

# **Beltline and 126 widenings**

**lessons from stopping the West Eugene Parkway**

## **LOW BUILD ALTERNATIVES**

**fiscally constrained**

**climate concerned**

**peak traffic and peak energy**

**legal and ethical**

**planning for a possible, positive future**

**requires changing assumptions**

**about endless growth on a**

**round, abundant, finite Earth**

**Mark Robinowitz • road scholar**

**[PeakChoice.org](http://PeakChoice.org) • [PeakTraffic.org](http://PeakTraffic.org) • [SustainEugene.org](http://SustainEugene.org)**

# Table of Context

Beltline highway, Eugene, Oregon: widening plan and Low Build alternative  
Troubled Bridges Over Water  
Oregon 126 widening plan: Eugene to Veneta and Low Build alternative

EWEB's strategic role in the expansion of Eugene to Junction City and Veneta  
operations center relocated to wetlands, new water tank construction

Mission Accomplished: No Build for the West Eugene Parkway  
WEP's hidden history: 1951-2007. Eugene's freeway fighters stopped highways through downtown  
south Eugene and Beltline through the South Hills.

West Eugene Transportation Land and Neighborhood Design Solutions  
WETLANDS vs. Federal Highway Administration  
PeakTraffic.org a legal strategy to cancel trillion dollar highway plans and prepare for post peak travel

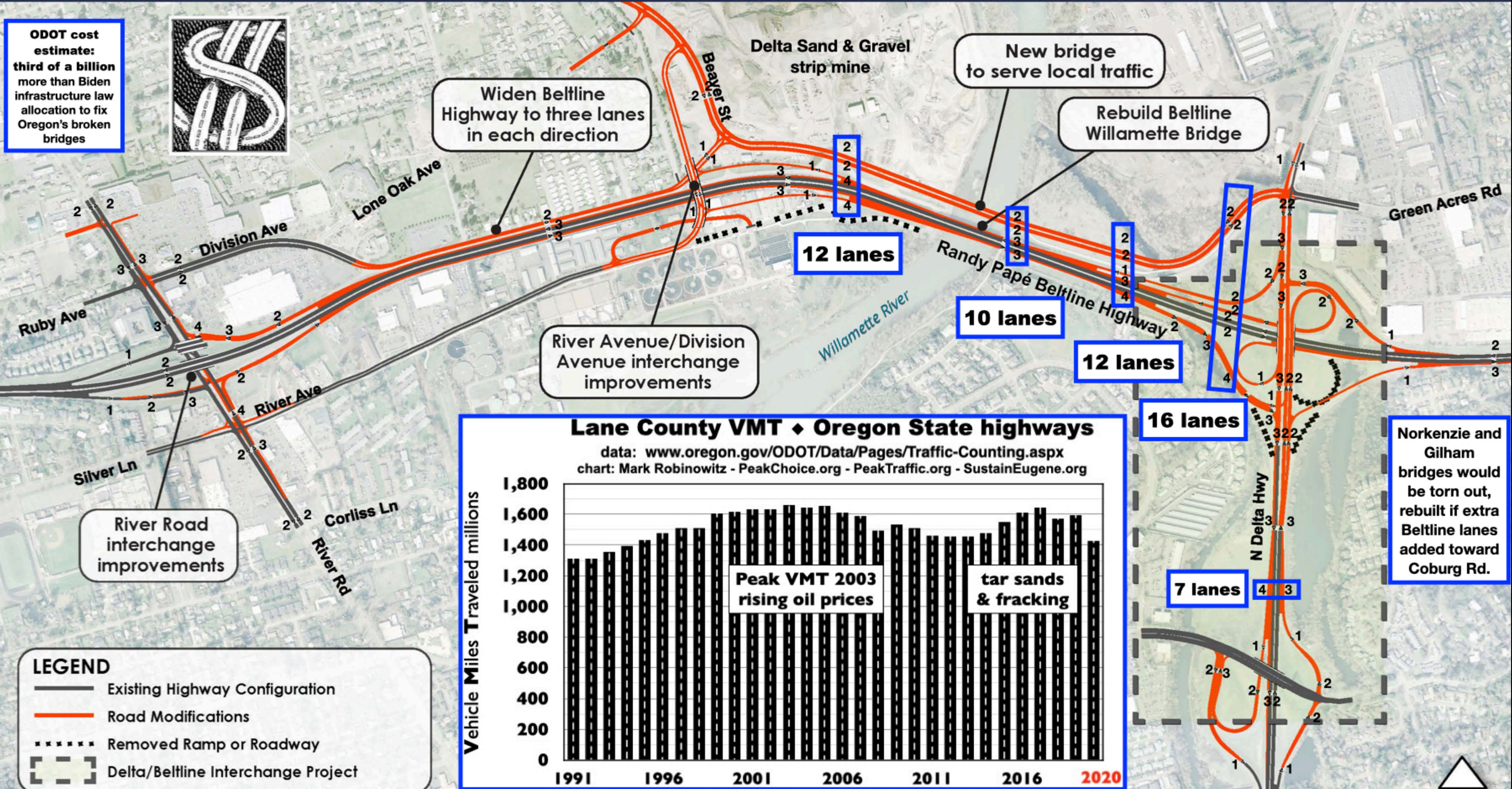
Transportation Triage  
Portland Western Bypass stopped by Land Use, Transportation, Air Quality (LUTRAQ) alternative  
Mt. Hood Freeway cancellation funded first light rail line in Portland (to Gresham)  
Columbia River Crossing: 12 lane I-5 bridge and 16 lane segment in Vancouver, approved but not funded  
Congressional High Priority Corridors: part of a trillion dollar highway expansion plan  
Saving Oil in a Hurry

Peak Energy  
Peak Vehicle Miles Traveled  
Covid closures cut energy more than climate activism  
Peaked Energy and Climate Chaos  
Non Binary Climate Concerns  
permaculture perspective on energy and climate



# Beltline Highway Facility Plan: Delta Highway to River Road

**ODOT map**  
clearer numbers added by  
**MARK ROBINOWITZ · SUSTAINEUGENE.ORG**



**ODOT cost estimate:**  
third of a billion more than Biden infrastructure law allocation to fix Oregon's broken bridges



Widen Beltline Highway to three lanes in each direction

New bridge to serve local traffic

Rebuild Beltline Willamette Bridge

12 lanes

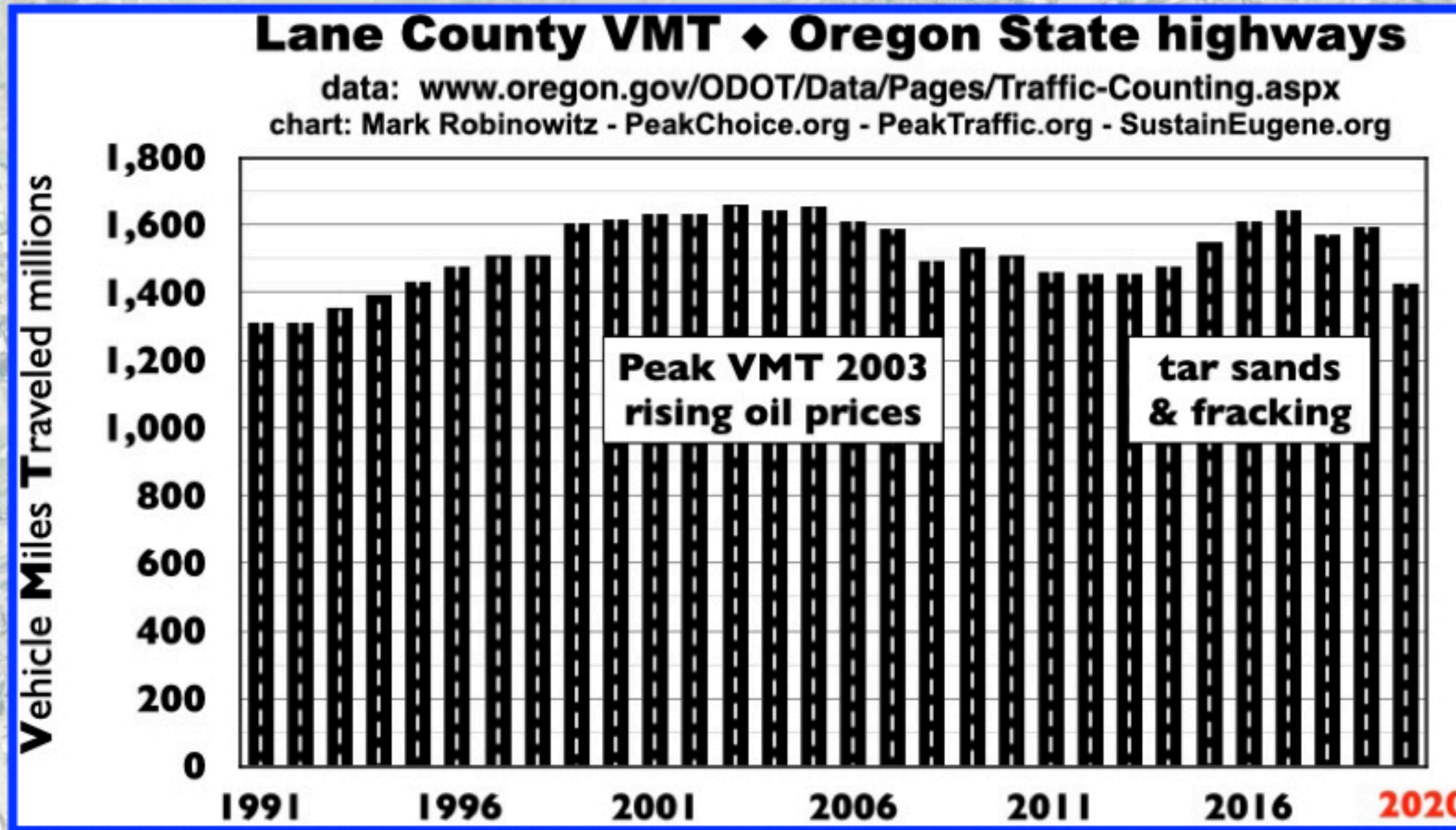
10 lanes

12 lanes

16 lanes

7 lanes

Norkenzie and Gilham bridges would be torn out, rebuilt if extra Beltline lanes added toward Coburg Rd.

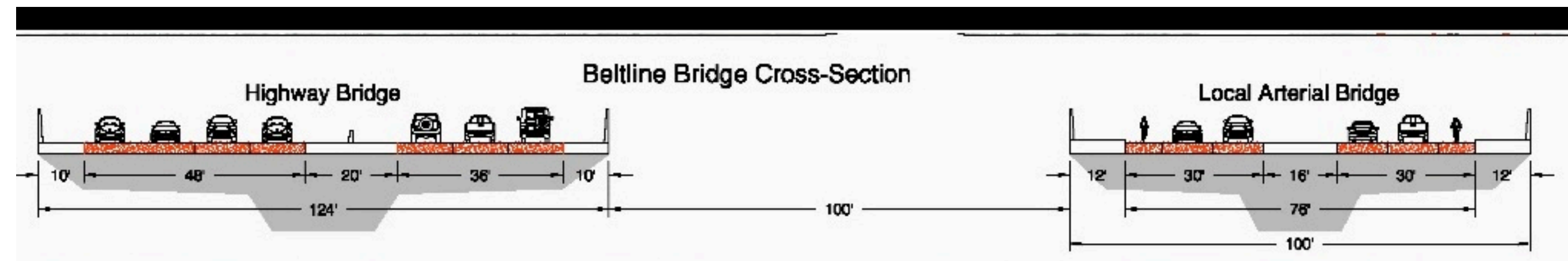


**LEGEND**

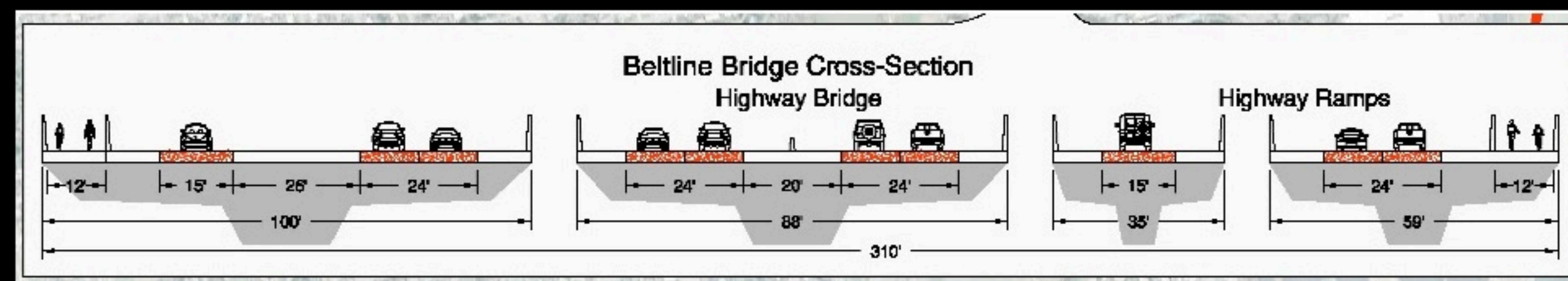
- Existing Highway Configuration
- Road Modifications
- Removed Ramp or Roadway
- Delta/Beltline Interchange Project



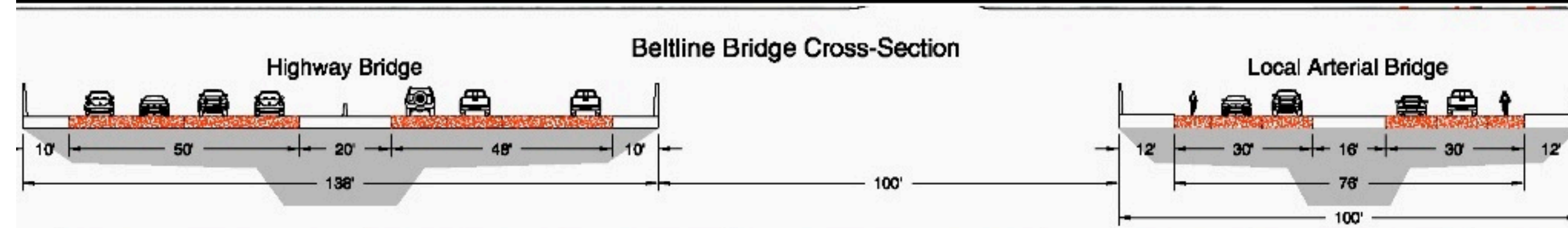
# ODOT 2014 study: Beltline cross sections across the river



CH2MHILL **Improve Existing Concept**



KITTELSON & ASSOCIATES, INC. CH2MHILL **Collector Distributor Concept**



KITTELSON & ASSOCIATES, INC. CH2MHILL **Auxilliary Lane Concept**

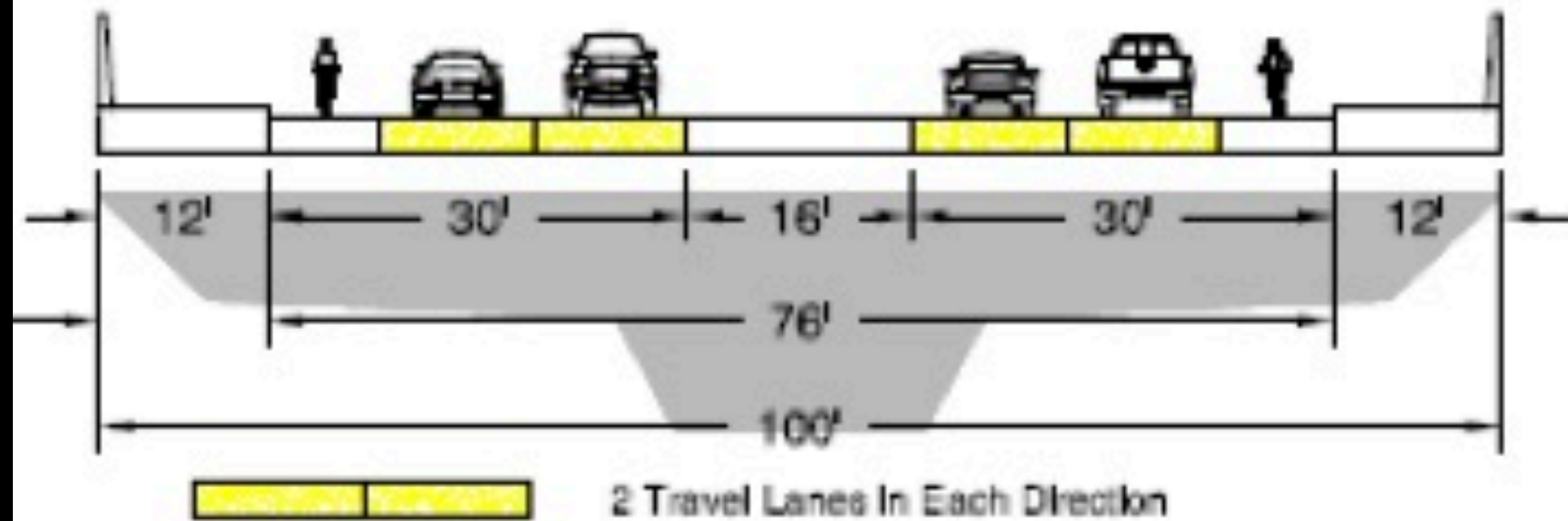
**ODOT has not released cross section graphic showing the 2018 version which would have 10 lanes of bridge across the river and up to 16 lanes between the river and Delta highway**



# (C) New Bridge to Serve Local Traffic

We are at Peak Traffic, not no traffic, so a bridge across the river will continue to be essential. We have enough physical resources and money to replace the bridge with a structure that will still be useful after the arrival of oil rationing.

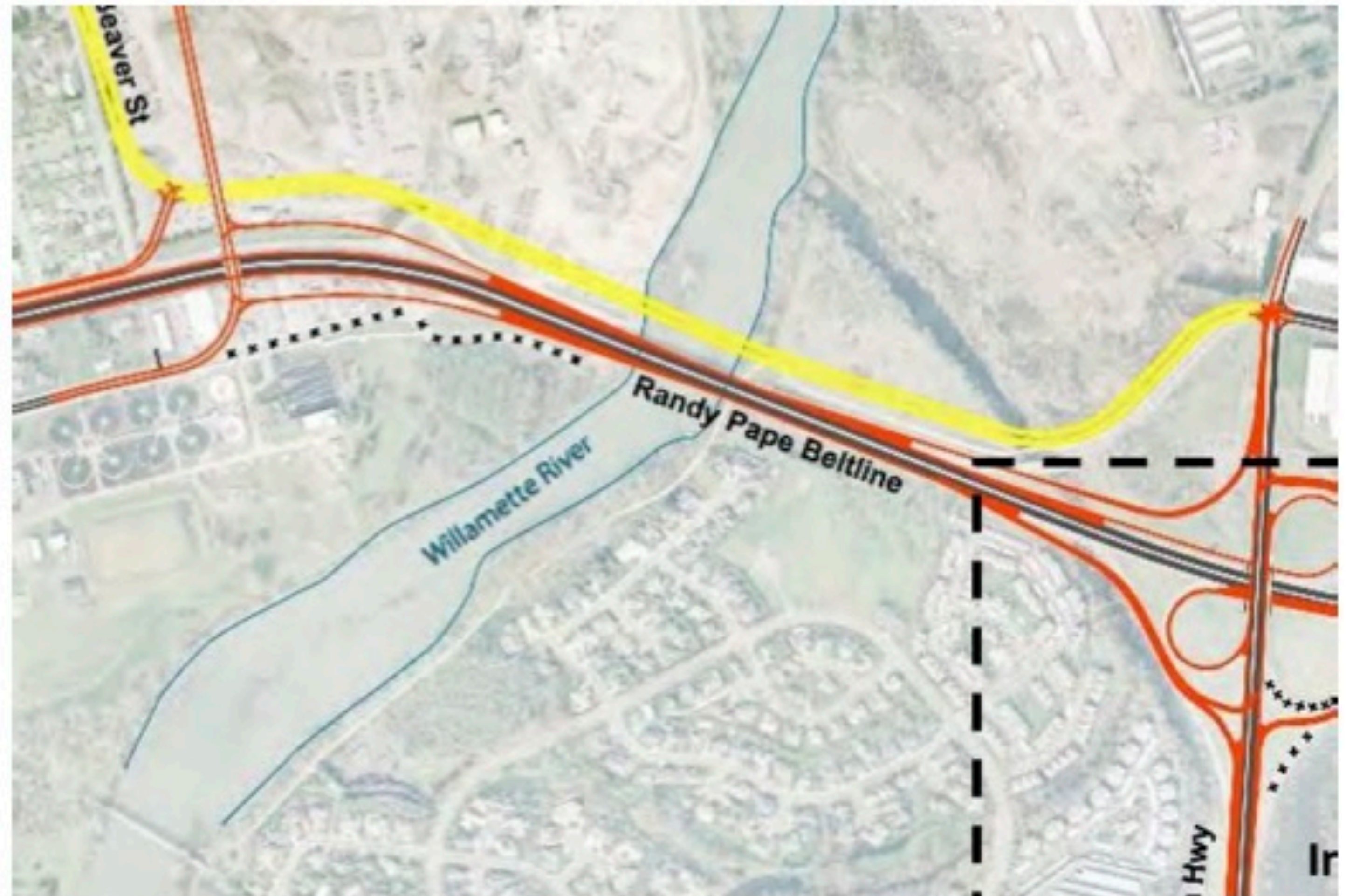
Long term plans should consider fiscal constraints, peak traffic, climate change, and energy depletion. Concrete and steel require a lot of fossil fuels. We should be wise about using what is left.



Beltline is the last highway bridge in Eugene that has not been repaired or replaced to cope with the looming Cascadia Subduction Zone earthquake.

A low build alternative could replace the worn out Beltline bridge with a new structure (where the yellow lines are). The curvature of the mainline could be adapted to transfer the traffic.

Replacing the old Beltline bridge, built before the seismic risk was discovered, with a new bridge of the same width should be enough for the rest of the oil age.

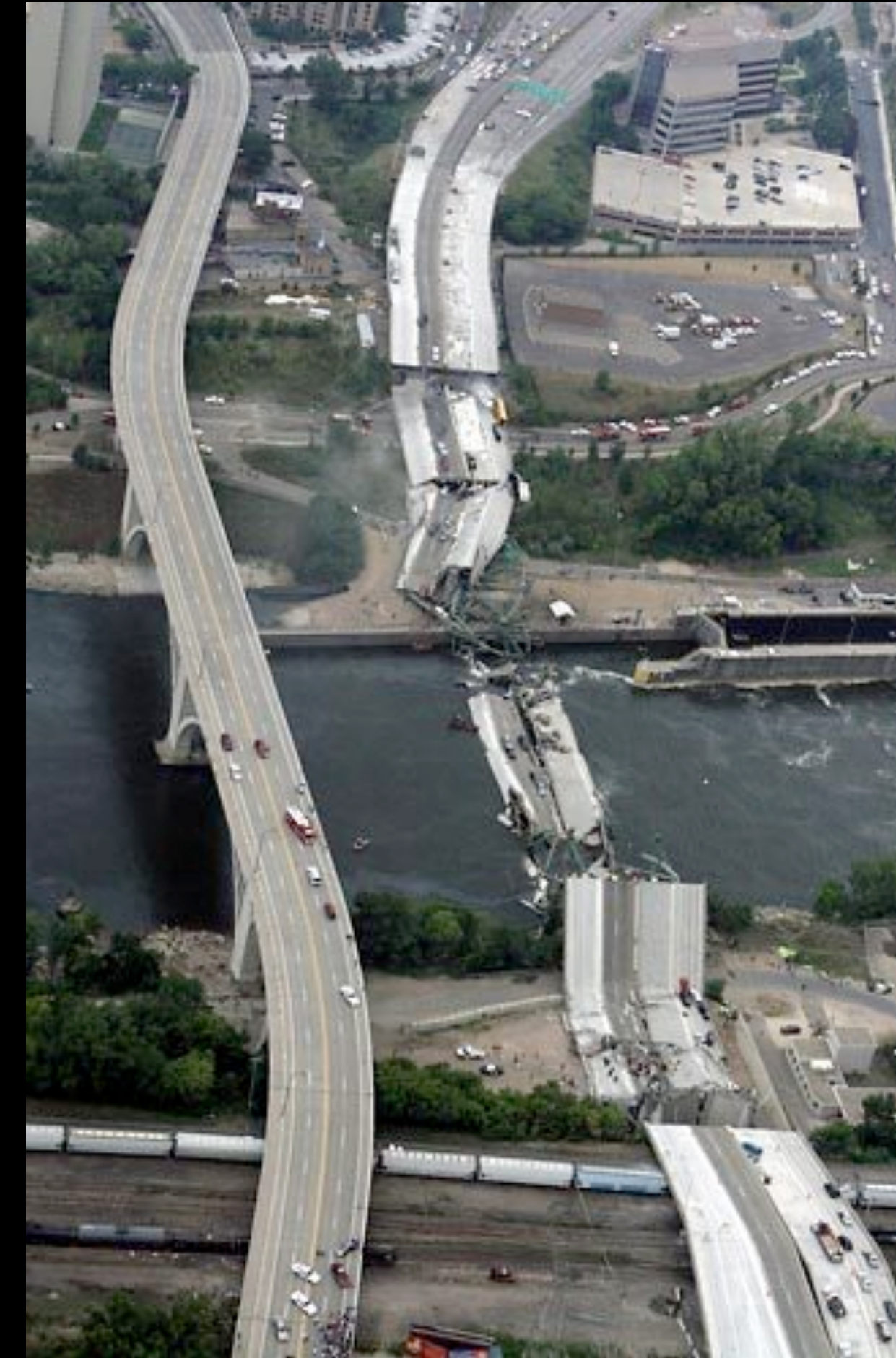




# Troubled Bridges Over Water



**I-5 Eugene-Springfield**  
worn out bridge replaced with  
two new, larger bridges



**I-35 Minneapolis**  
2007 collapse

Tens of thousands of highway and rail bridges across the country are worn out, rusting, frayed from decades of too many trucks and freight trains. Oregon has numerous broken bridges along I-5, I-84 and many other routes, but has only had funding to fix some of them.

ODOT and local governments used the replacement of the cracked I-5 Willamette River bridge as an opportunity to double the width of the highway - even though we are passing the end of cheap oil and the start of climate change. Replacing worn out bridges with new bridges OF THE SAME WIDTH would save tax dollars that could be used to fix more dangerous bridges before entropy or the Cascadia Subduction earthquake makes them unusable. Public safety and fiscal constraints mean that expansion plans be canceled in favor of maintenance and repair.





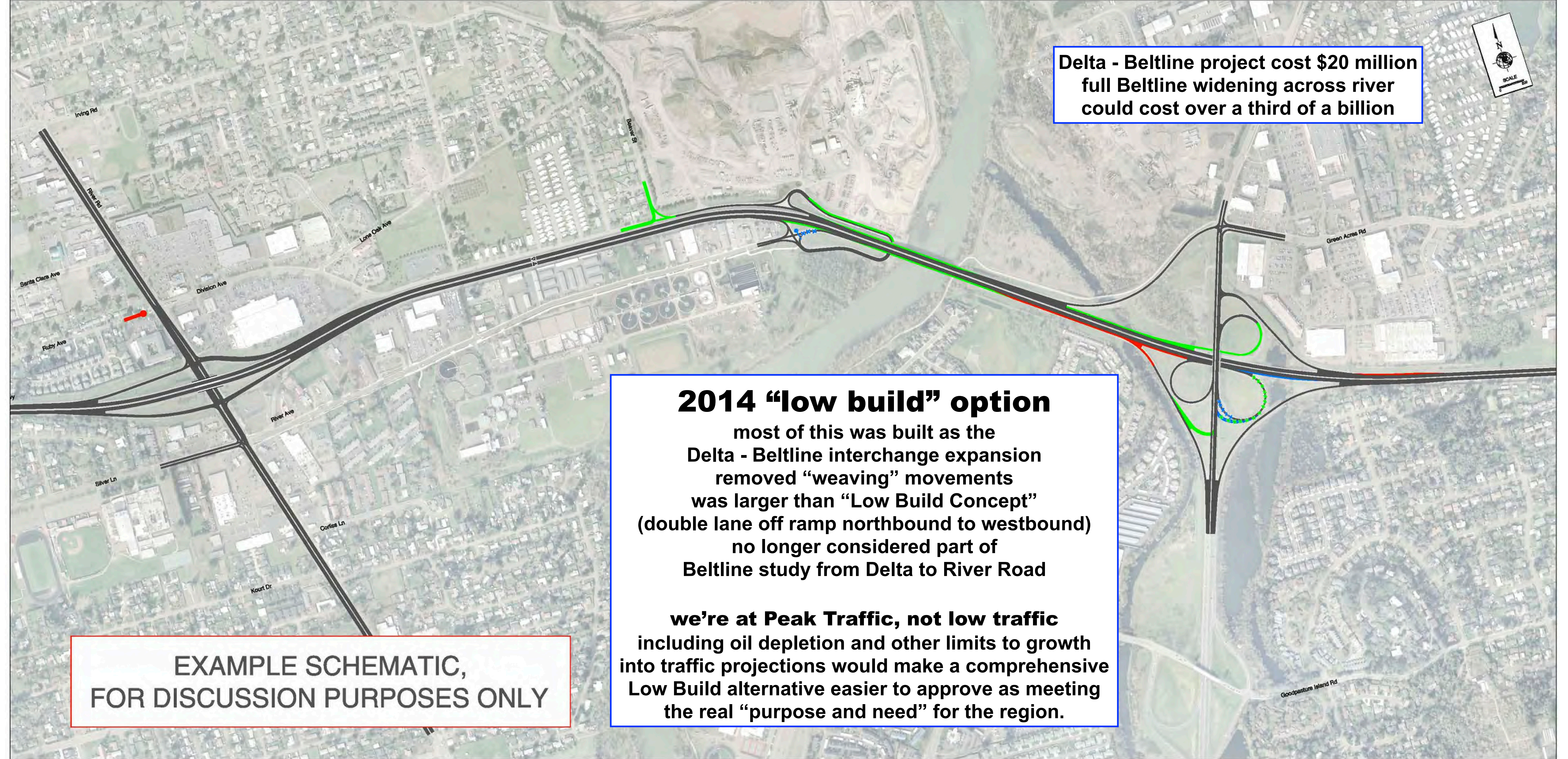
Delta - Beltline project cost \$20 million  
full Beltline widening across river  
could cost over a third of a billion

### 2014 "low build" option

most of this was built as the  
Delta - Beltline interchange expansion  
removed "weaving" movements  
was larger than "Low Build Concept"  
(double lane off ramp northbound to westbound)  
no longer considered part of  
Beltline study from Delta to River Road

**we're at Peak Traffic, not low traffic**  
including oil depletion and other limits to growth  
into traffic projections would make a comprehensive  
Low Build alternative easier to approve as meeting  
the real "purpose and need" for the region.

