

EPA National Environmental Justice Community Engagement Call

MAY 21, 2024

**Expanding the
Conversation**



**working for
environmental
justice**

Housekeeping



Please join by phone or computer, not both



You are on mute, please enter questions and comments into the Q&A pod



If selected to speak during dialogue, please limit comment to 1 minute



Recording and transcript will be available online in the near future

En Español

Tenemos interpretación en español disponible para aquellos que prefieren escuchar en español.

- Cómo cambiar el canal de audio en español
- Las personas pueden agregar preguntas en español al módulo de preguntas y respuestas
- Los materiales de la reunión estarán disponibles en español.



Spanish-language interpretation is available for those who prefer to listen in Spanish.

- How to switch to Spanish language audio channel*
- Individuals can add questions in Spanish to the Q&A Pod*
- Meeting materials will be made available in Spanish.*

***MINDFULNESS
MOMENT***



mindful
EPA



Looking to the past to chart our way forward

I ka wa ma mua, I ka wa ma hope...

Environmental Protection Agency

Environmental Justice

National Call

May 21, 2024



Building Communities of Practice for Resilience since 1993



**PACIFIC
AMERICAN
FOUNDATION**

Improving the Lives of Pacific Americans



We teach through the eyes, heart, and soul of our Kupuna.

We are passionate about education and culture.

We are honored to train teachers.

We empower children to be resilient and responsible.

We recruit and train emerging leaders.

We cultivate servant leaders.

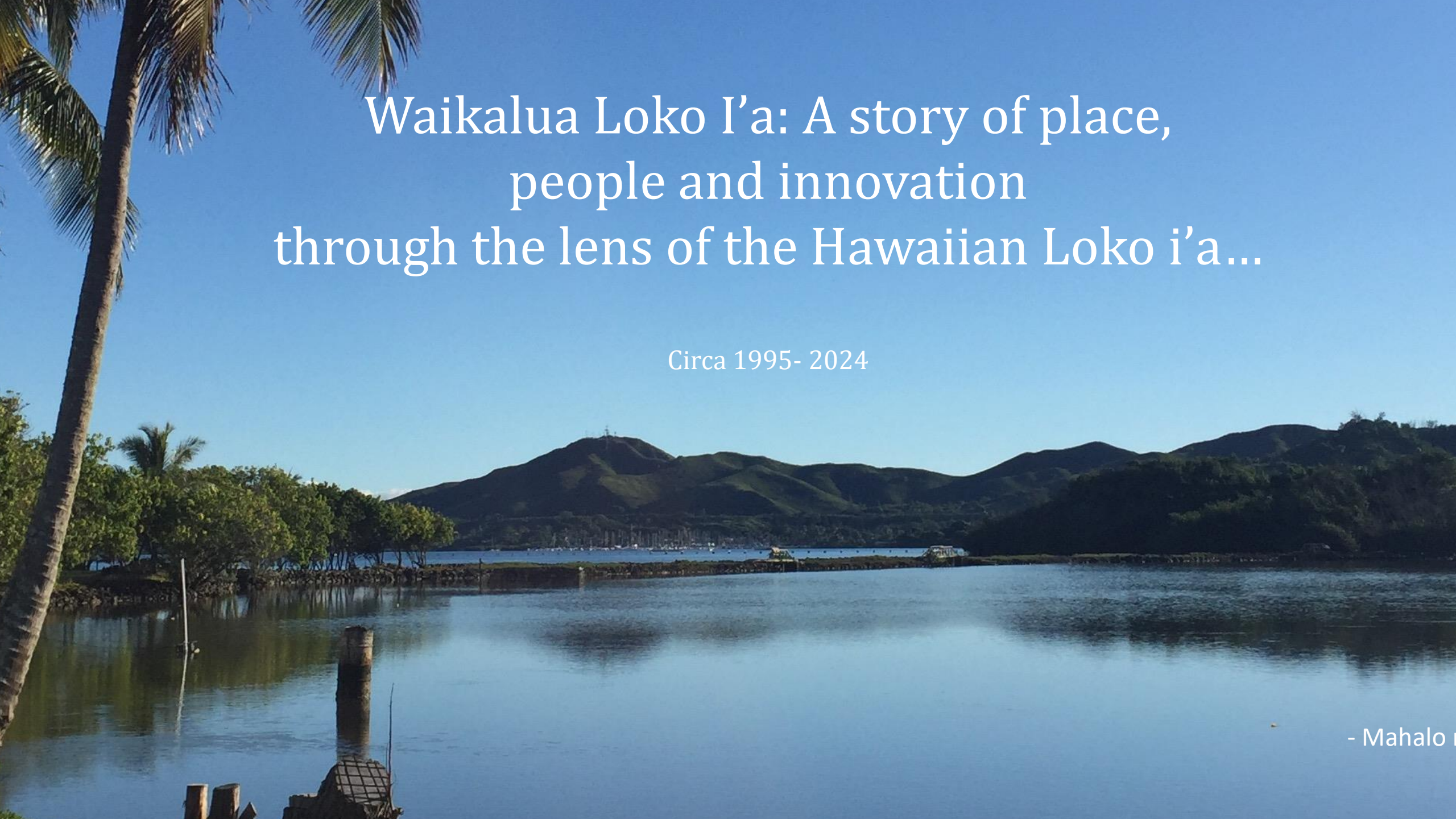
We inspire good stewardship by doing.

We are humbled to serve.

We thrive on the opportunities to partner.

We live aloha.

We are the Pacific American Foundation.



Waikalua Loko I'a: A story of place,
people and innovation
through the lens of the Hawaiian Loko i'a...

Circa 1995- 2024

- Mahalo

For over a thousand years ancient Hawaiians were completely isolated from the rest of the world, Yet they thrived...



Currently, over 80% of our food and 90% of our energy is imported

First Contact



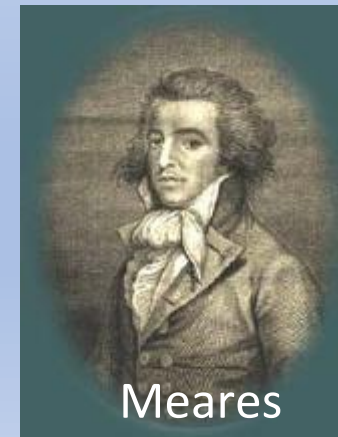
- “for industry of cultivation and agricultural improvements they could scarcely be exceeded in any country in the world” – Archibald Menzies - *Menzies' Journal of Vancouver's Voyage, April to October, 1792*
- “Some large ponds which appeared to be full of fish. He [the king] mentioned he had some others with a great quantity of turtle” - J. Meares – 1789



