

Supporting HB 2020, and beyond...

John Weigant
18989 NE Marine Dr. #15
Portland, OR 97230
(Comments in notes sections)

Contact information: johnweigant@comcast.net; cell 503-841-1727

John Weigant's qualifications to testify:

He's a futurist, with careers in Science Education, Urban Planning, and Information Technology.

His Master's of Urban Planning thesis project was writing computer programs to project population. The resulting insights, coupled with those from teaching physics, reinforced several viewpoints:

1. The laws of chemistry and physics say the resources of our planet are finite and the energy requirements to leave earth's gravity are huge. Migration off earth to move humankind to someplace better is pure science fiction. The speed of light, and time, limits our access to anything habitable for humanity's mass.
2. It took 3 billion years for photosynthesis to extract CO₂ from the atmosphere and lay down its carbon as fossil fuel. Humanity, in two centuries, is trying to put it back, without understanding the impact. The sun's energy has powered the planet sustainably for 5 billion years, with magnificent balance and sustainability. We must return to the sun as our main source of power.
3. Systems Dynamics modeling shows that the future looks very dismal on our current course. This has been evident since 1972, but we've ignored it. By so doing, we've condemned the planet to a dismal future. We can make it less dismal by early and strong action. This has been documented well by the Limits to Growth series: *The Limits to Growth*, 1972; *Beyond the Limits*, 1992; and *Limits*

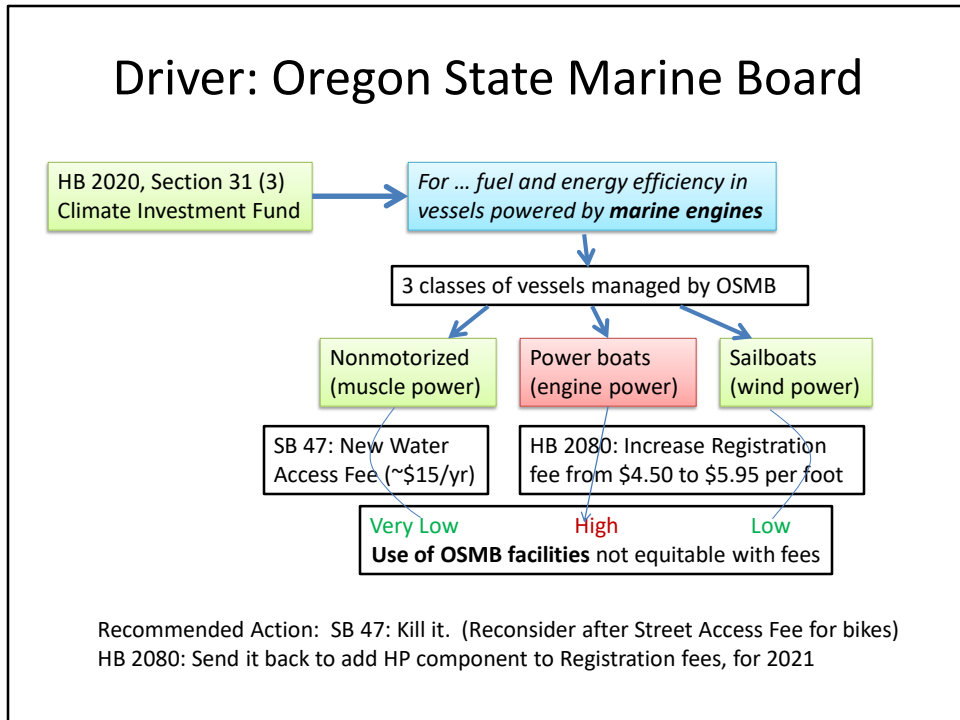
to Growth, the 30-year update, 2004, all by Meadows et. al., an exceptional MIT research team.

HB 2020 Represents the Future!

- A **Paradigm Shift** is beginning...
 - The Industrial Age is a “bubble”, about to burst¹
 - Growth has limits!
 - Many policies drive growth. Rethink them.
 - Paradigm shifts are resisted by those in power
- The new paradigm: ***Be sustainable***
 - Tax, regulate or discourage unsustainable policies
 - Subsidize or promote sustainable policies
- Focus on the *drivers* of growth

1. *The Necessary Revolution*, 2008, Peter Senge, et al

Driver: Oregon State Marine Board



Interpretation of this diagram:

Section 31 (3) says the Climate Investment Fund may be used for fuel and energy efficiency of marine engines. Many older marine engines are of less efficient analog design, and replacing them has potential for minor fuel efficiency, at large expense. Providing hull cleaning stations would increase hull efficiency. All boats are limited in speed by wave physics, a function of waterline length. Smaller powerboats can overcome this limit by enough power to lift it onto the water's surface, planing. Larger boats can push this limit a bit with very large engines. For sailboats, only more length can increase speed.

Most marine engines are under the purview of the Oregon State Marine Board, and a **change of policy could have significant impact on "fuel efficiency of marine engines."** Currently, boat registration fees are simple and simplistic: \$4.50/foot.