EXAMPLE SCHEMATIC,  
FOR DISCUSSION PURPOSES ONLY

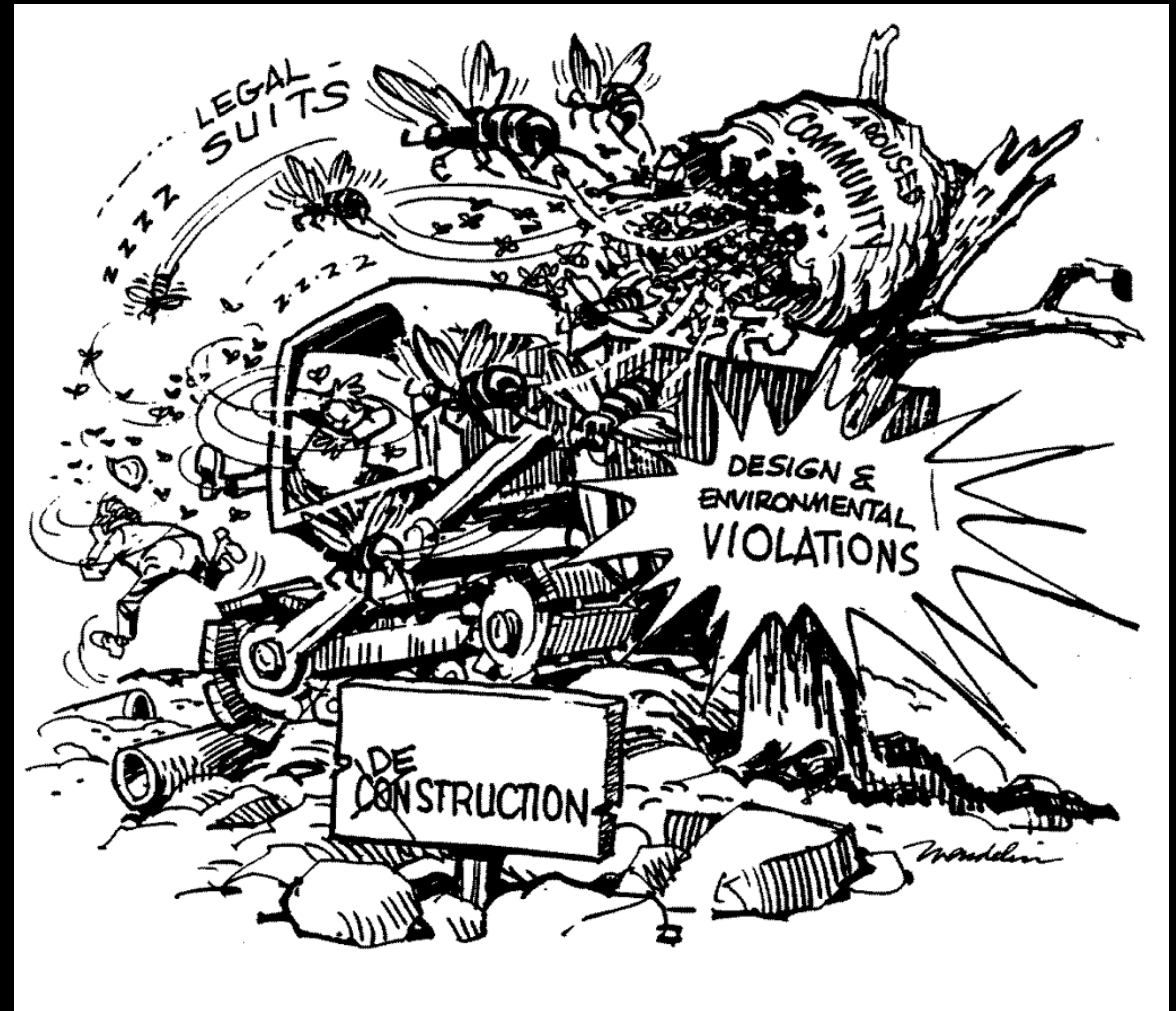




**Beltline widening would not have the same legal obstacles that stopped the proposed West Eugene Parkway** (discussed later in this slideshow). There are no parks in the path, no critical habitat for endangered species, minimal area of wetlands (and it is legal to destroy wetlands if so-called mitigation sites are made elsewhere) and the environmental impact it would have at the river crossing is within the “acceptable” limit.

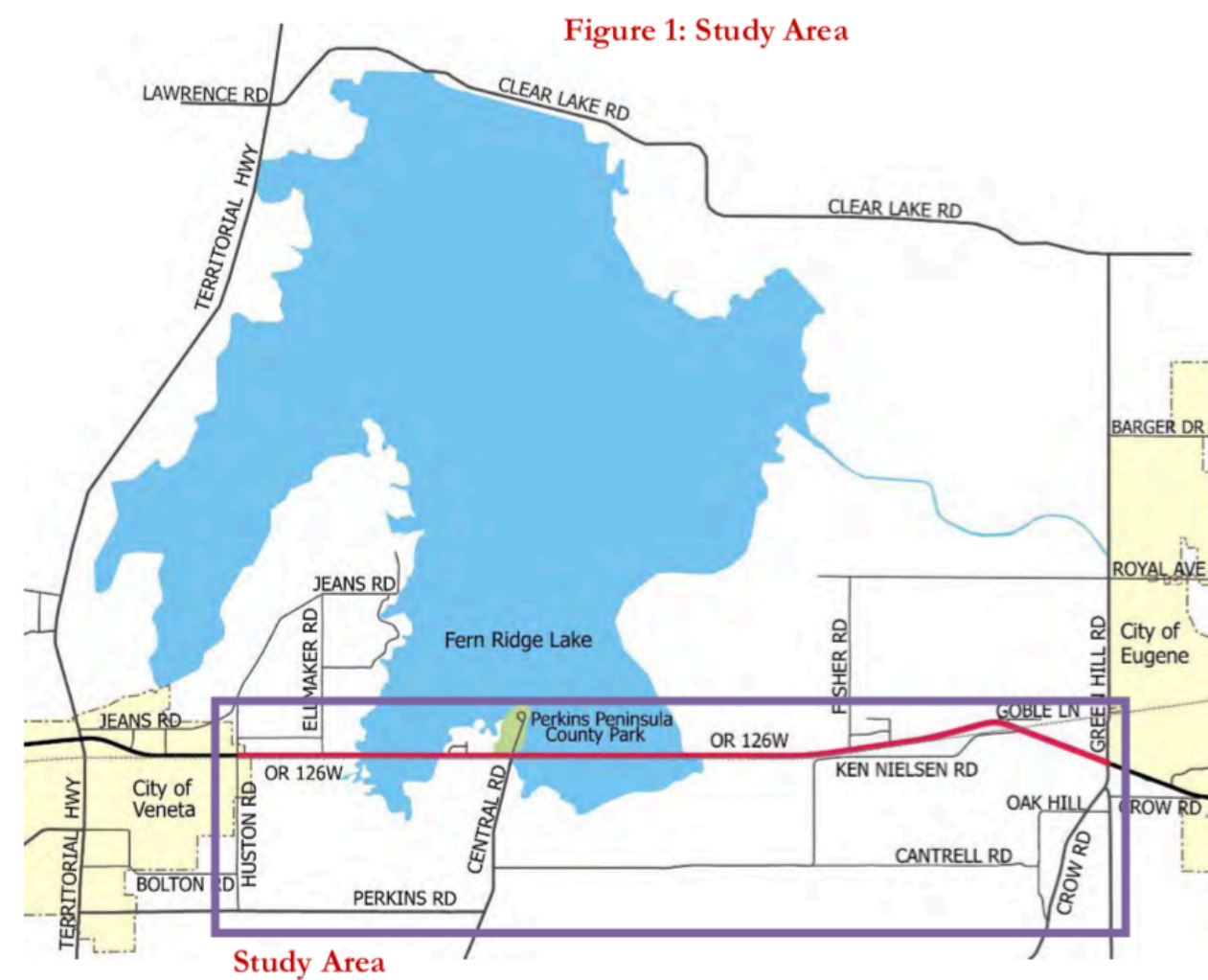
**There is a novel approach to force a Low Build type option**, but before getting to that, a description of a parallel proposal to widen 126 from Eugene to Veneta, lessons learned from stopping the WEP, and then, **a legal strategy that might not only prevent overwidening Beltline but set a precedent that could impact a trillion dollars of new and expanded highways across the country.**

**ODOT has prepared a Categorical Exclusion for Beltline instead of a Environmental Impact Statement or Environmental Assessment.** In less legalese language, this means ODOT is bypassing the normal legal requirements for disclosing impacts. Later in this slideshow is discussion of the National Environmental Policy Act which requires these documents. “C.E.” is a way to avoid wasting too much money and time preparing unnecessary reports but was not intended for projects that could cost over a third of a billion dollars with years of construction disruption. This fits a pattern of using CE to ignore disclosing the impacts of many levels of federal timber sales on National Forests and other destructive proposals. In short, deregulation of protections established a half century ago during the peak of federal environmental regulation and laws.





# Highway 126 widening: Eugene to Veneta



OR 126W Spot Improvements with separated multi-use path: \$15 million

OR 126W Three-Lane Alternative with separated multi-use path

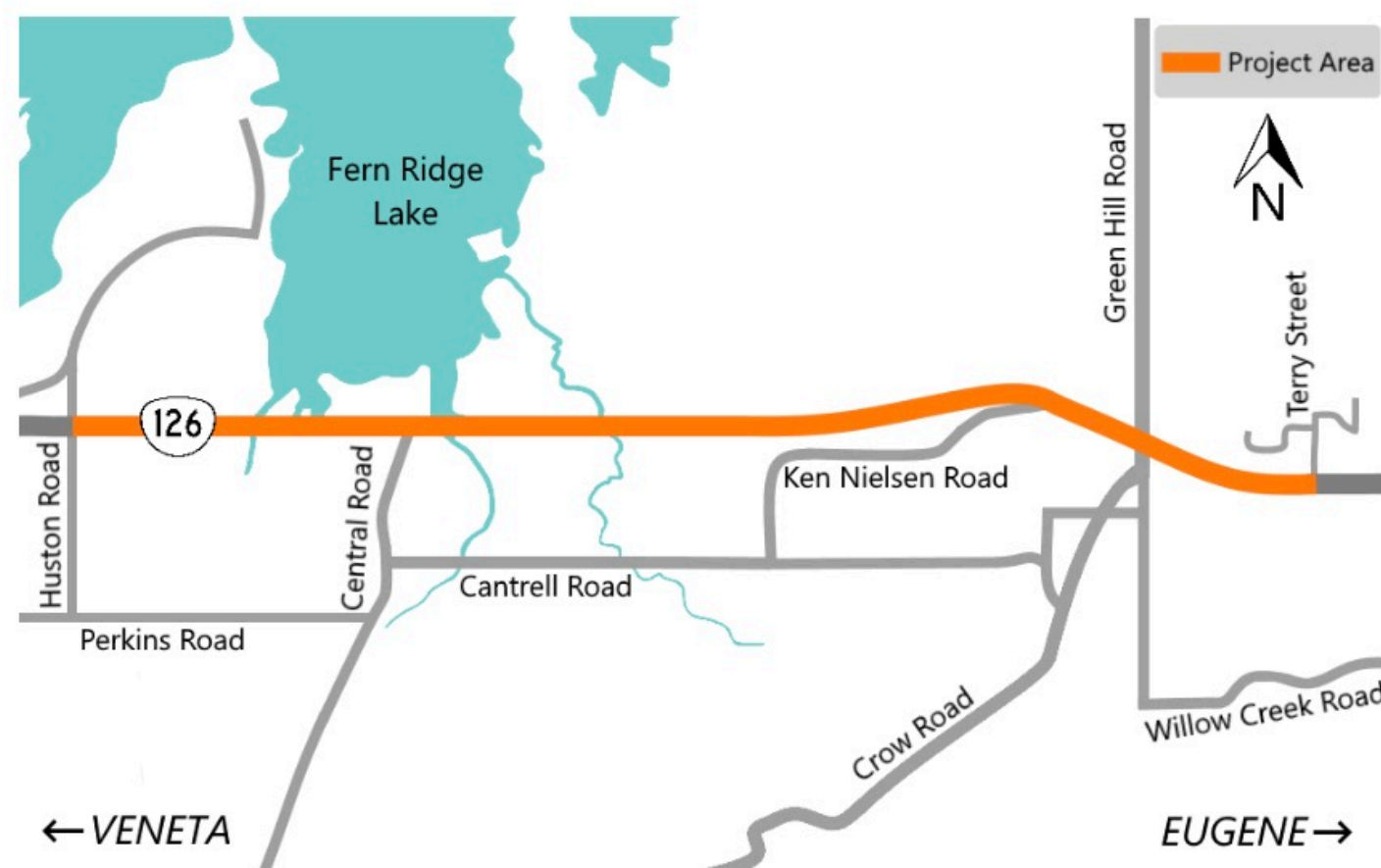
- Causeway on Dike: \$95 million
- Causeway on Piers: \$145 million

OR 126W Four-Lane Alternative with separated multi-use path

- Causeway on Dike: \$130 million
- Causeway on Piers: \$195 million

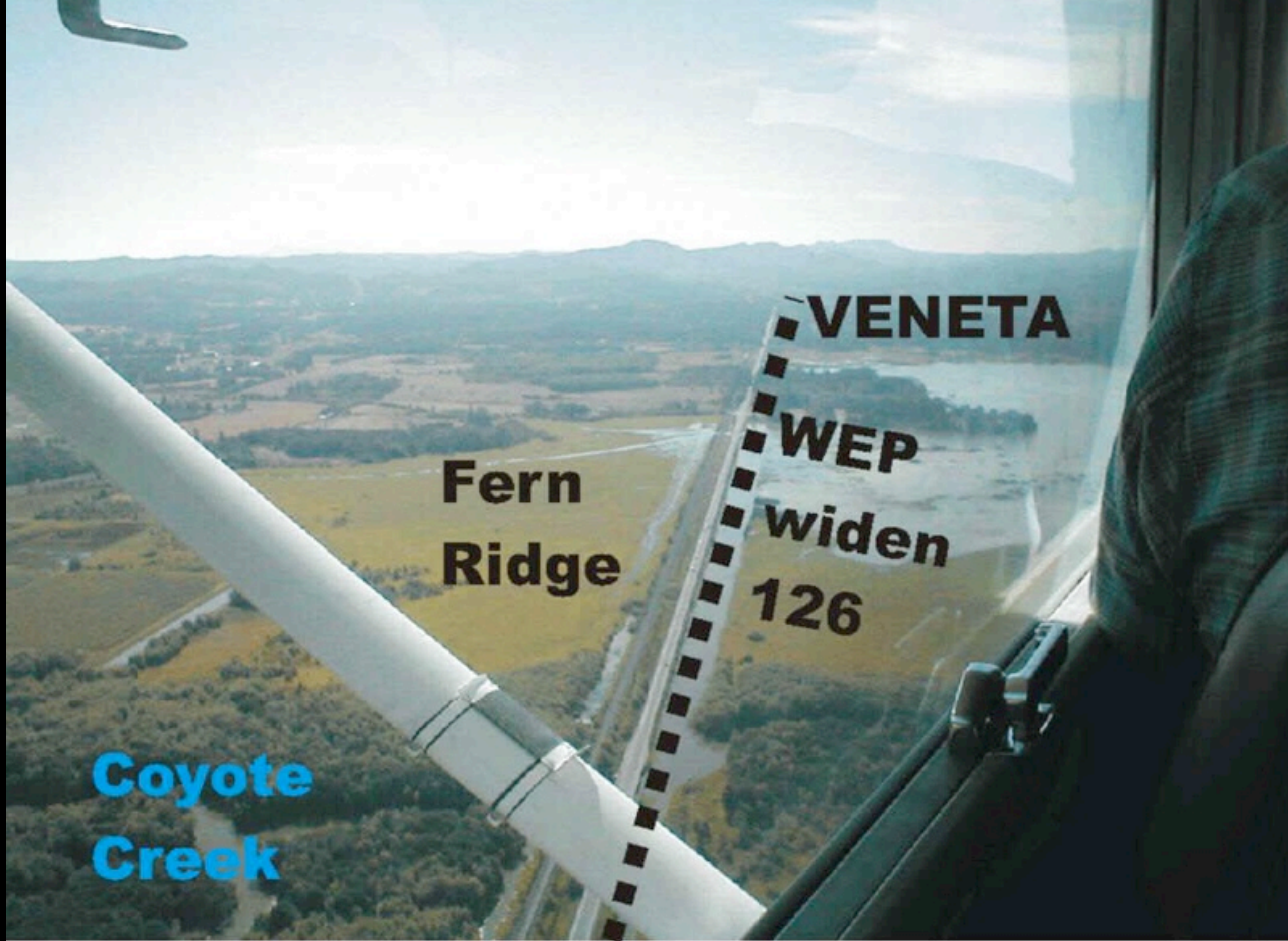
Widening over the water would be the most expensive part.

No cost estimate is available for a Low Build alternative that would combine "spot improvements," traffic calming, other safety design considerations and perhaps a passing lane or two on the sections not crossing Fern Ridge reservoir or wetlands. This would be cheaper than the "three lane alternative" and potentially affordable.



graphics and cost from ODOT's 2013 study





**VENETA**

**WEP**

**widen**

**126**

**Fern  
Ridge**

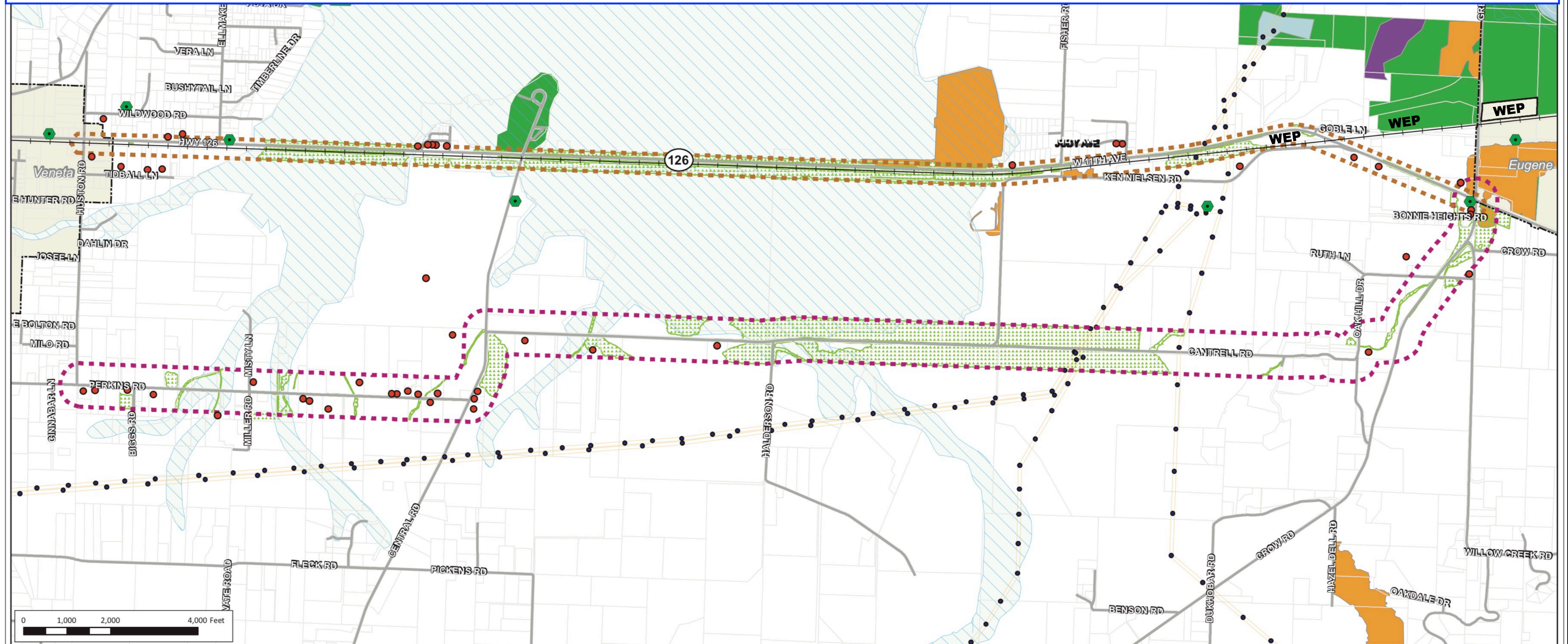
**Coyote  
Creek**



In 2001, I asked then State Representative Floyd Prozanski what he thought of the West Eugene Parkway. He said he was against it, partly because it would force a “causeway” (his term) across the lake. He added he grew up in San Antonio, Texas and knew about the Brackenridge Park freeway fight. In the 1960s, a highway was planned through that park, a main green space in that city. Efforts to stop that road included passage of Section 4(f), authored by Senator Ralph Yarborough of Texas. There is a deeper look at 4(f) later in this presentation, it prevented the WEP.

During the peak of the WEP controversy, ODOT and FHWA officials were reluctant to say anything about what I called Phase 3 of the WEP: the extension all the way to Veneta. They knew that this would be difficult to permit under the Clean Water Act, and segmentation of the WEP’s approval to avoid the ecological and economic impacts of this future extension would be especially illegal. Segmentation violates the National Environmental Policy Act and segmentation to avoid consideration of Section 4(f), the Clean Water Act and Endangered Species Act is as illegal as a highway project can be.

In 2022, ODOT is planning the causeway even though WEP was canceled in 2007. Endangered species are more concentrated in the wrong-of-way of the WEP, but there are critical habitats directly next to 126. (Fender’s Blue Butterfly is vulnerable to highway lighting). **ODOT is planning to approve this with a “Categorical Exclusion,” instead of an Environmental Impact Statement. Even an Environmental Assessment that results in a “Finding of No Significant Impact” would be less inappropriate.**



**LEGEND**

- Road
- +— Railroad
- Tax Lot
- Parallel Facility Study Corridor
- City Boundary
- Public Park
- Potential Historic Resource
- Potential HazMat Site
- 100-Year Flood Zone (A)
- BPA Tower
- BPA Transmission Line
- Potential Jurisdictional Wetlands & Water Resources
- Fender's blue butterfly Critical Habitat
- Kincaid's lupine Critical Habitat
- Willamette daisy Critical Habitat

otak DKS Associates  
TRANSPORTATION SOLUTIONS

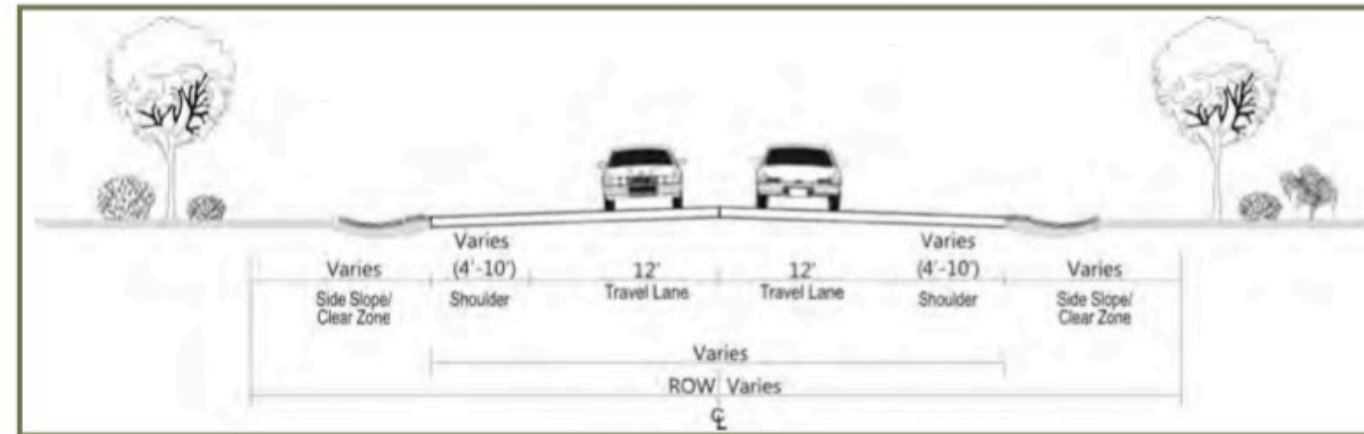
NO SCALE

**Figure 3**

**ENVIRONMENTAL CONSTRAINTS**

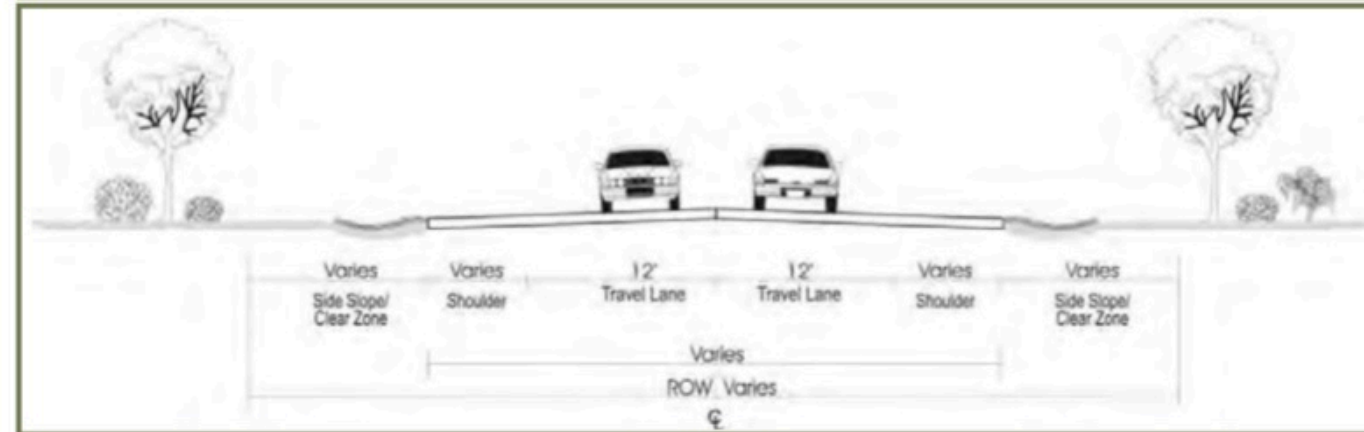


Figure 7a: The Eight Alternatives



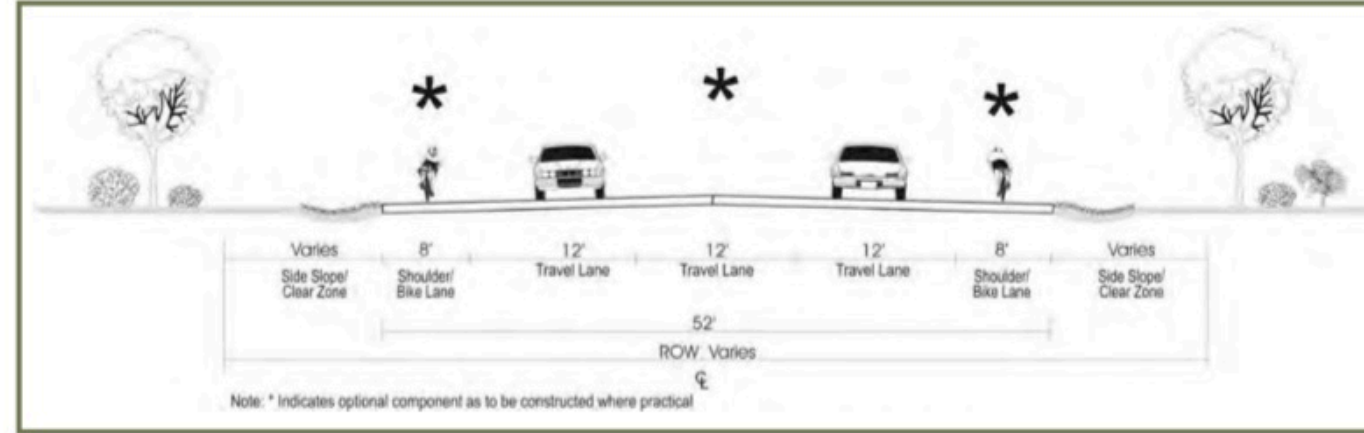
**OR 126W Route No-Build Alternative** would construct no improvements. OR 126W would maintain one travel lane in each direction, with left-turn lanes where they currently exist. The shoulders would continue to vary in size.

**No Build**



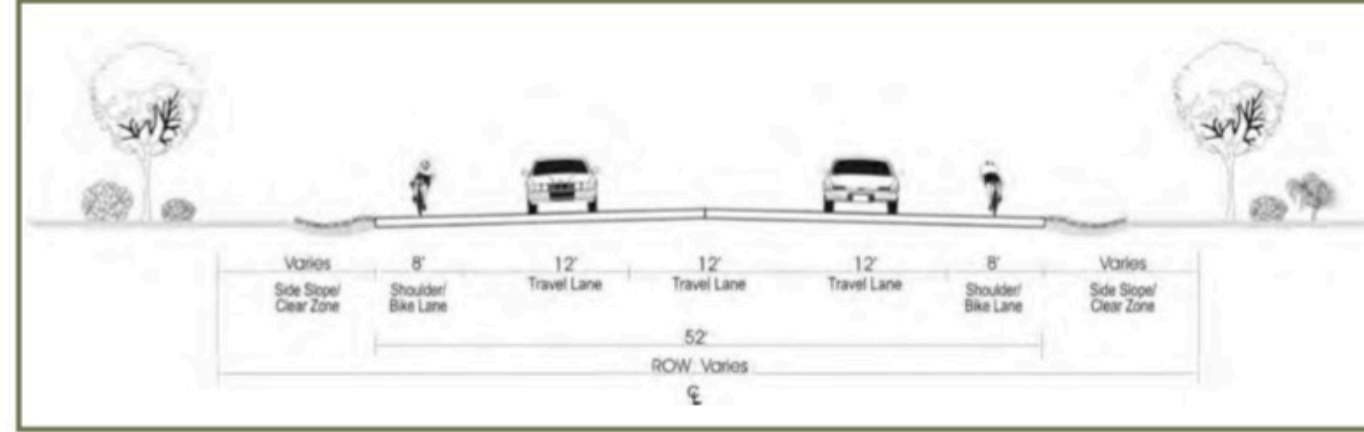
**OR 126W Route Transportation System Management Alternative** would include no roadway widening (OR 126W would maintain the existing cross-section). Lower cost improvements would be implemented such as improved signing and roadway striping, alternate mobility standards or transit and access management enhancements.

**Lowest Build**



**OR 126W Route Spot Improvement Alternative** would modify OR 126W where practical to include additional turn lanes, intersection improvements and shoulder widening. The shoulders would continue to vary in size and the roadway would transition between two and three lanes.

**Low Build**



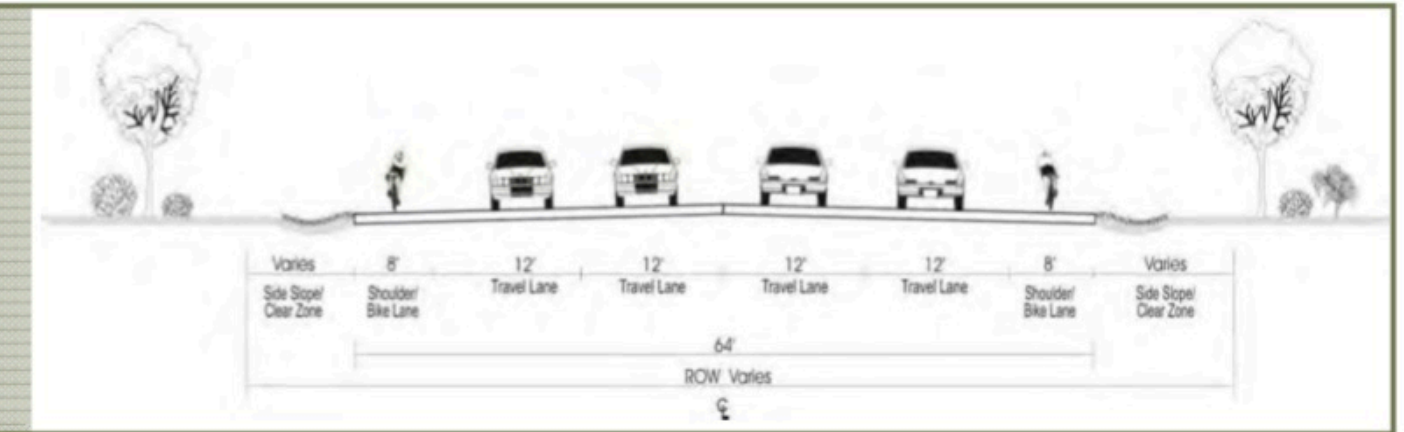
**OR 126W Route Three Lane Alternative** would widen OR126W to include one travel lane in each direction and a center lane for either turning or passing as appropriate. The shoulders would be widened to eight feet.