Vancouver

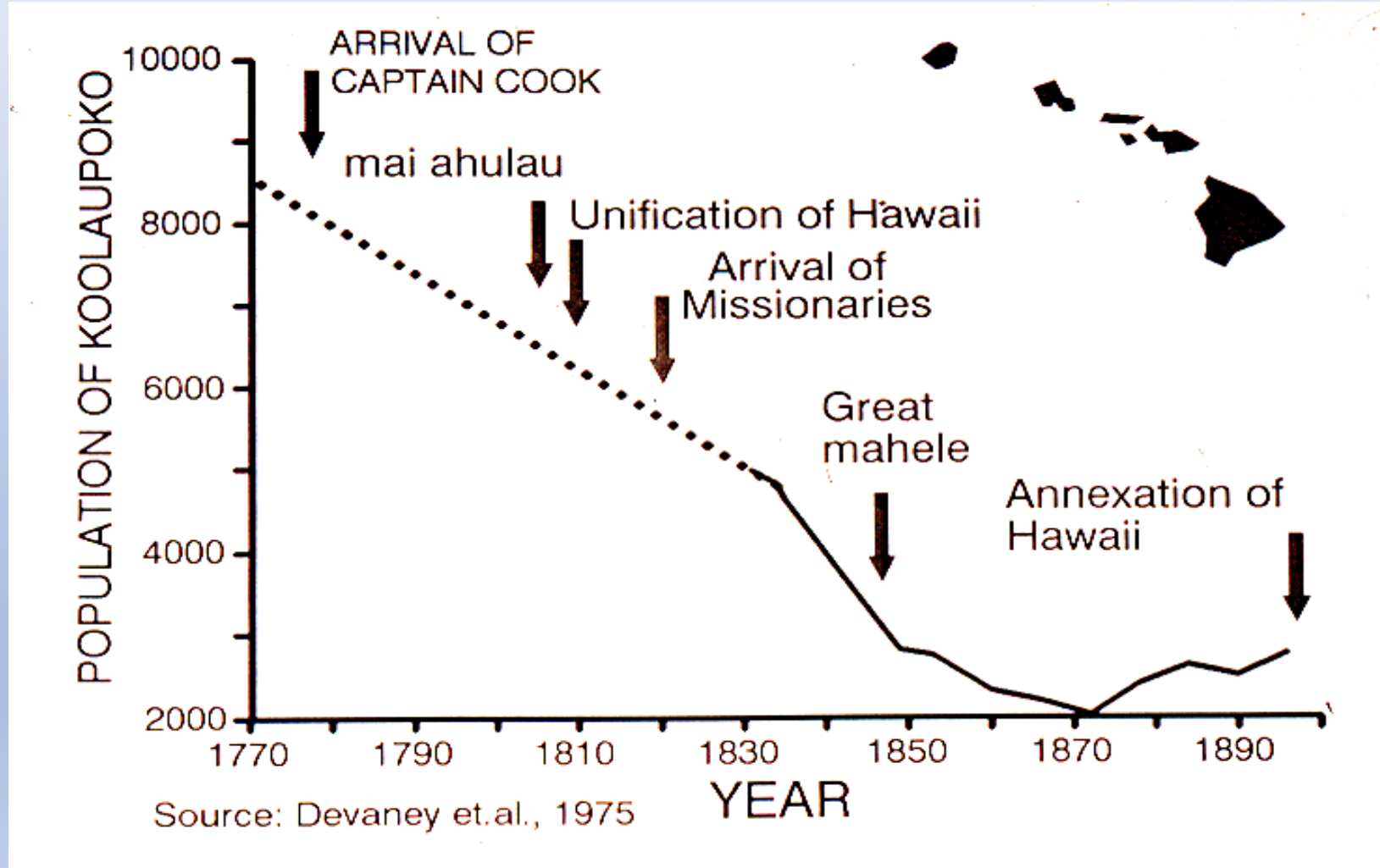


Menzies



Meares

REASONS FOR THE DEMISE OF HAWAIIAN FISH-PONDS

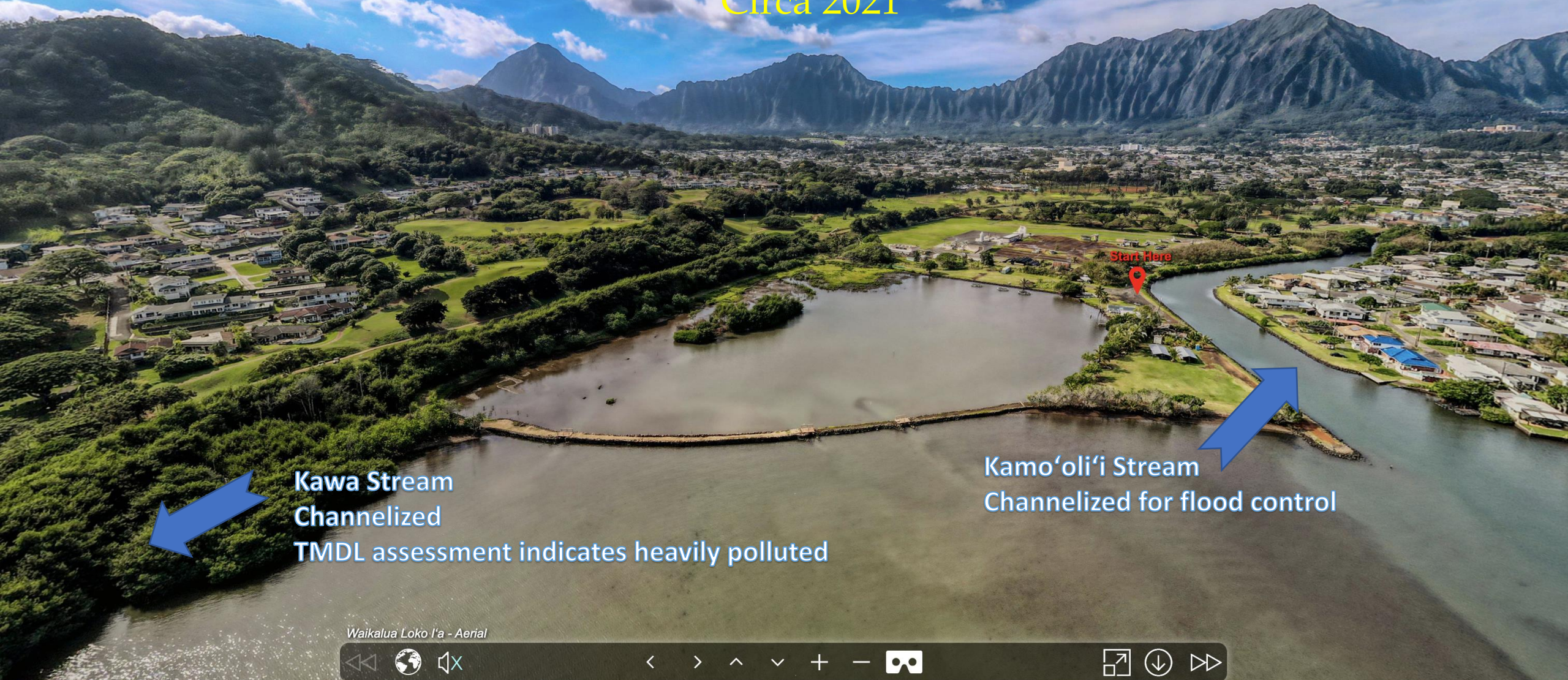




Waikalua Loko I'a

Kāne'ohe, Hawai'i

Circa 2021



Start Here



Kawa Stream
Channelized
TMDL assessment indicates heavily polluted



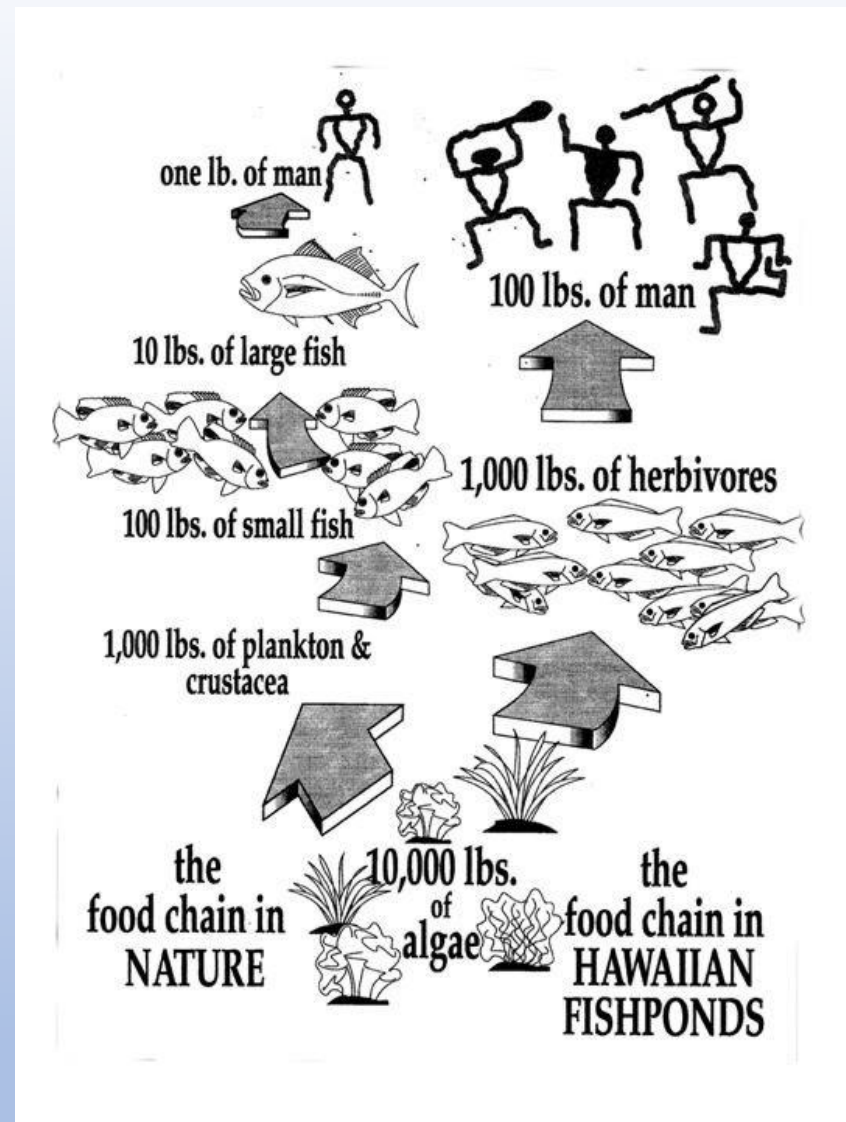
Kamo'oli'i Stream
Channelized for flood control



