

AGENDA ITEM
7 MTG

UPDATE:
PROGRAMMATIC ENVIRONMENTAL IMPACT REPORT (PEIR)
COASTAL MARINE AQUACULTURE PROGRAM

MARINE RESOURCES COMMITTEE
NOV 15, 2018 - SACRAMENTO CA



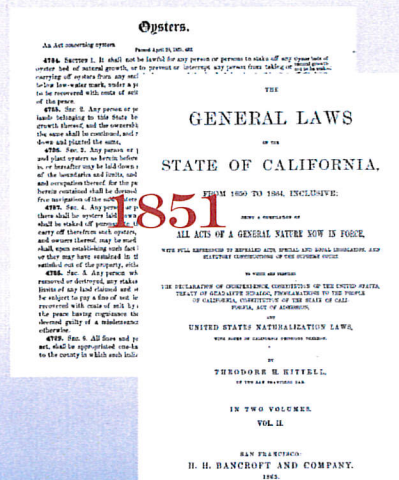
FISH AND GAME COMMISSION
DEPARTMENT FISH AND WILDLIFE



PEIR UPDATE

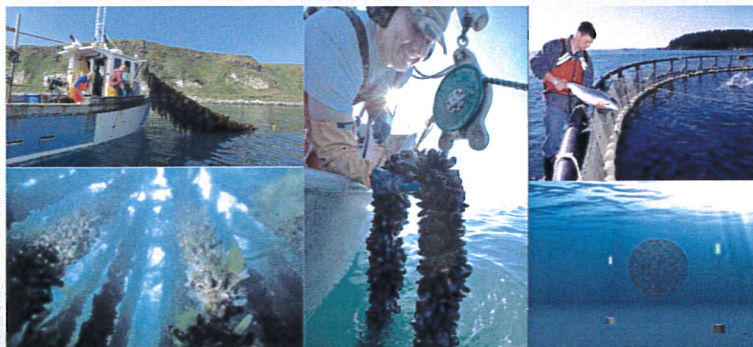
- **BACKDROP – CA/WORLD SEAFOOD & AQUACULTURE**
- **CEQA LEAD AGENCY ROLES - FGC & DFW**
- **SENATE BILL 201**
- **PROGRAM OVERVIEW**
- **TIMELINE - CERTIFICATION AND PROJECT APPROVAL PROCESS**

CALIFORNIA'S AQUACULTURE HISTORY - AND ITS REGULATION DATES BACK TO EARLY STATEHOOD



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POTENTIAL TO GROW OFFSHORE AQUACULTURE IN CA IS SIGNIFICANT ... AND SO ARE THE CHALLENGES



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GLOBAL FOOD:

**WORLD POPULATION BY 2050:
 ~ 9.5 BILLION**

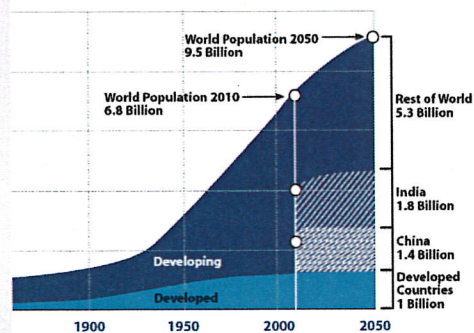
+ INCREASED MIDDLE CLASS AFFLUENCE

**MORE FOOD NEXT 35 YRS
 THAN LAST 8000**

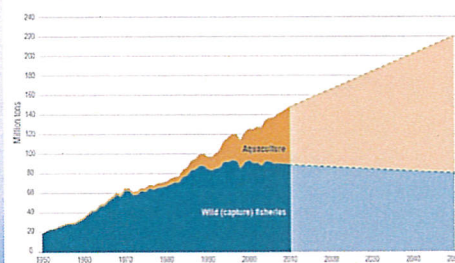
SEAFOOD:

**HALF OF WORLD'S SEAFOOD
 IS NOW FARM-RAISED
 – BUT LITTLE PRODUCED IN US**

**US IMPORTS
 OVER 90 % OF ITS SEAFOOD**



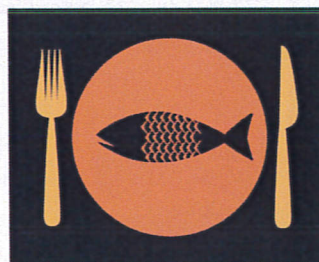
Aquaculture is Expanding to Meet World Fish Demand



CALIFORNIA SEAFOOD:

**POPULATION: ~40M PEOPLE
 @ 15+ LBS / PERSON (US PER CAPITA AVG)**

**= ~ 600M LBS SEAFOOD / YR
 CONSUMED IN CALIFORNIA**



TOTAL COMMERCIAL FISHERY LANDINGS INTO CA :

2013	2014	2015	2016	2017
363M lbs	358M lbs	186M lbs	167M lbs	208M lbs
\$256M	\$235M	\$133M	\$200M	\$196M

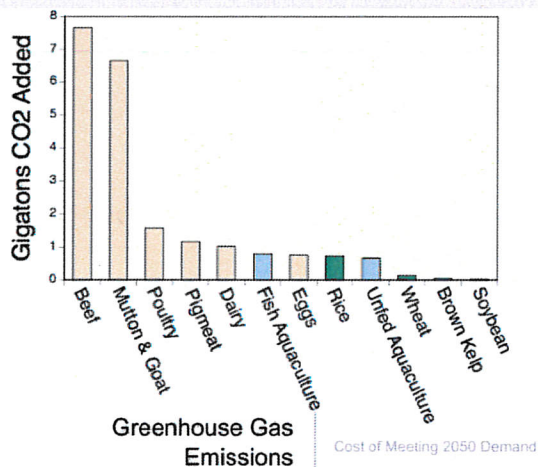
USDA DIETARY GUIDELINES:

EAT MORE SEAFOOD (IT'S HEALTHY)

SEAFOOD DEMAND FAR EXCEEDS LOCAL SUPPLY

HOW TO PRIORITIZE FOOD PRODUCTION RESOURCES ?

GHG Emissions



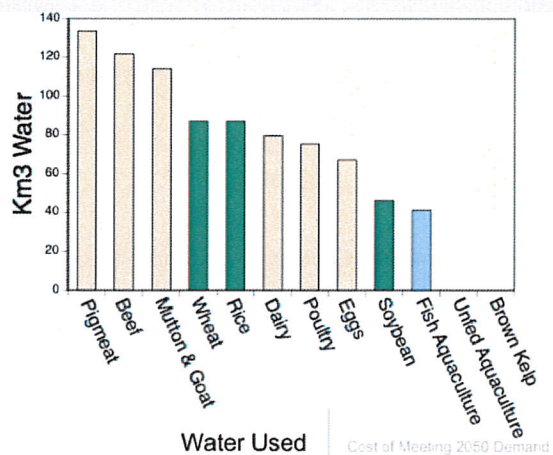
- Dr. Steve Gaines, UCSB Bren School

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HOW TO PRIORITIZE FOOD PRODUCTION RESOURCES ?

GHG Emissions

Water Use



- Dr. Steve Gaines, UCSB Bren School

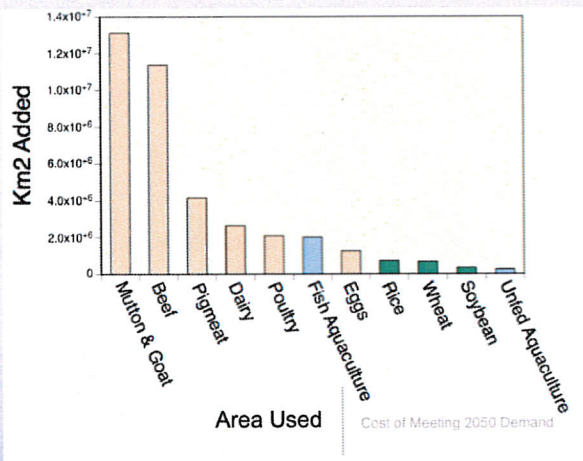
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HOW TO PRIORITIZE FOOD PRODUCTION RESOURCES ?

