

OREGON COAST

Impacts of Global Warming



CLIMATE CHANGE IMPACTS ARE HAPPENING HERE NOW

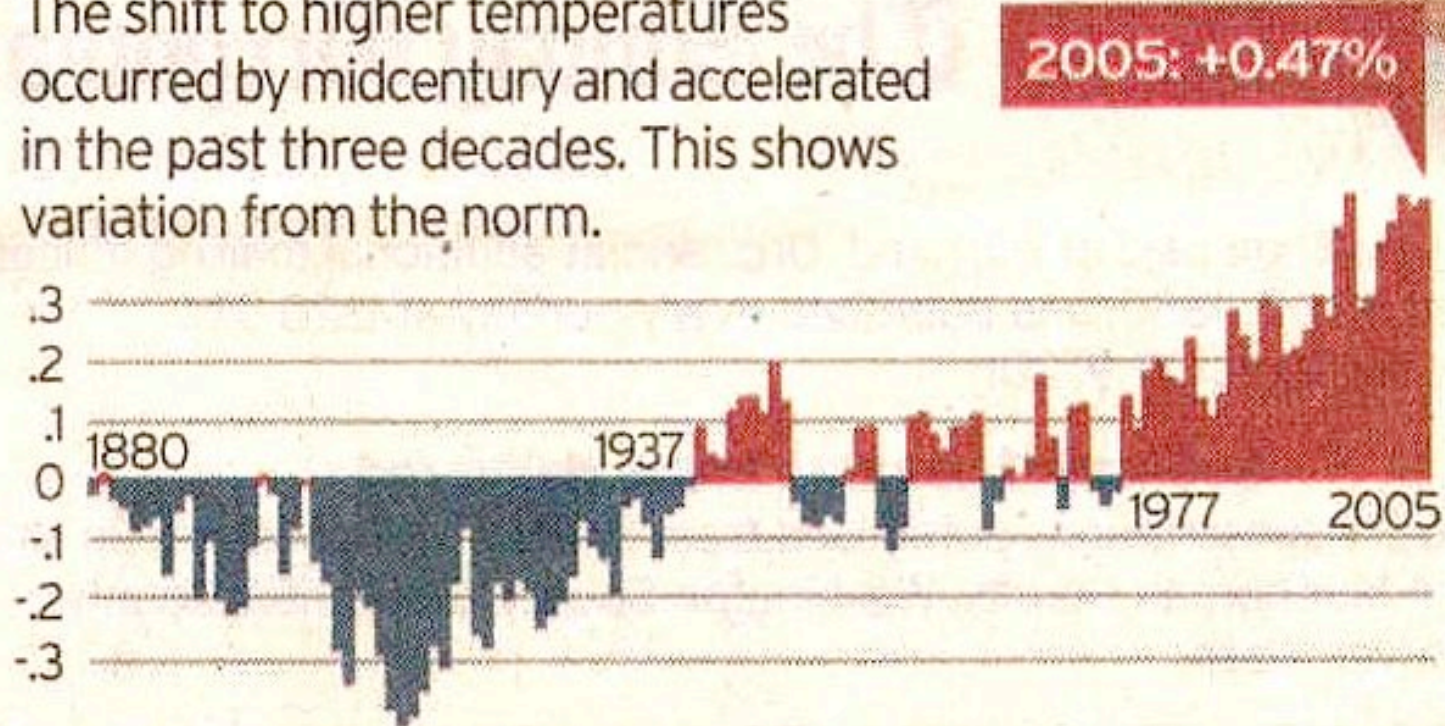


Flooding in Vernonia, kgw.com

OCEAN TEMPERATURES ARE RISING

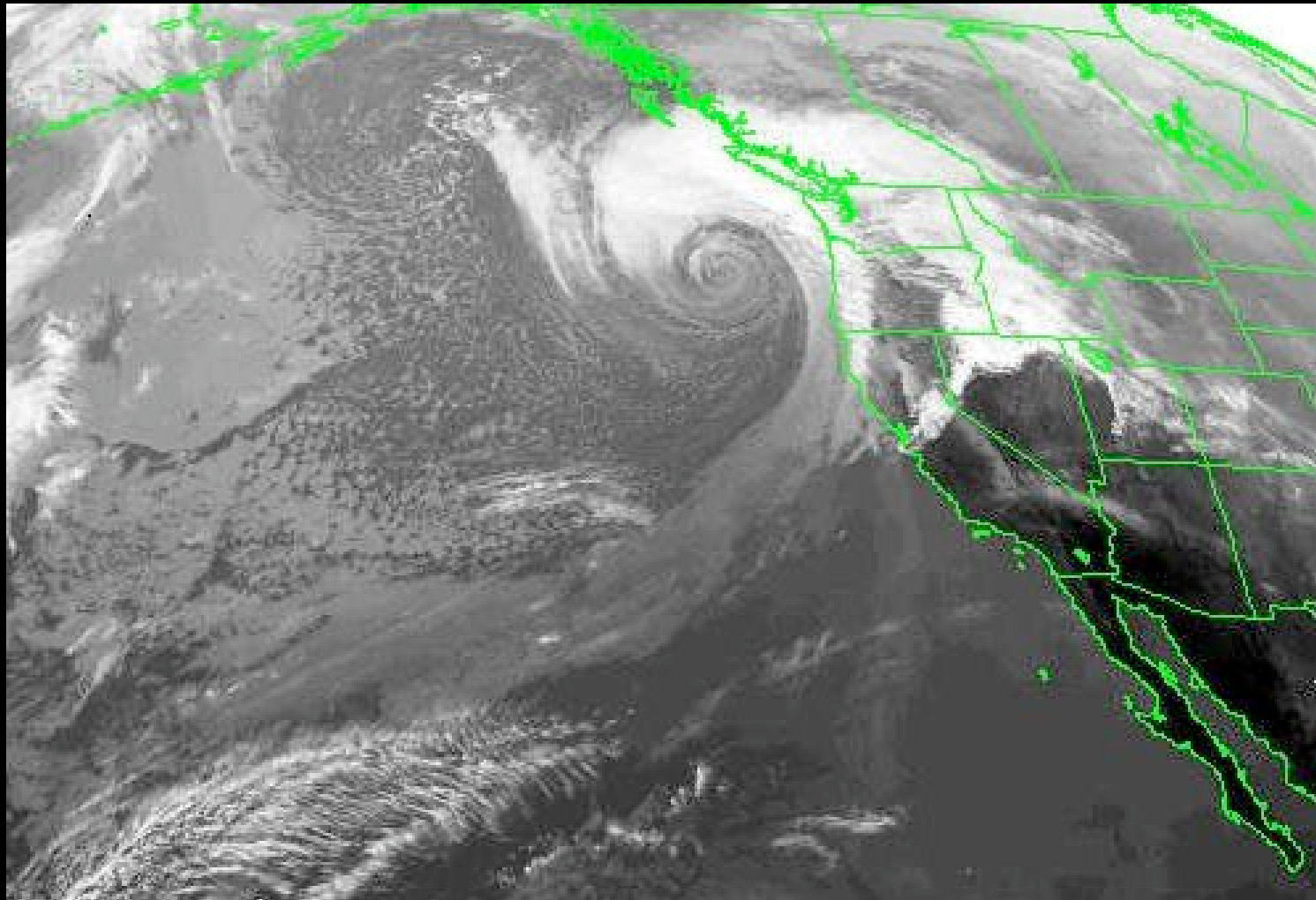
Ocean temperatures

The shift to higher temperatures occurred by midcentury and accelerated in the past three decades. This shows variation from the norm.