**Ama ama, mullet, *Mugil cephalus*
430,115 lbs produced in 1901**



**Awa, milkfish, *Chanos chanos*
224, 321 lbs produced in 1901**



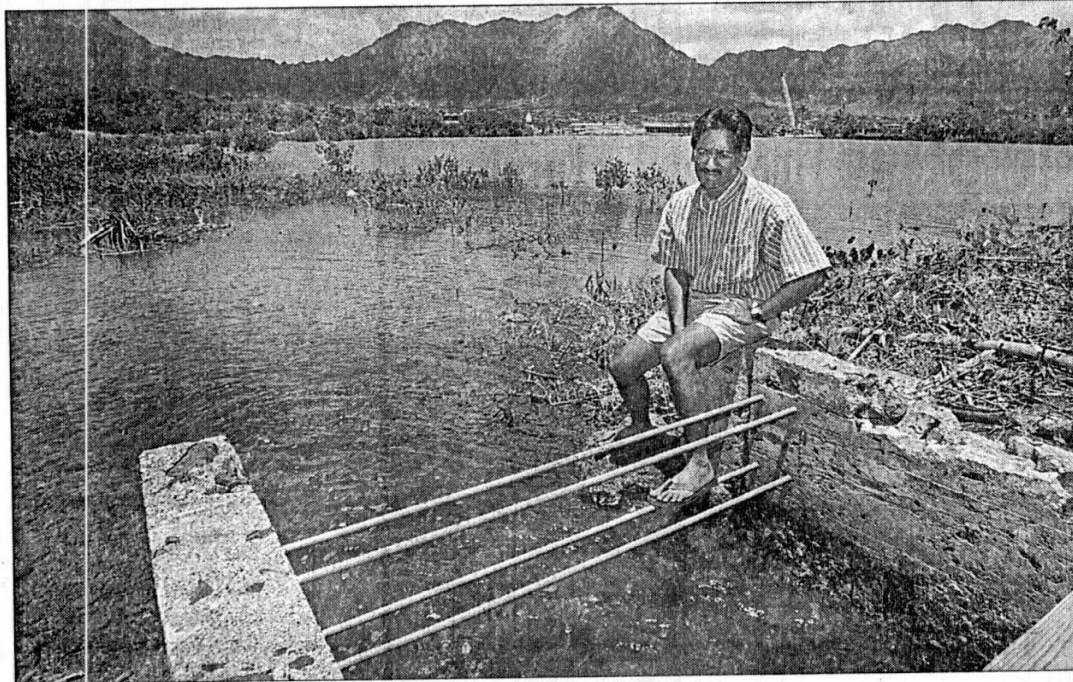
Hiatt, Robert W. 1944. Food Chains and the Food Cycle in Hawaiian Fish Ponds. Transactions of the American Fisheries Society, 74 (1944): 250-280

Hawai'i's Most Endangered Historic Sites

Waikalua Loko Fishpond

is one of the few remaining intact ancient Hawaiian fishponds in the state. Located in Kāneʻohe Bay, the approximately 400-year-old fishpond exemplifies the ancient Hawaiians' skillful management of natural resources. The Waikalua Loko Fishpond Preservation Society, a nonprofit organization, has managed the pond since 1995, working to eradicate invasive mangrove and maintain the pond's kuapā (wall) and mākāhā (gates), work done strictly by volunteers. "Since we began," says Herb Lee, Executive Director of the Pacific American Foundation and one of the founders of the preservation society, "we've had tens of thousands of people come down to help."

From Honolulu Magazine, November, 2010
By Jenny Quill for Historic Hawai'i Foundation
Photo by Rae Huo



Herb Lee Jr., president of the Waikalua Loko Fishpond Preservation Society, said the fishpond is the only one in Hawaii dedicated to education, not raising fish. "We're using the fishpond as a catalyst to teach being responsible and respectful of the environment," he said.

DEBORAH BOOKER
• The Honolulu
Advertiser

Restored fishpond now a learning center

By Tino Ramirez
ADVERTISER WINDWARD BUREAU

KANEŌHE — After four years of care and hard work, Waikalua Loko Fishpond is looking like a fishpond, not another mangrove stand creeping inland from Kaneohe Bay.

Tons of the relentless mangroves have been weeded out, revealing the graceful curve of the pond's wall as well as eight acres of water alive with shrimp, crab, mullet, barracuda and other fish.

Chuck Eakes said yesterday his hours of volunteer work were motivated by his three grandchildren. They are Hawaiian, he said, and living thousands of miles away in Washington state.

"Being so far from Hawaii, my grandchildren are also far away from their culture," said Eakes, a 30-year Kaneohe resident and a director of Waikalua Loko Fishpond Preservation Society. "I just want to make sure they get an opportunity to learn about it."

Eakes' young grandchildren can now learn about Waikalua Loko via the Internet or on visits to the pond. About 2,000 others have visited the pond to help clean up or on school trips. In 1998, Castle High School used the site to give 70 students hands-on science lessons, said Herb Lee Jr., president of the society.

The society was started in 1995 by fishpond owner

Bayview Golf Course, which employs Lee as a consultant. The course's Japanese owners decided to let the community manage the pond and have donated labor as well as assigned a full-time employee to help the society, he said.

Lee said the fishpond is the only one in Hawaii dedicated to education, not raising fish. The society has depended on volunteer labor, he said, but recently gained nonprofit status so it can raise money.

Formal research is being done by Clyde Tamaru, an aquaculture specialist with Sea Grant Hawaii who helped develop the curriculum for Castle High's science course. Students learned how Hawaiians integrated fishponds into the rest of the en-

vironment, Tamaru said.

"One boy explained the food chain in terms of guys fishing and drinking beer, how the food web goes all the way up from microscopic organisms to the fishermen," Tamaru said.

Lee said some cultural practices are being renewed. The Hawaiian-language students of nearby Puohala Elementary School wrote an "entrance chant" to recite when coming to the pond. The chant expresses respect for the pond as well as its relationship to the ahupuaa, or land division, it rests in.

"We're using the fishpond as a catalyst to teach being responsible and respectful of the environment," Lee said. "If you live mauka, for exam-

ple, what you throw into the streams up there is going to end up down here. If you care about this fishpond, you won't do it."

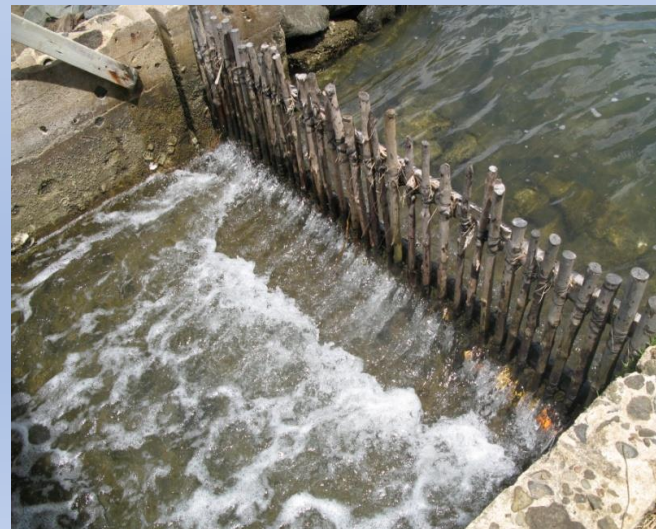
Along with clearing mangrove, the society is repairing the pond's three makaha, or sluice gates. Lee said the society needs help, especially from people willing to make long-term commitments: "It's going to take more than a lifetime, so we need to pass stewardship of the pond on to the next generation."

The society is holding a workday at the pond tomorrow from 9 a.m. to noon. Volunteers should call Lee at 262-3261. The society's web site is at www.wco.com/aecos/WLFPS-hp.html.

