²¹ *Id.*

²² HEATHER SCANNELL & JEREMY BOTZ, ALASKA DEP’T OF FISH & GAME, 2024 PRINCE WILLIAM SOUND SALMON SEASON SUMMARY 3 (2024) (reporting The Prince William Sound Aquaculture Corporation (PWSAC) hatchery “pink salmon run of 3.08 million fish was 70% below the forecast of 10.20 million” and the Prince William Sound “wild pink salmon harvest of 1.42 million fish was 75% below the forecast of 5.66 million fish”); *see generally* Michael C. Blumm, *Salmon Hatcheries as Fish Factories: Forgetting the Lessons of Leopold*, 4 SEATTLE J. ENV’T L. 409 (2014) (discussing the adverse effects of salmon hatcheries on wild stocks of salmon).

²³ *Pink Salmon and Herring Interactions*, PRINCE WILLIAM SOUND SCI. CTR., <https://pwssc.org/pink-salmon-and-herring/> [<https://perma.cc/SY4Y-ZHT8>] (last visited Nov. 3, 2025) (“Currently, PWS is home to the largest pink salmon hatchery program in the world[.]”).

²⁴ Salmon Enhancement Tax is levied on salmon caught or sold in an established aquaculture region. This tax is collected by licensed processors and is based on the price paid for the salmon. Fishers that sell to unlicensed buyers or that export from an established aquaculture region must pay the tax directly to the department. United Fishermen of Alaska, *Alaska Seafood Industry Taxes and Fees* (2014), <https://www.ufafish.org/wp-content/uploads/2015/02/4a-Alaska-Seafood-Industry-Taxes-Fees-021115-v1s.pdf>.

²⁵ ALASKA ADMIN. CODE tit. 5, §§ 40–41 (2025). For example, title 5 section 40.220(b)(1)(A) of the Alaska Administrative Code relies on vague language requiring only that hatchery operations not “unreasonably or adversely affect” natural stocks, without setting measurable limits on stray rates, genetic mixing, or ecological

hatchery “enhancement” funding,²⁶ the label shapes expectations and governance—framing hatcheries as public-interest conservation rather than industrial production with externalities.

Science shows that hatchery fish can inflate seasonal salmon runs while undermining the genetic and ecological traits that sustain wild populations. Multi-generational modeling parameterized to Alaska pinks shows that hatchery strays can artificially increase abundance while eroding diversity and homogenizing populations.²⁷ Field studies in PWS document reduced relative fitness of hatchery-origin pinks compared to wild counterparts. These are not marginal concerns; they cut to the corpus of the trust. Sustained yield loses its meaning when the “yield” being sustained—the wild salmon—is propped up by hatchery production at the cost of declining wild adaptive capacity and eroding wild diversity, rather than preserving the resource itself in a naturally functioning, self-perpetuating condition.

Several Ninth Circuit opinions acknowledge that hatchery salmon can harm wild populations via genetic introgression, competition, and ecological disruption. In *National Wildlife Federation v. National Marine Fisheries Service*,²⁸ the court recognized that factors such as hatchery operations must be considered under the Endangered Species Act because they can adversely affect survival and recovery of listed salmon stocks.²⁹ Likewise, in *Trout Unlimited v. Lohn*,³⁰ the court cited agency findings that hatchery fish—while included within certain listed Distinct Population Segments—pose genetic risks to wild populations and may undermine their overall fitness.³¹ These decisions reinforce broader scientific concerns about hatchery-driven genetic dilution, disease transmission, and displacement of wild stocks.

impacts. *Id.* § 40.220(b)(1)(A). Annual management plans focus on production and harvest goals, not genetic or ecological monitoring. See *Annual Planning: Annual Management Plans*, ALASKA DEP’T OF FISH & GAME, <https://www.adfg.alaska.gov/index.cfm?adfg=fishingHatcheriesPlanningAnnual.main> [https://perma.cc/N85F-NKTU] (last visited Nov. 5, 2025) (outlining each hatchery’s planned production for 2025).