**Medium Build**

Figure 7b: The Eight Alternatives

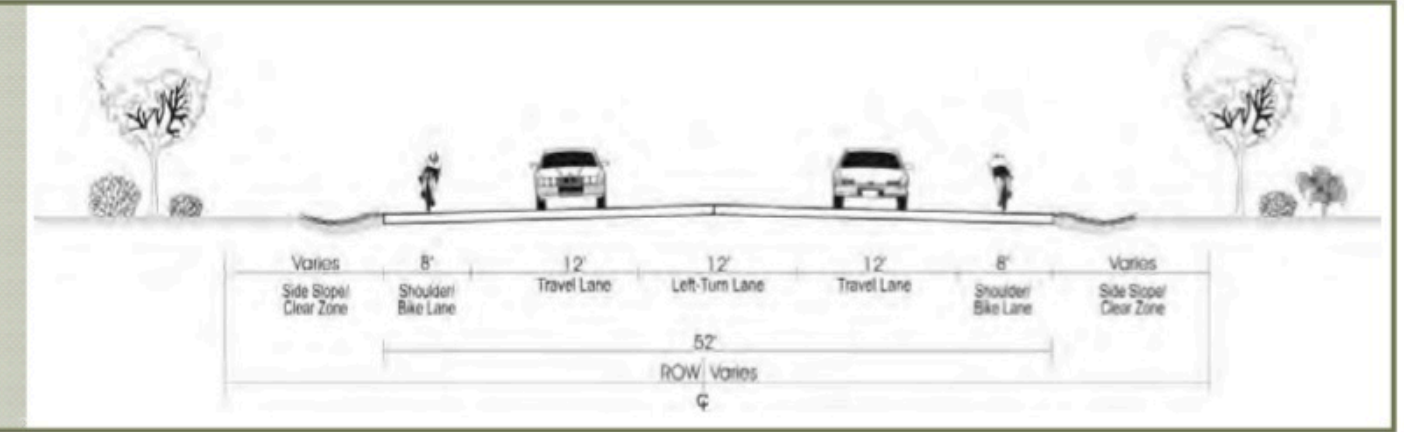
**OR 126W Route Four Lane Alternative** would widen OR126W to include two travel lanes in each direction. The shoulders would be widened to eight feet. Dedicated left-turn lanes would be added where appropriate.

**ODOT plan**



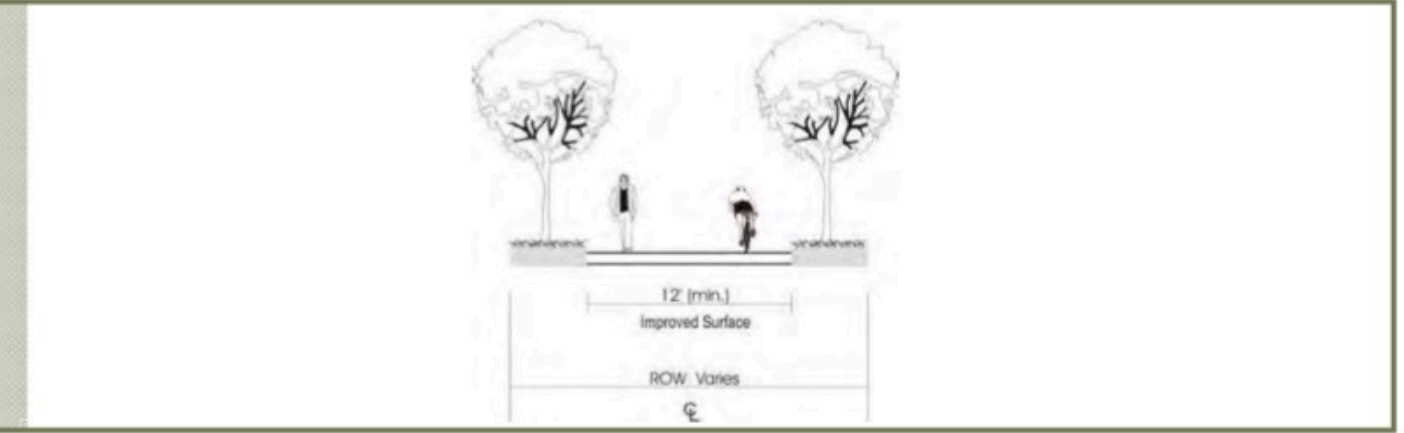
**Southern Route Two/Three Lane Alternative** would modify Perkins and Cantrell Roads where needed to include additional turn lanes and widened shoulders. The roadways would transition between two and three lanes.

**upgrade parallel roads to the south**



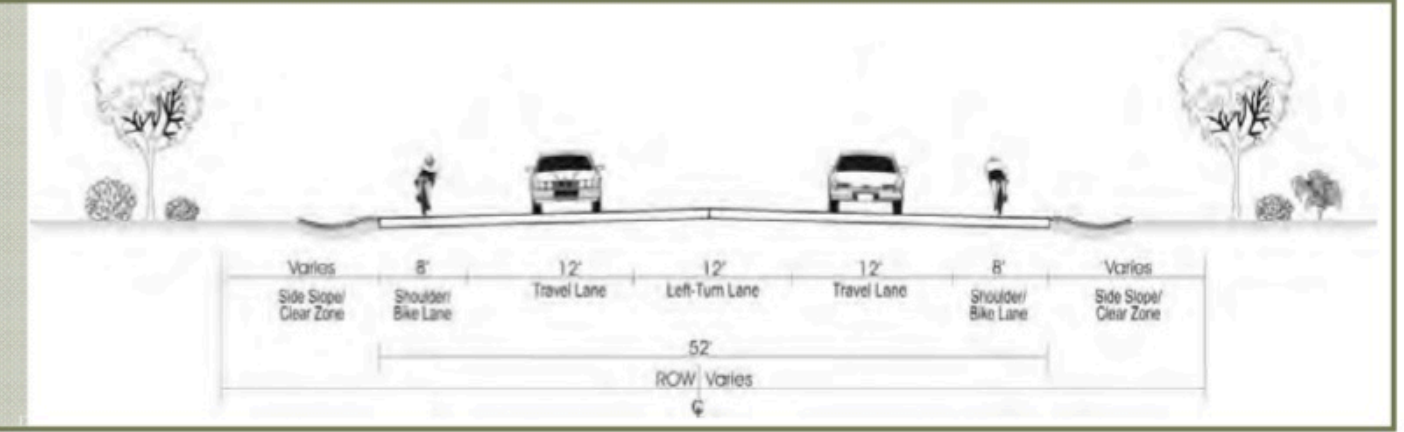
**Southern Route Multi-use Path Alternative** would construct a multi-use path for pedestrian and bicycle travel between Huston Road and Green Hill Road generally near the Perkins and Cantrell Road alignments. No additional roadway improvements would be constructed (OR 126W would maintain the existing cross-section).

**only add bike path, not a serious alternative**

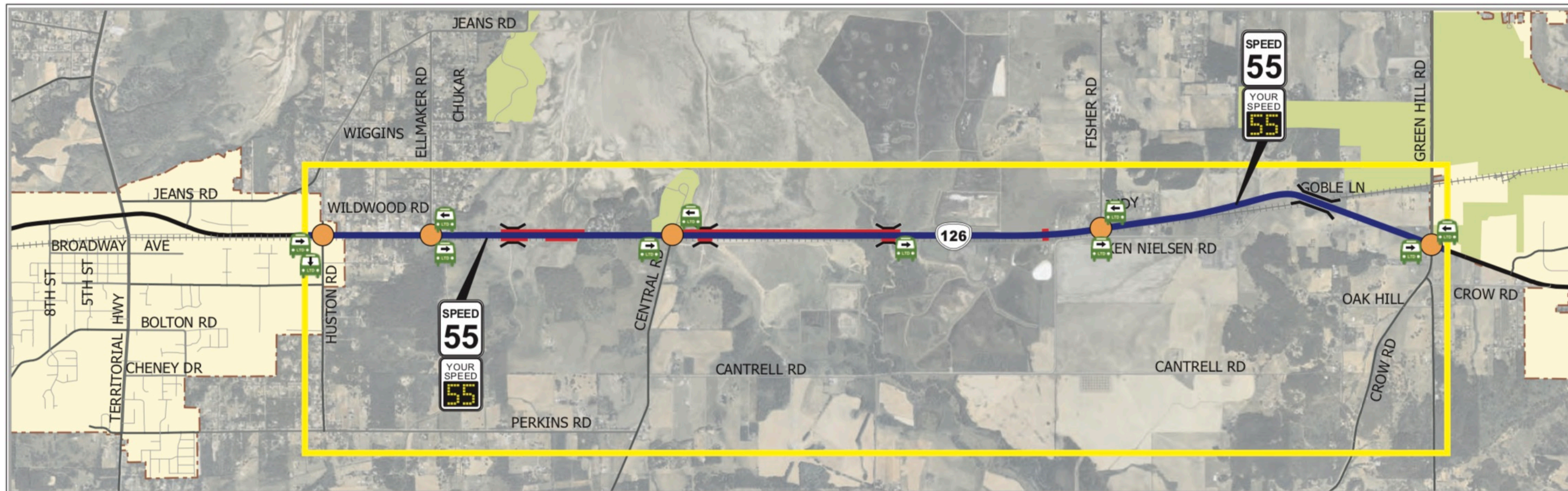


**Northern Route Alternative** would modify Territorial Highway, Clear Lake, and Green Hill Roads where needed to include additional turn lanes and widened shoulders. The roadways would transition between two and three lanes.

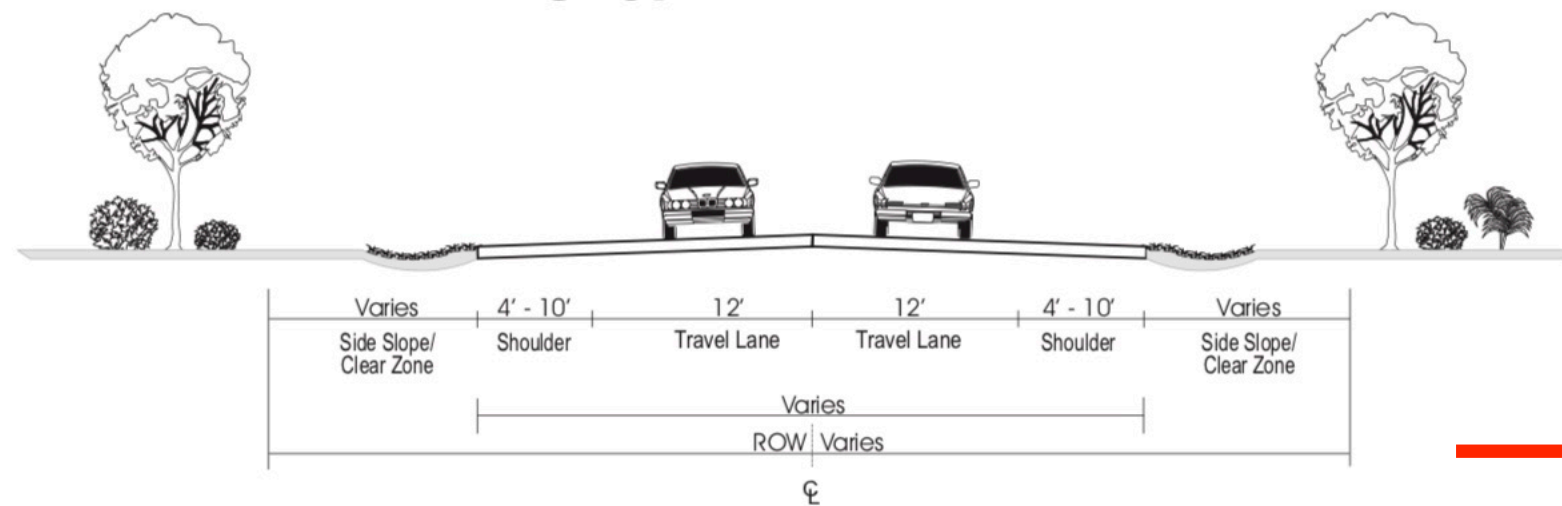
**north of Fern Ridge, ODOT probably will want that too**











**Existing Typical OR 126W Cross-Section**




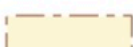


**Cross-Section Elements**

-  Existing Left-Turn Lanes
-  Existing Bridge
-  Existing Guardrail
-  Existing Transit Stop

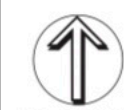
**Optional TSM Improvements (At Various Locations or Along Full Length)**

- Edge and Centerline Delineation
  - Raised Markers/Rumble Strips
  - Reflectors on Guardrails
- Advanced Intersection Guide Signage
- Speed Feedback Signs
- Variable Speed Limit Signs
  - 35 to 45 mph Congested Speed
  - 55 mph Non-Congested Speed
- Increased Transit Ridership and Carpools
  - Park-and-Ride Lot
  - Improved Pedestrian Access and Other Transit Stop Enhancements
  - Rideshare Program
- Alternate Mobility Standards
- Access Management Strategies

**LEGEND**

-  OR 126W Study Area
-  City Limit
-  Railroad
-  Park

*DKS Associates*  
TRANSPORTATION SOLUTIONS

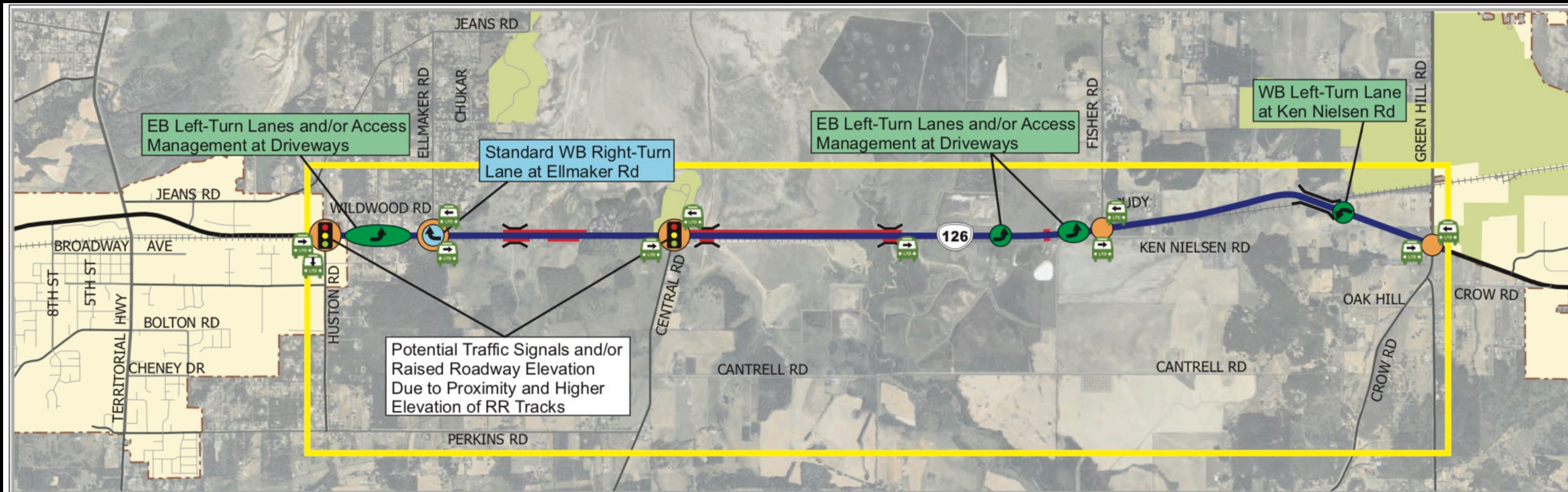


NO SCALE

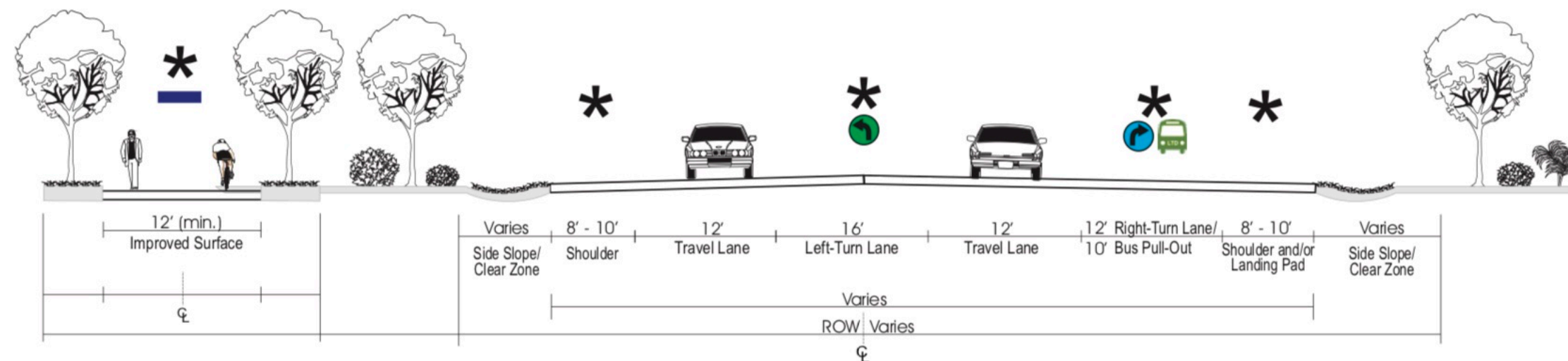
**Figure 2**

**TRANSPORTATION SYSTEM MANAGEMENT (TSM)  
CONCEPTUAL ALTERNATIVE**





**Spot Improvements Cross-Section with Optional Multi-Use Trail**



\* Spot improvements may include left-turn lanes (●), right-turn lanes (●), traffic signals (🚦), limited passing lanes, and wider shoulders, especially where current shoulders are only 4 feet wide. A multi-use trail alongside the highway (—) would also be a potential addition to the corridor. In addition, transit stop improvements (🚌) may include far-side bus stop relocations, bus pullouts, landing pads, and pedestrian crossing treatments. Emergency turnarounds and police pull-offs may also be provided on the side of the road at select locations.

**Cross-Section Elements**

- Existing Left-Turn Lanes
- Existing Typical Two-Lane Cross-Section (with Potential Addition of Multi-Use Trail)
- 🚦 Potential Traffic Signal and/or Raised Roadway Elevation (Due to Proximity of RR Tracks)
- 🚦 Existing Bridge
- Existing Guardrail
- 🚌 Existing Transit Stop

**LEGEND**

- 🟡 OR 126W Study Area
- 🟡 City Limit
- ++++ Railroad
- 🟢 Park

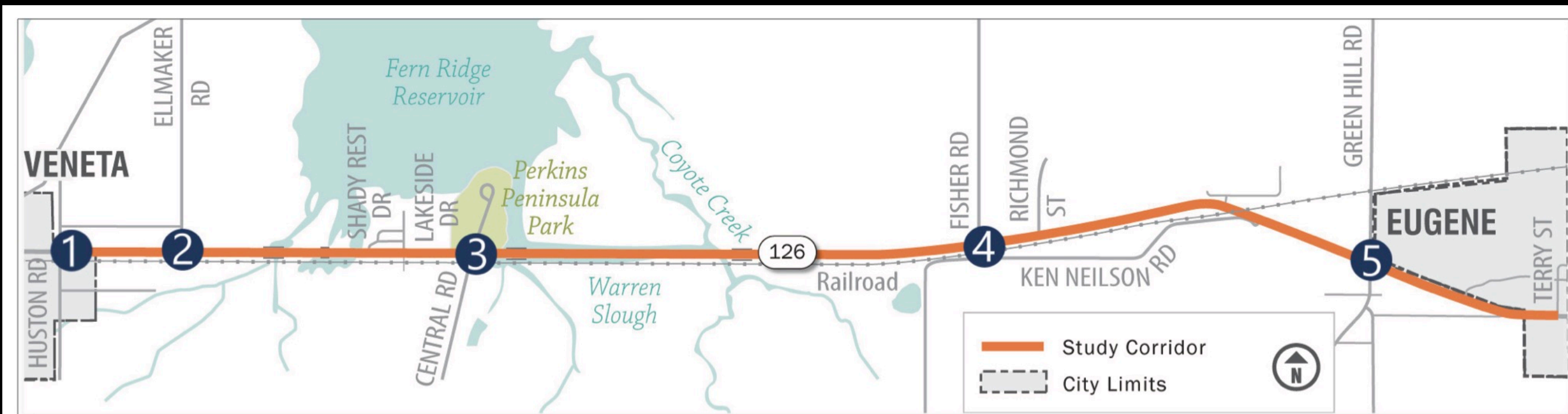
**DKS Associates**  
TRANSPORTATION SOLUTIONS



**Figure 3**

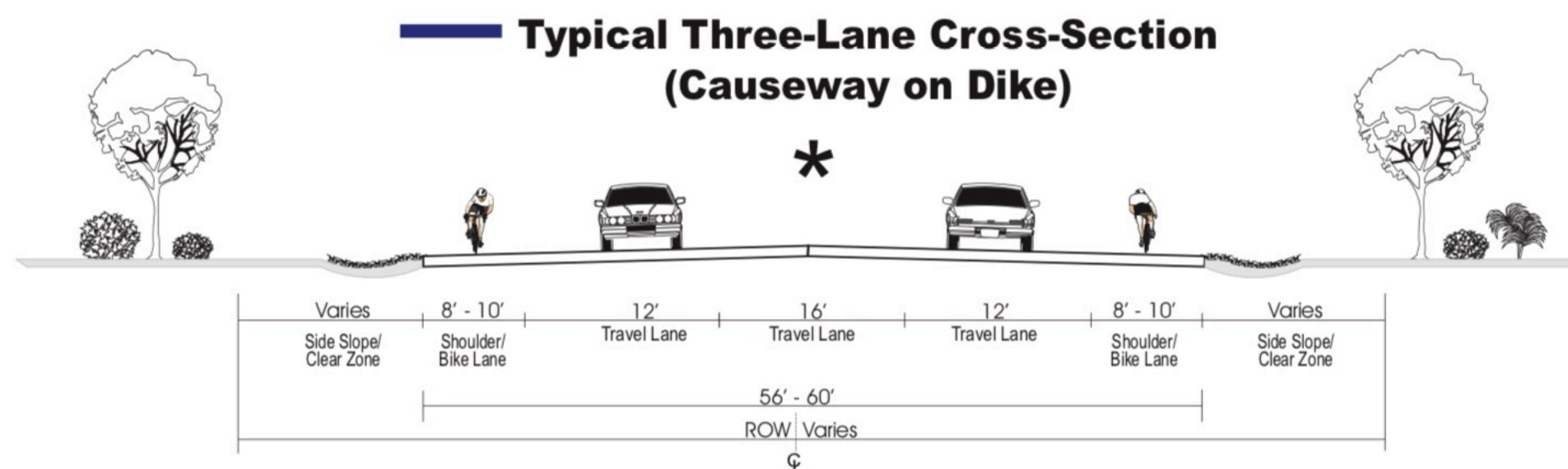
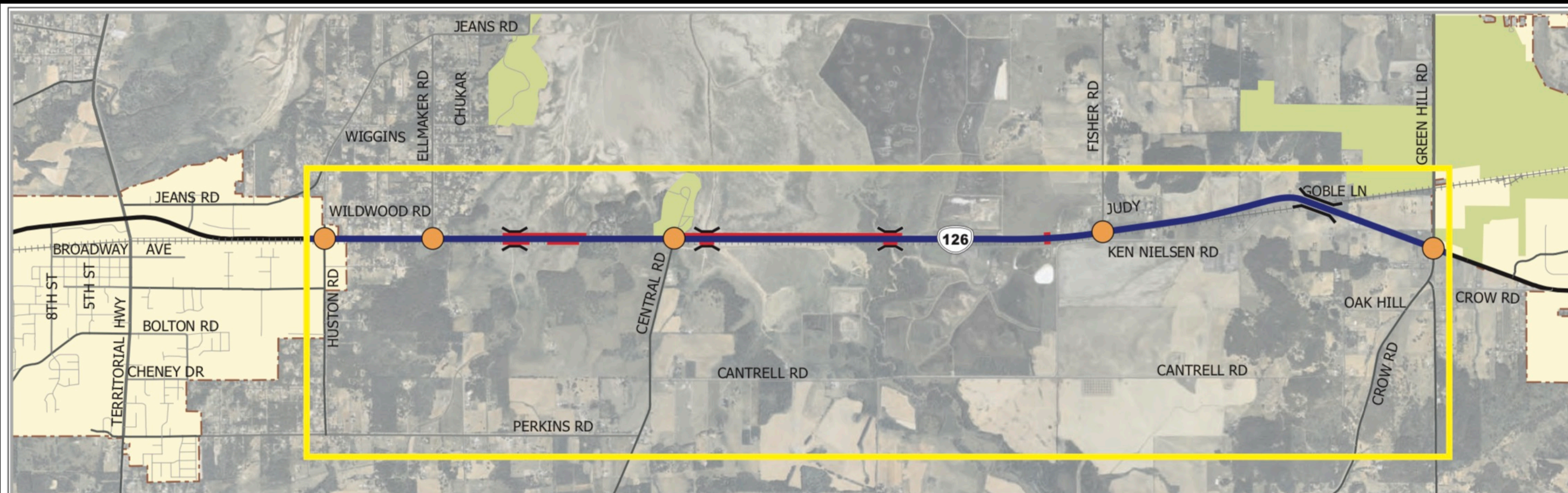
**SPOT IMPROVEMENTS  
CONCEPTUAL ALTERNATIVE**



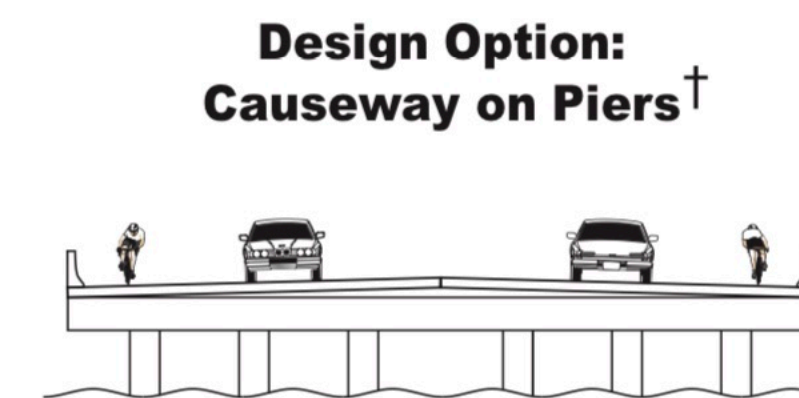


- 1 HUSTON ROAD: Two lane roundabout or traffic signals.
- 2 ELLMAKER ROAD: Two lane roundabout or turn lane improvements.
- 3 CENTRAL ROAD: Two lane roundabout or traffic signals.
- 4 FISHER ROAD: Two lane roundabout or turn lane improvements.
- 5 GREENHILL ROAD: Two lane roundabout or traffic signals.





\*The additional center travel lane may be used for passing lanes in alternating directions or a reversible travel lane that serves eastbound traffic in the morning and westbound traffic in the evening. Left-turn lanes at select intersections may be included in the three-lane cross-section or added as a fourth lane.



†A causeway on piers is an optional design feature that may be used over environmentally sensitive areas. Pedestrian and bicycle facilities may be included on the structure or provided on a lower level on the side of the structure.