Re-Imagining Education and Teaching in the 21st Century



Waikalua Loko I'a: "Piko"





Impact of global climate change –invasive seaweed

Engaging Students



Engaging Teachers



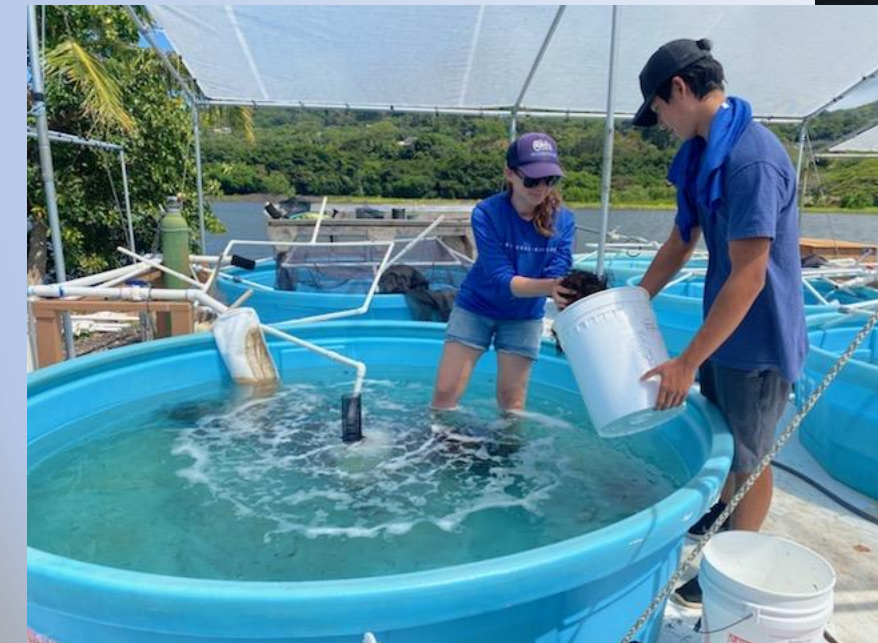
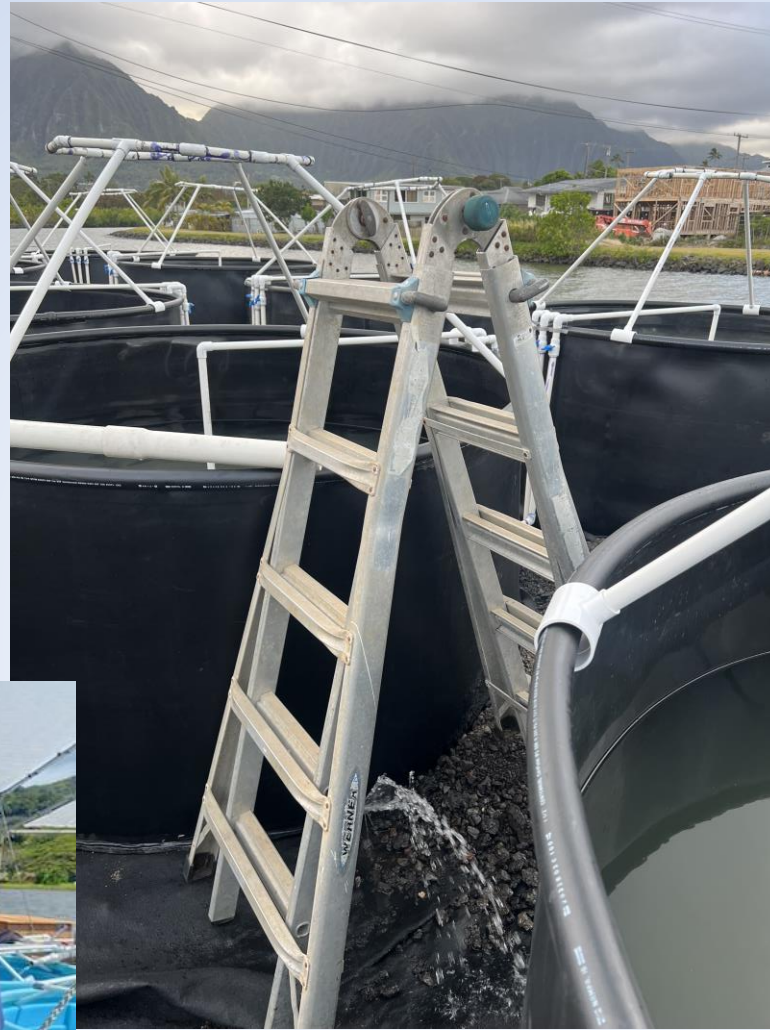
Lā 'Ōhana: Community Workdays





2024: Over 7000 teachers trained/135,000 students since 1995/ PAF acquires Waikalua Loko I'a 2019/first ancient Hawaiian fishpond to return to community since 1848.





**University of Hawaii Sea Grant
"Pua Boot Camp project"
April 2022**

Issues we are facing

- Eutrophication
- Sedimentation
- Bacteria contamination
- Pesticide and Herbicide contamination
- Invasive plant infestation
- Invasive fish
- Lack of oceanic circulation
- Lack of stream flow- stream is polluted
- Change in landscape management and the removal of transformative wetlands and flood control management practices

What we are doing

- Biocultural restoration in terms of

- Culturing and harvesting
 - Algae- Limu Manuea, Limu Kala
 - Ama-ama (Striped Mullet)
 - Endemic Oysters
- Removal of invasive plants and fish
 - Mangrove
 - Gracilaria Salicornia
 - Tilapia
 - Kanda
 - Predators
- Improvement of water quality
 - Increasing circulation
 - Removal of WWTF

- Biocultural restoration metrics

- Nutrients- presently above DOH standards
 - Nitrate + Nitrite
 - Total Nitrogen
 - Total Phosphorous
- Bacteria- presently below DOH standards
 - Fecal coliform
 - E. coli
 - Enterococci
- Sucralose- an artificial sweetener found in waste-water- Not Present
- Turbidity
- Dissolved Oxygen
- Salinity
- Temperature
- pH


FUTURE OF HAWAIIAN FISHPONDS

- Provides ways where students/community can reconnect with 'āina /natural processes
- May prove to be more important in the 21st century in restoring our sense of belonging and responsibility within ourselves and community
- Reduce Hawaii's dependence on imports





Mahalo Estria Foundation, Pū'ōhala and Kāne'ōhe elementary schools

A scenic landscape photograph showing a calm body of water in the foreground, reflecting a bright blue sky with scattered white clouds. In the background, a range of green, rugged mountains stretches across the horizon. On the right side of the image, a rocky, gravelly path leads along the water's edge, where several people are walking away from the camera. The overall atmosphere is peaceful and natural.

“Consider it pure joy, my brothers
whenever you face trials of many
kinds, because you know that the
testing of your faith develops
perseverance. Perseverance must
finish its work so that you may be
mature, and complete, not lacking
anything.” – Jm 1:2-4

January 15, 2022: PAF set the course
for the next 30 years

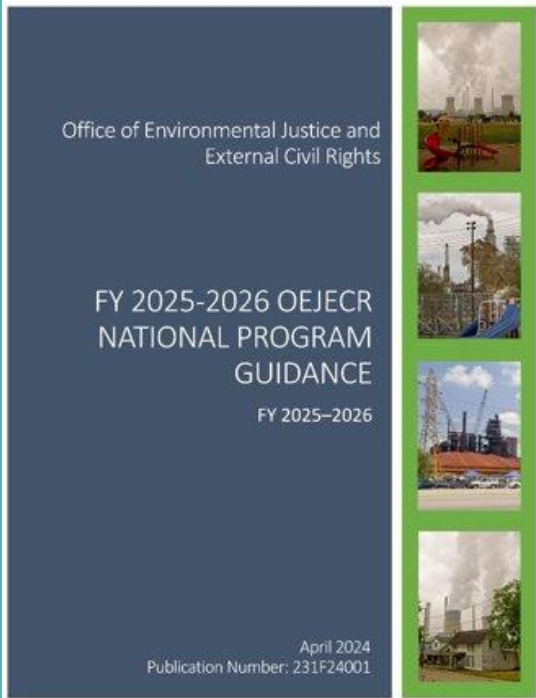


Mahalo!

E 'Ohana hou
- Pono Shim

Ma ka hana ka 'ike
- M. K. Pukui

Office of Environmental Justice and External Civil Rights



- Organized by the 3 objectives under Goal 2 of EPA's Strategic Plan.
- Key activities for making progress on annual performance goals
- Key activities for advancing equity EJ, and external civil rights priorities

Objective 2.1: Promote EJ and Civil Rights at the Federal, Tribal, State, Local, and Community Level (pages 6-10)

- Strengthen capacity of underserved and overburdened communities (e.g. technical assistance); meaningful engagement.

Objective 2.2: Embed EJ and Civil Rights in the EPA's Policies, Programs, and Activities (pages 10-16)

- Reducing disparities in environmental and public health conditions; using tools and EJ analyses to address disproportionate impacts.
- Supporting collaborative, community-driven approaches and practicing meaningful engagement in decision-making.
- Meaningful access for persons with limited-English proficiency and for persons with disabilities.