²⁶ Between 2021 and 2024, ADF&G distributed \$3.6 million in 2021, \$3.8 million in 2022, \$5.6 million in 2023, and \$682,107 in 2024 to Southeast Alaska stakeholders for salmon hatchery enhancement programs. *Southeast Alaska Chinook Fishery Mitigation Program: 2021 Projects*, ALASKA DEP’T OF FISH & GAME, <https://www.adfg.alaska.gov/index.cfm?adfg=fisherymitigation.2021projects> [https://perma.cc/JA7D-QRYU] (last visited Nov. 5, 2025); *Southeast Alaska Chinook Fishery Mitigation Program: 2022 Projects*, ALASKA DEP’T OF FISH & GAME, <https://www.adfg.alaska.gov/index.cfm?adfg=fisherymitigation.2022projects> [https://perma.cc/R2PU-T6AL] (last visited Nov. 5, 2025); *Southeast Alaska Chinook Fishery Mitigation Program: 2023 Projects*, ALASKA DEP’T OF FISH & GAME, <https://www.adfg.alaska.gov/index.cfm?adfg=fisherymitigation.2023projects> [https://perma.cc/4S86-35Q4] (last visited Nov. 5, 2025); *Southeast Alaska Chinook Fishery Mitigation Program: 2024 Projects*, ALASKA DEP’T OF FISH & GAME, <https://www.adfg.alaska.gov/index.cfm?adfg=fisherymitigation.2024projects> [https://perma.cc/28Q2-57S2] (last visited Nov. 5, 2025).

²⁷ May et al., *supra* note 7.

²⁸ Nat’l Wildlife Fed’n v. Nat’l Marine Fisheries Serv., 524 F.3d 917 (9th Cir. 2008).

²⁹ *Id.* at 925, 935–36 (explaining that section 7 analyses—in which federal agencies are required to ensure their actions do not jeopardize the continued existence of a listed threatened or endangered species or adversely modify its critical habitat—must evaluate effects on both survival and recovery, and faulting NMFS for relying on hatchery production without assessing recovery impacts because prolonged hatchery dependence risks domestication and loss of genetic diversity).

³⁰ *Trout Unlimited v. Lohn*, 559 F.3d 946 (9th Cir. 2009).

³¹ *Id.* at 958–60.

IV. The Legal Argument: Hatcheries as Trust Actions Requiring Precaution, Cumulative Review, and Enforceable Triggers

Owsichek and *Pullen* make clear that Alaska is as a trustee for wild salmon. The sustained-yield clause requires the State to apply substantive conservation principles, not rely on numerical abundance inflated by hatchery output.³² Hatcheries are not an “enhancement” measure; they do not meet fiduciary obligations to conserve wild salmon because hatchery programs can irreversibly alter wild genomes and ecosystems.

Alaska’s “hard look” doctrine requires agencies to consider relevant factors, disclose reasoning, and act conservatively under uncertainty.³³ The Alaska Supreme Court has upheld closures of the fishing season without perfect data where declining runs and best-available science support precautionary action.³⁴ That same logic should apply to hatcheries: managers need not await for irrefutable proof of genetic harm before imposing caps on releases, pHOS (proportion hatchery-origin spawners) limits, and stray-rate thresholds, accompanied by monitoring and automatic corrective triggers.

The Sustainable Salmon Policy already instructs agencies to manage artificial propagation conservatively, safeguard habitats from perturbation beyond natural variation, and initiate corrective measures “without delay” on a time scale not exceeding a salmon generation (~5 years).³⁵ Treating those directives as binding rather than aspirational, the text forces the State to meet its required trust obligations based on science.