**Cross-Section Elements**

- Existing Left-Turn Lanes
- Existing Guardrail
- ≡ Existing Bridge

**LEGEND**

- ▭ OR 126W Study Area
- ▭ City Limit
- ++++ Railroad
- ▭ Park

DKS Associates  
TRANSPORTATION SOLUTIONS



NO SCALE

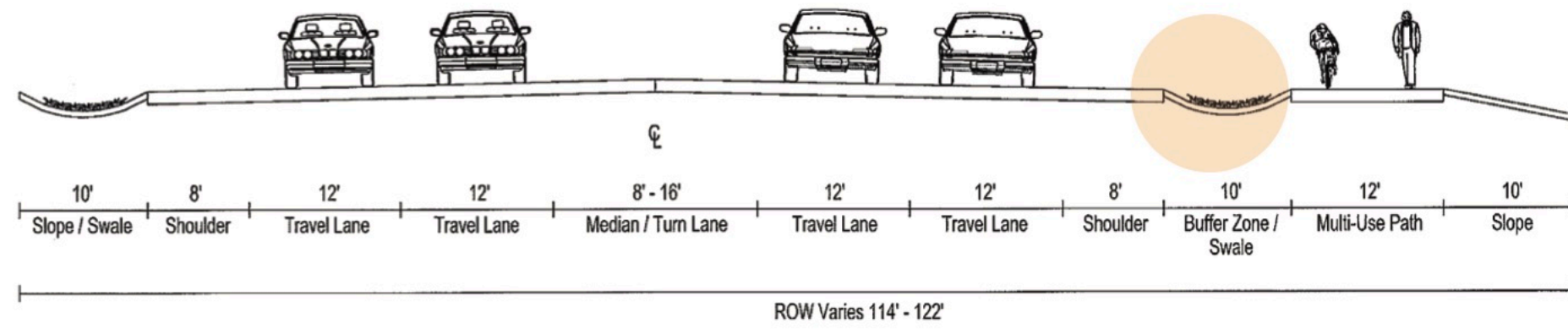
**Figure 4**

**THREE-LANE CROSS-SECTION WITH OPTIONAL CAUSEWAY ON PIERS CONCEPTUAL ALTERNATIVE**

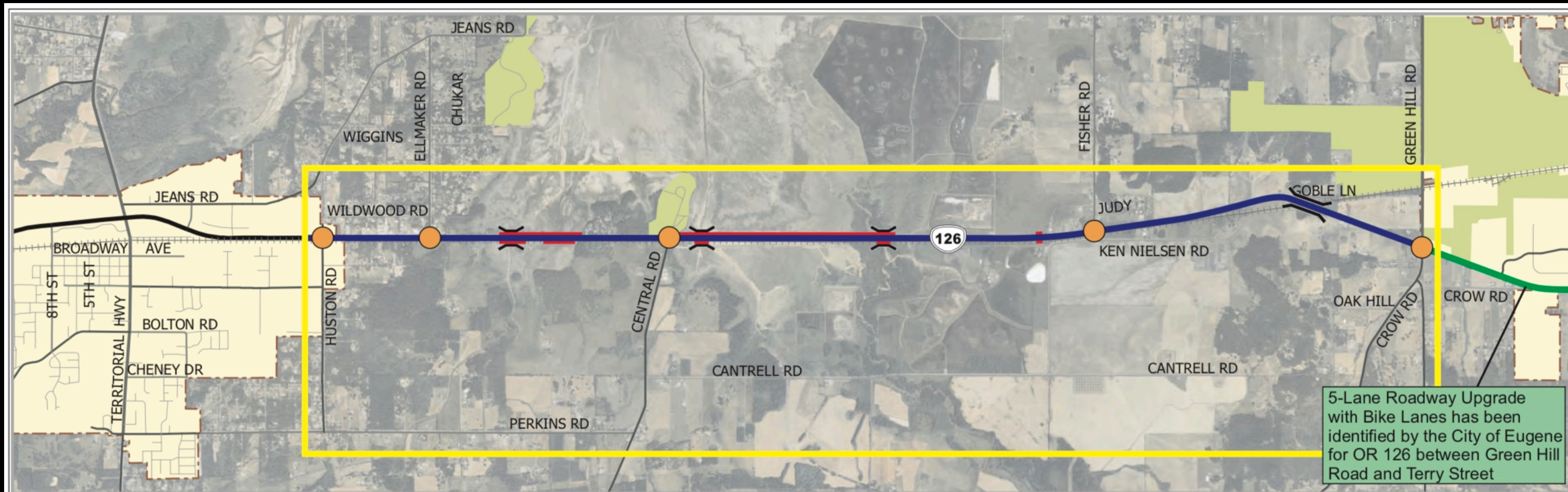
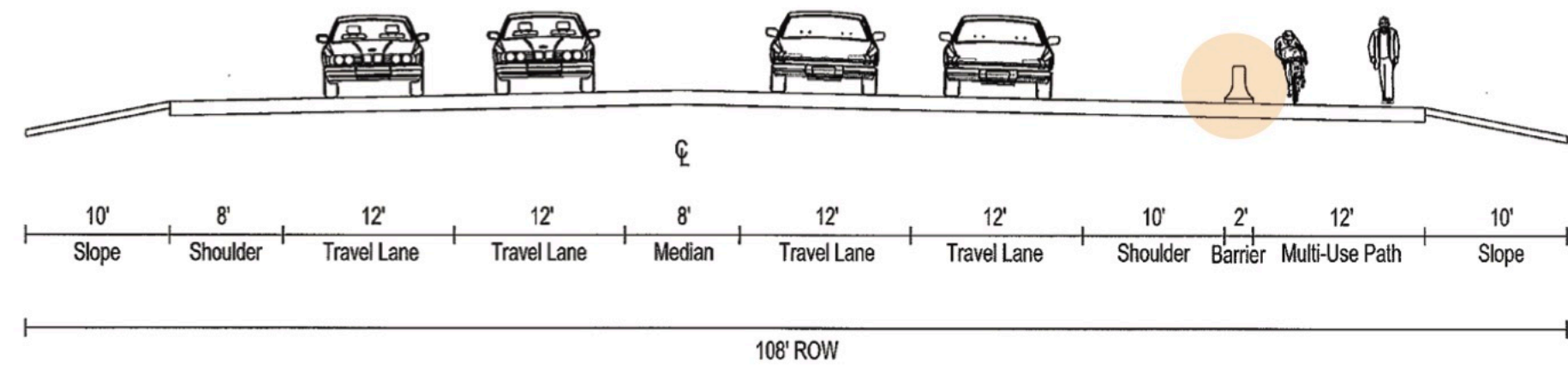
**Three lanes on land, two over water could be a reasonable Low Build alternative**



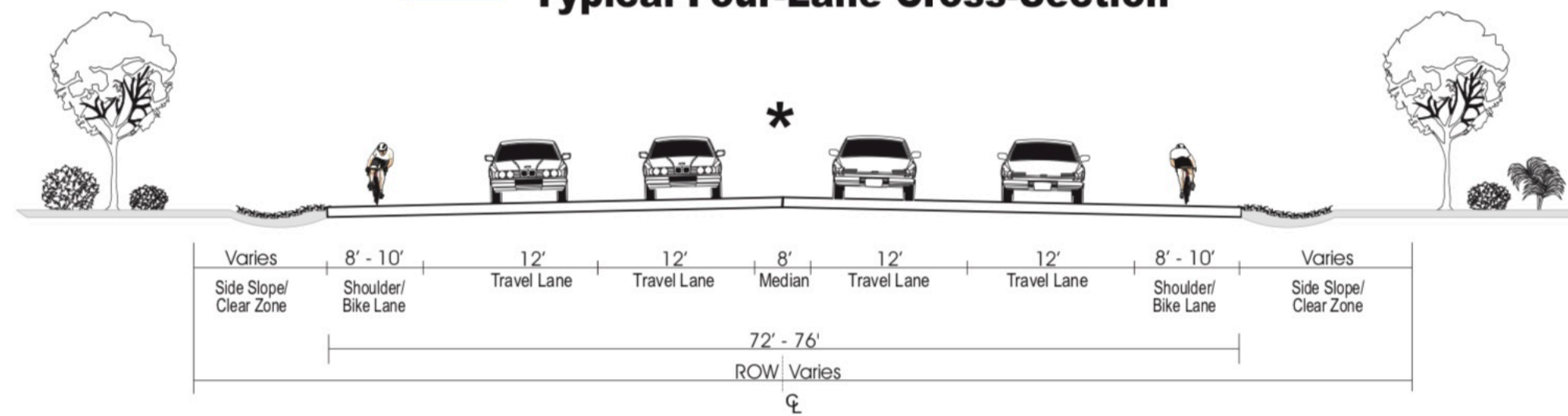
**Fig. A: Multiuse Section with Swale Separation**



**Fig. B: Multiuse Section with Barrier Separation**

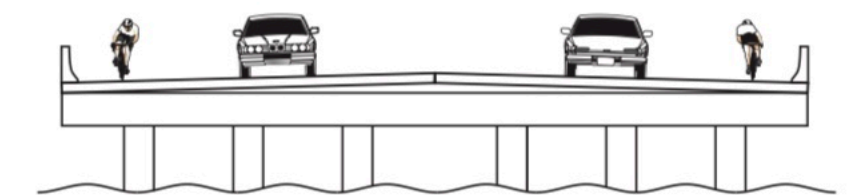


**Typical Four-Lane Cross-Section\***



\*The four-lane cross-section would include a center left-turn lane (16 feet wide) in place of the median at applicable intersections.

**Design Option: Causeway on Piers†**



†A causeway on piers is an optional design feature that may be used over environmentally sensitive areas. Pedestrian and bicycle facilities may be included on the structure or provided on a lower level on the side of the structure.

**Cross-Section Elements**

- Existing Left-Turn Lanes
- = Existing Guardrail
- ≡ Existing Bridge

**LEGEND**

- ▭ OR 126W Study Area
- ▭ City Limit
- ++++ Railroad
- ▭ Park

**DKS Associates**  
TRANSPORTATION SOLUTIONS



**Figure 5**

**FOUR-LANE CROSS-SECTION WITH OPTIONAL CAUSEWAY ON PIERS CONCEPTUAL ALTERNATIVE**



**West 11th / 126 west of Green Hill**

**about one mile east of the WEP's western terminus**

Some West Eugene Parkway proponents said WEP was needed to get to the coast faster, yet the WEP would have ended over an hour's drive from Florence.

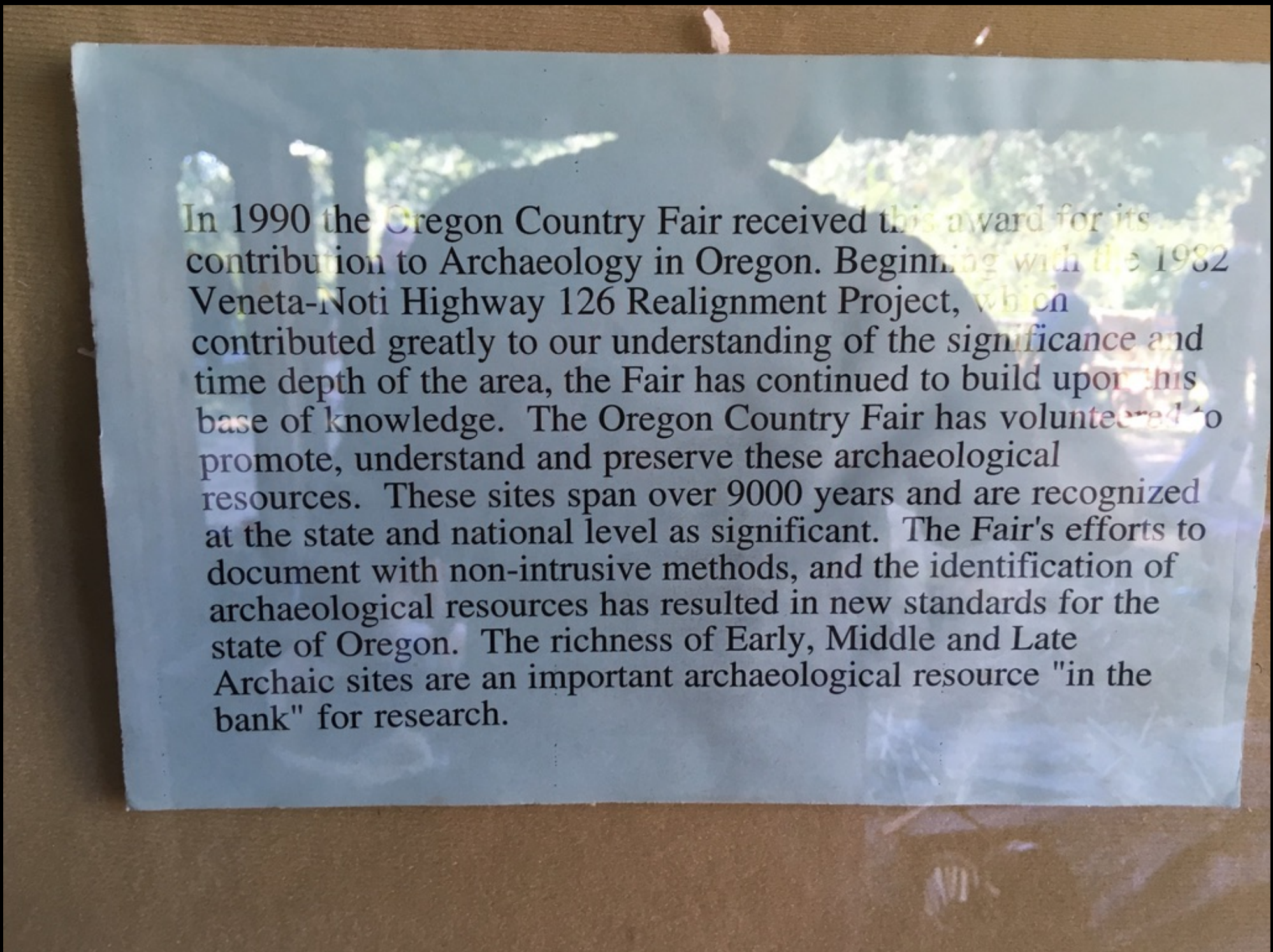
ODOT's 126 study says most 126 traffic is local, not going to the coast.  
Widening 126 would subsidize Veneta's expansion.







OCF sign  
Ark Park



In the 1980s, ODOT and Lane County planned to build 126 through the Oregon Country Fair. Before that construction, the main connection from Eugene to the coast went along Suttle Road (on the north side of the OCF property). Routing the new road through the fair would have damaged, displaced or destroyed the festival, then a goal of some of the County's conservatives.

OCF managed to divert the expressway by documenting ancient Kalapuya archeological relics in the wrong of way.

The area around the 126 widening from Eugene to Veneta is as archeologically significant as the OCF property.

Highway departments are the largest employers of archeologists in the United States because of federal laws that try to protect, or at least document, significant sites.



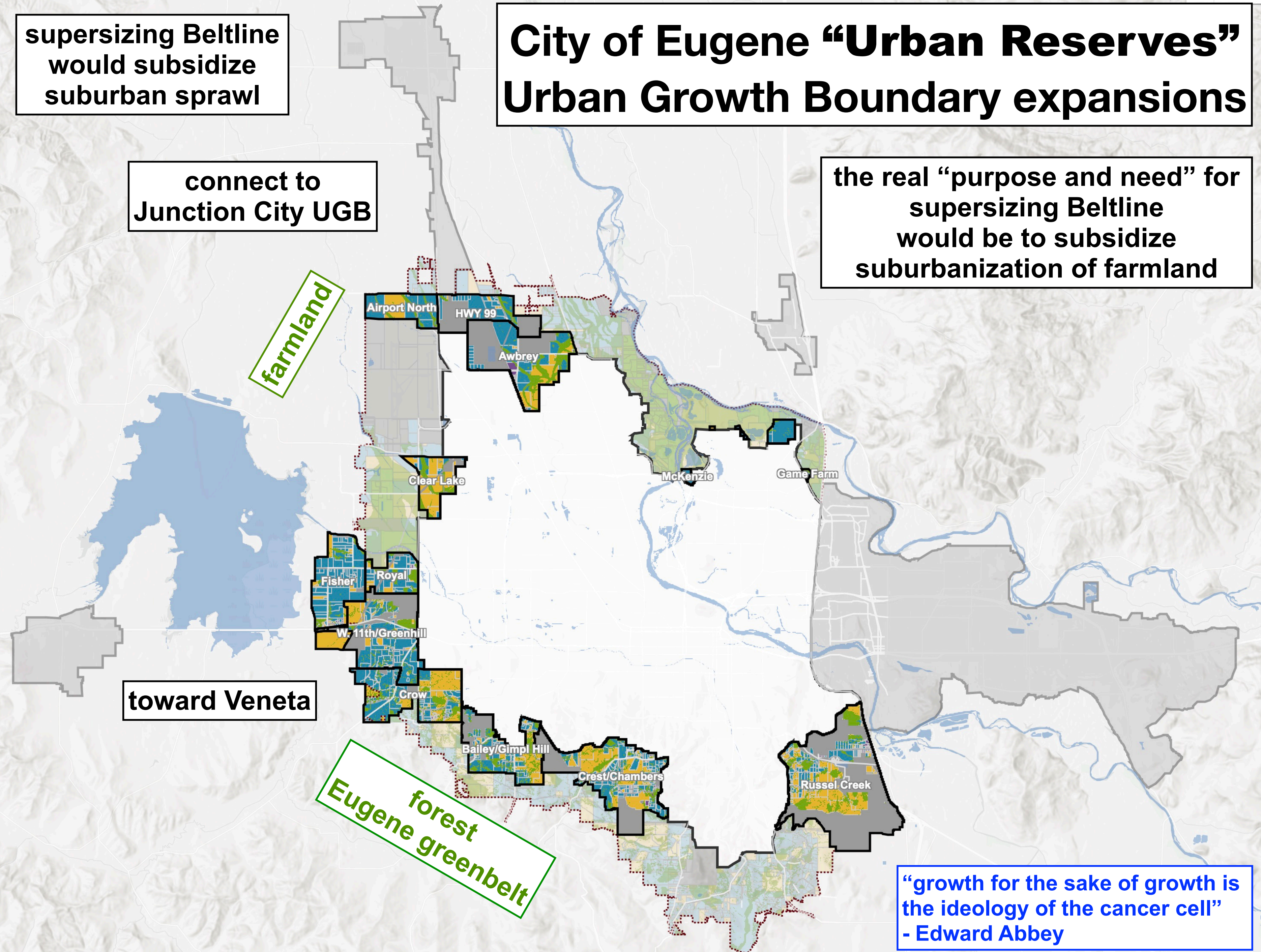


# City of Eugene “Urban Reserves” Urban Growth Boundary expansions

supersizing Beltline  
would subsidize  
suburban sprawl

connect to  
Junction City UGB

the real “purpose and need” for  
supersizing Beltline  
would be to subsidize  
suburbanization of farmland

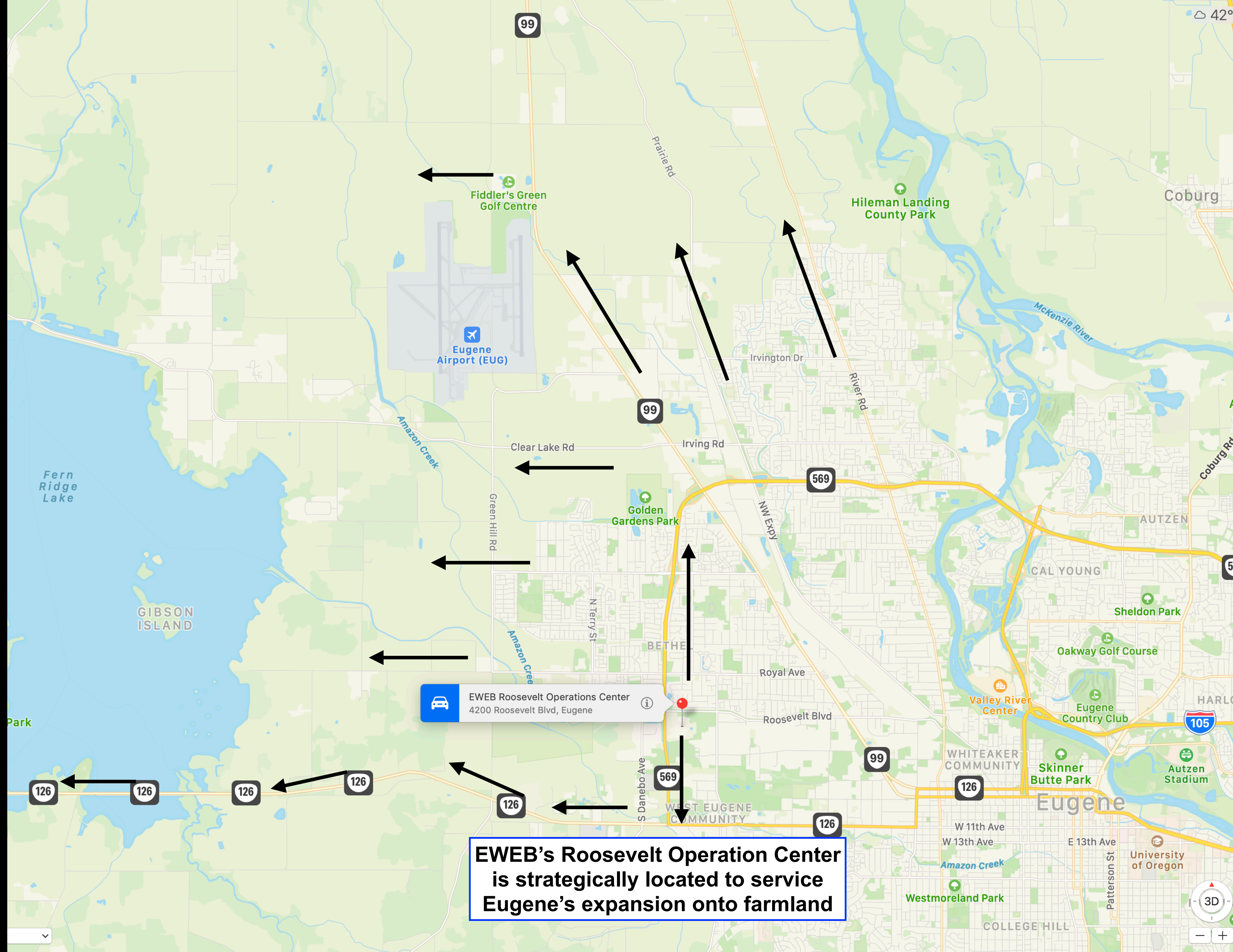



toward Veneta

forest  
Eugene greenbelt

“growth for the sake of growth is  
the ideology of the cancer cell”  
- Edward Abbey





 EWEB Roosevelt Operations Center  
4200 Roosevelt Blvd, Eugene

**EWEB's Roosevelt Operation Center  
is strategically located to service  
Eugene's expansion onto farmland**



highway reservation left over from Roosevelt Freeway plan in 1950s, 1960s

Beltline

1995 BL Environmental Assessment included a grade separated interchange with WEP. The EA said if WEP did not happen then consider grade separation with Roosevelt. Peak traffic and peak energy make this unnecessary.

Roosevelt

EWEB conservation area future ramps if grade separated Roosevelt / BL interchange built

EWEB

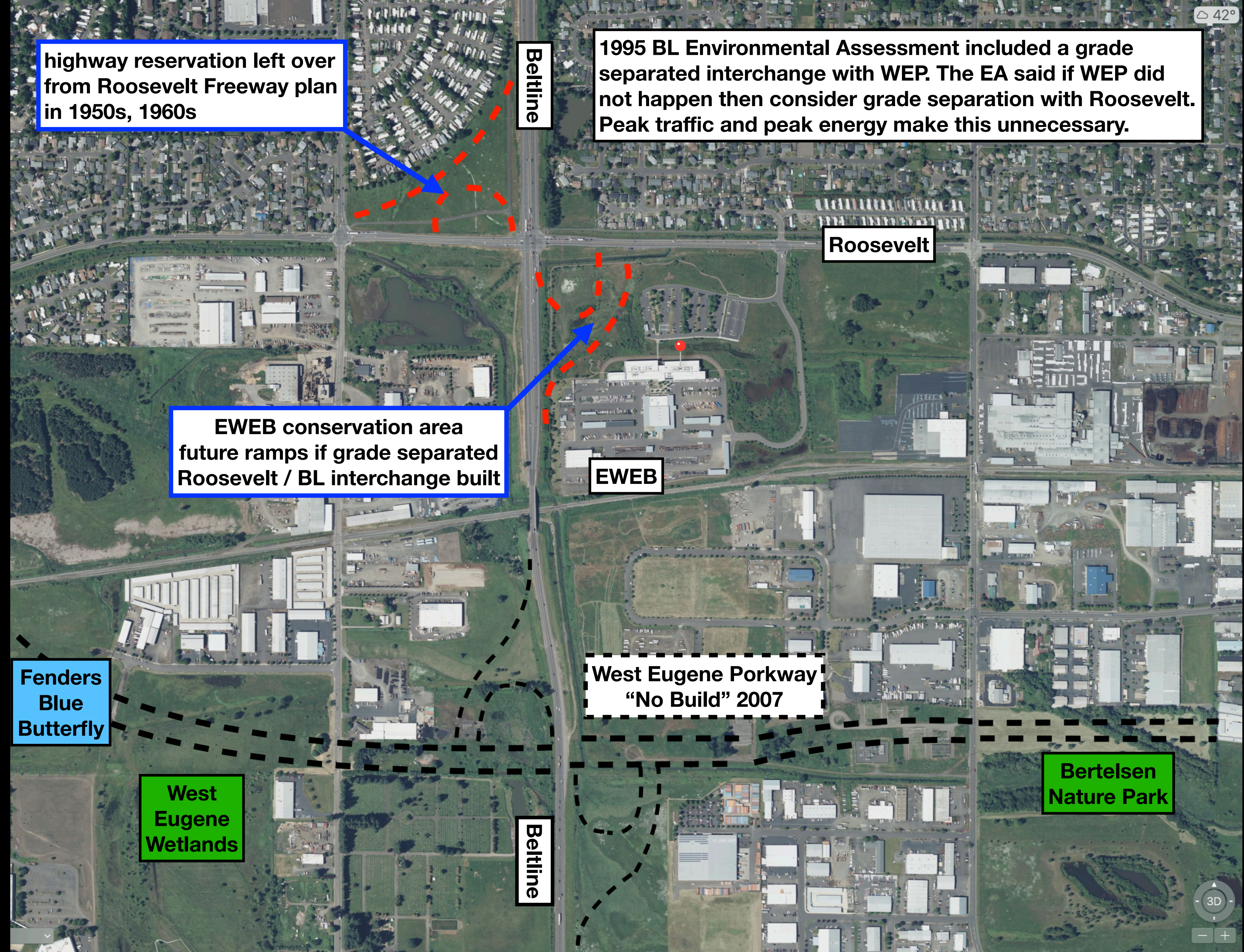
Fenders Blue Butterfly

West Eugene Parkway "No Build" 2007

West Eugene Wetlands

Bertelsen Nature Park

Beltline





Hilyard

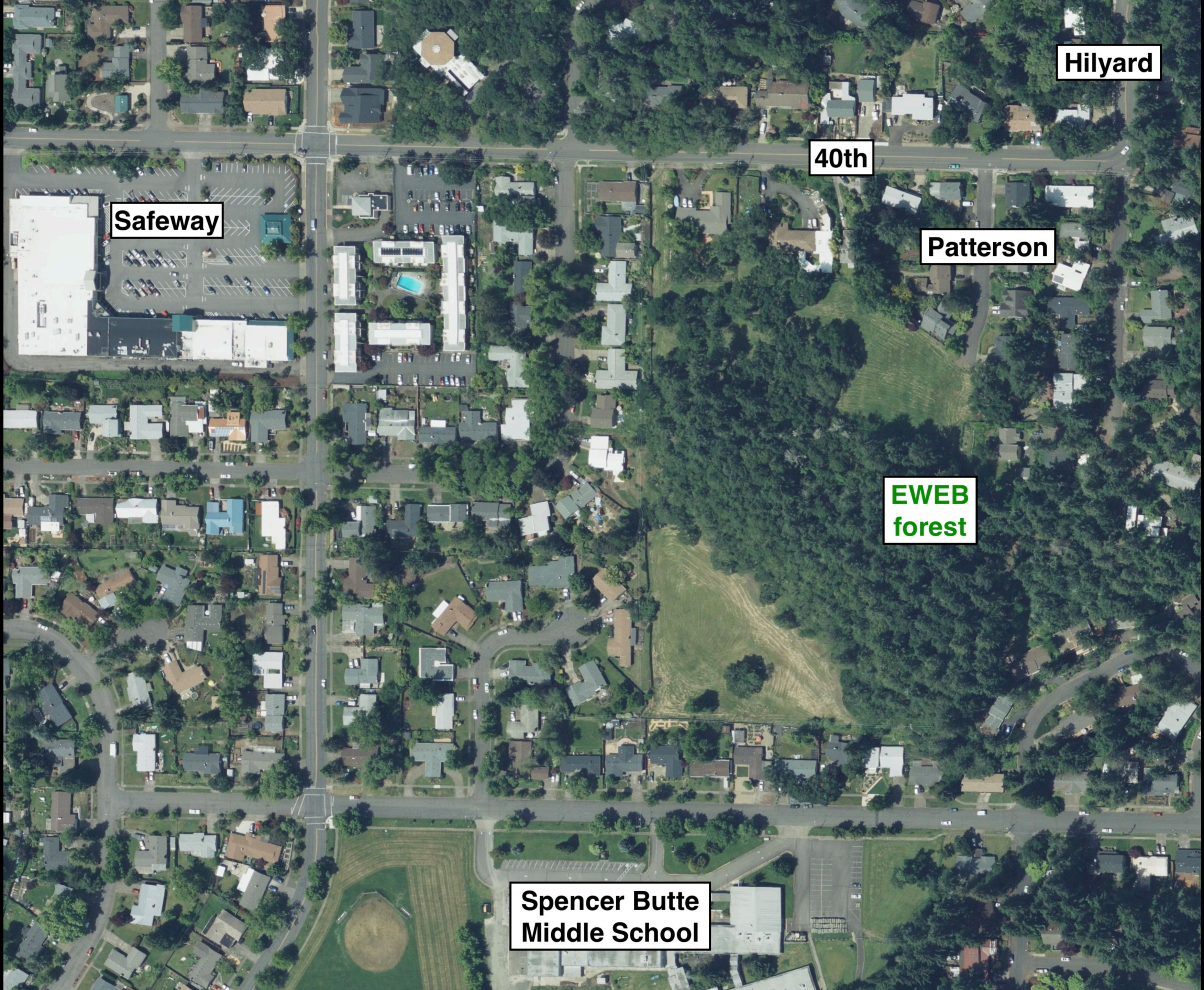
40th

Safeway

Patterson

EWEB  
forest

Spencer Butte  
Middle School





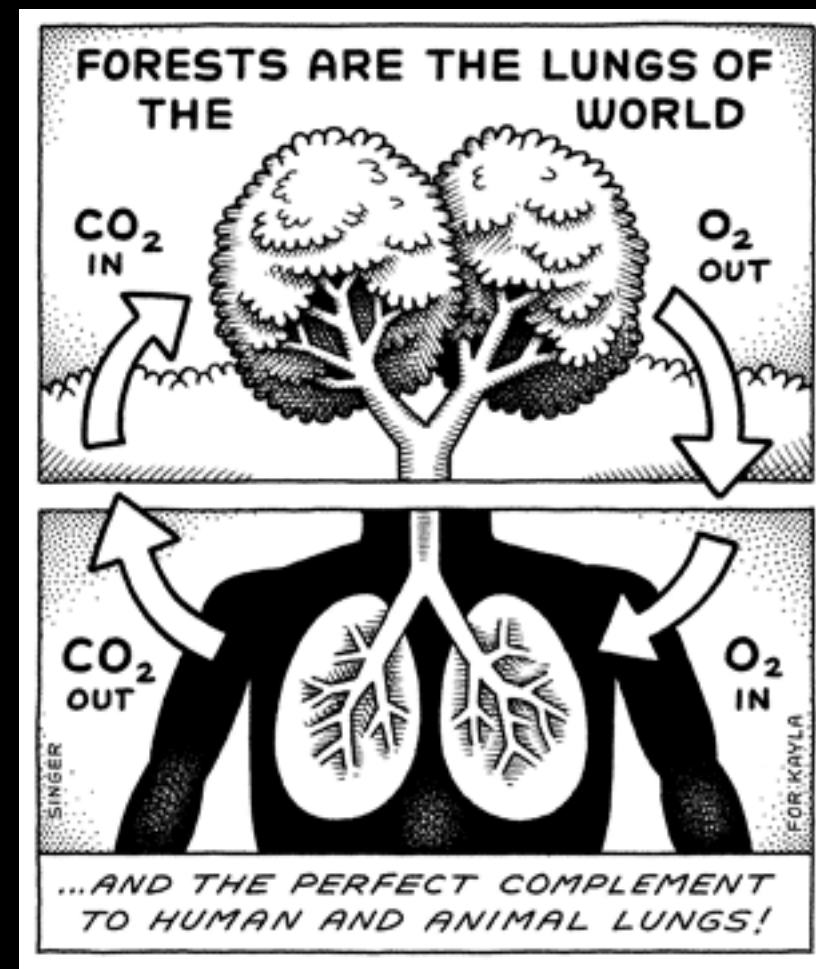


15 foot  
circumference  
Doug Fir

it was about  
150 years old















Perhaps the least expected part of the EWEB forest controversy in 2021 was the silence of Eugene environmental groups about the nicest remaining unprotected forest in the City. None of the “forest protection” and “climate justice” groups within walking and biking distance dared speak against clearcutting.

One group said they trusted EWEB because the utility wants customers to use more electricity and they think this would reduce burning of fossil fuels. (Oregon’s increased electricity use in the past decade was mostly from more natural gas burning in Klamath Falls and Boardman.) Many citizens were upset by this destruction but the only group that objected was Southwest Hills Neighborhood Association, which is not in the immediate neighborhood.

EWEB forest was a mix of conifers growing toward old growth and black oak savannah, a refuge for birds, a source of clean, cool air for all. An ash grove seasonal wetland on the ridge originally fed a tributary of Amazon creek.







**Black Oak  
savannah**  
  
**before  
and after**







END



NO  
MOTORIZED  
VEHICLES

**West Eugene Wetlands**  
Welcome! We hope you have a safe and enjoyable experience. Please follow these site rules and regulations to promote a safe, healthy, and fun outing for all.

**Occupancy**

- You must not establish permanent, semi-permanent, or otherwise use public lands for residential purposes. No occupancy on public lands.
- You must not use any property any more than allowed through the West Eugene Wetlands when you are traveling on the West Eugene Wetlands.
- You must not have personal property unattended.
- You must not camp or use any public or otherwise designated, forest, or burnland to store items to public use.

**Safety**

- You must not allow any pits or livestock to be used to graze or pasture on.
- You must not use any other property belonging to the public.
- The possession or consumption of alcoholic beverages is prohibited.
- You must not possess glass beverage containers.
- The possession or consumption of controlled substances, as defined in 21 USC, is prohibited, including marijuana.

**Vehicle Operation and Other Modes of Transportation**

- Use or operation of motor vehicles is prohibited on these roads and parking areas specifically designated for motor vehicles. Non-street legal motor vehicles are prohibited at all times.
- You must not use or operate motor vehicles on the West Eugene Wetlands.
- Recycle bins and expansion travel is limited to designated routes and areas.

**Fire Restrictions**

- Campfires or other open fires are prohibited.
- The possession or discharge of fireworks is prohibited.

**General**

- The collection, disturbance, or possession of any natural resource is prohibited.
- Littering and the disposal of any commercial, industrial, or household waste is prohibited.
- Fat sources must clean up left waste and pack it out or dispose of it properly.
- You must not make unreasonable noise based on location, time of day, proximity of neighbors, or in violation of posted regulations or direction from an authorized officer or other person that would govern the conduct of a reasonably prudent person.