Source: National Climactic Data Center

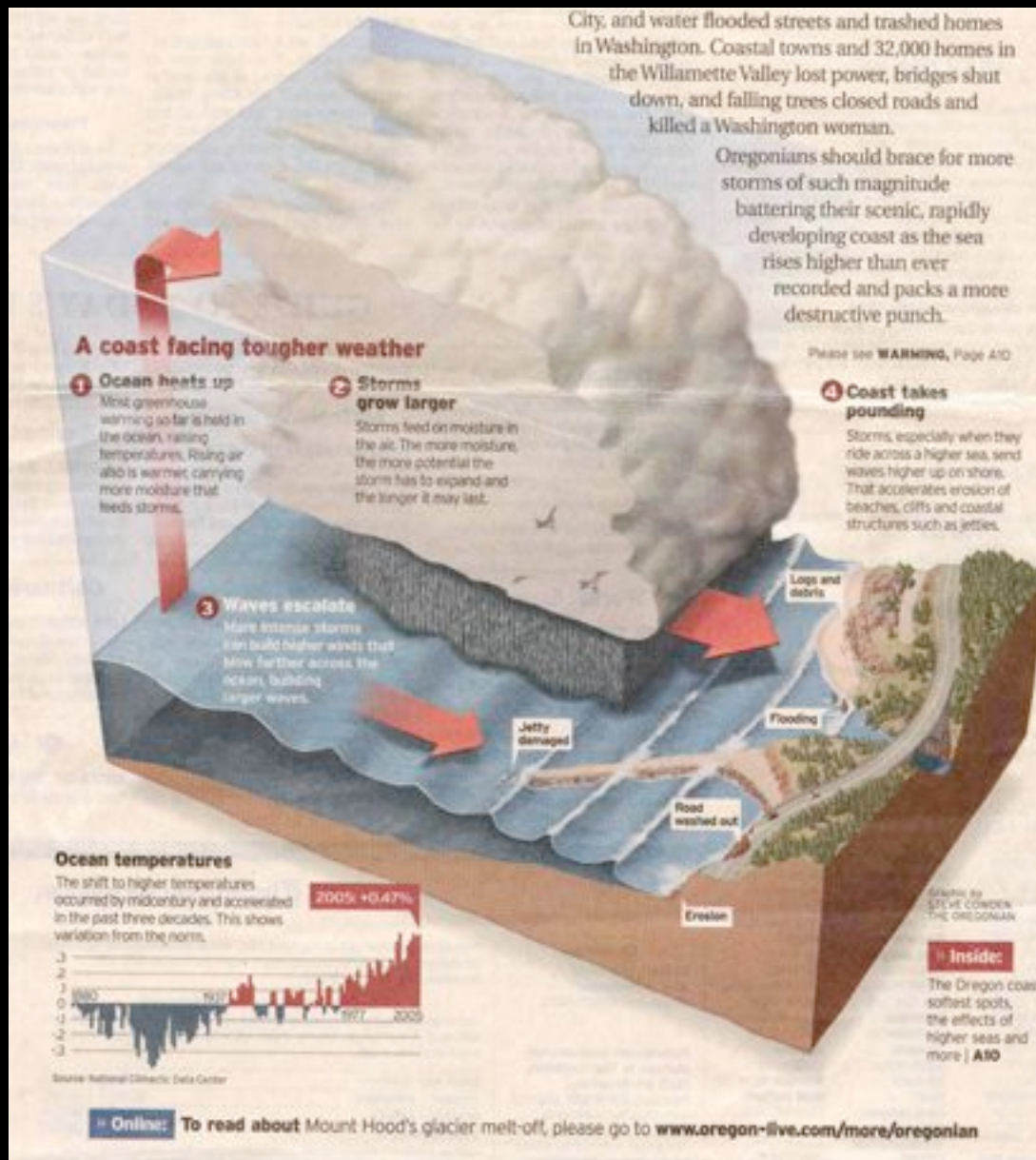
WARMER OCEANS GENERATE MORE POWERFUL STORMS



MORE POWERFUL STORMS

=

- * Higher winds
- * More intense rainfall
- * Higher waves
- * More beach erosion



LOSING 15,000 ACRES OF FOREST
IN ONE NIGHT FROM 159 MPH WINDS
IS NOT BUSINESS AS USUAL.



WAVE HEIGHTS HAVE INCREASED 25% SINCE 1976.