GHG Emissions

Water Use

Land Use



- Dr. Steve Gaines, UCSB Bren School

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EXTERNALITIES THAT BITE - THE COST OF DOING NOTHING




RESTRICT AQUACULTURE LOCALLY - AND PUSH EXPANSION OVERSEAS WHERE:

- ENVIRONMENTAL & PRODUCT QUALITY OVERSIGHT MAY BE LACKING
- LOCAL ECONOMIC OPPORTUNITY IS LOST
- IMPORTATIONS EXACERBATE CARBON IMPACT

PRACTICES & TECHNOLOGY EVOLVING CONSTANTLY
 BALANCE PROTECTIONS WITH OPPORTUNITY

WHY NOT HERE ?



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AS IT STANDS

- COMMERCIAL OFFSHORE MARINE FINFISH AQUACULTURE IS NOT CURRENTLY PRACTICED IN CALIFORNIA.
- IT IS PROHIBITED IN STATE MARINE WATERS WITHOUT A LEASE FROM FISH & GAME COMMISSION.
- BEFORE A LEASE CAN BE ISSUED, A REGULATORY FRAMEWORK GOVERNING THE ACTIVITY MUST BE PUT INTO PLACE.
- CERTAIN CONCERNS EXPRESSED BY LEGISLATURE ("SB201 FACTORS"), DIRECTS FGC TO CONSIDER HOW IT WILL ADDRESS IN NEW REGULATORY FRAMEWORK – ANALYZED THROUGH PEIR.

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PEIR MANDATE

FGC §15008.

(a) The department shall, in consultation with the Aquaculture Development Committee, prepare programmatic environmental impact reports for existing and potential commercial aquaculture operations in both coastal and inland areas of the state if both of the following conditions are met:

(1) Funds are appropriated to the department for this purpose.

(2) Matching funds are provided by the aquaculture industry. For the purpose of this section, "matching funds" include, but are not limited to, any funds expended by the aquaculture industry before January 1, 2006, for the preparation of a programmatic environmental impact report.

(b) If the final programmatic environmental impact report is prepared pursuant to subdivision (a) for coastal marine finfish aquaculture projects and approved by the commission under the California Environmental Quality Act set forth in Division 13 (commencing with Section 21000) of the Public Resources Code, the report shall provide a framework for managing marine finfish aquaculture in an environmentally sustainable manner that, at a minimum, adequately considers all of the following factors....

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SB201 FACTORS (PEIR)

FGC §15008 (cont'd)

(1) Appropriate areas for siting marine finfish aquaculture operations to avoid adverse impacts, and minimize any unavoidable impacts, on user groups, public trust values, and the marine environment.

(2) The effects on sensitive ocean and coastal habitats.

(3) The effects on marine ecosystems, commercial and recreational fishing, and other important ocean uses.

(4) The effects on other plant and animal species, especially species protected or recovering under state and federal law.

(5) The effects of the use of chemical and biological products and pollutants and nutrient wastes on human health and the marine environment.

(6) The effects of interactions with marine mammals and birds.

(7) The cumulative effects of a number of similar finfish aquaculture projects on the ability of the marine environment to support ecologically significant flora and fauna.

(8) The effects of feed, fish meal, and fish oil on marine ecosystems.

(9) The effects of escaped fish on wild fish stocks and the marine environment.

(10) The design of facilities and farming practices so as to avoid adverse environmental impacts, and to minimize any unavoidable impacts.