43 CFR B356.1-7 - Lane County Code 6.040  
Northwest Oregon District

U.S. DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
**NO DUMPING ALLOWED**  
For nearest authorized dump ground contact local authorities  
**HELP KEEP AMERICA CLEAN**



logs from EWEB forest dumped in West Eugene Wetlands supposedly as mitigation for the wetlands. These logs and the sign are in the exact path that would have been the WEP, just west of Danebo. The side spur road of Pacific is now a homeless camp (also directly in the WEP wrong of way).







**EWEB new reservoir**  
**40th and Patterson**  
**[www.EWEB.wtf](http://www.EWEB.wtf)**  
**February 16, 2022**





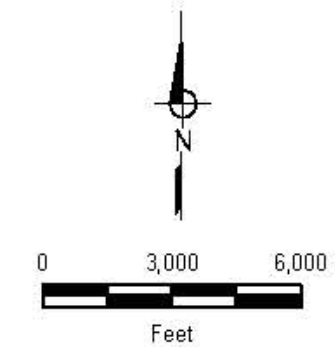
EWEB has 23 reservoirs. Four are large: Hayden Bridge next to the intake on the McKenzie, Santa Clara, College Hill and Hawkins Hill. College Hill and Hawkins Hill are old and cracked. Santa Clara is newer than those but was designed before the Cascadia Subduction Zone was discovered.

Numbers next to each reservoir indicate elevation above sea level. A roughly 200 foot drop from reservoir to faucet provides about 100 psi of pressure. High points in the South Hills have a separate network from the valley floor parts of the City. They need more electricity to pump than to the "607 level" reservoirs — College Hill, Hawkins Hill, Santa Clara (has a pumping station to pressurize to that level, it is not at that elevation) and soon, the 40th and Patterson new reservoirs.

**FIGURE 3-1**

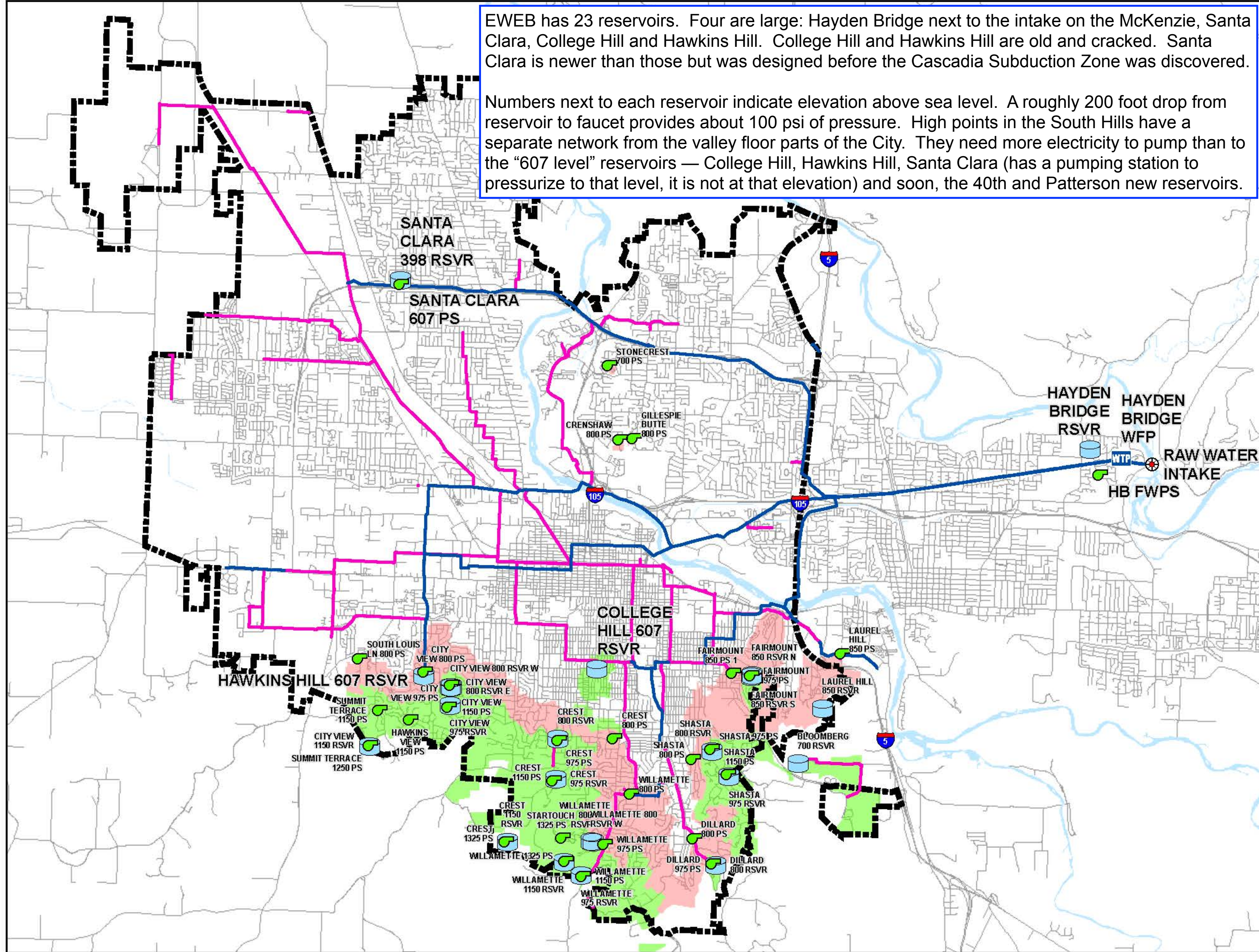
**EWEB  
2015 Water System Master Plan**

**EWEB  
WATER SYSTEM**

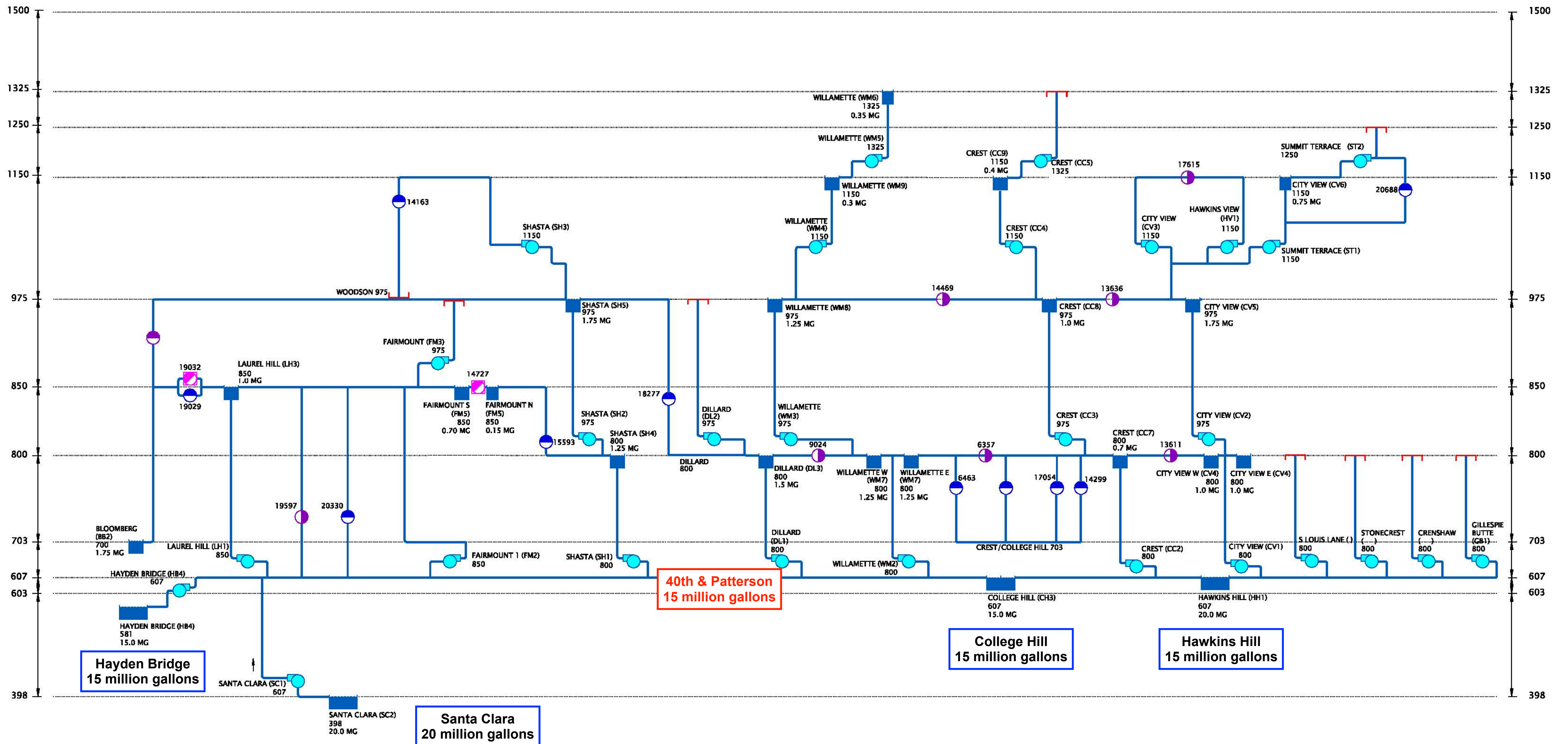


**LEGEND**

- Water Filtration Plant
- Raw Water Intake
- Pump Station
- Reservoir
- Major Pipelines**
- Major Distribution Main (16"-20")
- Transmission Main (24" and Greater)
- 800/850 Service Level
- Other Upper Service Levels
- EWEB Service Area







**LEGEND**

|  |  |  |                         |    |                                 |
|--|--|--|-------------------------|----|---------------------------------|
|  | RESERVOIR NAME (SCADA NAME)<br>OVERFLOW ELEVATION (FEET)<br>MAXIMUM STORAGE VOLUME (MILLION GALLONS) |  | SYSTEM SEPARATION VALVE |    | CLOSED END SERVICE AREA         |
|  | PUMP STATION NAME (SCADA NAME)<br>SERVICE LEVEL  |  | ALTITUDE VALVE          |    | PRESSURE REDUCING VALVE STATION |
|  | TRANSMISSION / DISTRIBUTION SYSTEM<br>SERVICE LEVEL  |  |                         | MG | MILLION GALLONS                 |

**FIGURE 3-4**  
**EUGENE WATER & ELECTRIC BOARD**  
**2015 WATER MASTER PLAN**  
**HYDRAULIC PROFILE**





Photo # D1 – Wall spall at wall joint from diver's video (top portion)



Photo # D3 – Corrosion at valve at wash line from diver's video

**Hawkins Hill reservoir is cracked and corroding.**

**Taxes generated by real estate development do not cover the cost of maintaining critical infrastructure.**

**Cracked reservoirs endanger downhill neighbors.**



**MISSION**

**ACCOMPLISHED**

**No BUILD** for the

**WEST EUGENE PARKWAY**



# WETLANDS

**West Eugene Transportation**

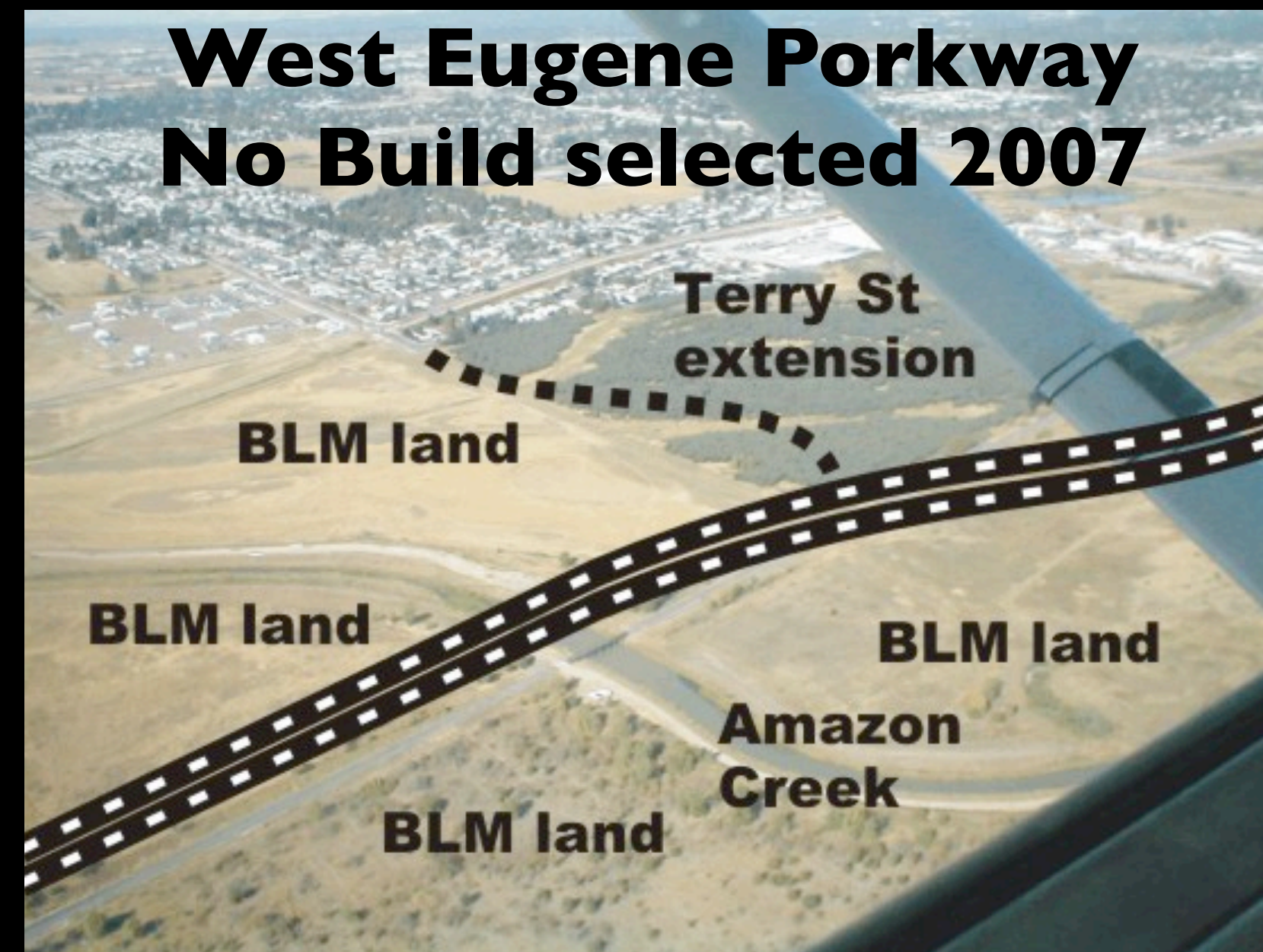
**Land and Neighborhood Design Solutions**

**[www.SustainEugene.org/wetlands.html](http://www.SustainEugene.org/wetlands.html)**

**Bertelsen Nature Park  
next to WEP route**



**West Eugene Parkway  
No Build selected 2007**



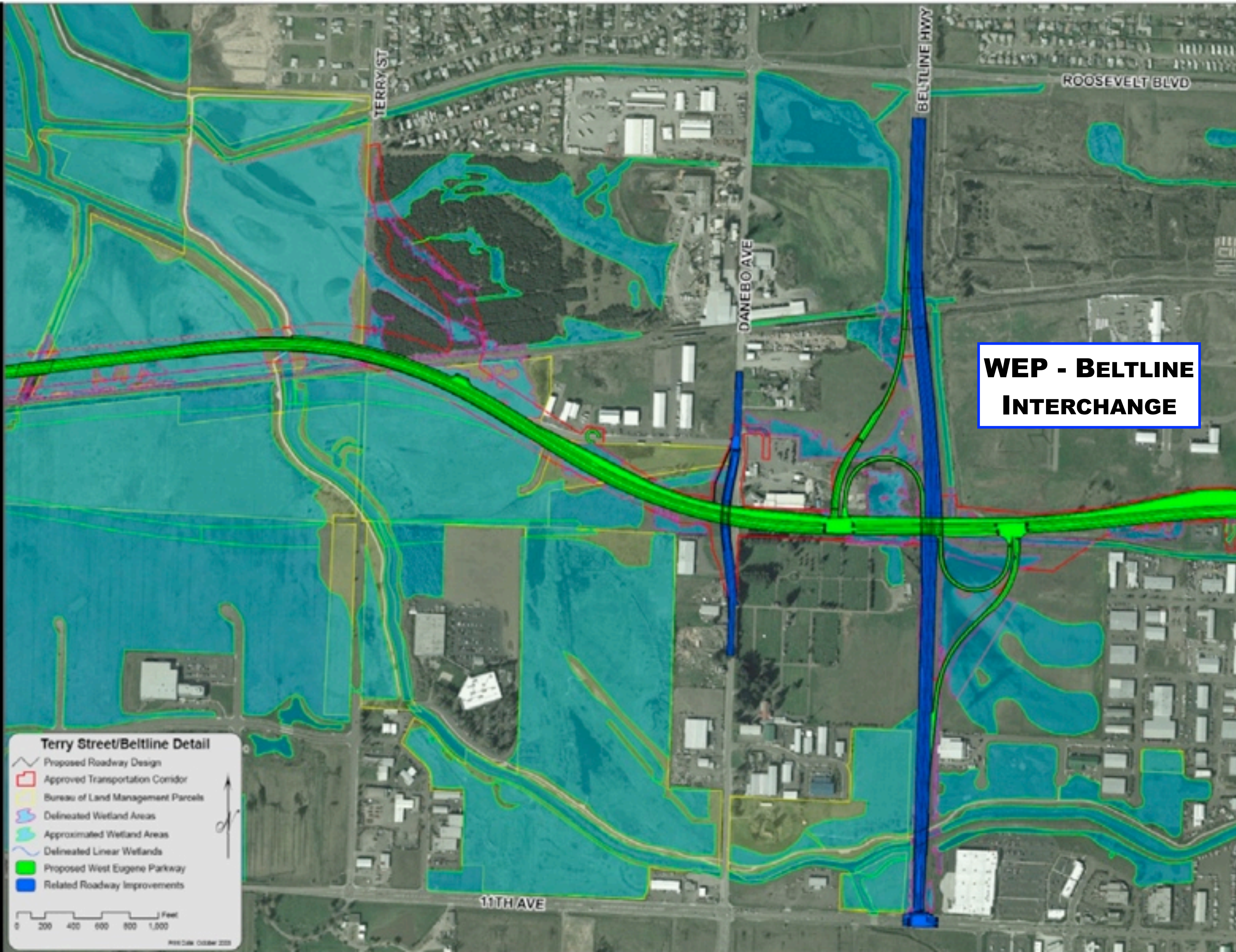


# WEST EUGENE PARKWAY “Alternative A Mitigated” summer 2003 design



WEP, like most controversial highway plans, had numerous alignment shifts to bypass legal problems and / or to placate concerns about ecological and neighborhood impacts. Tracking shifts required attending many meetings where transportation bureaucrats told politicians some of what they were doing. Paying attention reminded the highwaymen and highwaywomen that they would be challenged in court - and in the court of public opinion.





**WEP - BELTLINE  
INTERCHANGE**

**Terry Street/Beltline Detail**

- Proposed Roadway Design
- Approved Transportation Corridor
- Bureau of Land Management Parcels
- Delineated Wetland Areas
- Approximated Wetland Areas
- Delineated Linear Wetlands
- Proposed West Eugene Parkway
- Related Roadway Improvements

0 200 400 600 800 1,000 Feet

WED 04/10/2019 10:58 AM



**Beltline's elevated section would have continued over the WEP.**







**Beltline**



**WEP**

**WEP**

**WEP**

**WEP**

**interchange  
ramps**





WEP would have gone through this remnant forest. Wetlands in foreground would have been smothered by ramps for the southeast part of the WEP - Beltline interchange. The Oregon Ducks in the photo would have been displaced. Amazon Creek, Bertelsen tributary is between the silt fences (for a different construction project) and the trees.





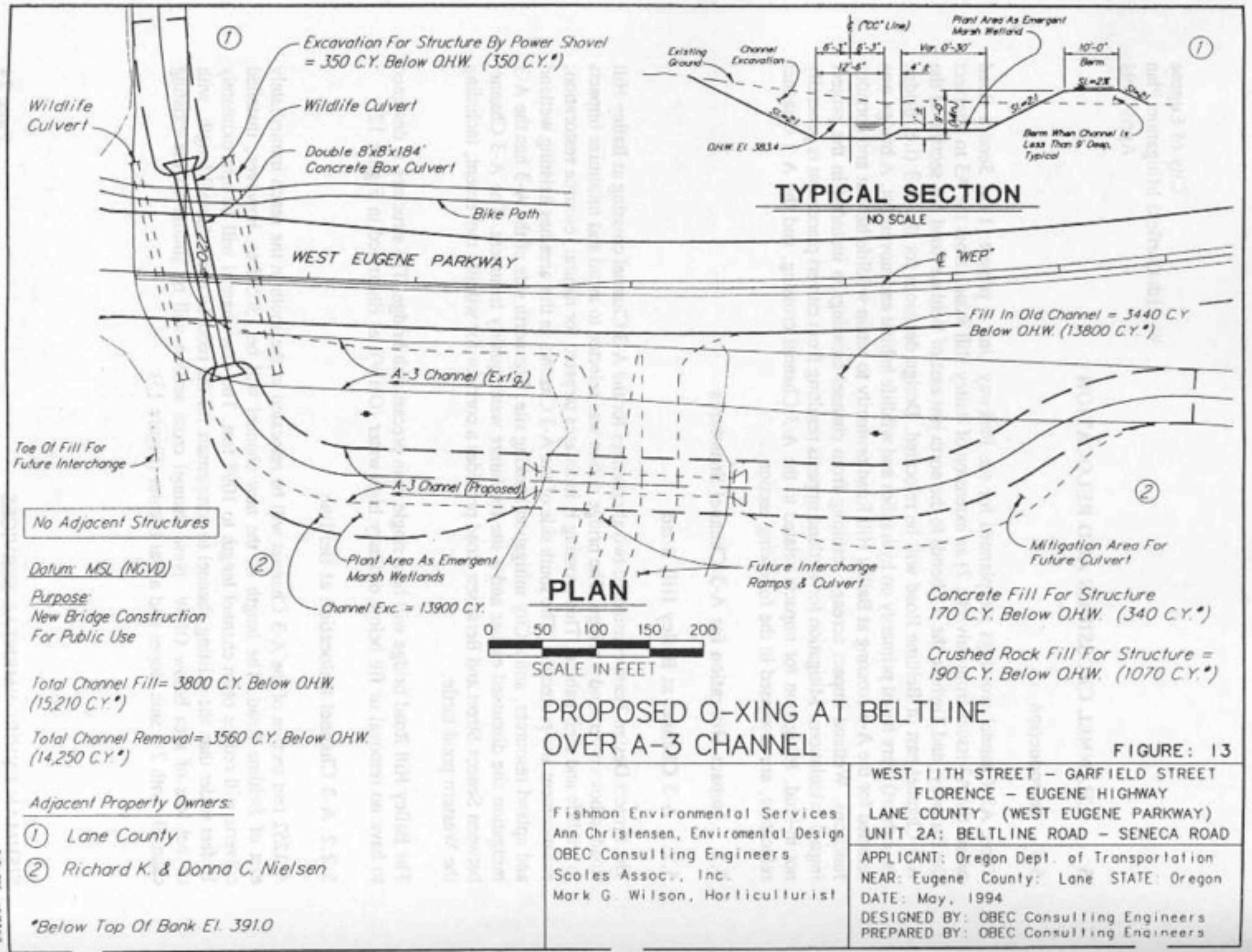
In the 1980s, ODOT focused their studies on wetland impacts east of Beltline and ignored wetlands west of Beltline. Once the West Eugene Wetlands program was established (after the WEP study started), ODOT focused instead on wetlands west of Beltline and ignored wetlands east of Beltline.

The east-of-Beltline wetlands do not have the endangered species that live west of Beltline, but they are extremely rare in the Eugene area even if they don't qualify for the Endangered Species Act. Ash and cottonwood forests don't have legal protection but bottomland forest still deserves to be protected from pavement.

Most of the planned direct devastation to Amazon Creek would have been east of Beltline -- one half kilometer would be filled in or covered over. This engineering diagram from 1994 shows that the existing creek would be filled in, relocated and partially channeled into a long culvert. The design for the interchange would also have required filling in the creek channel on the west side of Beltline near the railroad overcrossing. Some of Amazon Creek's water quality problems are due to the large amount of channelization as it flows through central Eugene.

There are several government and non-governmental organizations that have claimed to be working to protect and restore Amazon Creek. During my eight years of tracking the WEP (1999 to 2007), it was difficult to find anything from any of these groups that suggested the WEP might be a bad idea for Amazon Creek.

One of the government bureaucrats allegedly working to protect the wetlands told me he favored building the eastern half of the WEP through Bertelsen Nature Park, but not the segment west of Beltline. "Segmentation" of the highway would have been even more illegal than approving the full design.





**2002**

In April, ODOT bought 7 acres here for \$729,303  
(needed for WEP / BL interchange)



Bertelsen  
Slough

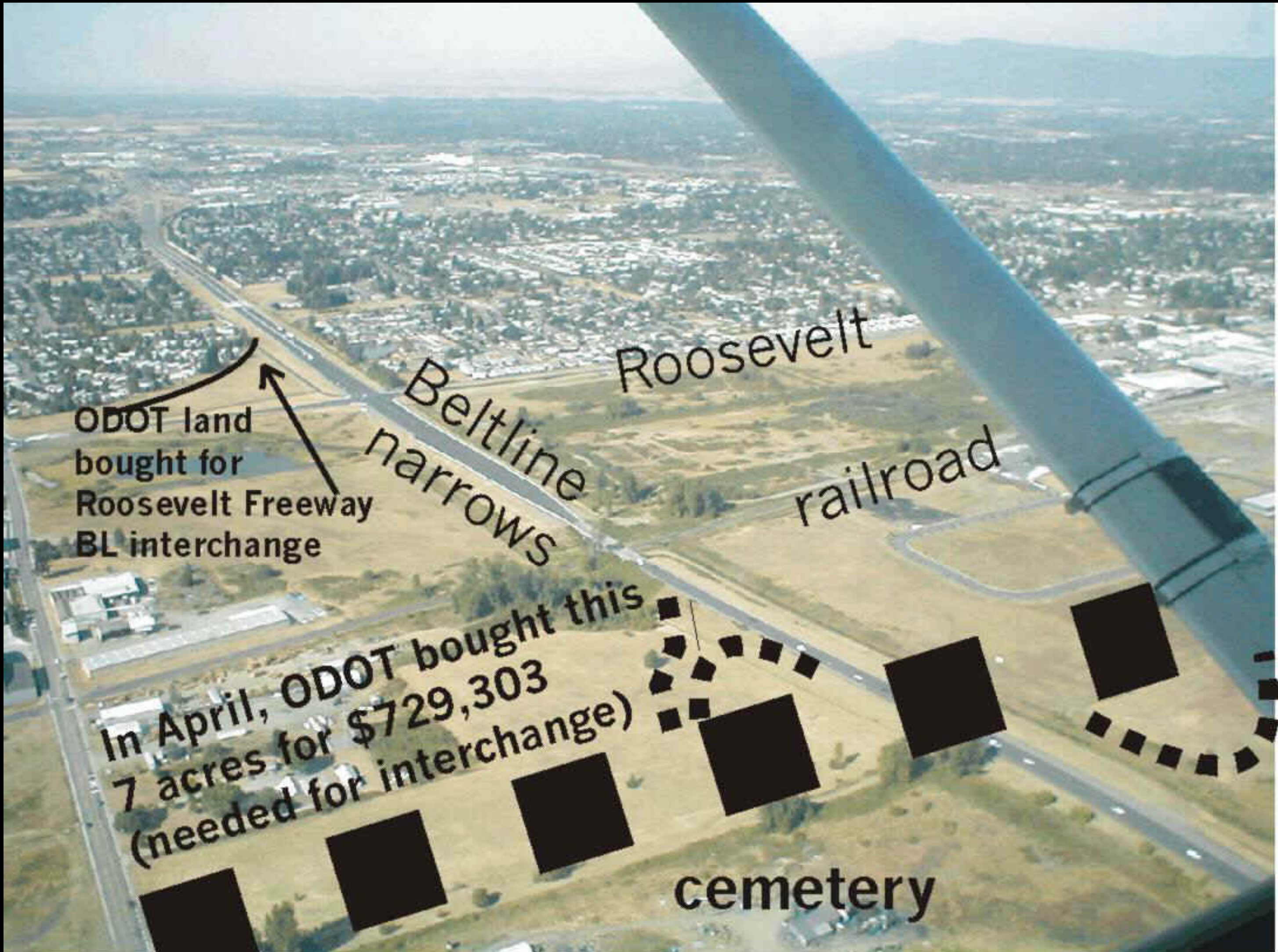
WEP - BL  
interchange  
ramps

target

wetlands wal-mart

11th





ODOT land bought for Roosevelt Freeway BL interchange

In April, ODOT bought this 7 acres for \$729,303 (needed for interchange)

Beltline narrows  
Roosevelt  
railroad

cemetery





Terry st.  
extended

wet prairie (dry in summer)