Extremes have increased 33%

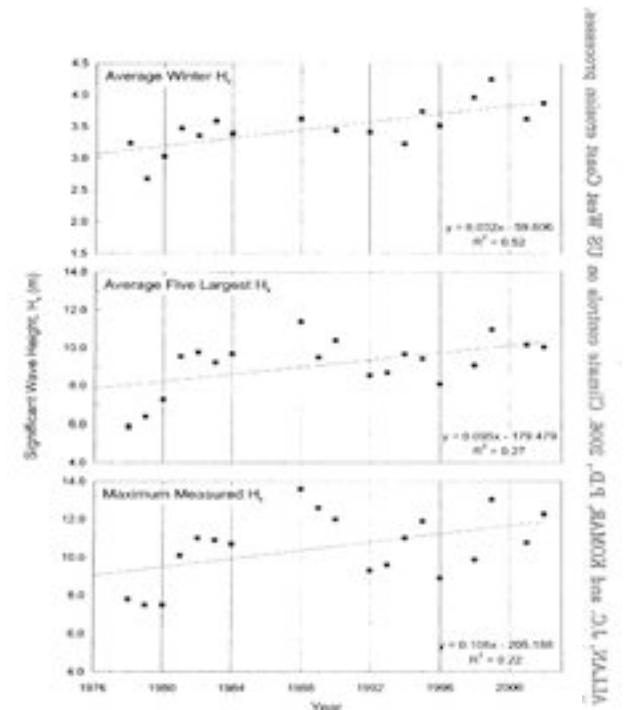
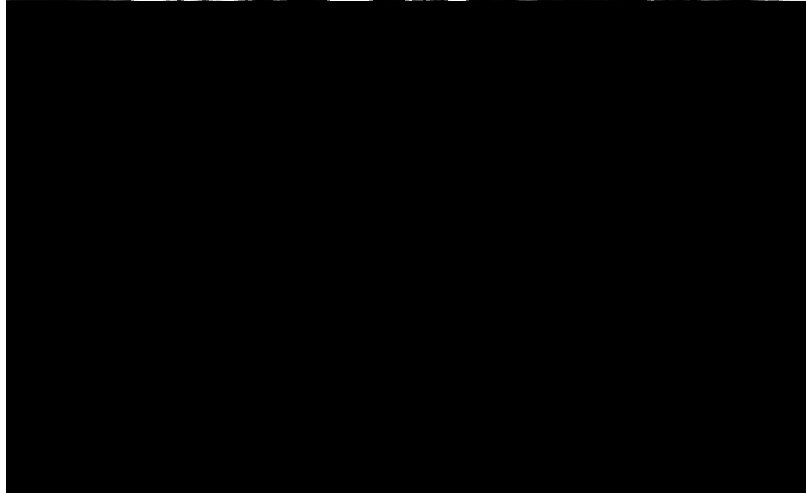
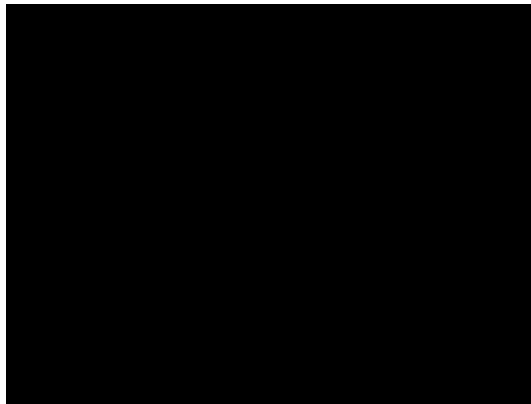


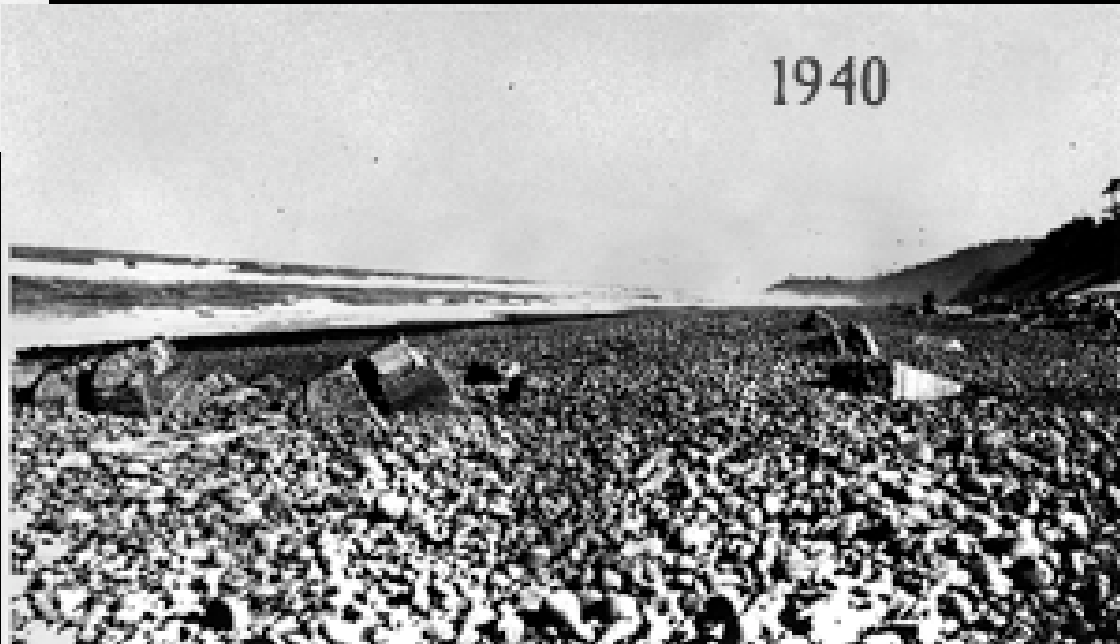
Figure 5. Decadal increases in average winter wave heights measured by the Washington buoy (W460051) and the more extreme storms represented by the five largest and maximum significant wave heights measured each year. Results from the complete series of analyses are given in Table 3.

MORE POWERFUL STORMS CAUSE GREATER BEACH EROSION





REMEMBER BAYOCEAN?



MORE POWERFUL STORMS

- More power outages
- More highway closures
- Business disruption
- School closures
- Floods





Remember Katrina
Remember 1996
Remember '06
And Dec '07.



THE FLOOD OF '96 WAS BUT A SAMPLE



MORE INTENSE RAINS mean greater landslide impacts



LANDSLIDES CAN HAVE HUGE ECONOMIC IMPACTS



Brighton Beach lost 90% of its value from one landslide.