Objective 2.3: Strengthening Civil Rights Enforcement in Communities with Environmental Justice Concerns (pages 16-17)

- Civil rights compliance by EPA financial assistance recipients (pre-award and post-award reviews, audits)

Providing Written Comments:

April 23rd –
June 4th

- Use the [FY 2025-2026 Comments Template](#) on the [NPG Website](#)
- For OEJECR's NPG, email completed comments template to the following contacts:
 - Rebecca Huff, OEJECR, huff.rebecca@epa.gov
 - Kurt Temple, OEJECR, temple.kurt@epa.gov
 - CC Dominic Nelson, OCFO, nelson.dominic@epa.gov
- Responses to comments and final NPGs posted on the [NPG Website](#) on July 8th



Environmental Justice (EJ) Toolkit for Lead Paint Enforcement Programs

Robin Jacobs

Office of Civil Enforcement

Waste and Chemical Enforcement Division

Introduction

- Toolkit provide concrete examples and resources (e.g., strategies, examples, information) for lead paint enforcement programs
 - Enhanced partnerships with co-regulators and communities,
 - communications,
 - targeting and
 - addressing environmental justice in enforcement remedies
- Encourages state, tribal, and local lead enforcement programs to adopt similar measures
- Incorporating EJ into all phases of enforcement



Policies on Environmental Justice

- [Executive Order 14008](#)
- [EPA Lead Strategy](#)
- [Office of Enforcement and Compliance Assurance \(OECA\) memos](#)
 - Increasing inspections in overburdened communities
 - Addressing underlying causes of violations and mitigating harm to communities



Federal Lead Paint Enforcement



**Protect
Your
Family**

- Federal regulations:
 - Renovations, Repair and Painting Rule (authorized in 15 states and one tribe)
 - Lead Activities Rule (authorized in all but 11 states, 4 territories, and most Tribal Lands).
 - Lead Disclosure Rule (jointly enforced with HUD)
- Most cases proceed administratively. DOJ and the US Attorney's Offices have a history of bringing many successful Lead Disclosure Rule cases.

Partnerships with Co-Regulators

- State, Tribal and Local Departments of Health
- State, Tribal and Local Housing Departments, including building code officials and permitting offices
- HUD and Public Housing Authorities
- State/Tribal Environmental Agencies (and others with federal lead paint authorization)
- State/Tribal Construction Licensing and Consumer Protection Agencies
- Multi-media collaboration within environmental agencies to address other sources of lead contamination
- Resource for local leaders:
 - [Pediatric Environmental Health Specialty Units](#)
 - [Local Lead Action Plan Guide](#)



Community Engagement

- Soliciting Tips & Complaints, Insights into Targeting
- Outreach and education
- Focusing on geographic areas and connecting with local groups:
 - Community / housing organizations
 - Legal services
 - Lead poisoning prevention and environmental justice organizations
 - Educational and health care institutions
- ChangeLab Solutions' [Equitable Enforcement to Achieve Health Equity: An Introductory Guide for Policymakers and Practitioners](#) provides additional information about how to embed equity principles into enforcement work.



Community members, state, tribal, and local regulators can all refer complaints, tips and violations to the EPA through the [lead-based paint report a violation system](#).

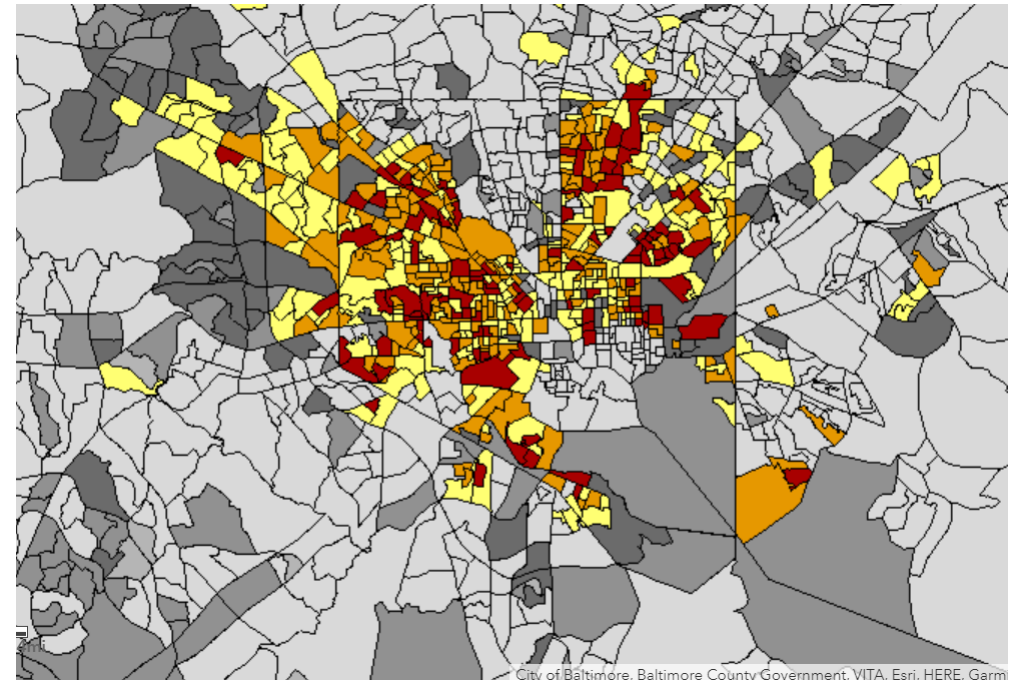
Communications

- Press Releases and Fact Sheets
- Messaging around environmental justice and the disparate impacts of lead exposure.
- Scientific studies regarding disparities may also be useful in providing background regarding disparities, like those available from the [National Health and Nutrition Examination Surveys](#).
- Examples:
 - [2015 EPA press release on lead paint safety in St. Louis, Missouri](#).
 - [A New York State Attorney General 2022 press release highlighting lead paint enforcement](#)



Targeting – Best Practices

- Prioritizing investigation and inspections of tips and complaints in overburdened communities and authorities that are most applicable to rental properties.
- Focus on “toxic dwellings”
- Multi-media approaches
- Expansive investigations for egregious violations
- Criminal referrals
- Addressing challenges with property ownership
 - LLCs
 - Heirs’ property
 - Foreclosure sales
- Mapping analysis – [EJScreen](#) or similar state or local systems



Remedies



- Lead abatement projects directed to overburdened communities
- Injunctive relief, settlements with conditions and Supplemental Environmental Projects (SEPs)
 - Clean Air Act cases with SEPs
- Resource Conservation and Recovery Act (RCRA) § 7003 Imminent and Substantial Endangerment Orders
- Compliance plans

Contact Information



Please help EPA spread the word regarding this resource.

For comments, questions, and suggestions, contact:

Robin Jacobs

Attorney Advisor

Waste and Chemical Enforcement
Division

Office of Civil Enforcement

U.S. EPA

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202-564-2176



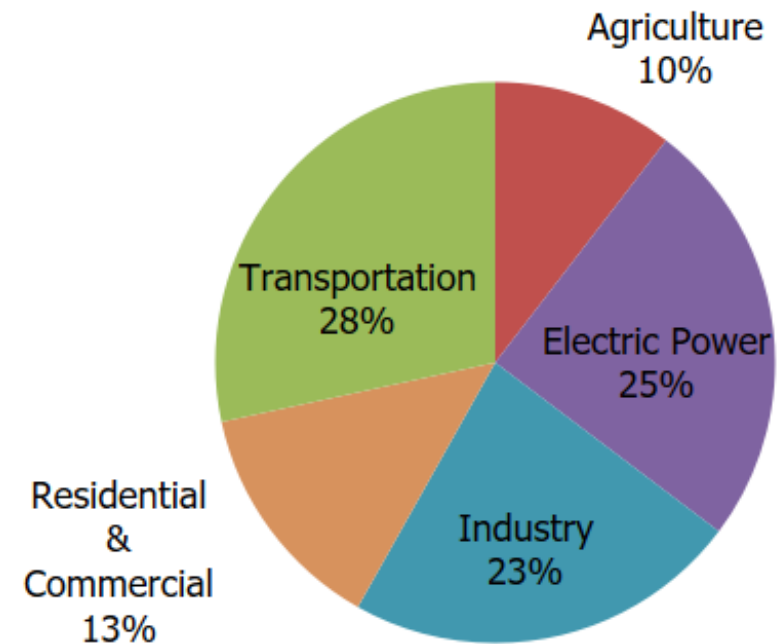
Overview

On April 25, EPA issued final carbon pollution standards for power plants that will protect public health and reduce harmful pollutants.