W 11

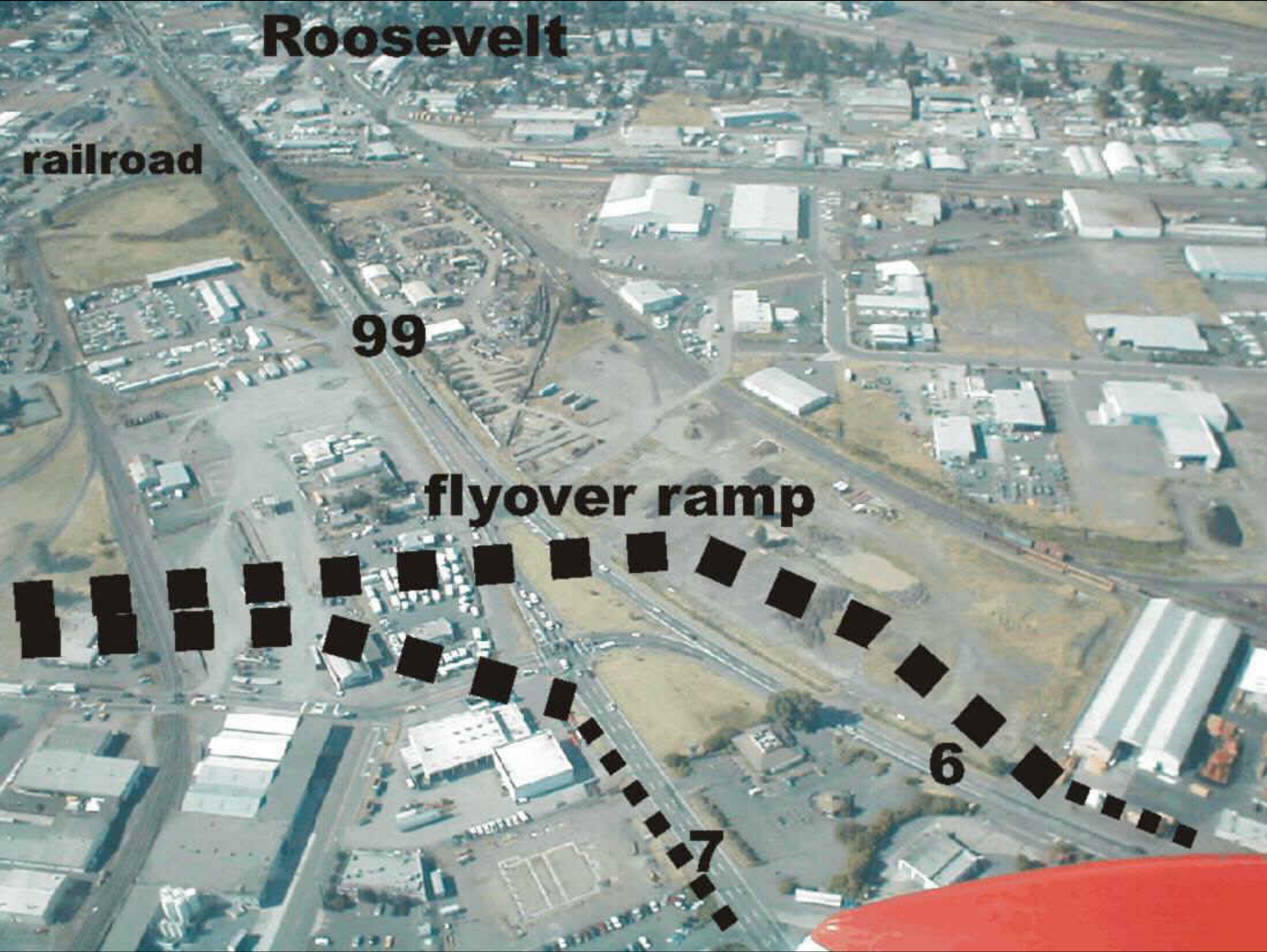


**Bertelsen widened  
to four lanes for  
WEP traffic**

**bertelsen slough**







**Roosevelt**

**railroad**

**99**

**flyover ramp**

**6**

**7**





**Blue Heron at proposed  
WEP crossing of Amazon Creek**





**Amazon Creek  
Bertelsen tributary**



**WETLANDS tour of  
WEP wrong-of-way**

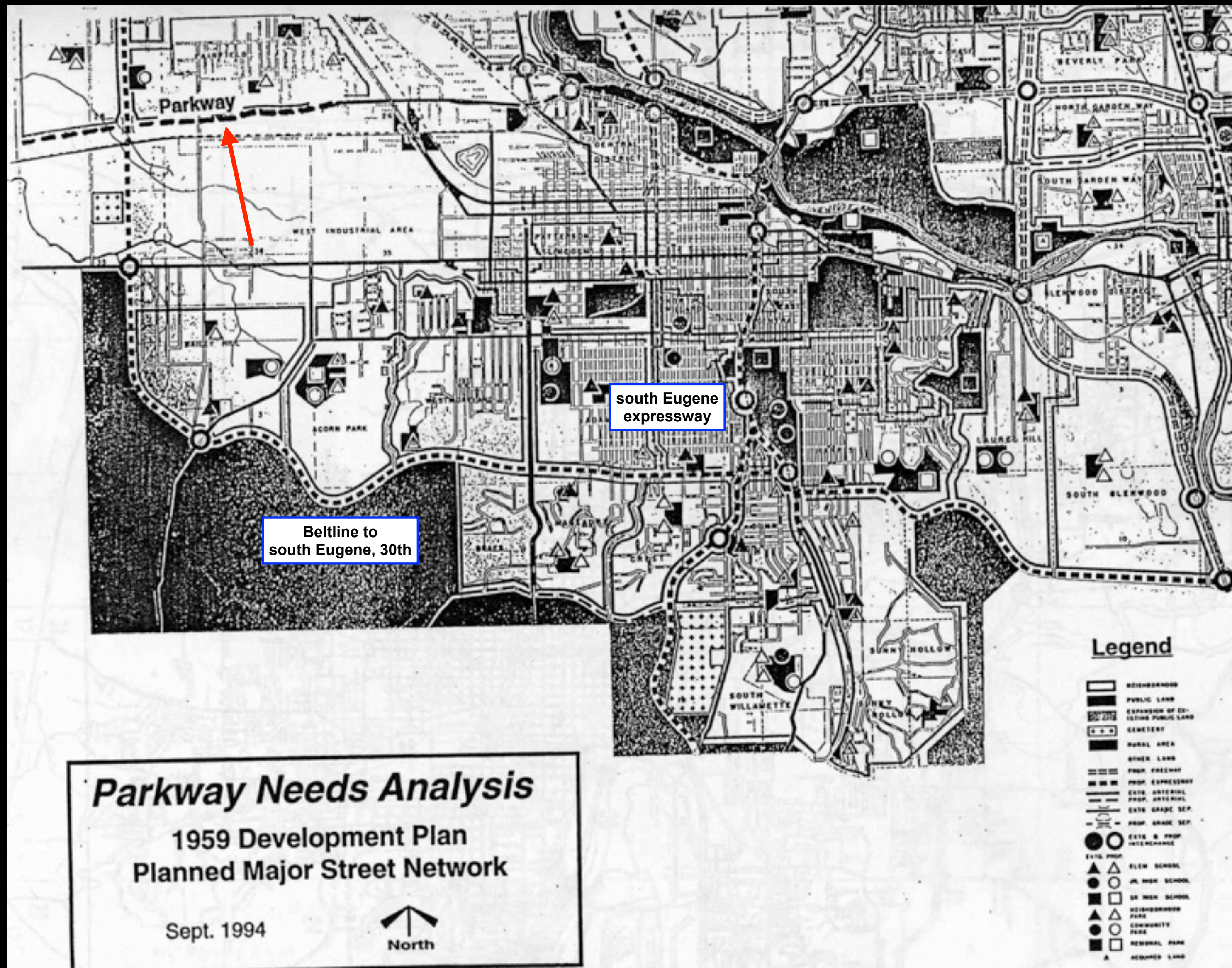


# **WEP's hidden history: 1951-2007**

**Eugene's freeway fighters stopped  
Roosevelt freeway, Skinner Butte freeway,  
highway from downtown to south Eugene,  
Beltline through the South Hills.**

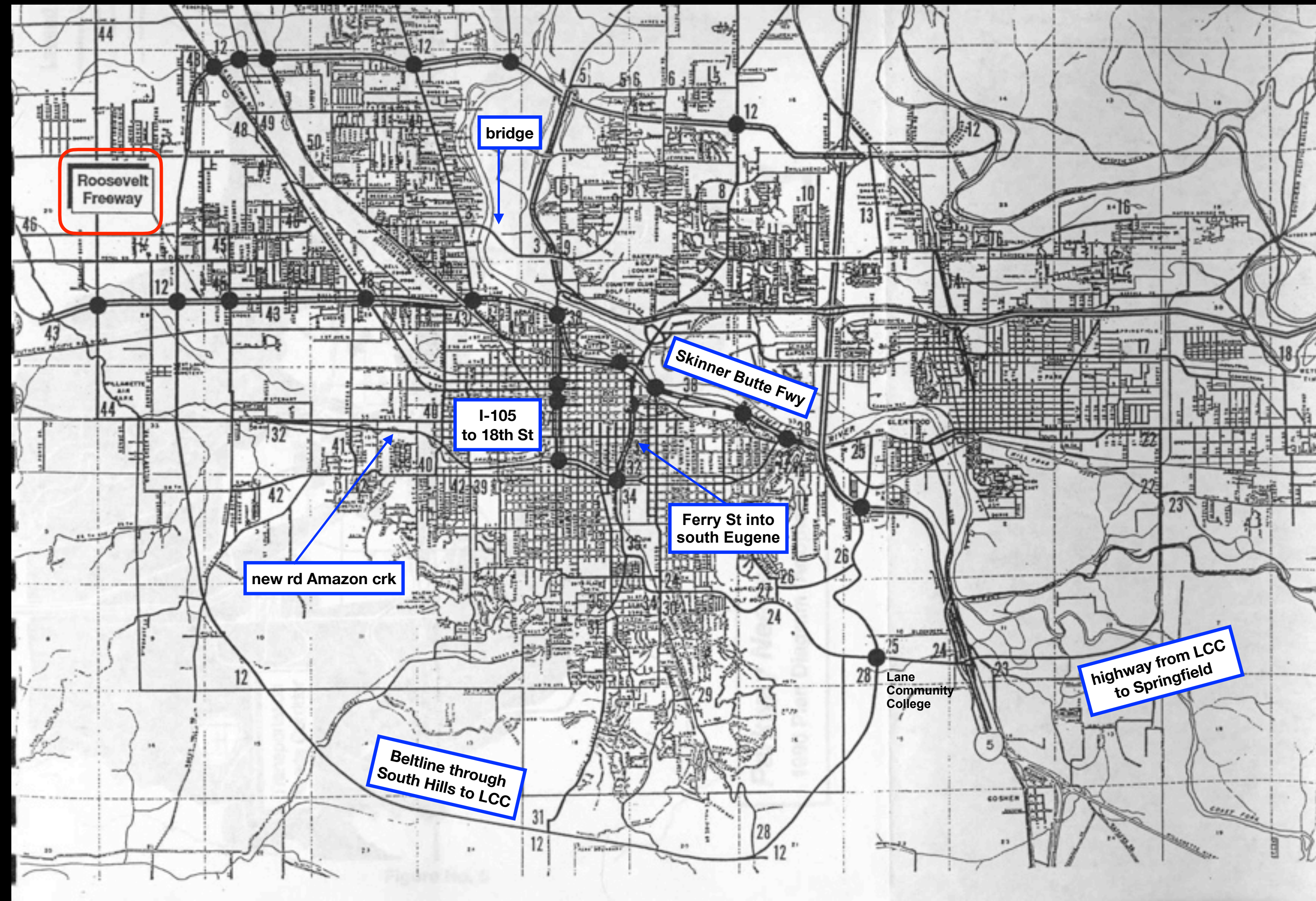


# Eugene 1959 highway plan





# Eugene 1967 highway plan





# Roosevelt Freeway interchange with I-105 canceled 1972

The only part of Roosevelt Freeway that was built is this I-105 overpass just south of the Willamette River. In the 1960s, when I-105 was first built across the river, construction demolished several blocks of housing, provoking community opposition. For several years I-105 terminated at First Street while there was boisterous debate whether to allow the highway to continue into South Eugene. When that was canceled, a compromise allowed a short extension to Sixth and Seventh (a more logical terminus than First). It was built on pylons instead of fill dirt to mitigate impacts even though that is more expensive. Several years ago ODOT spent almost a million dollars to extend the southbound merge lane from Delta Highway onto I-105. This would have been done during Roosevelt interchange construction, but since that never happened, ODOT never fixed the dangerous merge zone that was left over. This “low build” fix improved safety but repairs are not as exciting as building new roads.



# EUGENE EAST-WEST CORRIDOR ALTERNATIVE 3

(Recommended by TPC)

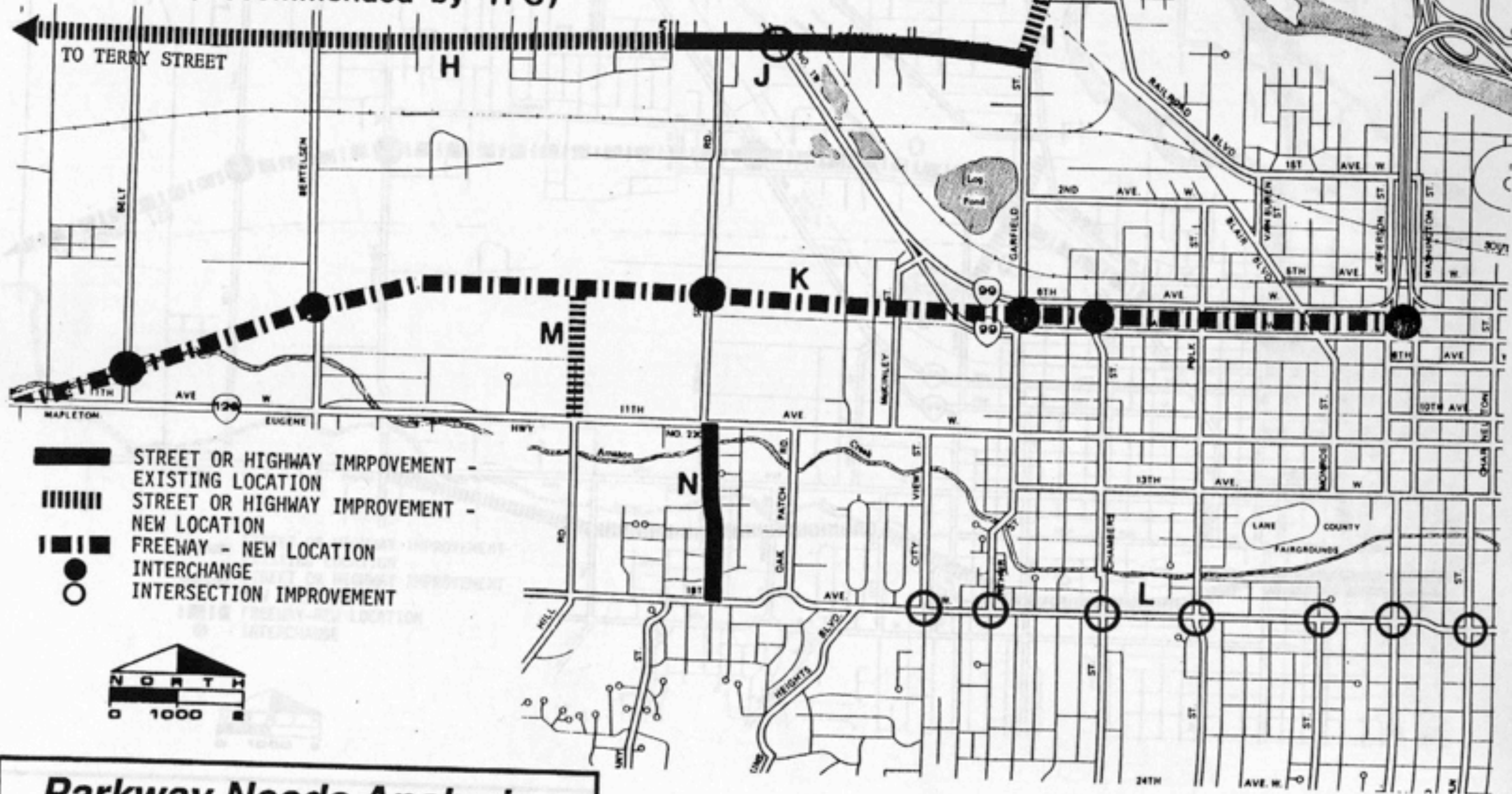


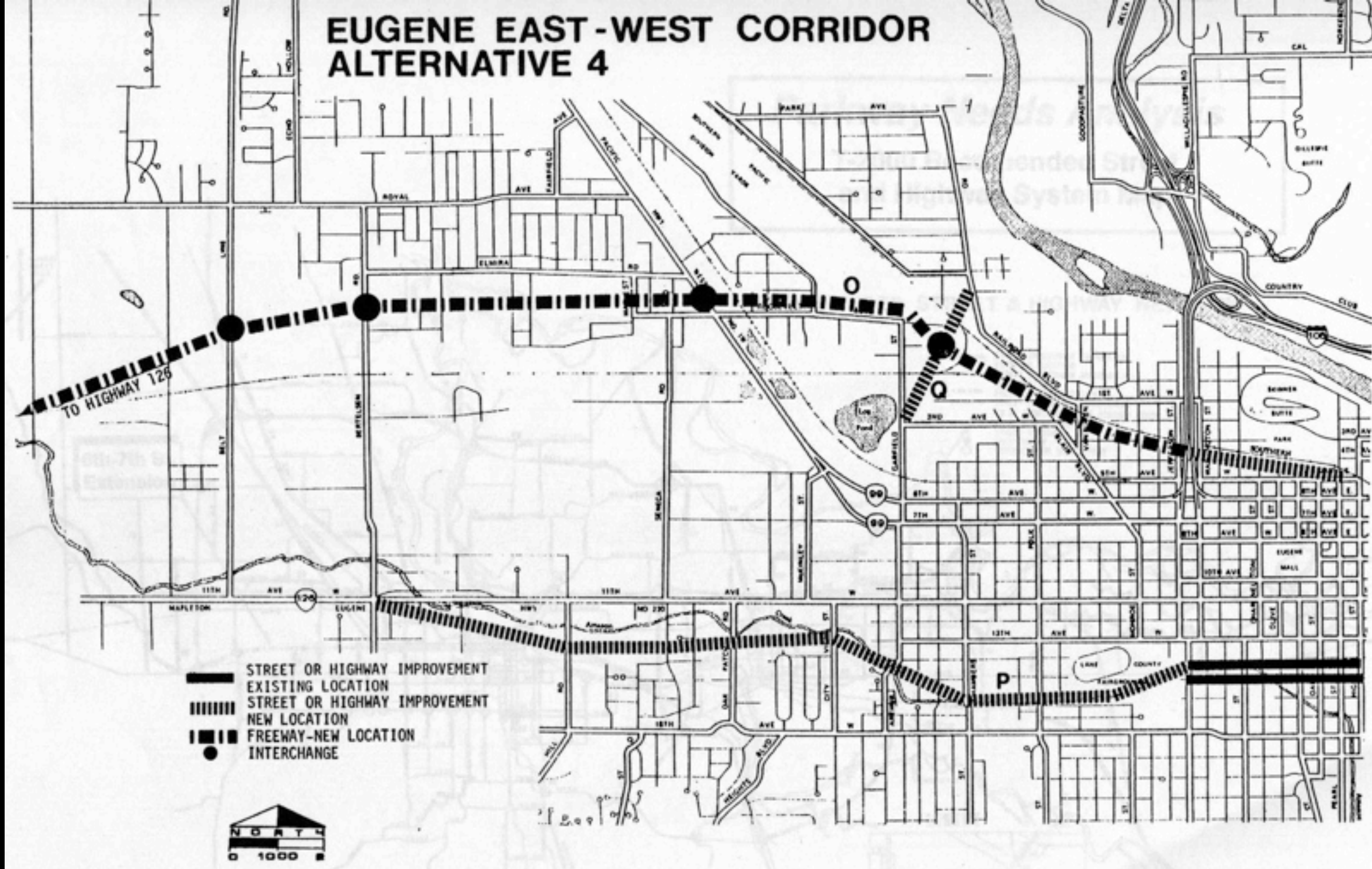
Figure No. 9

**Parkway Needs Analysis**  
T-2000 Eugene East-West Corridor, Alt. 3

1978 map



# EUGENE EAST-WEST CORRIDOR ALTERNATIVE 4



***Parkway Needs Analysis***  
T-2000 Eugene East-West Corridor, Alt. 4

**1978 map**



# Parkway Needs Analysis

## TransPlan Street and Highway System Map

Adopted 5/86

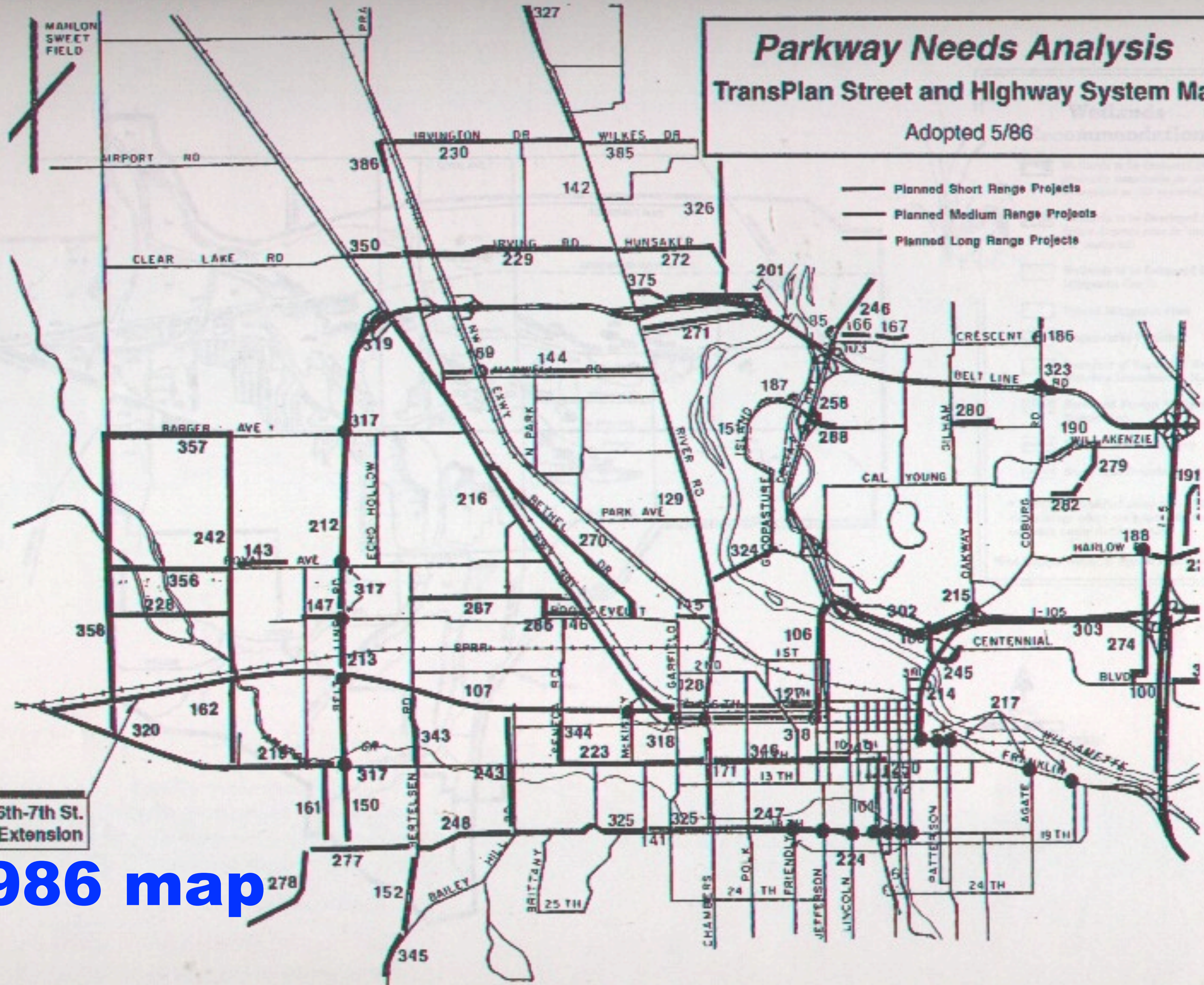
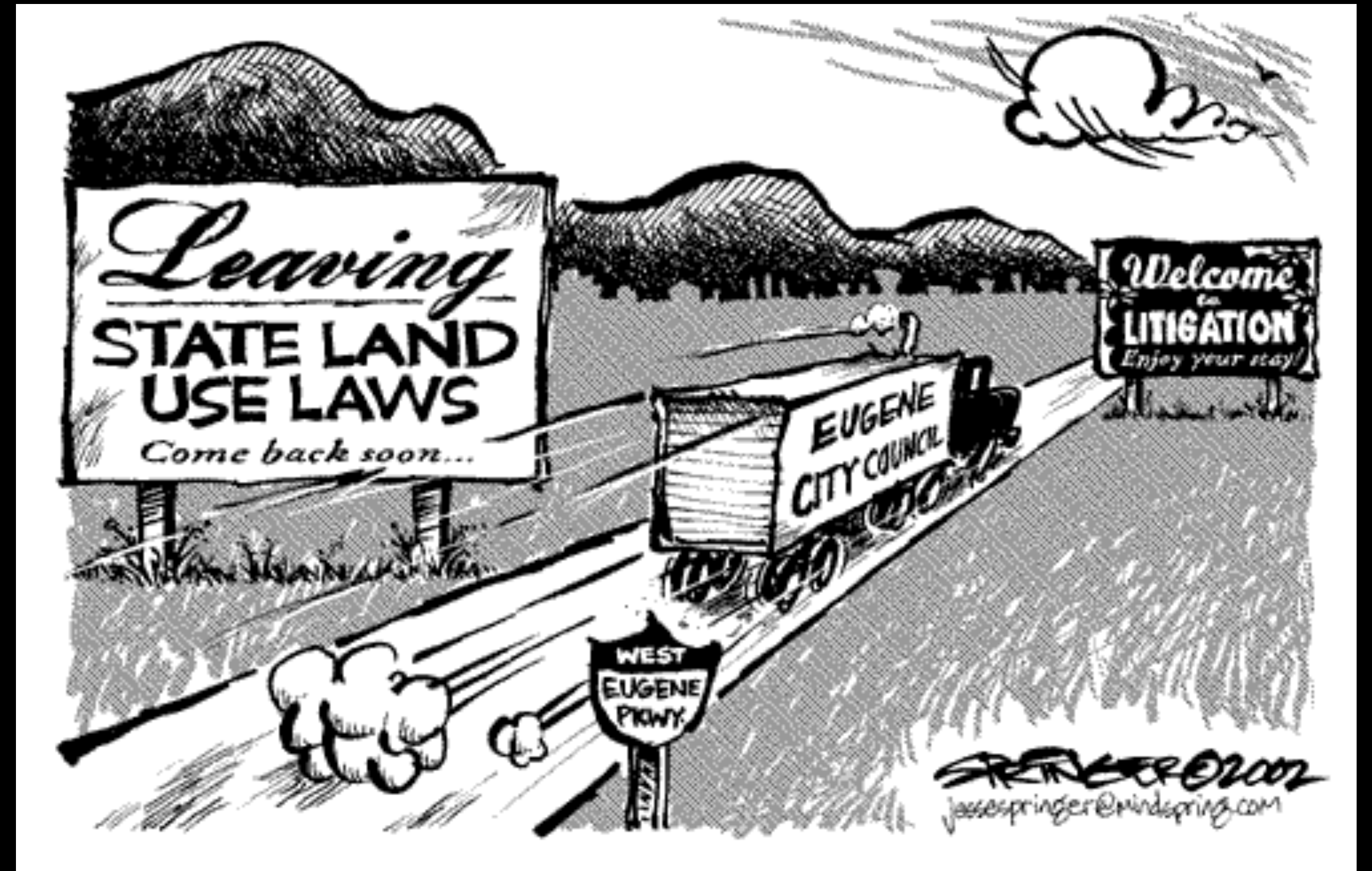


Figure No. 13

1986 map





This cartoon shows the main misconception about the WEP's legality - that it is a violation of State land use laws and City policies allegedly solving climate chaos. Oregon's laws are thought to be powerful deterrents to paving projects, especially those that go outside an Urban Growth Boundary (such as WEP). But they were irrelevant for the WEP. State planners granted exemptions to Oregon's land use laws, even when ODOT changed the route, and the complaint to the Land Use Board of Appeals was unsuccessful.

Instead, the real legal road blocks were federal environmental laws. WEP was a Federal project not directly subject to local decisions.



# WEP Environmental Impact Statement

The National Environmental Policy Act (NEPA), signed by President Nixon in 1970, requires federal decisions that might damage the environment to disclose plans before approval, offer a range of alternatives and seek public input. This is done through Environmental Impact Statements, or for smaller projects, an Environmental Assessment.

The Roosevelt Freeway never started a NEPA process because the initial concept predated the law by almost two decades and Eugene's other highways - I-5, I-105, Delta, Beltline - were bigger priorities.

In 1972, Roosevelt Freeway was stopped by community pressure after I-105 construction decimated part of Whiteaker when the first segment was built to First street.

**The formal NEPA process started in 1985 with publication of a Draft EIS.**

This was also at the time the ecological significance of rare habitat in the wetlands was beginning to be understood (it was also when the Cascadia Subduction Zone was discovered, a different constraint on the future of the region).

**In 1986, a Supplemental DEIS was published.** SDEIS is required when an initial DEIS is considered officially insufficient, in other words, the agency will lose in court when the citizens group sues them to stop the road. Since WEP's approval was getting turbulent, proponents put a measure on the City ballot in 1986 to ask voters if they liked the WEP or not. 80% voted yes, but it was an advisory vote - local votes do not dictate federal policies (on highway approvals or any other policy).

**In 1990, the Federal Highway Administration approved a Final EIS and Record of Decision.** By that time, however, the BLM had begun parcels to create the West Eugene Wetlands project. Many years of bureaucratic objections from different agencies kept the project on hold.

In 1996, when it seemed likely that construction was imminent, Barbara Kelley of Save Our ecoSystems filed suit on June 19, 1996. Her lawsuit was never heard because FHWA withdrew their approval (they knew that they would probably lose in court). That is lightning speed for federal court.

**A second SDEIS and Section 4(f) analysis was published in 1997.**

**My first encounter with the WEP was at a 1999 ODOT public information session.** I looked at the SDEIS, the maps on the wall, the seeming inevitability of the decision and went, "not again!" A few years previously, when I lived in Maryland I played an important role helping force withdrawal of a Draft EIS for an 18 mile long Outer Beltway segment called Inter County Connector. It had huge Section 4(f) problems, wetlands destructions, rare species and neighborhood impacts. We stalled that project but it came back under Bush the Lesser and was built by the Obama Biden administration. [www.peaktraffic.org/maryland.html](http://www.peaktraffic.org/maryland.html) has some details.

WEP was a top priority of the City but they did not offer to contribute anything toward construction costs. Knowing that the decision would be federal and not local made it easier to watchdog City Council work sessions. Their support did not automatically determine the outcome and WEP had every possible legal road block under federal law.

At the height of the WEP discussions, the FHWA warned the City they needed to follow Federal law to avoid losing in court, but their advice was mostly ignored. Mayor Torrey and his allies used denial and scapegoating to try to force the project's approval, claiming the money was there, ignoring legal problems and keeping quiet that it was not a City decision.

Mayor Torrey tried to blame the FHWA for changing the laws at the last minute, but the law prohibiting segmentation was signed by President Nixon, and the fiscal constraint law was enacted in 1991.



# **West Eugene Charette**

**June 18 - 19, 2001**

## **City - County - ODOT - FHWA - BLM a summit to rescue the WEP that concluded No Build**

In June 2001, the City, County, State and Federal governments held a two day summit to try to rescue the failing WEP. Most participants were pro-porkway, yet they concluded the highway could not be built and should work on an alternative.

Citizen advocates against the WEP were not allowed to participate in the event, but I was tolerated to be in the room to observe their discussion.

Federal Judge Michael Hogan was the emcee of this event. He had a distinguished record ruling against against environmental lawsuits. I asked him during a break if it was appropriate for him to run an event that could be litigated in his courtroom. He told me he would recuse himself.

Years later, Eugene Mayor Kitty Piercy (who was not Mayor in 2001), told me this event never happened. (I was there and I don't recall her being present.). She further claimed that No Build had never been agreed to by an intergovernmental meeting. She was against the WEP but also wanted the public credit for having stopped it. The City Council, under her leadership, voted to remove it from City plans, a necessary step for cancellation — but this happened after ODOT and Federal Highway had conceded defeat.

There are cases of FHWA approving highways over local governments objecting and FHWA rejecting projects even though a local government wants it. They prefer everyone aligned together but it is not always possible.

The No Build decision was made by FHWA in 2007.

### **County**

1. There is a role for the county in ongoing coordination to assure the interests of West Lane County are being served, but not a large role, since the roads are mainly under the jurisdiction of the city or the state.
2. County participants cannot recommend a commitment of County funds based on what they have heard to date.

### **DLCD**

1. Would consider funding an integrated land use/transportation study. DLCD encourages the city to submit an application.

### **ODOT**

1. It cannot commit to keep the \$17 Million allocated to the WEP Unit 1 in West Eugene or even in Lane County. It will need to reallocate this money by October, unless an acceptable project is developed for this area.
2. Proceed with preserving the function of West 11<sup>th</sup> Avenue (OR 126) as an expressway west of Beltline
3. Finish Beltline Phase 3 improvements to West 11<sup>th</sup> Avenue
4. Close out West Eugene Parkway Environmental Impact Statement with "No-Build" as the preferred solution.
5. If it could see that there is agreement on an overall transportation solution in the area, ODOT would consider contributing funding to finalize this solution and assist in carrying it forward, in partnership with the city and county.
6. Get out the materials from Charrette to the participants

### **City of Eugene**

1. Take responsibility for non-state parts of system
2. Take the story of the results of the Charrette back to the entire council for discussion.
3. Work with the County on non-state parts of the transportation system
4. Make some significant decision by October 1 to show ODOT they are moving forward, in order to preserve the funds previously allocated to the WEP Unit 1 for the West Eugene area.
5. Find money to do analysis of appropriate parts of the "solutions" groups (see list above).
6. Get the draft Problem Statement out to community for comment and revision.