THE ENTIRE
OREGON
COAST
IS
LANDSLIDE
TERRAIN



OCEAN IMPACTS:

- * Impacts on Shipping and Fishing
- * Expanded Dead Zones



FORESTRY IMPACTS:

Changed rainfall patterns,
disease resistance, fire frequency

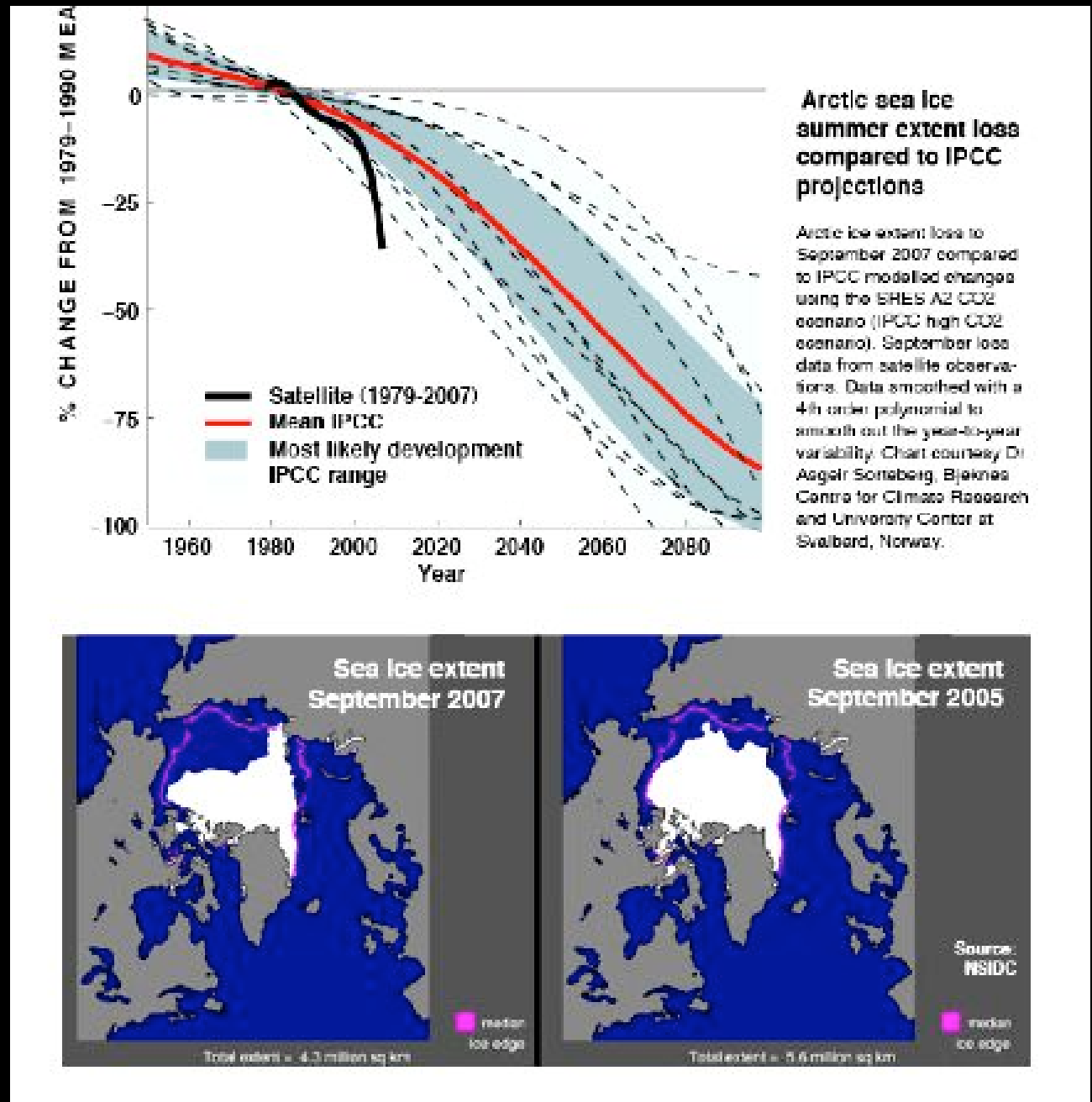