The **power sector is the largest stationary source of greenhouse gases (GHGs)**. In 2022, the sector emitted 25 percent of the overall domestic emissions.

The rules address climate pollution from **existing coal-fired power plants**, which continue to be the largest source of greenhouse gas emissions from the power sector, and ensure that **new combustion turbines**, some of the largest new sources of CO₂ being built today, are constructed to minimize GHG emissions.

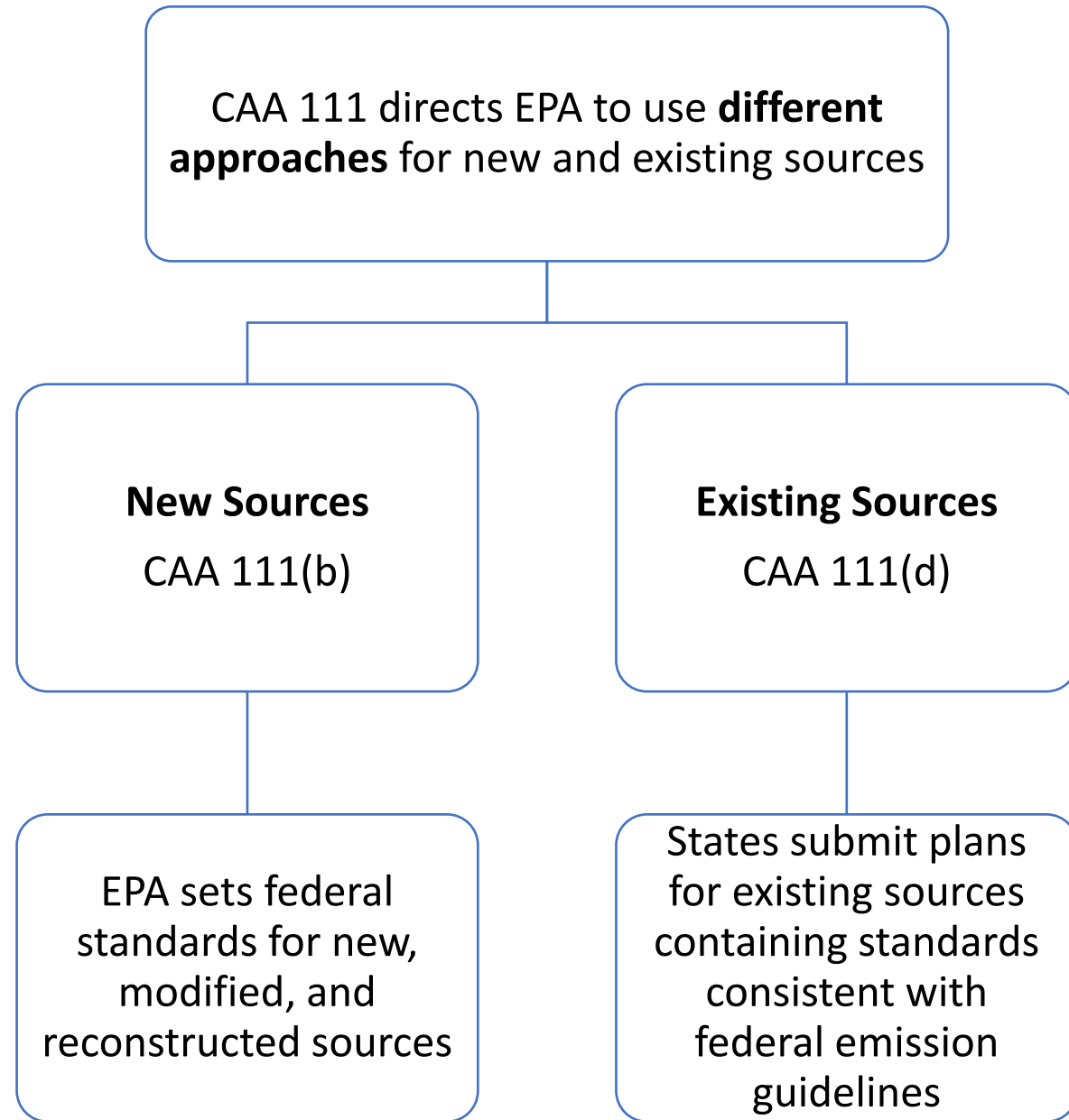
Total U.S. Greenhouse Gas Emissions by Economic Sector in 2022



EPA (2024). Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2022 U.S. Environmental Protection Agency, EPA 430R-24004. <https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks-1990-2022>.



Clean Air Act Section 111





Overview

Types of fossil fuel-fired power plants covered by this final rule

- New, modified, and reconstructed sources – Covered under Clean Air Act section 111(b)
 - New and reconstructed gas-fired combustion turbines
 - Modified coal-fired steam generating units
- Existing sources – Covered under Clean Air Act section 111(d)
 - Coal-, oil-, and gas-fired steam generating units

Technology-based standards

- Consistent with EPA's traditional approach to establishing pollution standards under the Clean Air Act, the final limits and emission guidelines are based on proven control technology.
- Emission guidelines for the longest-running existing coal units and standards for heavily-utilized new gas-fired units are based on carbon capture and sequestration/storage (CCS) – an available and cost-effective control technology that can be applied directly to power plants to significantly limit carbon dioxide (CO₂) emissions.

Reduces climate and other health-harming pollution

- The climate and health benefits of this rule significantly outweigh the compliance costs.
- Between 2024 and 2047, the regulatory impact analysis projects net climate and health benefits systemwide of \$370 billion, which is an annualized net benefit of \$20 billion.
- Expected to avoid up to 1.38 billion metric tons of CO₂ systemwide through 2047



Overview

Builds on decades of technology advancements and momentum from recent changes in the sector created by the Inflation Reduction Act and the Bipartisan Infrastructure law

- Leverages the clean energy incentives and opportunities provided in the Inflation Reduction Act

Provides utilities options for meeting these standards as well as the time needed to plan and invest for compliance and continue to support a reliable supply of affordable electricity.

Compliance date is January 1, 2032, for the longest-running existing coal-fired steam generating units and heavily utilized new combustion turbines

- Includes two optional reliability-related instruments that states can consider including in their state plans

Through the state planning process, communities will have an opportunity to be heard about the future of individual plants in their neighborhoods.

- States, in developing plans for existing coal sources, will need to describe their meaningful engagement with affected stakeholders
- Includes communities disproportionately burdened by pollution and climate change impacts, as well the energy communities and workers who have powered our nation for generations



Environmental Justice

- EPA engaged on multiple occasions with environmental justice organizations and representatives of communities that are affected by fossil fuel-fired EGUs, several of whom raised significant concerns about raised significant concerns about the potential health, environmental, and safety impacts of CCS. The EPA takes these concerns seriously, agrees that CCS must be deployed in a manner that protects public health, safety and the environment, and has carefully considered these concerns as it finalized its determinations of the BSERs for these rules.
- Overall, EPA modeling found that the final rule will result in large reductions of both GHGs and other emissions that will have significant positive benefits. While baseline ozone and PM2.5 concentration will decline substantially relative to today's levels in virtually all areas of the country, there is the potential for some localized increases in emissions.
- However, a robust regulatory framework exists to reduce the risks of localized emissions increases and facilitate the safe transport of CO₂
 - The EPA plans to review and update as needed its guidance on NSR permitting, specifically with respect to BACT determinations for GHG emissions and consideration of co-pollutant increases from sources installing CCS
 - PHMSA is currently undertaking rulemaking to amend and enhance CO₂ pipeline safety regulations
- Further, the EPA will continue to prioritize engagement with stakeholders throughout this process and is committed to engaging with all stakeholders on opportunities to ensure that deployment of CCS is done in a responsible manner.
- Each state will ultimately be responsible for determining the future operation of existing fossil fuel-fired EGUs located within its jurisdiction, and EPA's meaningful engagement requirements ensure that all interested stakeholders will have an opportunity to have their concerns heard in the state planning process.



Support for Reliability

EPA developed a four-point plan to address reliability throughout the implementation period.