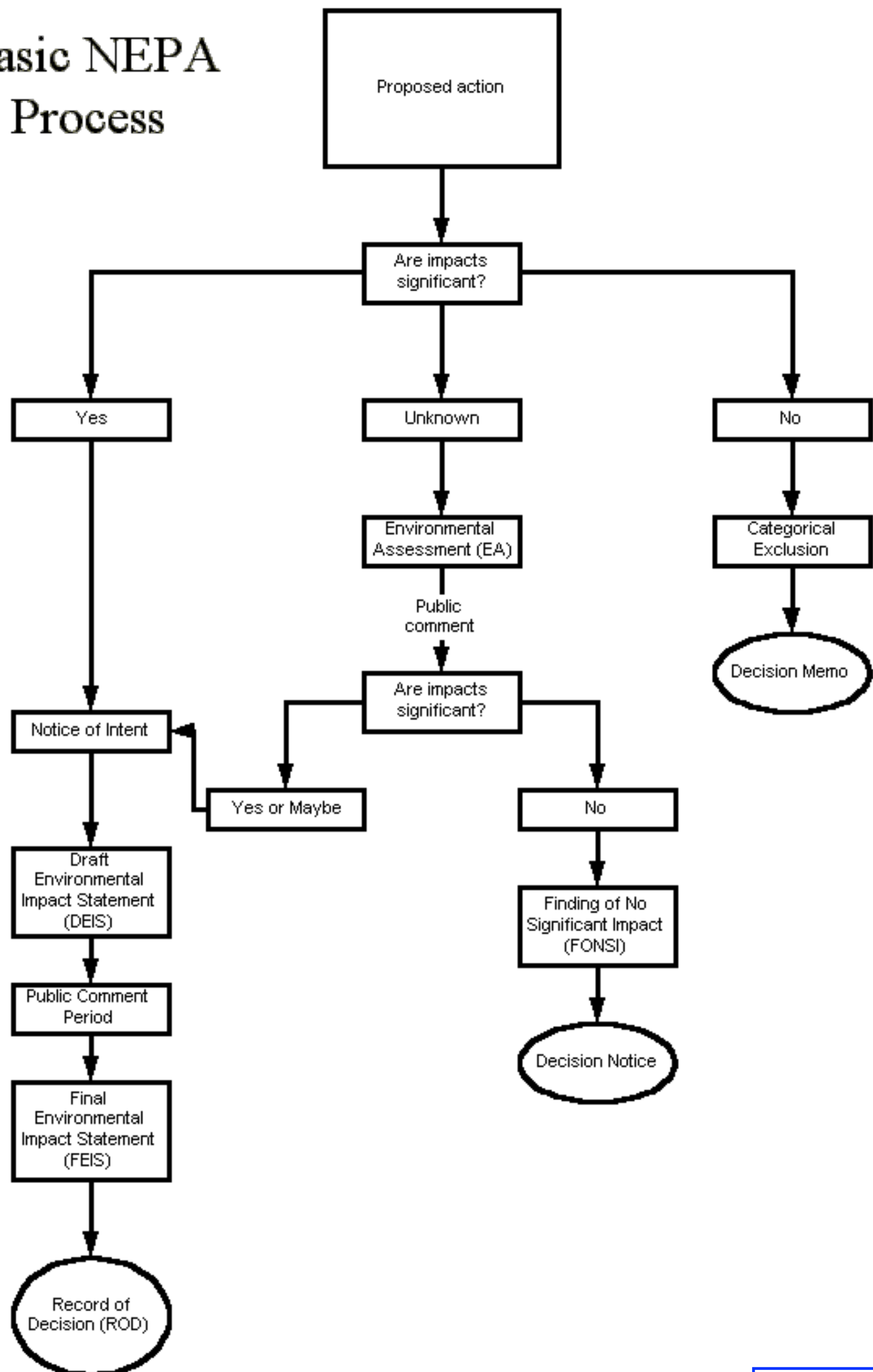
# W.E.T.L.A.N.D.S. vs. FEDERAL HIGHWAY ADMINISTRATION

**WEP was one of the most illegal highways ever proposed.**

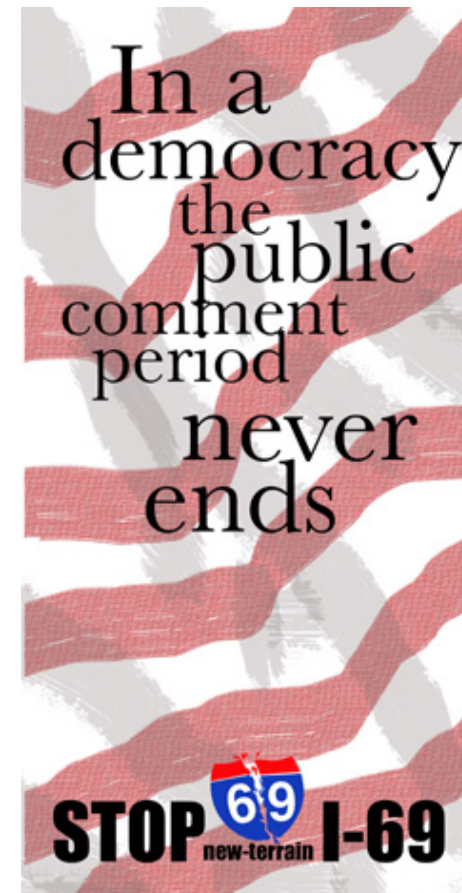
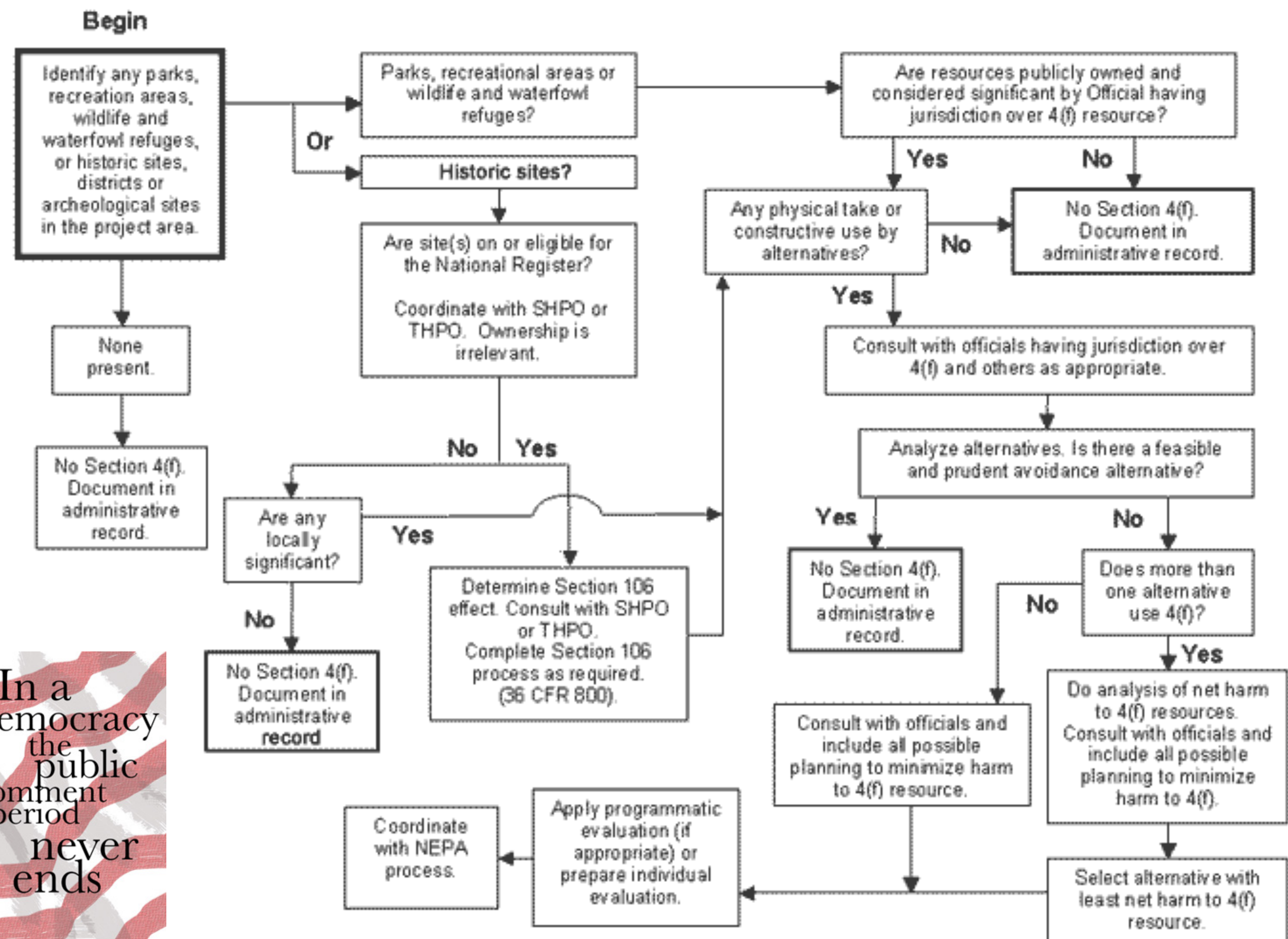
- ❖ **never filed, FHWA withdrew Environmental Impact Statement, selected No Build in 2007**
- ❖ **National Environmental Policy Act (NEPA):** new EIS needed (not Supplemental Draft EIS)
- ❖ **cooperating agencies** (BLM, Army Corps of Engineers) not involved in EIS scoping that was done in 1985 before BLM bought land in west Eugene
- ❖ **Section 4(f)** of the 1966 Transportation Act protects parks from paving: avoidance needed, not mitigation. Overton Park Supreme Court decision (1971)
- ❖ **illegal segmentation:** lack of independent utility, logical termini (Veneta and I-105)
- ❖ **Brackenridge Park, San Antonio, TX:** The Brackenridge Park freeway fight was a major inspiration for creating 4(f). Named Individual Members of the San Antonio Conservation Society is a precedent about failure to consider full project to avoid 4(f) analysis.
- ❖ **failure to meet “purpose and need”** WEP traffic studies were flawed.
- ❖ **Endangered Species Act:** “license to kill” plants, butterflies, wet prairie critical habitat
- ❖ **Clean Water Act:** Section 404 wetland destruction permits
- ❖ **BLM’s Land and Water Conservation Fund:** property cannot be used for road construction
- ❖ **Environmental Justice:** eastern terminus traffic impact on Whitaker neighborhood
- ❖ **Peak Energy and Peak Traffic:** traffic projections assume endless growth of oil supplies
- ❖ **Peak Energy and Peak Traffic are “new circumstances” that require a new Supplemental Draft EIS.** 40 CFR 1502.9, 23 CFR 771.130. A precedent based on Peak Energy and Traffic for long term traffic analysis could impact about a trillion dollars of planned highway expansions. We need transportation triage for peak energy and climate chaos.  
- Mark Robinowitz - [PeakChoice.org](http://PeakChoice.org) - [PeakTraffic.org](http://PeakTraffic.org) - [SustainEugene.org](http://SustainEugene.org)



# Basic NEPA Process

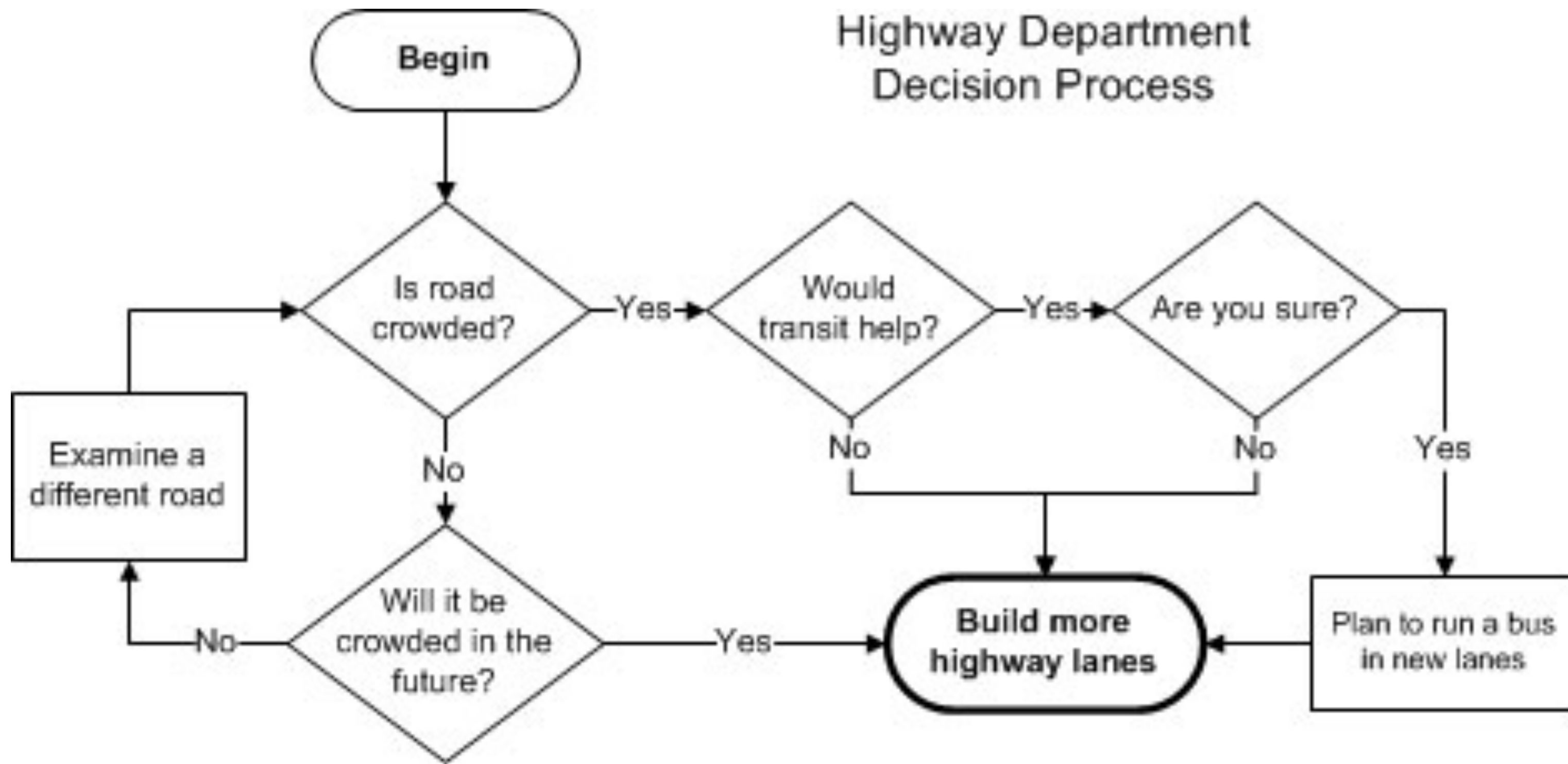


# Section 4(f) analysis



Stop I-69 "new terrain" graphic from opponents in southwest Indiana. Officially opposed by City Council of Bloomington. It was approved and built by the Obama Biden administration. The full, future I-69 is to run from Canada to Mexico, a "NAFTA Superhighway."






It is no  
measure of  
health to be  
well adjusted  
to a profoundly  
sick society

*~Jiddu Krishnamurti*

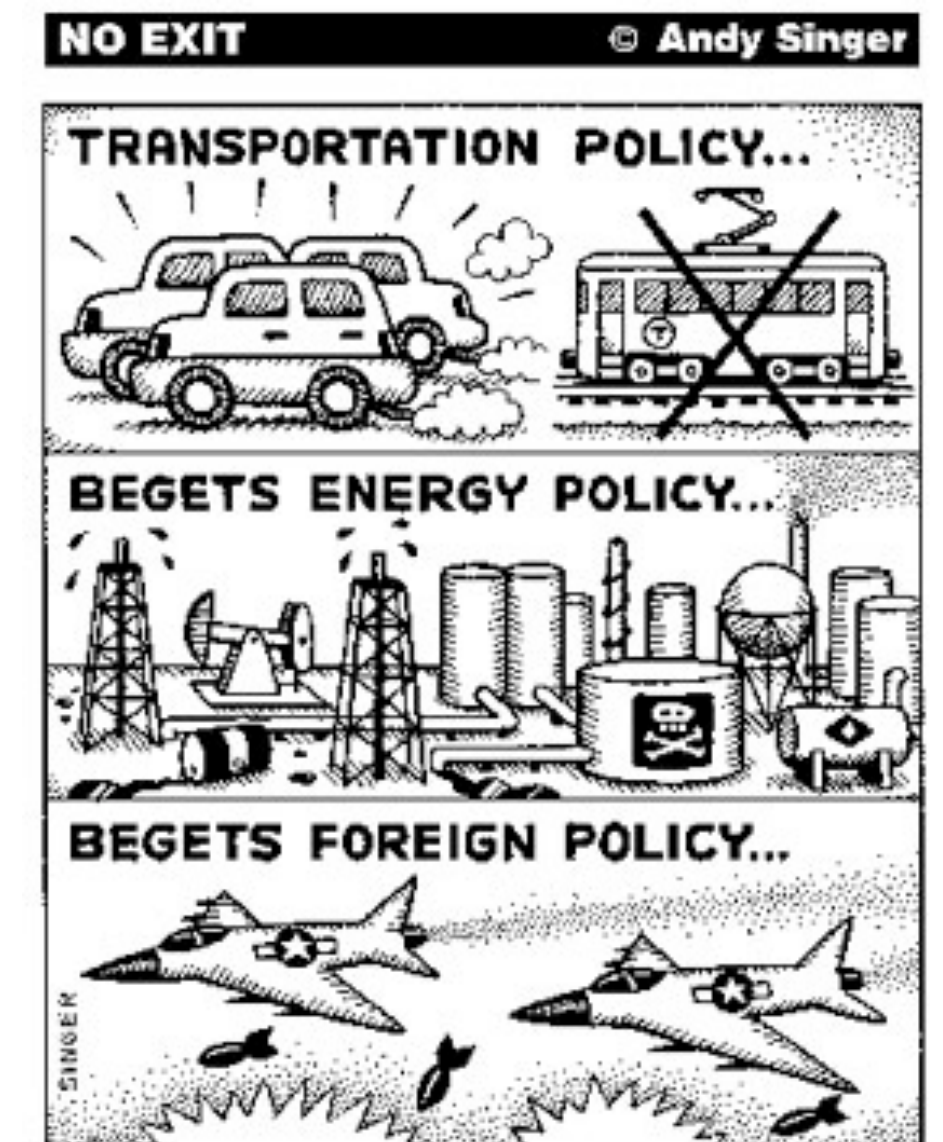


The cost  
of sanity in  
this society,  
is a certain  
level of  
alienation.

Terence McKenna

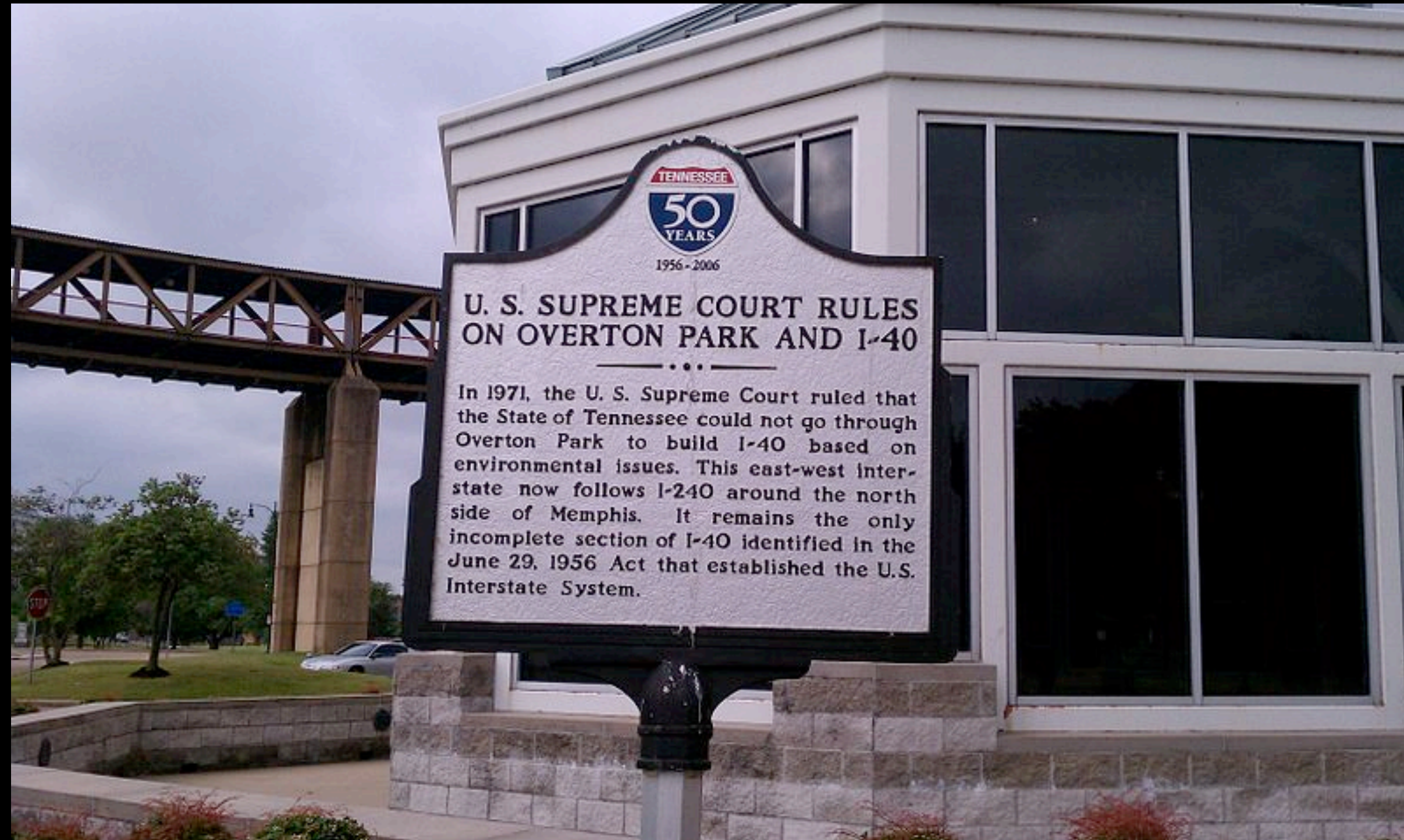


HIGHER PERSPECTIVE  
LOVE OF REVELATION





# Section 4(f) of the 1966 Transportation Act protects parks from paving



**plaque in Memphis, Tennessee commemorating cancelation of Interstate 40 through Overton Park.**

**In 1971, the Supreme Court's Overton Park decision upheld "Section 4(f)," one of their most important environmental rulings.**

the Secretary [of Transportation] shall not approve any program or project which requires the use of any publicly owned land from a public park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance as determined by the Federal, State, or local officials having jurisdiction thereof, or any land from an historic site of national, State, or local significance as so determined by such officials unless (1) there is no feasible and prudent alternative to the use of such land, and (2) such program includes all possible planning to minimize harm to such park, recreational area, wildlife and waterfowl refuge, or historic site resulting from such use."

– 82 Stat. 824, 49 U.S.C. 1653 (f)

"Next to the National Environmental Policy Act (NEPA), Section 4(f) has been the most frequently litigated environmental statute in the Federal Highway Program.

"Section 4(f) has been the most frequent cause of court injunctions halting highway projects."

-- Maryland State Highway Administration, Section 4(f) interactive training, "legal overview," (2003)

## **Thou Shall Not Build Federal Highways Through Parks**

The main law that prevented the Parkway was Section 4(f) of the 1966 Transportation Act.

In 2000, I caught ODOT trying to remove 4(f) from the WEP. ODOT had asked the Oregon Department of Justice to write a memo claiming 4(f) did not apply. The 1997 Supplemental Draft Environmental Impact Statement (SDEIS) had looked at 4(f), something previously ignored, and 4(f) is a powerful tool that can block bulldozers. The National Environmental Policy Act, which requires EISs, merely requires disclosure of damage. 4(f) requires avoidance of the damage.

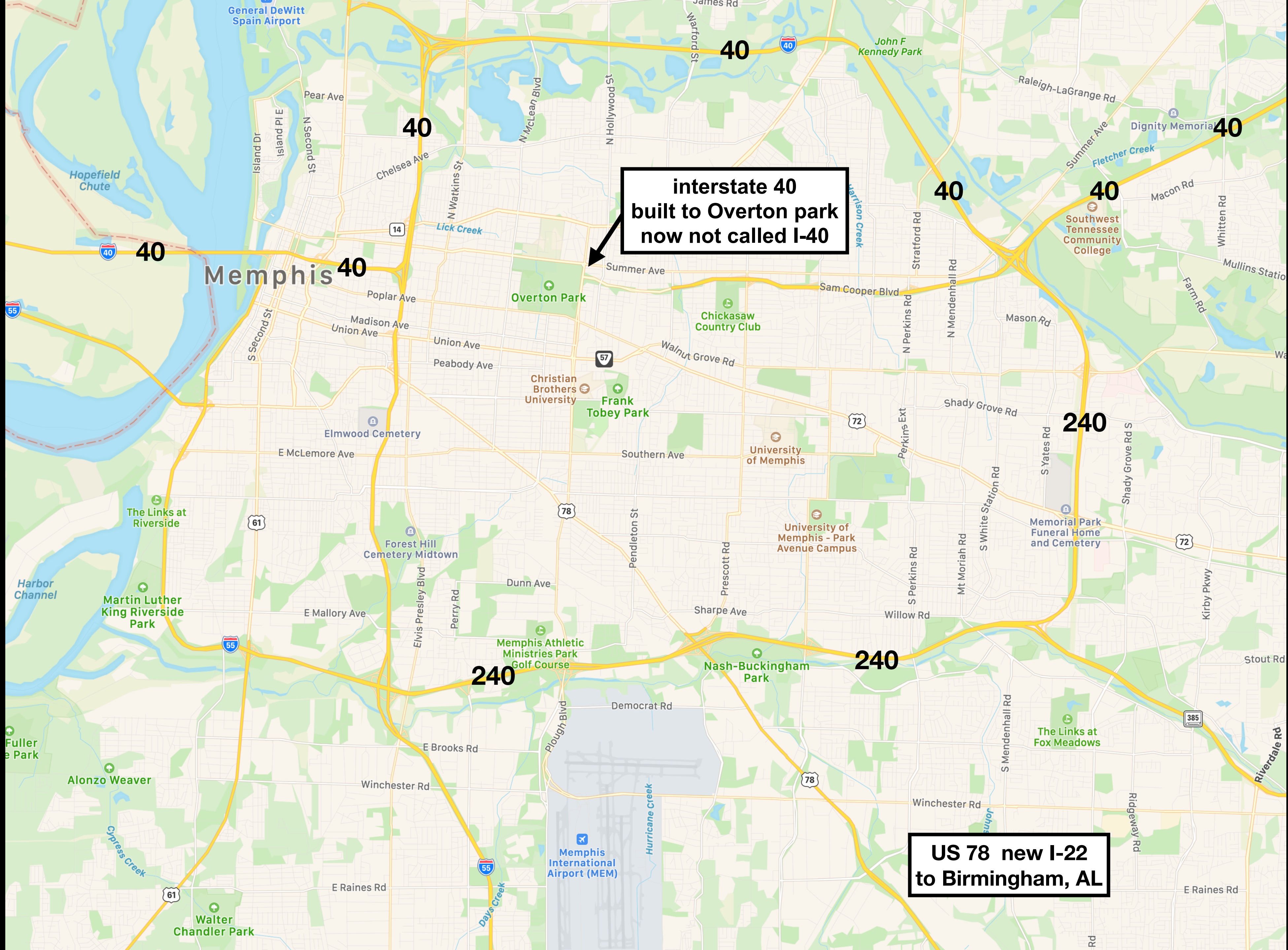
When I reminded ODOT that 4(f) did apply, according to their SDEIS, and that the requirements for applying 4(f) were relevant to the WEP, they started treating me with a lot more respect. Unfortunately, the "environmental leaders" in Eugene who wanted the credit and public adoration for stopping the WEP never seemed interested in 4(f), perhaps because of unfamiliarity with the law, perhaps because they were not interested in doing detailed research, and perhaps because they did not want to share credit for anti-WEP efforts with me (since my politics were not liberal Democrat and therefore anathema to them).

Fortunately, FHWA, ODOT and BLM realized that 4(f) wasn't going away as a limitation. The BLM renamed part of their properties "Bertelsen Nature Park" as an effort to help remove any debate about whether 4(f) applied. FHWA and ODOT quietly conceded 4(f) was an insurmountable road block.

None of the articles written by the Register Guard nor the Eugene Weekly ever discussed Section 4(f), since they ignored the fact the WEP was a Federal project, not a City of Eugene decision. I had letters to the editor and op-eds in both publications that mentioned these facts, but they did not inspire them to mention the Federal aspect into their articles.

Detailed discussion about Section 4(f), my favorite federal law, is at [www.PeakTraffic.org/4f.html](http://www.PeakTraffic.org/4f.html)





**interstate 40  
built to Overton park  
now not called I-40**

**US 78 new I-22  
to Birmingham, AL**



**Memphis Outer Beltway recently completed**  
**I-269 ties into Interstate 69 the "NAFTA superhighway"**  
**MI IN KY TN MS AR LA TX**



**forested wetlands cut in half**

**forested wetlands cut in half**

**new Interstate 22 to Birmingham**





## not suitable for PIELC: Public Interest Environmental Law Conference refused presentation about Section 4(f) and lessons learned protecting West Eugene Wetlands

Between 2004 and 2010, I co-organized panel presentations about **ecological implications of fossil energy depletion** at the annual Public Interest Environmental Law Conference at the University of Oregon Law School 4(f). The conference scheduled many panels simultaneously, so these presentations were not the dominant paradigm of the event but they attracted lively participation. They were the only discussions at the conference about limits to growth, how decreases of conventional fossil fuels were leading to more toxic practices (fracking, tar sands), economic, foreign policy and military implications of the “musical chairs” approach to controlling the last reserves, and ways that learning to live well with less energy could be encouraged on household, community and global levels.

But in late 2010, I committed the unforgiveable sin of opposing nuclear power - the most dangerous way to boil water - at a Law School speech by climatologist James Hansen. He is justly famous for being a leading voice calling attention to the dangers of global warming. I remember hearing his 1988 testimony to Congress which was his first entrance onto the global media stage and was impressed by his clarity. It was also good timing his testimony was on a hot summer smoggy day in D.C. In 2006, I heard Hansen speak at the “Beyond Peak” conference at George Washington University where he gave a great summary of the science behind these warnings and prospects for ecological collapse if we continue to choose business as usual. But in 2008, Hansen was persuaded that nuclear energy was actually the solution to climate change, and with the fiery energy of the newly converted has become an atomic zealot. He sent a letter to incoming President Obama saying that people who don’t want to escalate the use of this ultrahazardous technology are the biggest threat to Earth’s climate, since we supposedly will force the use of more coal (which has peaked in terms of its potential mining and burning in the US). Using less is not on his agenda.

In the next several years, my panel requests somehow never got approved. At first it seemed like an oversight since the conference gets more requests than they can honor. However, after several rejections - and worse, no approval of any other similar panels - I decided to test the system. I requested a space for a panel about Section 4(f) and how I had used it to prevent the WEP through a federal nature preserve with critical habitat for federally listed endangered species. Surely the legal eagles at PIELC would allow that discussion? Nope.

After that year’s conference I had the opportunity to ask a conference organizer about this oversight. He said that since I’m not a lawyer, therefore I would not be an appropriate choice to organize a panel presentation about anything. After I stopped laughing at his response, I reminded him they encourage anarchists who advocate property destruction to give presentations and the real reason was likely challenging Hansen, both in 2010 and later when he was a PIELC keynoter. A different co-organizer quietly apologized to me for this pettiness, an example of “cancel” culture.