OSMB deals with three main classes of boats: nonmotorized, motorized, and sailboats. Nearly all are for recreational purposes, which vary by class.

- Nonmotorized boats (kayaks, canoes, standup paddleboards, and the like) enjoy the closeness to the water, the quiet, peace, and exercise, and can put-in/take-out nearly anywhere. They require no trailers and are easily stored, requiring no parking space for trailers. OSMB is sponsoring SB 47 to add a "Water Access Fee" on all nonmotorized boaters: \$5/week, \$17/year or \$30/2 years, essentially taxing muscle powered watercraft. Taxing fitness is a really dumb idea. Nonmotorized boats produce no wakes that erode shorelines and interfere with other water users, no CO₂, no noise. They are typically transported cartop on light vehicles.

- Power boaters enjoy speed and racing around; others enjoy travel to destinations. They cause wakes, noise, shore erosions, and often interfere with other water users.

Smaller powerboats are often stored on trailers, require parking space, boat ramps, and use more of the facilities provided by OSMB. Short, powerful boats, like personal watercraft, enjoy a registration fee benefit. They typically require large, powerful vehicles to tow, increasing fossil fuel use.

- Sailboaters enjoy the technical skills of sailing and racing, the quiet, and the comradery. Primary power is wind, and they avoid motor use except to dock or when wind dies. Sailboats are in two general classes: open day sailers, and cruisers, which are better equipped than runabouts for overnight and cruising. Sailboats are more likely to remain in the water, since trailer launching requires raising/lowering masts; deep-keel sailboats require deeper boat ramps. Large sailboat require cranes. Their characteristics are such that they utilize fewer of the services provided by the OSMB.

The point of this is that fees charged compared to benefits received is not equitable: sailboats pay more for less benefit received.

OSMB is also sponsoring HB 2080, to increase registration fees to \$5.95/foot, to pay for services to boaters and grants to public bodies. The discourages longer boats. Since fuel use is a function of engine power, horsepower is a better basis to charge boat registration fees. Adding a horsepower component to boat registration fees would add a tax fuel use, thus tending to reduce its use. Less fuel use is a fundamental goal of HB 2020. Give them 2 years to develop a better registration system.

OSMB is also sponsoring SB 47. Motorized vehicle users of every sort (land and water) often complain that nonmotorized vehicles use the rights of way their fees and taxes pay for, for free. Precedent for right-of-way use fees should start with the most numerous group. Bicycles, skateboards, and other nonmotorized land vehicles far outnumber nonmotorized water vehicles, so fees to access public rights of way should start with them. Only after Street/Road Access Fees are implemented for nonmotorized land vehicles is it proper to charge Water Access Fees to nonmotorized water vehicles.

SECTION 10. Exemptions and exclusions. (Be more precise)

(2) The office shall exclude from regulated emissions...

(d) Greenhouse gas emissions from the combustion of fuel that is demonstrated to have been used as **commercial jet** aviation fuel or as fuel in **commercial documented** watercraft or railroad locomotives.

- **Reasons:**
- “General Aviation” is private, analogous to surface vehicle transport. Not only is it less efficient, much is piston-powered, using leaded av-gas. Don’t exempt HIO’s or other flight training, which promotes aviation.
- Commercial aviation drives tourism; consider phase-out of exclusions
- “Watercraft*” includes everything already regulated by OSMB, which currently pays a marine fuel tax. Don’t exclude that tax.

*Clarification: “Watercraft” may be “documented” nationally, or “registered” by states, such as with the Oregon State Marine Board. Large commercial watercraft are customarily “documented” although any watercraft can be documented instead of registered.

Driver: Tourism

- Major sources of CO₂-driven Climate Change:
 - **Transportation & Travel**; Heating; Industry
- Tourism promotes air & land travel, 2nd homes¹, and shows Oregon to be an attractive place.
 - People move to more attractive places²
- Lodging tax (ORS 320.335-350) promotes it
 - A “viscous circle” increases CO₂ load.
 - Redirect funds from advertising, etc. to sustainability
 - Subsidize electric vehicle charging stations at destinations?
 - Rental car companies offer electric vehicles?
 - Insulation subsidies? Etc.

1. Many 2nd vacation homes are being converted to B&Bs
2. Check Jay Forrester’s “Attractiveness Principle” (Wikipedia) or Donella H. Meadows “The Attractiveness Principle”, *The Global Citizen*, 1991

The tourist industry brings in a lot of money, but the jobs it creates are of generally lower wage and are of lower quality. *Quality matters.*

Recommendations

- You are all on multiple committees
- When a bill is presented, ask “Is it sustainable?”
Does it...
 - Subsidize job creation? (=more people: **No**)
 - Promote “economic development?” (same as above)
 - Promote density? **Yes**
 - Promote equity? **Yes**
 - Promote growth in *Quality* (**Yes**) or *Quantity*? (**No**)
 - *Quantity growth* has limits; *Quality growth* has no known limit.
 - The planet is finite, has finite resources, and we’re not leaving it.
 - We must learn to live within its natural limits