Trust-consistent review must evaluate cumulative ecological and genetic impacts.³⁶ In practice, that means separating wild from hatchery signals in escapement goals and run reconstructions; requiring population-specific genetic monitoring; and conditioning permits on demonstrated non-impairment. The recent ADF&G memoranda acknowledge uncertainty in apportioning pink and chum in PWS streams, which only strengthens the case for precaution.³⁷

³² *Native Vill. of Elim v. State*, 990 P.2d 1, 7 (Alaska 1999) (declining to adopt a “mechanical application” of the sustained yield principle that would require “rigid enforcement” calculating a numerical sustained yield).

³³ *Hammond v. N. Slope Borough*, 645 P.2d 750, 759 (Alaska 1982) (citing *Kleppe v. Sierra Club*, 427 U.S. 390, 410 n.21(1976)); *see also Kachemak Bay Conservation Soc’y v. State*, 6 P.3d 270, 275 (Alaska 2000) (“[O]ur duty is to ensure that DNR has taken a hard look at the salient problems and has genuinely engaged in reasoned decision making.”) (internal quotations omitted).

³⁴ *Sitka Tribe of Alaska v. State*, 540 P.3d 893, 895 (Alaska 2023) (holding that the Alaska Department of Fish and Game’s decision to not provide a scientific report to the Board of Fisheries as it considered closure of a commercial herring fishery was not arbitrary as it was a highly technical report mostly concerned with computer coding fixes to the biomass forecasting program).

³⁵ ALASKA ADMIN. CODE tit. 5, § 39.222(c)(5)(A)(iii) (2025) (When correcting undesirable outcomes, decisions must initiate “any necessary corrective measure without delay and prompt achievement of the measure’s purpose, on a time scale not exceeding five years,” noting that five years is “approximately the generation time of most salmon species . . .”).

³⁶ *May et al.*, *supra* note 7; *Shedd et al.*, *supra* note 7.

³⁷ *See* Memorandum from James Savereide, Div. of Sport Fish, Jack W. Erickson, Div. of Com. Fisheries, & Tim McKinley, Div. of Sport Fish to Israel Payton, Div. of Sport Fish & Sam Rabung, Div. of Com Fisheries (Apr. 1, 2024),

<https://www.adfg.alaska.gov/static/regulations/regprocess/fisheriesboard/pdfs/2024-2025/ws/pws-eg-memo-2024.pdf>

Sitka Tribe of Alaska confirms that courts defer to agency judgments about what information is “relevant” to the Board—so long as the agency takes a hard look at the salient problems.³⁸ For hatcheries, the salient problems include straying, introgression, portfolio effects, and ocean competition. ADF&G must present the Board with disaggregated wild-versus-hatchery analyses, credible genetic monitoring results, and explicit evaluation of precautionary triggers. Anything less fails the trust.

V. Implementation: Renaming, Re-Regulating, and Enforcing the Trust

Statutes, regulations, and agency publications should stop describing hatcheries as “enhancement” and adopt the more accurate term “experimental ocean ranching.” This semantic shift re-centers the legal baseline on wild salmon and frames hatchery operations as potentially impairing activities that carry burdens of proof, monitoring, and mitigation.

Within its existing authority, ADF&G must implement trust-consistent reforms by exercising its regulatory and advisory powers to ensure science-based management plans distinguish wild from hatchery influences on stocks. ADF&G must disaggregate goals and reporting by separating wild and hatchery escapement metrics and requiring PHOS accounting in wild spawning habitats so that managers and courts can assess true wild performance. ADF&G should also establish precautionary caps and triggers by setting enforceable limits on hatchery releases and straying, and by adopting automatic corrective actions when genetic, fitness, or competition indicators cross thresholds, consistent with the Sustainable Salmon Policy’s five-year corrective window keyed to salmon generation time. ADF&G must provide cumulative impact analyses for all significant hatchery actions, including assessments of genetic introgression and ocean-competition effects, and coordinate NEPA-style reviews when a federal nexus exists, consistent with the Ninth Circuit’s rulings that hatchery output cannot substitute for conservation outcomes.³⁹ ADF&G must promote a transparent advisory process by ensuring that the Board of Fisheries receives all relevant analyses on hatchery–wild interactions, that advisory committees are informed by peer-reviewed science rather than production forecasts, and that the agency satisfies its “hard look” obligation under Article VIII.