- 1) **Rule Structure**. EPA adjusted the compliance timeframe by 2 additional years for coal-fired units, to provide more time to install CCS, and streamlined the subcategories. The EPA is not regulating existing natural gas fired turbines at this time, which creates more time for a comprehensive approach, including for reliability.
- 2) **RULOF Provisions**. EPA articulated how states can use the Remaining Useful Life and Other Factors (RULOF) provisions to address reliability in state plans, as well as in state plan revisions, should circumstances change.
- 3) **Compliance Flexibilities**. Several important flexibilities are included: a flexible annual average compliance period, emissions trading/averaging, and mass-based compliance equivalency are allowed in circumstances that uphold the environmental integrity of the rule, and a 1-year compliance extension is available for new and existing units for implementation delays outside of the control the owner/operator.
- 4) **Reliability Mechanisms**. The final rule adds two optional reliability-related instruments as an additional layer of safeguards. A short-term mechanism to provide flexibility for units responding to grid emergencies and a reliability assurance mechanism for units with retirement dates with a documented and verified reliability need.

EPA completed analyses of the reliability and resource adequacy implications of these final rules, including high growth and combined regulation sensitivity analyses, that show these final rules can be implemented without adverse consequences for grid reliability. EPA will continue to engage extensively with all reliability related authorities.



Other Elements

- EPA is also simultaneously taking other actions, including
 - finalizing revisions to the NSPS for GHG emissions from fossil fuel-fired steam generating units that undertake a large modification, based upon the eight-year review required by the Clean Air Act;
 - repealing the “Affordable Clean Energy (ACE) rule” that was finalized in 2019 under the previous Administration; and
 - withdrawing the changes proposed to the NSPS for coal in 2018 under the previous Administration.
- EPA is not taking final action on the May 2023 proposed emission guidelines for existing combustion turbines. We are working to design a broader, more environmentally-protective approach to GHG regulation of the entire fleet of existing combustion turbines. EPA is taking this step as part of the comprehensive approach to regulation of climate, toxic and criteria air pollution from combustion turbines. As part of a robust stakeholder outreach effort, we issued framing questions and are gathering input through a non-regulatory docket that is open through May 28, 2024. Details are available at [Nonregulatory Public Docket: Reducing Greenhouse Gas Emissions from Existing Gas Turbines at Power Plants](#).



Emissions changes, benefits, and costs

- EPA evaluated the national emissions changes, benefits and costs in a Regulatory Impact Analysis (RIA). The RIA presents systemwide information.
- Estimates are presented two ways – as present values (PV) and equivalent annualized values (EAV). The PV is the costs or benefits over the timeframe from 2024 to 2047. The EAV represents the value for each year of the analysis.
- Over the years from 2024 to 2047, EPA estimates net benefits of **\$370 billion**. This includes:
 - **\$270 billion** in climate benefits
 - **\$120 billion** in health benefits (PM and ozone)
 - **\$19 billion** in compliance costs
- For a single year, the net benefits are **\$20 billion**. This includes:
 - **\$14 billion** in climate benefits
 - **\$6.3 billion** in health benefits (PM and ozone)
 - **\$0.98 billion** in compliance costs



Emissions changes

Aggregate emission cuts from 2028-2047

- The Regulatory Impact Analysis projects reductions of 1.38 billion metric tons of CO₂ systemwide over the 2028 to 2047 timeframe along with tens of thousands of tons of PM2.5, SO₂, and NO_x – harmful air pollutants that are known to endanger public health.

Snapshot of emissions changes

- In 2035, the power sector systemwide would emit
- 123 million metric tons less CO₂
- 49,000 tons less annual NO_x
- 19,000 tons less ozone season NO_x
- 90,000 tons less SO₂
- 1,000 tons less direct PM2.5
- About 200 pounds less mercury



For More Information

- Fact sheets and a copy of the final rule, RIA, and supporting documents are available at [Greenhouse Gas Standards and Guidelines for Fossil Fuel-Fired Power Plants](#)
- <https://www.epa.gov/stationary-sources-air-pollution/greenhouse-gas-standards-and-guidelines-fossil-fuel-fired-power>



Mercury and Air Toxics Standards (MATS) for Coal-Fired Power Plants

Review of the 2020 Residual Risk and Technology Review (RTR)
Final Rule

April 2024



Key Messages

- On April 25, 2024, EPA issued final revisions to strengthen the Mercury and Air Toxics Standards rule for existing coal-fired power plants.
- EPA is finalizing more stringent emissions standards and additional, cost-reasonable monitoring and control methods to further reduce harmful pollution from these sources. The final rule will reduce emissions of mercury and non-mercury metal hazardous air pollutants (HAPs), such as nickel, arsenic, and lead.
- MATS pairs a stronger filterable particulate matter (fPM) standard, as a surrogate for non-mercury HAP metals, with a requirement to use continuous emissions monitoring (CEMs) at the stack. The standard and monitoring requirements work together to increase health protection and provide operators and communities access to better, more up-to-the-moment data.
 - The fPM standard will reduce emissions of hazardous metals and ensure that the worst performing units reduce their emissions to a level that has been demonstrated by most of the existing coal-fired electric steam generating units (EGUs).
 - PM CEMS requirements mean a continuous stream of emissions and performance data will be collected hourly by all coal-fired power plants, and it will be publicly reported at regular intervals -- just like all coal-fired power plants already use CEMS for SO₂ and NOX emissions.
- The tighter mercury standard for lignite units will ensure these units meet the same mercury standard as other coal-fired power plants.
- EPA is committed to protecting communities from the various health and environmental impacts of power plant pollution.
- This final rule provides regulatory certainty that allows states, grid operators, and power companies to make investments and planning decisions, while supporting the industry's ability to deliver reliable and affordable electricity.



Background and Timeline

- 2012 – EPA issued final MATS rule for coal- and oil-fired EGUs
 - Within 8 years of promulgating standards under Clean Air Act (CAA) section 112(d)(2), the EPA must conduct a residual risk and technology review (RTR)
 - 112(f)(2): update standards if needed to provide an ample margin of safety to protect public health
 - 112(d)(6): review and revise standards as necessary taking into account developments in practices, processes, and control technologies
- 2020 - RTR Conclusions:
 - Current MATS requirements provide ample margin of safety to protect human health; and
 - Existing air pollution control technologies in use were well-established and provided capture efficiencies necessary for compliance
- 2021 - Executive Order 13990 instructed EPA to consider publishing a notice of proposed rulemaking suspending, revising, or rescinding the 2020 RTR
 - EPA found that no revisions were warranted under risk review – the 2020 risk analysis was conducted approaches and methodologies consistent with those used in RTRs for other source categories
 - EPA found that there have been developments in the costs and effectiveness of control technologies and that many sources outperform current standards
- April 24, 2023 - Published proposed revisions to the MATS rule under Clean Air Act (CAA) 112(d)(6) technology review
- April 25, 2024 – Final Revision to MATS Rule



Final Rule Strengthens MATS

- Particulate Matter (PM) standard used as a surrogate for non-mercury HAP metals, and compliance demonstration requirement:
 - Tighter filterable particulate matter (fPM) standard of **0.010 lb/MMBtu**
 - **Strengthens by 67 percent** compared to 2012 MATS standard of 0.030 lb/MMBtu
- Require all sources to use PM Continuous Emissions Monitoring Systems (PM CEMS) to demonstrate compliance
 - 0.010 lb/MMBtu is the lowest possible fPM limit where PM CEMS can provide valid and enforceable data
- Mercury (Hg) standard for lignite-fired EGUs
 - Tighter Hg emission standard of **1.2 lb/TBtu**
 - **Strengthens by 70 percent** compared to 2012 MATS standard of 4.0 lb/Tbtu
 - 1.2 lb/TBtu is the standard that must be met by all non-lignite-fired EGUs
- Remove startup definition #2



Emissions Changes and Public Health

- Controlling HAP emissions from power plants improves public health for all Americans by reducing the risk of fatal heart attacks, cancer, developmental delays in children, and by reducing adverse environmental impacts.
- These public health improvements are especially important for children and particularly vulnerable segments of the population such as indigenous communities, and people of color and low-income populations who regularly consume fish.
- Emissions reductions in the year 2028:
 - **1,000 pounds** of mercury;
 - **770 tons** of fine particulate matter (PM2.5)
 - **280 tons** of nitrogen oxides (NOx)
 - **65,000 tons** of carbon dioxide (CO2)
 - At least **7 tons** of non-mercury HAP metals



Benefits and Costs

- Benefits over the 10-year period from 2028-2037
 - \$300 million in health benefits
 - \$130 million in climate benefits.
- Compliance costs over the 10-year period
 - \$860 million
- These monetized benefits do not include benefits associated with reductions of HAP such as mercury, lead, arsenic, chromium, nickel, and cadmium.
- In addition, the benefits of the additional transparency provided by the requirement to use PM CEMS for communities that live near sources of HAP, and the assurance PM CEMS provide that the standards are being met on a continuous basis are not monetizable.