SEA LEVEL RISE

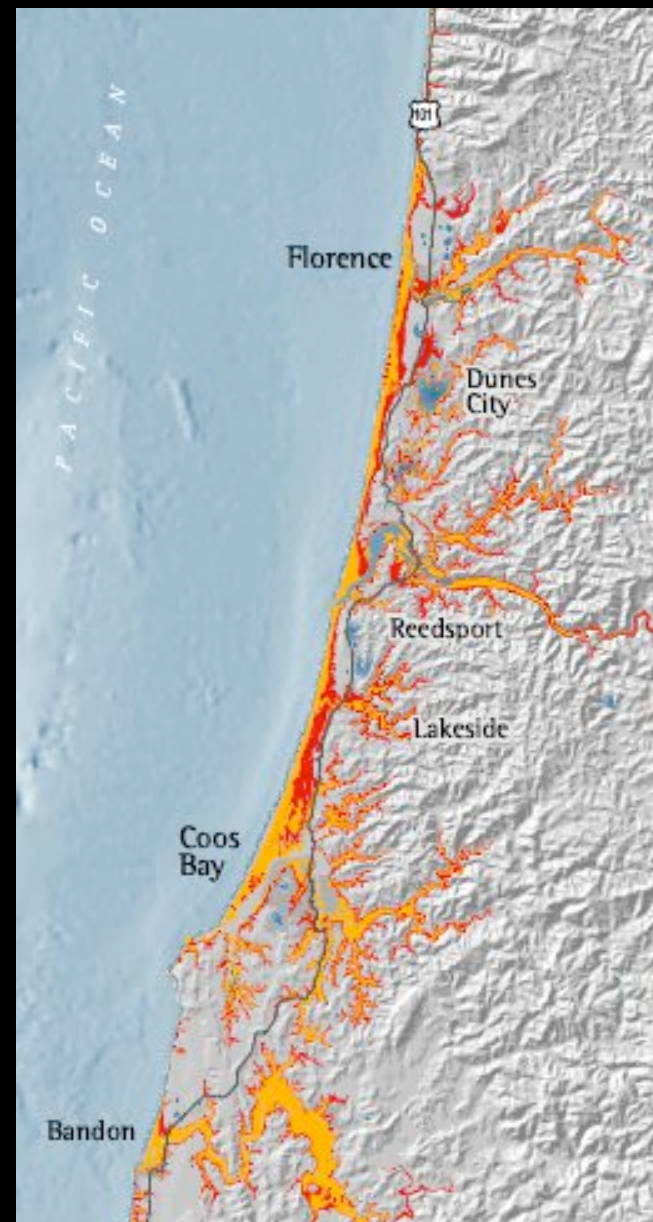
can be 47' - up to +60' MSL



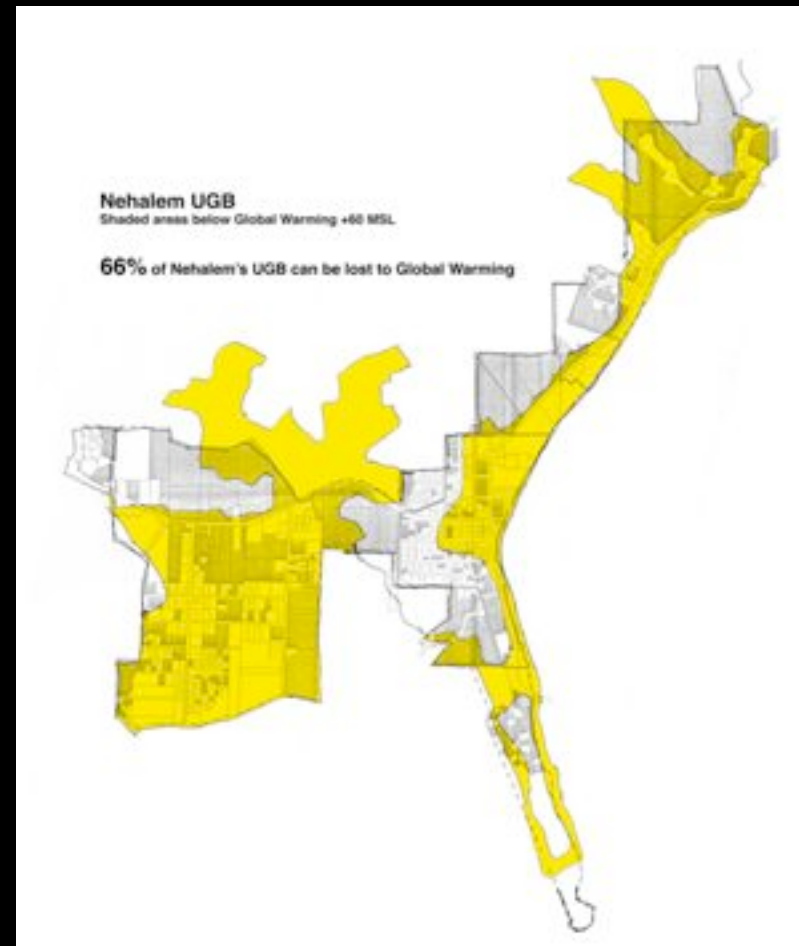
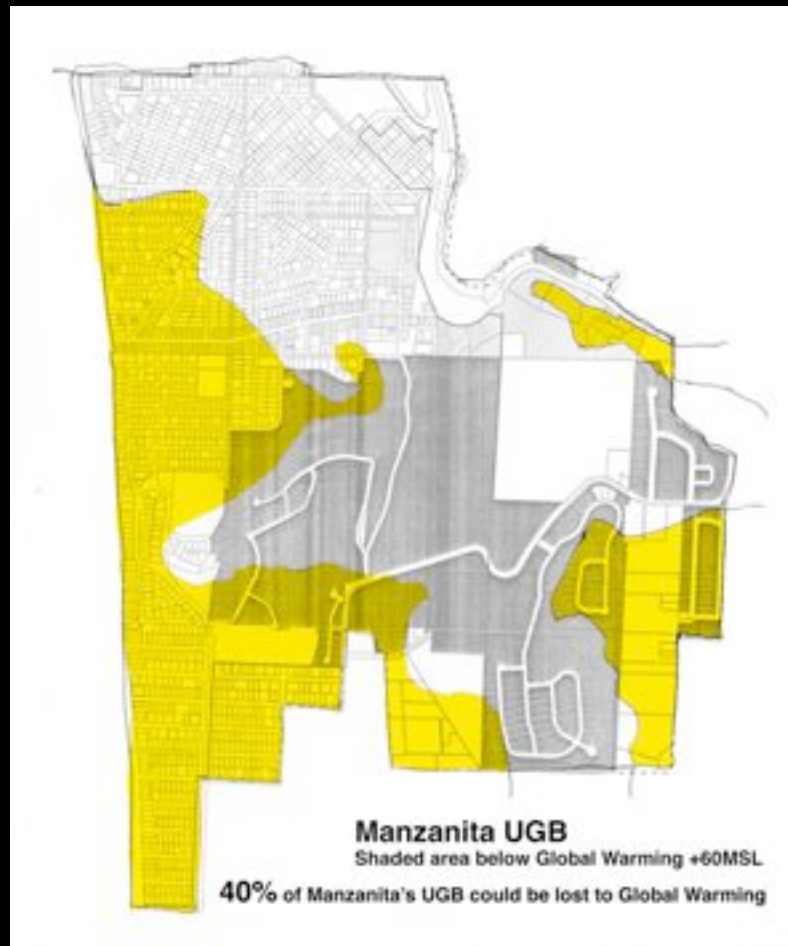
Changes
are
happening
way faster
than
projected.