Alaska’s citizens can also play a role in strengthening the state’s approach. Alaska’s liberal standing doctrine permits challenges based on environmental and aesthetic injury, requiring only an “identifiable trifle.”⁴⁰ Recent authority reaffirms interest-injury standing and

f [<https://perma.cc/27NJ-2BR3>] (summarizing the ADF&G review of Prince William Sound, including the Copper River drainage, escapement goals and associated committee findings for escapement goals).

³⁸ *Sitka Tribe of Alaska*, 540 P.3d at 900 (explaining that “the hard look doctrine applies [w]hen an executive agency decision about natural resources is challenged under Article VIII[,]” and “[i]n such cases we review the decision to ensur[e] that the agency has taken a hard look at all factors material and relevant to the public interest.”) (internal quotations omitted) (citing *Sagoonick v. State*, 503 P.3d 777, 782 (Alaska 2022)).

³⁹ *Nat’l Wildlife Fed’n v. Nat’l Marine Fisheries Serv.*, 524 F.3d 917, 925, 935–36 (9th Cir. 2008); *Trout Unlimited v. Lohn*, 559 F.3d 946, 958–60 (9th Cir. 2009).

⁴⁰ Credible allegations of diminished opportunity to enjoy Alaska’s wildlife are sufficient to establish interest-injury standing. The court reversed a dismissal for lack of standing where the plaintiff alleged that the Board of Game’s predator control program had reduced the number of brown bears she could view at Katmai National Park. The Court emphasized that Alaska’s doctrine requires only an “identifiable trifle” of harm and that the “threat of future injury confers standing to seek judicial aid to forestall a possible harm.” *Id.* at 1128–31 (explaining that “the degree

declaratory relief for regulatory validity challenges under the State’s APA.⁴¹ Injunctive relief is forward-looking and appropriate to prevent trust breaches without proving past wrongs. Courts should, at minimum, order procedural compliance—the classic province of judicial review—while leaving substantive choices to agencies acting within lawful bounds.

VI. Conclusion

Alaska’s robust constitutional and common law public trust doctrine guarantees stewardship of wild salmon as a living, adaptive resource. When State management blurs wild and hatchery conservation analysis and celebrates aggregate “abundance,” the State drowns meaningful conservation in artificially manufacturing a numerical yield. This artificial yield (catching millions of hatchery salmon annually) is only sustainable through consistent human interference (releasing billions of hatchery salmon annually). Article VIII’s sustained-yield clause, informed by public-trust principles and implemented through the “hard look” and precautionary management, empowers Alaska to reset course: rename hatchery projects as experimental ocean ranching and regulate them as potential impairments to the trust corpus. If Alaska’s agencies continue to prioritize production over precaution, the state risks converting its fiduciary role from trustee to operator, a fundamental breach of the constitutional covenant that binds all Alaskans to the continued vitality of wild salmon.

of injury to the interest need not be great” and that “an identifiable trifle is enough for standing to fight out a question of principle”).

⁴¹ *See generally* Bittner v. Bd. of Game, 563 P.3d 1123 (Alaska 2025) (developing the liberal “interest injury” standing approach that can establish standing when an interest is adversely affected, even minorly, through a liberal reading of the Complaint and the application of the Alaska Administrative Procedure Act “interested person” standard). Credible allegations of diminished opportunity to enjoy Alaska’s wildlife are sufficient to establish interest-injury standing. The court reversed a dismissal for lack of standing where the plaintiff alleged that the Board of Game’s predator control program had reduced the number of brown bears she could view at Katmai National Park. The Court emphasized that Alaska’s doctrine requires only an “identifiable trifle” of harm and that the “threat of future injury confers standing to seek judicial aid to forestall a possible harm.” *Id.* at 1128–31 (explaining that “the degree of injury to the interest need not be great” and that “an identifiable trifle is enough for standing to fight out a question of principle”).