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The (CEQA) Project

- THE 'PROJECT' BEING ANALYZED IN THIS PROGRAMMATIC EIR:
THE MANAGEMENT & REGULATORY FRAMEWORK FOR OFFSHORE MARINE AQUACULTURE WITHIN FGC & DFW AUTHORITIES AND JURISDICTIONS.
- INCLUDES FINFISH, SHELLFISH, AND SEAWEED CULTURE IN MARINE SUBTIDAL OR OFFSHORE SETTINGS ALONG CA COAST (TO 3 NAUTICAL MILES OUT).
- IMPACTS OF MANAGEMENT ELEMENTS IN PROGRAMMATIC TERMS, INFORM POSSIBLE REVISIONS TO MANAGEMENT AND REGULATORY FRAMEWORK BY COMMISSION, DFW, AND STAKEHOLDERS

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Program Objectives

- Encourage expansion of economically feasible and environmentally sound marine aquaculture activities.
- Align scale and rate of aquaculture development with the State's capacity to effectively and adaptively manage the program across the State.
- Reduce California's reliance on imported seafood, and the associated carbon footprint and lost economic opportunities.
- Supplement sustainable wild seafood harvest, while protecting State's natural marine resources.
- Expand employment opportunities and domestic economic activity.
- Don't unreasonably interfere with fishing or other existing maritime uses or public trust values.
- Don't unreasonably disrupt existing native marine fish and wildlife and their habitats, and not unreasonably harm the marine environment's ability to support the health and populations of ecologically significant flora and fauna.
- Minimize risk of introduction or spread of invasive species in California state waters.

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Proposed Program & Alternatives

NEW MANAGEMENT FRAMEWORK (PROGRAM)

MUST BALANCE:

APPROPRIATE ENVIRONMENTAL IMPACT PRECAUTION WITH
PATHS FOR ECONOMICALLY-REALISTIC PROJECTS THAT MEET PRGM OBJECTIVES

SHOULD CONSIDER REGULATORY LIMITS THAT:

MAINTAIN DISCRETIONARY FLEXIBILITY FOR REGULATORS,
ENCOURAGE ADAPTIVE MANAGEMENT, AND
PROVIDE PUBLIC TRANSPARENCY

SHOULD GUIDE AND STREAMLINE FUTURE PROJECT APPROVAL DECISIONS
(ALL PROJECTS STILL GO THROUGH INDIVIDUAL PUBLIC PROCESSES)

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Proposed Program & Alternatives

CHOOSE REGULATORY-MANAGEMENT FRAMEWORKS THAT IMPOSE CERTAIN LIMITS
OR CONSTRAINTS ON OFFSHORE AQUACULTURE DEVELOPMENT IN DIFFERENT
WAYS, AND COMPARE THE REASONABLY-FORESEEABLE RESPONSES AND THE
ASSOCIATED ENVIRONMENTAL IMPACTS OF EACH ALTERNATIVE.

1. CONSTRAIN SIZE AND EXPANSION RATE (RATE OF APPROVALS)
2. CONSTRAIN ONLY EXPANSION RATE (NO *de facto* SIZE LIMIT)
3. CONSTRAIN ONLY SIZE (NO *de facto* RATE LIMIT)
4. NO PROGRAM (= NO CHANGE) (SHELLFISH & SEAWEED STILL ALLOWED)

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Revised Timeline

NOP FILED AT ST CLEARINGHOUSE	23 MAR 2018
SCOPING COMMENT PERIOD	23 MAR – 22 APR 2018
MRC BRIEFING (FIRST)	14 NOV 2018
MRC BRIEFING (SECOND)	MARCH 2019
DRAFT PEIR RELEASED (PUBLIC COMMENT)	MAY 2019

45-DAY PUBLIC COMMENT PERIOD ANTICIPATED;
RESPONSE TO PUBLIC COMMENTS, PUBLIC MEETINGS & DISCUSSION;
FINAL PEIR & COMMISSION DECISION TO CERTIFY TO FOLLOW.

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By driving aquaculture to other countries that have lower environmental standards or by driving consumption to land-based protein, the environmental impacts of our future protein production increase substantially.

California can lead the nation and demonstrate to the world how to reduce the impact of increasing global food production.

- Dr. Steve Gaines, UCSB Bren School



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