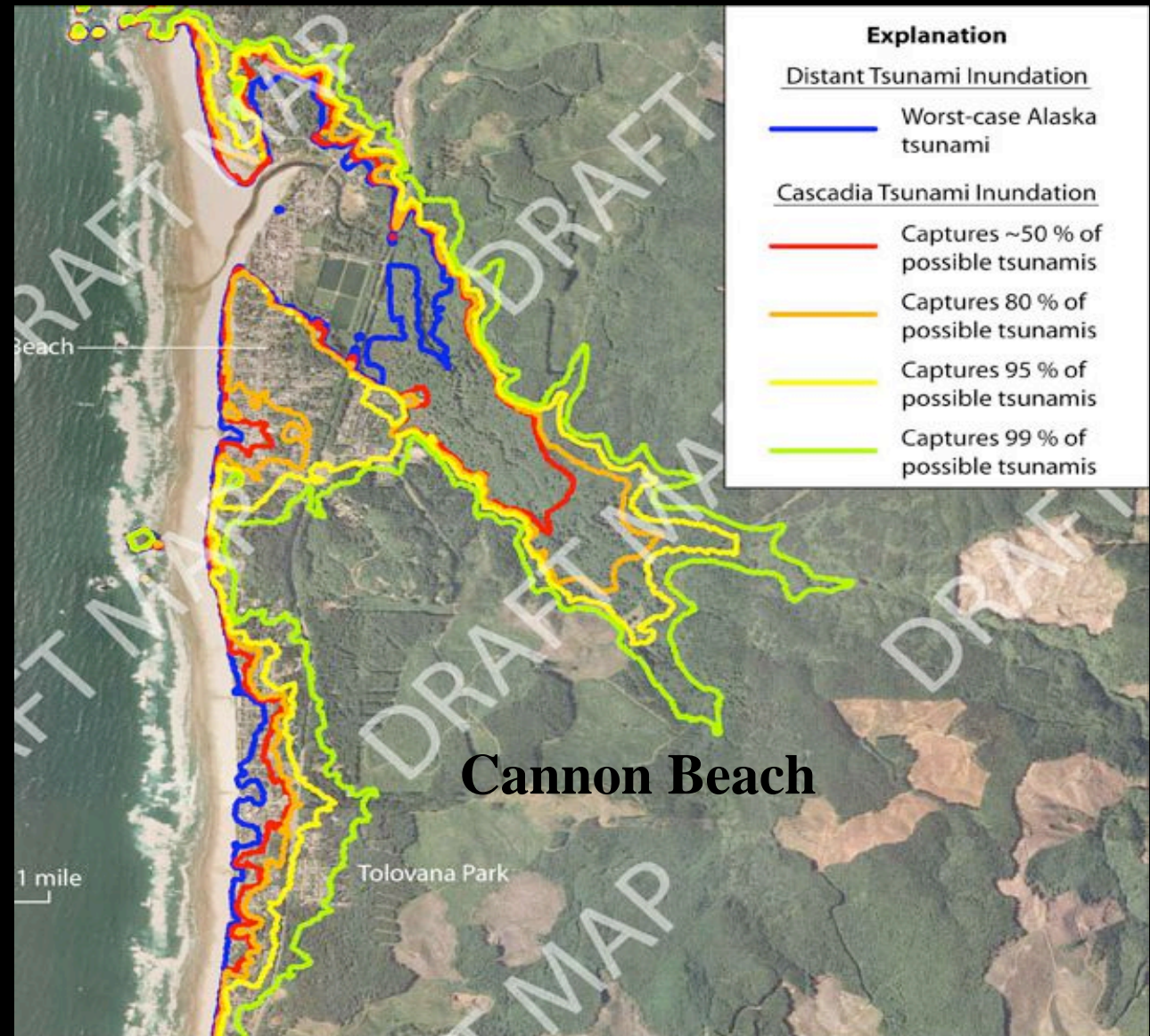
AFFECTED OREGON COAST AREA: 379,000 acres



HUGE AREAS OF OUR CITIES will be inundated



New
tsunami
inundation
maps show
similar
inundation
heights - but
will be added
to sea level
rise impacts,
along with
shoreline
regression.



ESTIMATED INUNDATION OF CITIES:



Astoria	10%
Warrenton	100%
Seaside	90%
Cannon Beach	80%
Manzanita	40%
Nehalem	66%
Wheeler	55%
Rockaway	80%
Bay City	40%
Tillamook	100%

VALUE OF HOMES DESTROYED - \$16 billion



FAMILY LIVLIHOODS LOST :

\$700
million/year
including

most coastal
agricultural
land



ONE-THIRD OF THE ENTIRE COAST HIGHWAY COULD BE INUNDATED.

MILES OF HWY 101 AFFECTED:

122 miles

Cost of replacing Hwy 101:

\$700 million

Miles of major roads affected:

570 miles

Miles of minor roads affected:

2170 miles

ECONOMIC INFRASTRUCTURE LOST:

520 miles of railways



ECONOMIC INFRASTRUCTURE LOST: Utility Systems



Economic infrastructure lost: Sewage Treatment Plants



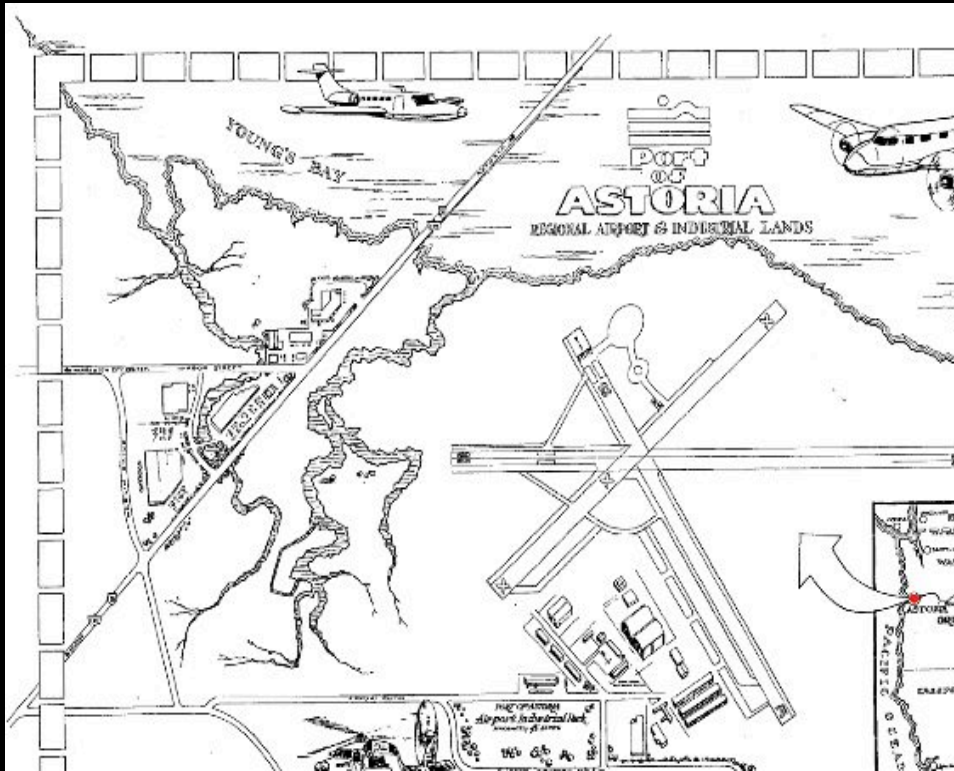
Economic Infrastructure Lost: State Parks



ECONOMIC INFRASTRUCTURE LOST:

- * Ports, jetties, harbor facilities
- * Beaches/tourism (\$5 billion/year)
 - * Virtually all transportation
 - * Virtually all utilities
- * Majority of developed land