For More Information

- A copy of the final rule and fact sheets are at: [Mercury and Air Toxics Standards](#).
- <https://www.epa.gov/stationary-sources-air-pollution/mercury-and-air-toxics-standards>

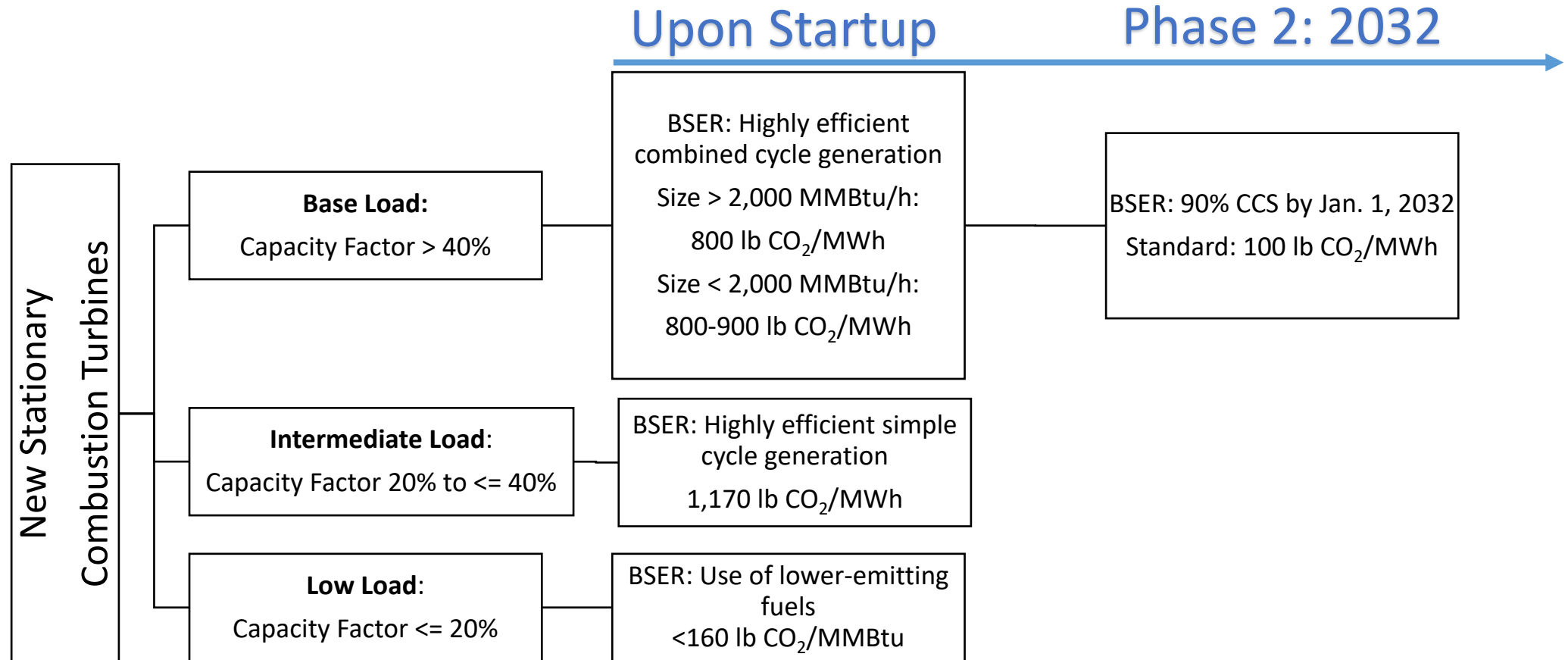


Appendix - CPS



Final Standards for New Stationary Combustion Turbines

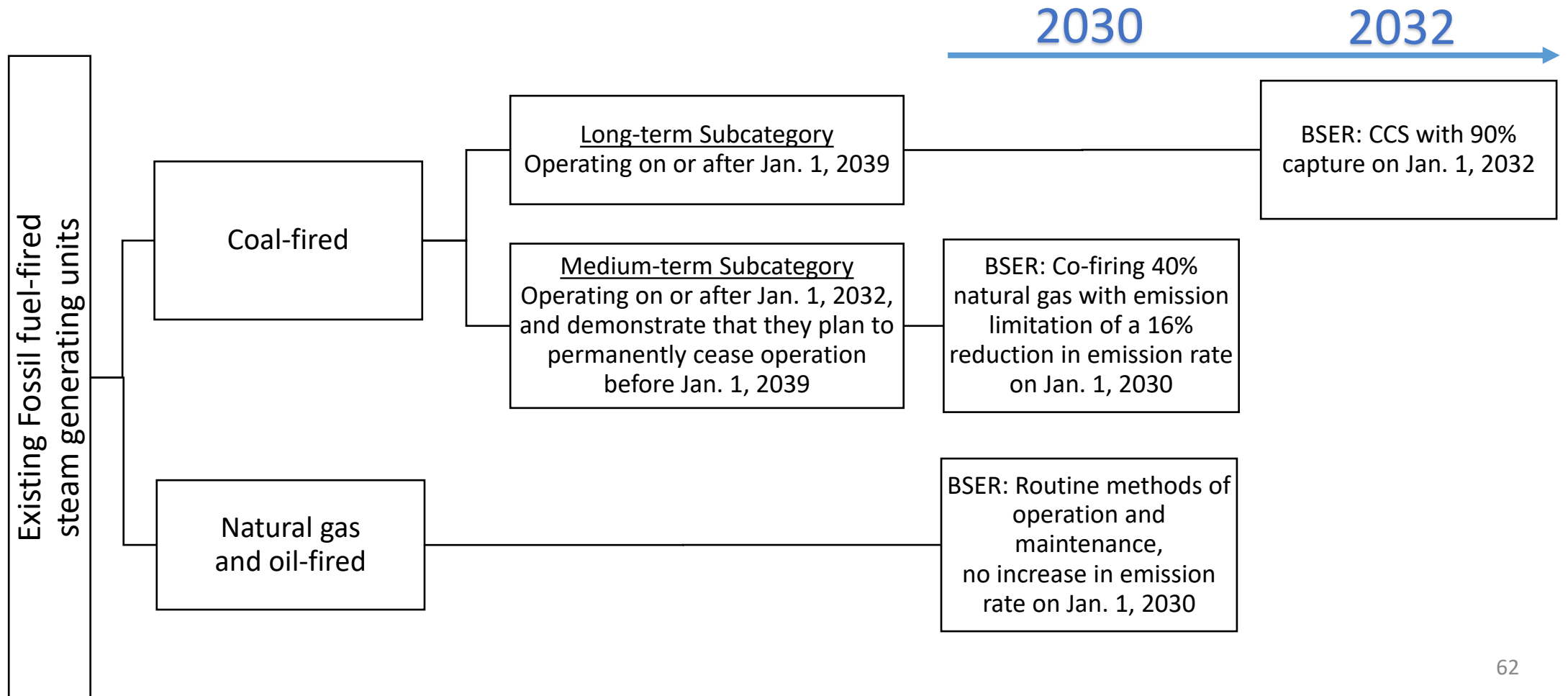
- Standards effective from date of proposal publication (May 23, 2023)
- Three subcategories: base load, intermediate load, low load
- Standards are technology neutral, affected sources may comply with it by co-firing hydrogen





Final Emission Guidelines for Existing Steam Generating Units

- Two subcategories for existing coal-fired units, depending on operating horizon: (1) Units operating on or after Jan. 1, 2039 and (2) Units that are operating on or after Jan. 1, 2032, and demonstrate they plan to permanently cease operation before Jan. 1, 2039
- Units that demonstrate they plan to permanently cease operations before Jan. 1, 2032 are not subject to these standards





State Plans for Final Emission Guidelines

State Plan Submission Deadline

- Submission within 24 months after publication of the final emissions guidelines

State Plan Components

- Requirements specific to these emission guidelines to ensure transparency, including a website hosted by EGU owners/operators to publish documentation and information related to compliance with the state plan

Compliance Deadlines

- January 1, 2030, or January 1, 2032, depending on subcategory
- Compliance must be demonstrated annually
- States may include a mechanism in their plans to extend the compliance date by up to one year for affected EGUs installing a control technology that experience and subsequently provide documentation of a delay entirely outside of the owner/operator's control (e.g., permitting- or construction-related) that makes it impossible to commence compliance by the compliance deadline

Meaningful Engagement

- General implementing regulations (Subpart Ba) apply, and require states to describe their meaningful engagement with pertinent stakeholders, including communities that are most affected by and vulnerable to emissions from these EGUs, and reliability authorities
- Helps ensure that the priorities, concerns and perspectives of these communities are heard during the planning process