ECONOMIC INFRASTRUCTURE LOST: Coastal Airports



CULTURAL LOSS: Homes, Cemeteries, Churches, History



**GLOBAL WARMING, PEAK OIL,
AND FOREIGN DEBT
ARE FLIP SIDES OF THE SAME THING**



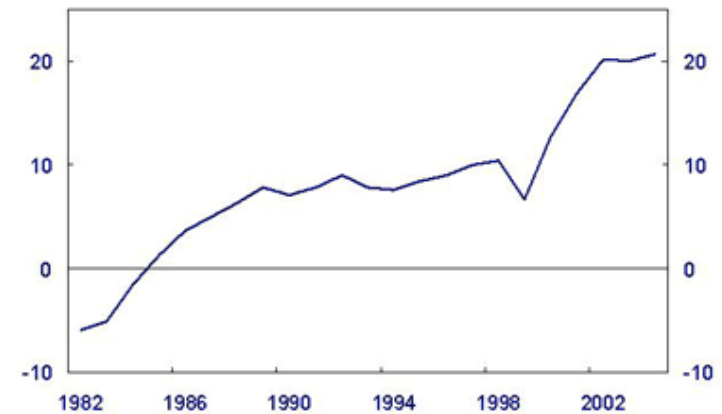
PEAK OIL

GLOBAL WARMING

**FOREIGN
TRADE
DEFICIT
\$\$\$\$\$\$**

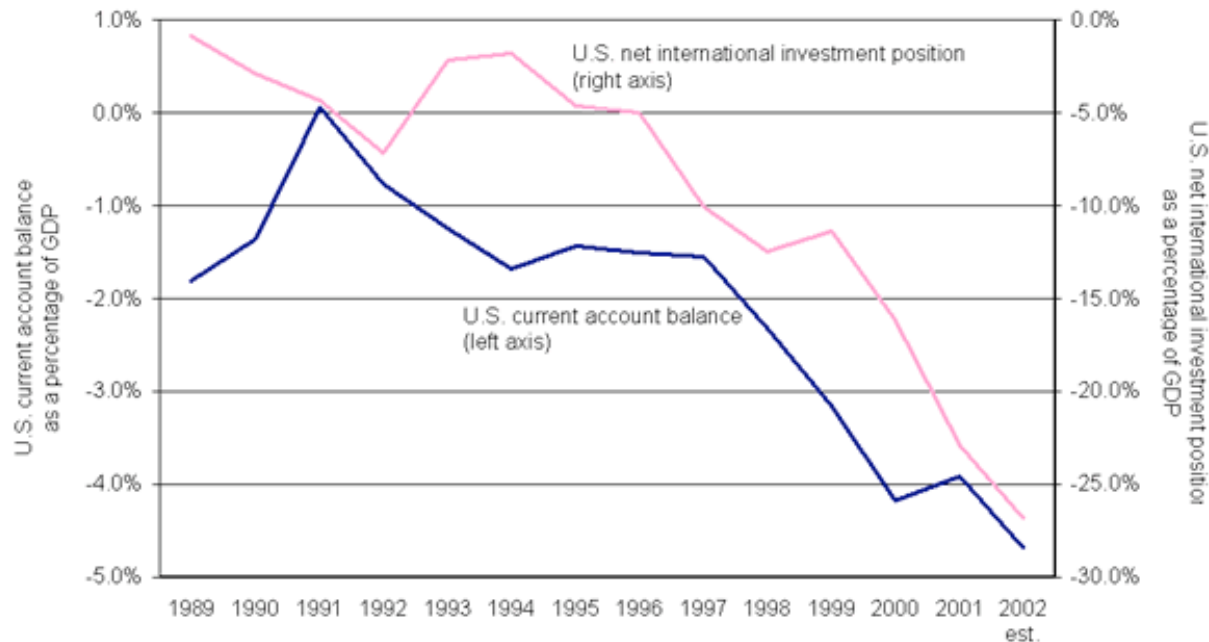
THE HUGE U.S. FOREIGN DEBT INBALANCE IS TIED TO OUR DEPENDENCE ON FOREIGN OIL

Chart 6. US net foreign debt
Per cent of GDP



Sources: Federal Reserve Board and US Department of Commerce

Growing U.S. international debt* and the trade deficit, 1989-2002



* With direct investment positions at market value.
Source: Bureau of Economic Analysis and EPI estimates

“Technical
Fixes”
are
NOT
the answer.



THIS REQUIRES LEADERSHIP

THAT MEANS
ACTING NOW!

THIS IS
OREGON



WE'VE
DONE IT
BEFORE,
WE CAN
DO IT...
AGAIN!

OREGON'S CURRENT PROPOSALS ARE OUTDATED, TOO SLOW, AND HAVE BEEN ECLIPSED BY THE RATE OF CHANGES.

- “CAP AND TRADE” HAS BEEN DISCREDITED
AS AN EFFECTIVE GLOBAL WARMING TOOL.
- ETHANOL HAS BEEN SHOWN TO WORSEN GLOBAL WARMING.
- ACTIONS ARE NEEDED THAT PEOPLE SEE, FEEL, AND KNOW
ARE MAKING THINGS BETTER.
- WE NEED ACTIONS **NOW**, NOT IN 2010 OR 2020.

WE NEED SIGNIFICANT ACTIONS
THAT
WAKE PEOPLE UP
TO THE URGENCY OF FAST
RESPONSE AND MAJOR CHANGE.

THERE IS NOTHING WE CAN DO
TO STOP GLOBAL WARMING -
IF WE DON'T DO ANYTHING.

DECLARE DEVELOPMENT AND BUILDING MORATORIUMS IN SEA-RISE IMPACTED AREAS - NOW!



The insurance industry has already stopped issuing new residential policies near the Atlantic, Gulf, and Oregon coasts.

BAN INCANDESCENT LIGHT BULBS - NOW!



Australia and Canada already have!

REQUIRE NET-ZERO-ENERGY HOME CONSTRUCTION - NOW!



Great Britain and France have already mandated net-zero-energy construction.

Portland OR is developing NZE" feebates" to implement NZE homes.

RAISE ENERGY-EFFICIENCY STANDARDS - NOW!



THE
“EFFICIENT”
FUTURE IS
ALSO ONE
THAT CAN
HAVE A SOUL

We’ve already shown
we can create
world-class
efficient buildings
on the Coast.



IMPLEMENT GAS-GUZZLER FEEBATES - NOW!



Canada already has!

**FUND EFFICIENT VEHICLES FOR WORKING PEOPLE
- NOT JUST THE RICH.**

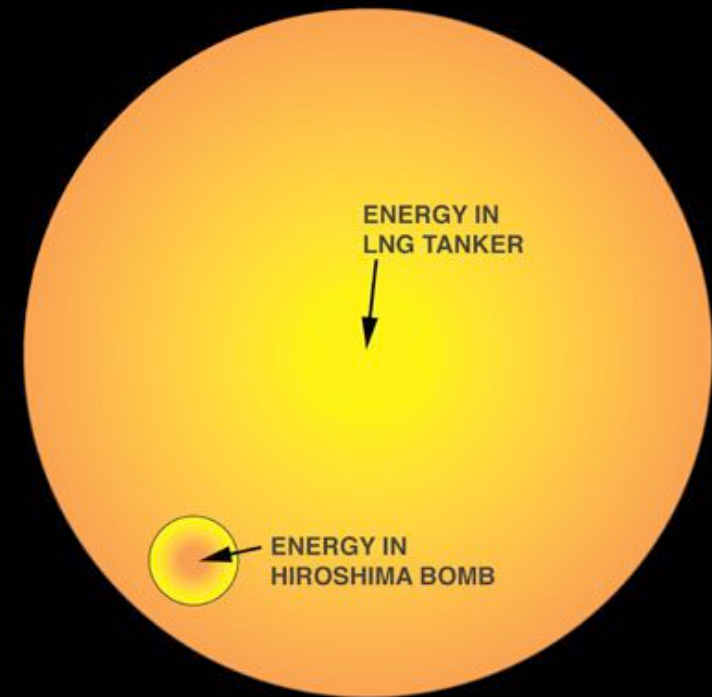
TAX FOSSIL FUELS - NOW!

It's way more effective
than CAFÉ Standards,
and can be done locally.

Use the \$\$ to fund
efficiency and renewables,
and get us out of debt.



BAN USE OF FOSSIL FUELS



FOR NEW
ELECTRICAL
GENERATION

75-80% of the energy in LNG is lost in transport and conversion to electricity.

TAX HYDRO-ELECTRICITY

MAKE EXISTING USE MORE EFFICIENT

NOW!



REVISE THE STATE FORESTRY ACT

LONGER ROTATIONS = BETTER ECONOMICS
+ CARBON SEQUESTERING



IMPROVE RECYCLING AND MATERIAL ENERGY USE - NOW!



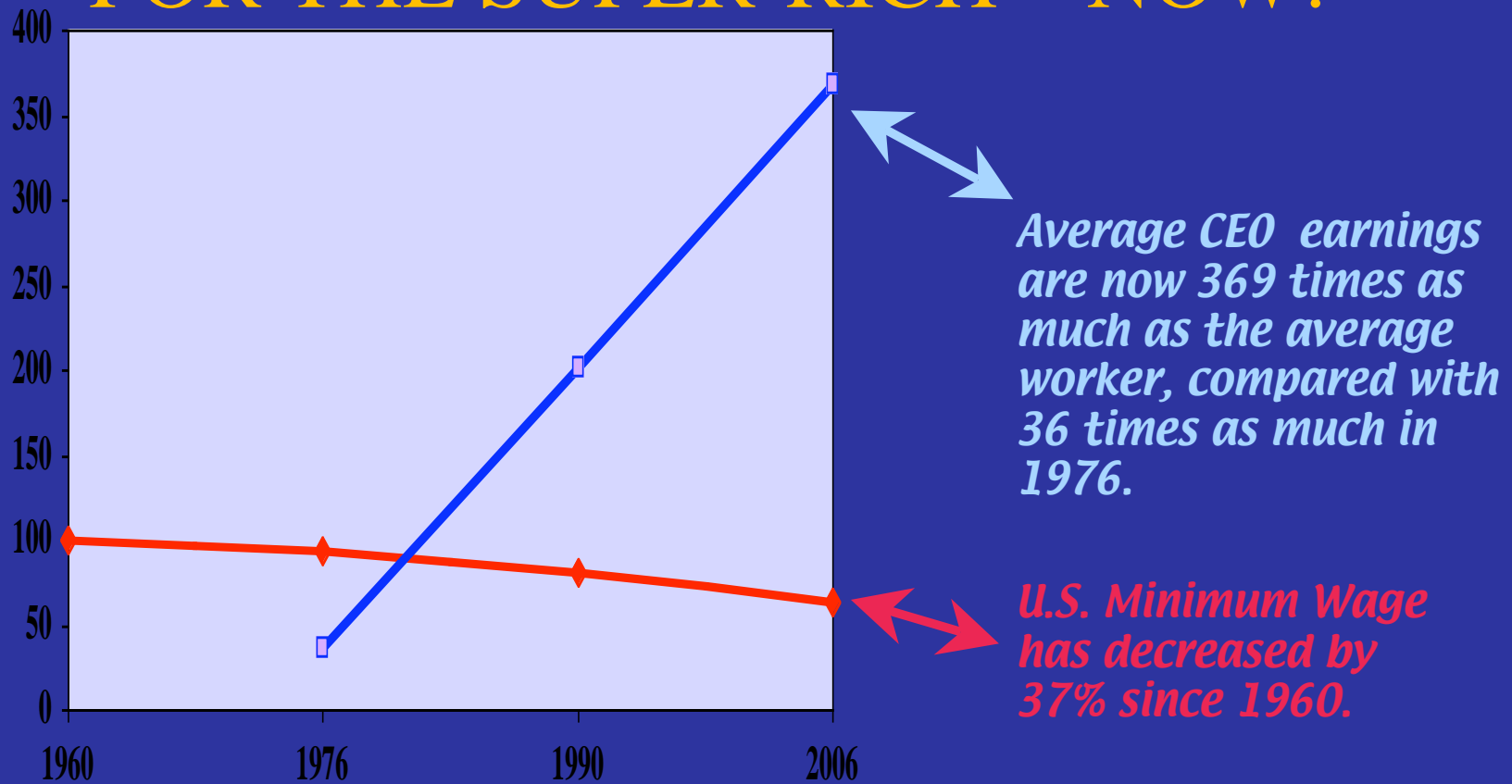
EAT LOCAL FOOD - NOW!



BAN BILLBOARDS, BUY LESS - NOW!



REQUIRE LIVING WAGES, AND ELIMINATE TAXE LOOPHOLES FOR THE SUPER-RICH – NOW!



Skyrocketing income disparity is destroying our communities.
Reasonable equity is the foundation of democracy.

OPEN OUR HEARTS - NOW!

Compassion is the heart of true sustainability,
and the antidote to terrorism