When I first attended PIELC 23 years ago, it was a large and significant legal, activist and cultural event attracting thousands of people. The most famous keynoter each year was David Brower, one of the giants of modern environmentalism, who made the Sierra Club into a powerful force in the 1960s (and then he was kicked out for being too effective). He went on to co-found Friends of the Earth and later Earth Island Institute, which spawned numerous projects big and small all over the planet. His last appearance was in 2000, when he said **at our best the environmental movement has slowed down the rate that things got worse and that was not good enough for our survival**. Brower died that fall, a couple days before the Bush v. Gore election (he voted absentee for Nader from his death bed).

Among many other concerns, Brower raised alarms about the dangers of nuclear power, helping prevent reactors on the San Andreas fault just north of San Francisco and convincing many environmental groups to oppose this supposedly “fossil free” technology.

Nuclear energy make climate change worse: they use huge amounts of fossil fuels to build and operate. Reactors emit heat. details at [www.PeakChoice.org/green-new-deal.html](http://www.PeakChoice.org/green-new-deal.html)

Another UO law school projects is **Our Children’s Trust**, a lawsuit demanding the federal government adopt a plan to end climate change so kids can have a future. And what plan do they seek? The graphic on the right is from a technical report done for OCT and **it considers nuclear reactors to be “zero carbon”** despite the enormous energy requirements of reactor operation, the nuclear fuel cycle from mining to enrichment to fuel fabrication, and the impossible requirement to keep deadly nuclear wastes isolated from the biosphere longer than civilization has existed. So this partially explains why PIELC is touchy about anti-nuclear activists who say more reactors would be a disaster.

In 2019, the last in person PIELC conference, a keynote speaker was Norris McDonald of the African American Environmentalist Organization. He is a skill for nuclear power and other toxic industries. PIELC states they are allies to indigenous campaigns against pollution but seemingly oblivious to how most of the uranium mining in the US has been done on Native lands (especially in the Four Corners region).

“Compromise is often necessary, but it ought not to originate with environmental leaders. Our role is to hold fast to what we believe is right, to fight for it, to find allies, and to adduce all possible arguments for our cause. If we cannot find enough vigor in us or our friends to win, then let someone else propose the compromise, which we must then work hard to coax our way. We thus become a nucleus around which activists can build and function.”  
— David Brower



Legendary anti-nuclear activists Lloyd Marbet (red shirt) and Chuck Johnson (dark suit) talking with James Hansen at UO Law School, PIELC conference)

### Our Children’s Trust’s consultant

350 PPM PATHWAYS  
FOR THE UNITED STATES  
May 8, 2019

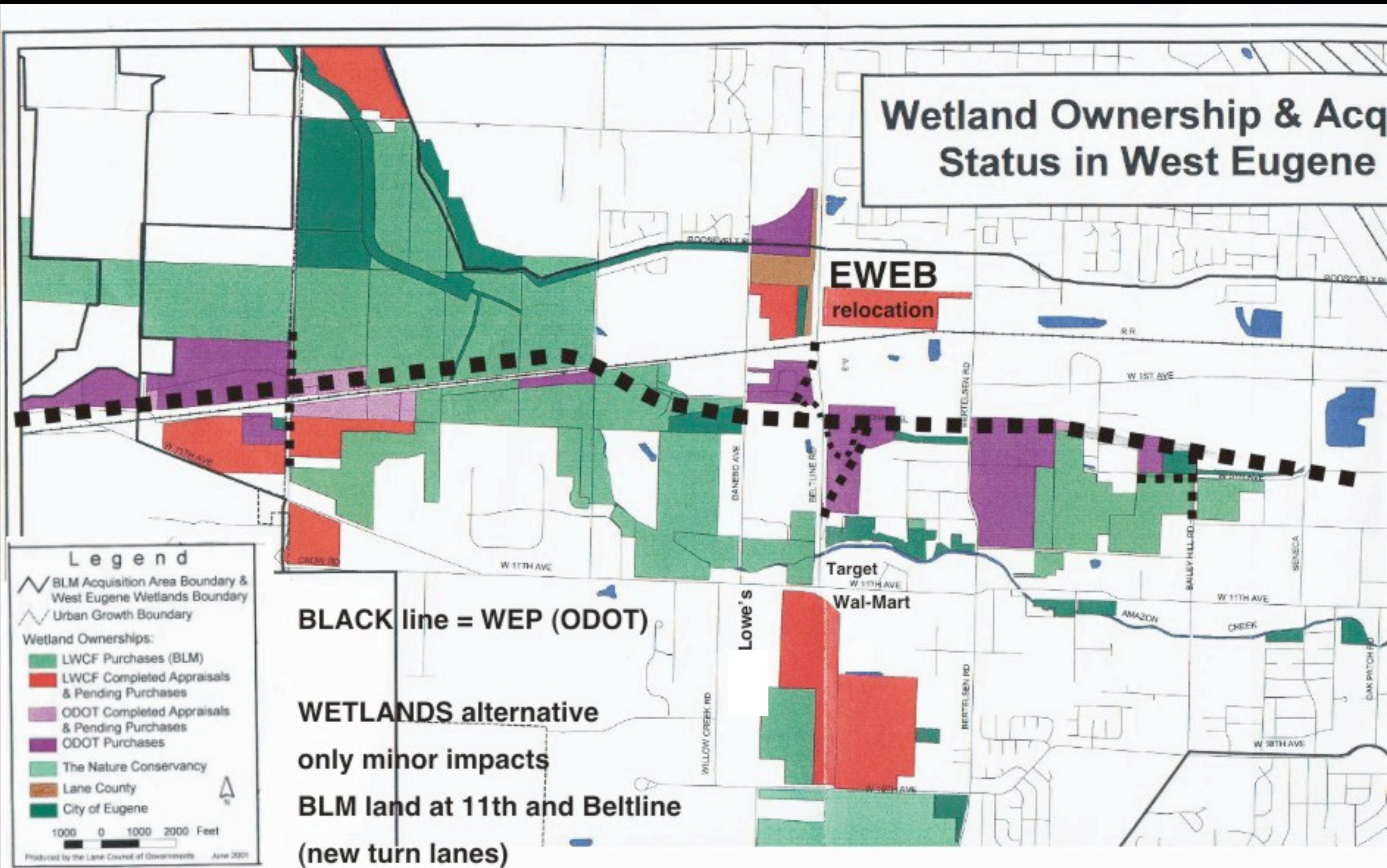


EVOLVED  
ENERGY  
RESEARCH

- **Maintain nuclear** – As in the previous decade, continue to maintain nuclear where safe to do so.

balancing costs when installing further wind and solar, dispatchable zero-carbon technologies such a nuclear are highly competitive.





This 2002 map from Lane Council of Governments shows who owns what in the west Eugene wetlands. The BLM lands are in light green and were bought with Land and Water Conservation Funds, which cannot be used for non-conservation purposes (such as highway construction). The 1997 Supplemental Draft EIS admitted these properties are subject to Section 4(f) protection. These are the parcels that ODOT and FHWA tried to claim were not covered by the law (since the highway would be virtually impossible if 4(f) had to be included in the analysis.) City land is in dark green (note the two parcels in the path). ODOT land is in purple. Red shows land that BLM wants to buy (they have bought the parcel south and west of Wal-Mart). Brown is Lane County owned. Very light green (at the bottom of the map) is The Nature Conservancy.



**wet prairie in WEP wrong of way  
one thousandth of this habitat  
remains in the Willamette Valley**

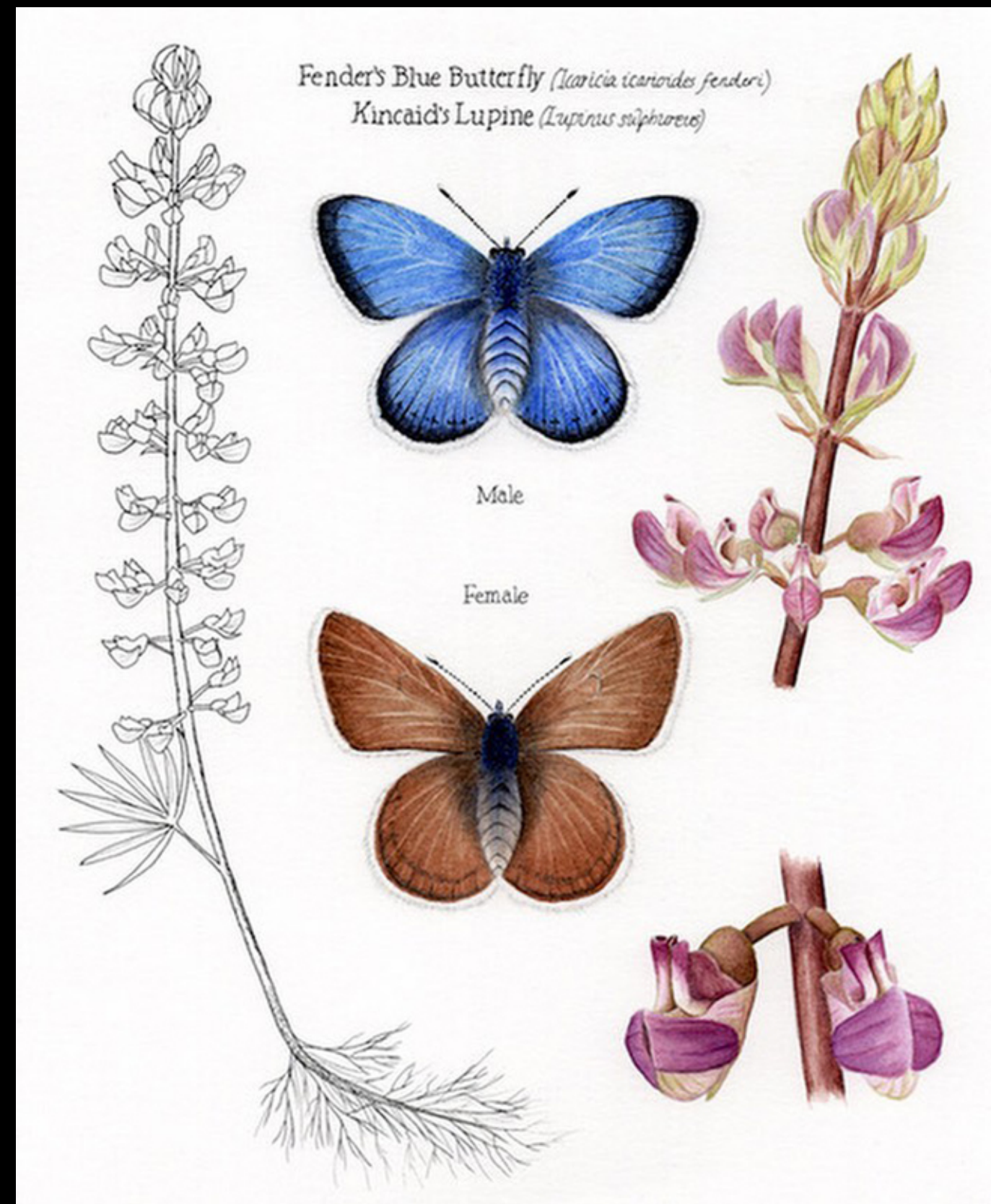
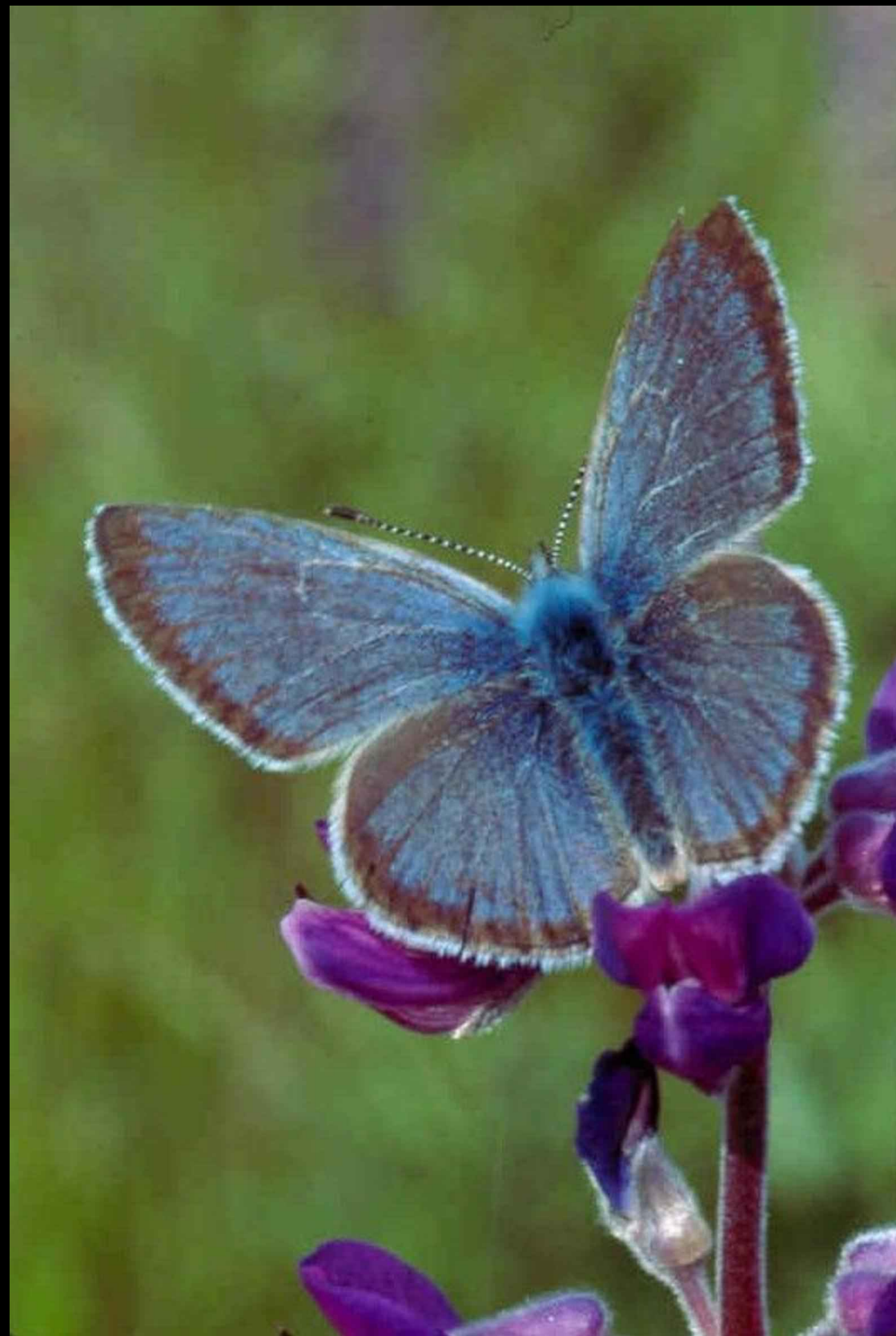


**west of Danebo**



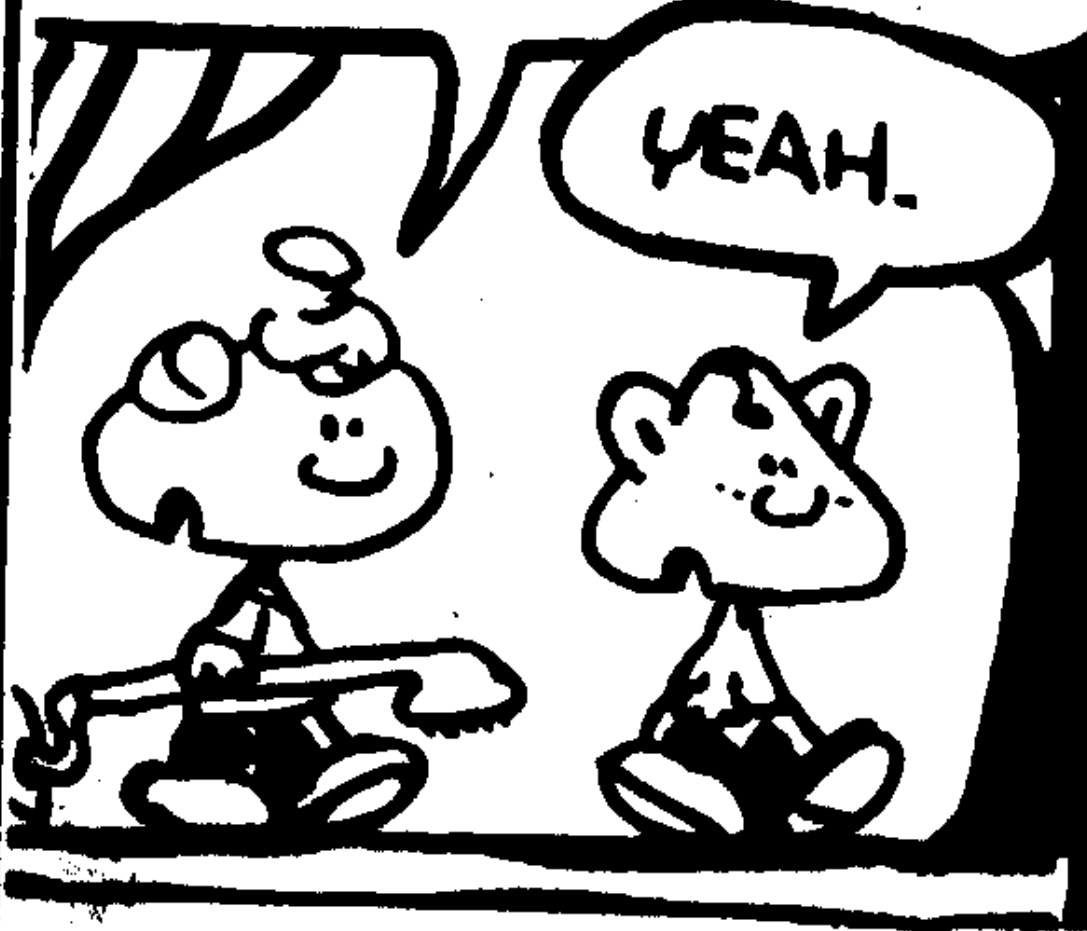
# Kincaid's Lupine host plant of Fender's Blue Butterfly both are officially Endangered

Kincaid's Lupine is the host plant for Fender's Blue Butterfly. This plant (and the other endangered plants) require wet prairie conditions – flooded in the winter, dry in the summer, not too wet, not too dry, just right. Road construction and drainage would disrupt the delicate hydrological balance that allows wet prairie dependent species to exist.





MAYBE IF WE FOUND AN ENDANGERED SPECIES WE COULD STOP THE LANDFILL.



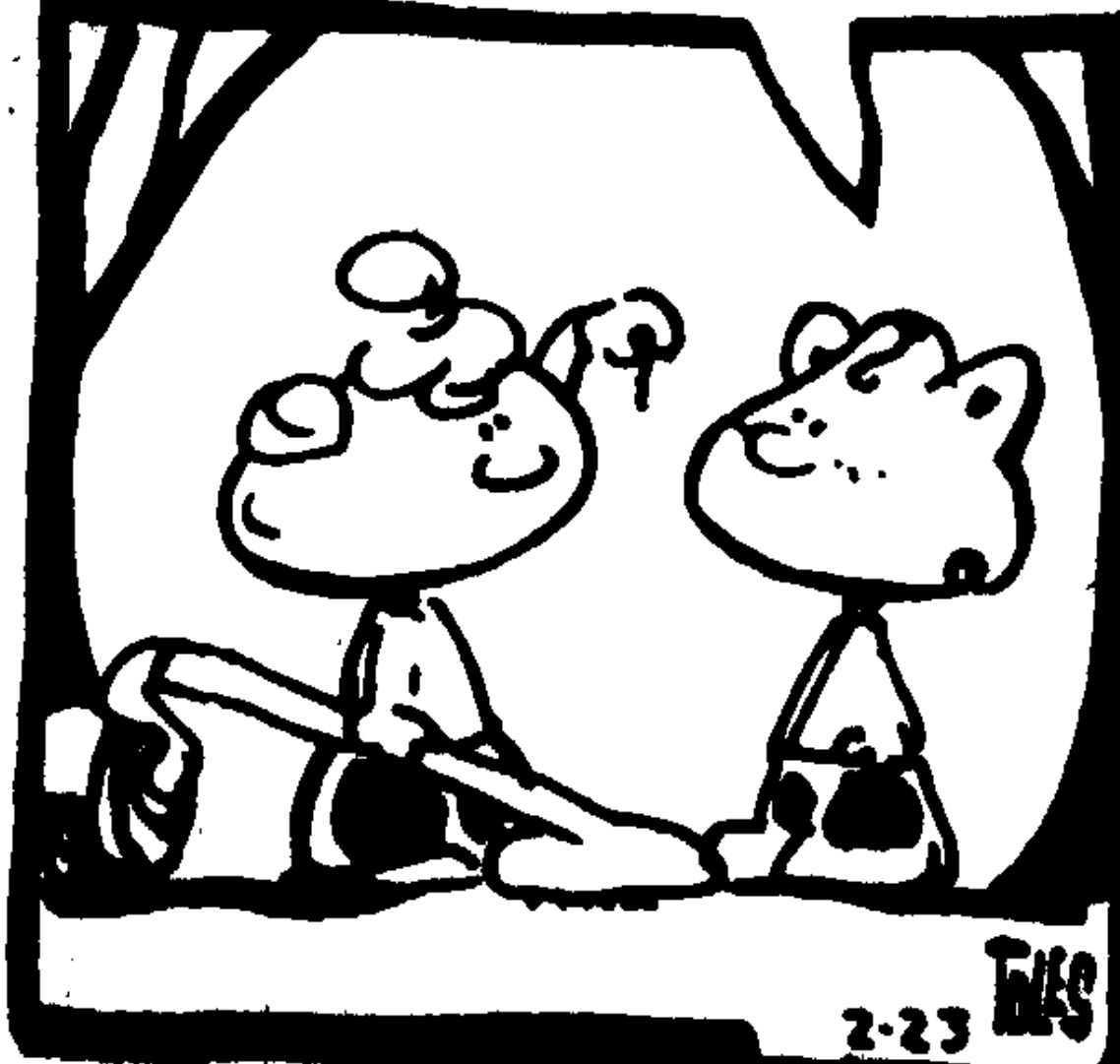
© 1984 Tom Toles/Dart by Universal Press Syndicate

FIND ANYTHING YET?

JUST A WORM.



HOW DO WE TELL IF IT'S ENDANGERED?



IT'S Annelida Oligochaeta, VERY COMMON.

AND PRETTY DEAD.

DEAD IS KIND OF ENDANGERED.





# “Protected Natural Area” or WEP wrong-of-way?



WEP would have been next to the train track.

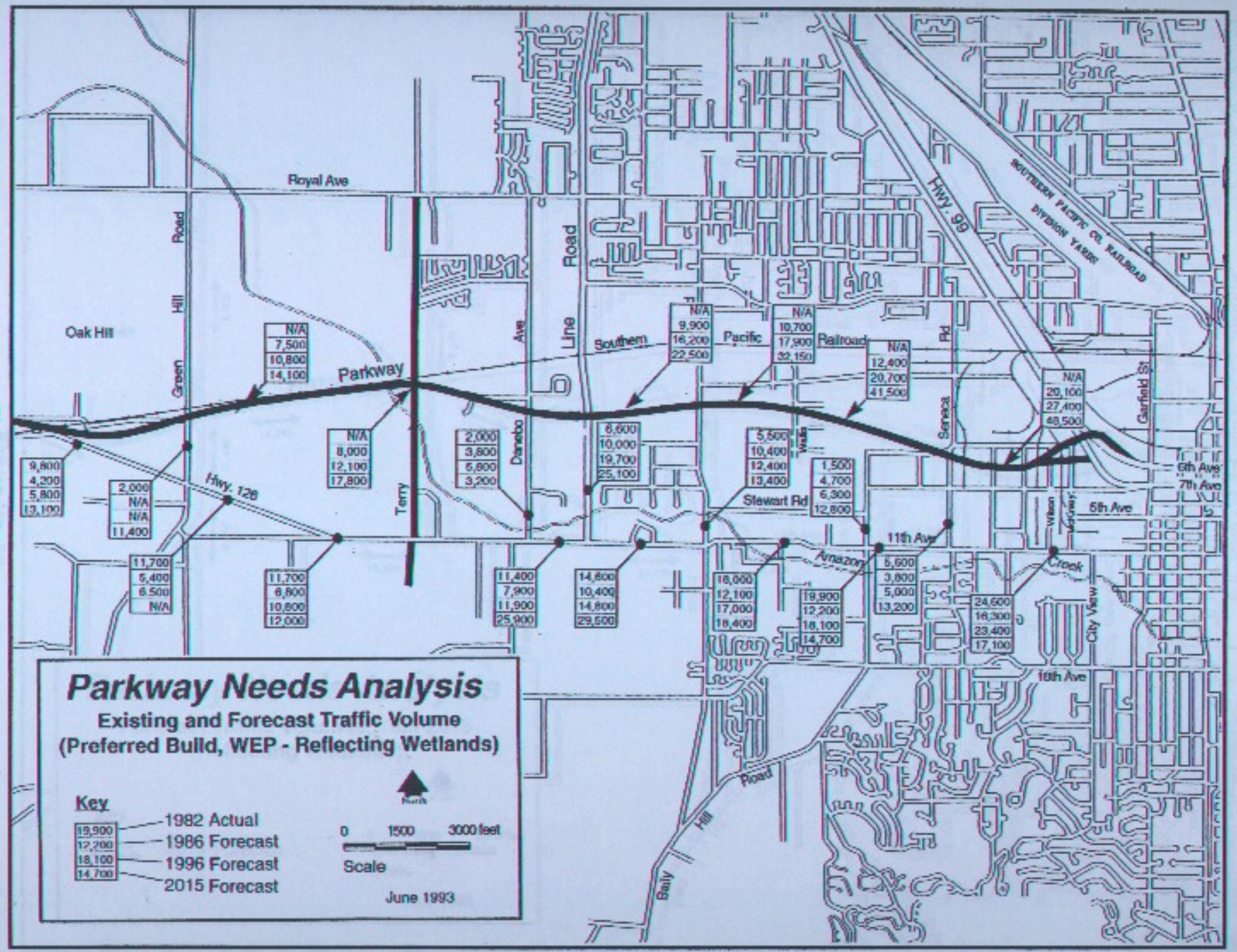


A study from 1993 claiming to predict 2015 traffic levels that would supposedly require the Parkway.

ODOT's 1990 Final Environmental Impact Statement predicted that traffic levels would be hopelessly clogged by 2015 if the WEP was not built.

In reality, these studies all ignored the potential for Peak Traffic as the global peak of petroleum arrived.

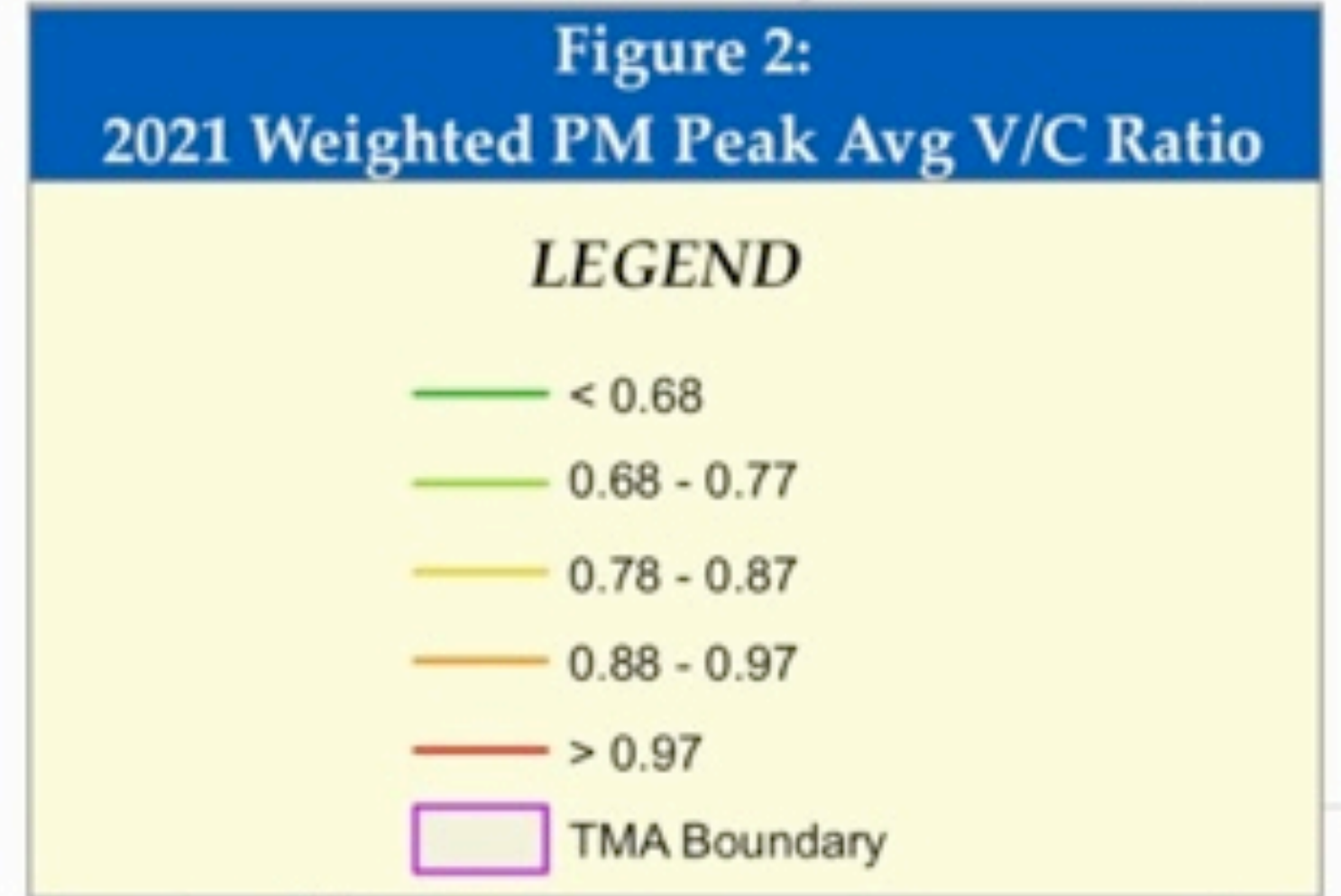
Lane County traffic on the ODOT state highway network peaked in 2003 (see slide #3 for details).





This 2004 map from the Lane Council of Governments estimates traffic congestion in the Year 2021 (assuming that oil supplies remained constant and cheap). It shows that with the WEP, 6th and 7th would become clogged, and I-105 would be even worse. It did not make an effort to look at congestion without the WEP, but a serious effort to do that would require more than merely removing the WEP from the traffic model - it would require an effort to coordinate land use and transportation, plus an examination of Beltline for through traffic and of course the issues of "Peak Traffic" caused by Peak Oil.

In 2004, LCOG released an estimate that oil costs would rise to \$2.50 a gallon by the year 2025, and used this as the fundamental basis for their transportation planning. A half year later, petroleum prices soared above the supposed 2025 levels, but LCOG did not explain why they refused to consider the approach of Peak Oil and rising fuel costs in their model. No government anywhere in the country includes Peak Anything in their publicly available long term forecasts for transportation demand, energy availability, economic growth or anything else that could be impacted by the irreversible decline of fossil fuels. Some pretend that increased car efficiency and electric vehicles can cause a seamless transition to more green growth.



v/c means "volume to capacity"  
a level of 1 is oversaturation



Note: This map is illustrative and should be used for reference only.  
\* V/C ratios assume the construction of the West Eugene Parkway

0 0.5 1 2 Miles

**MPG**

August, 2004

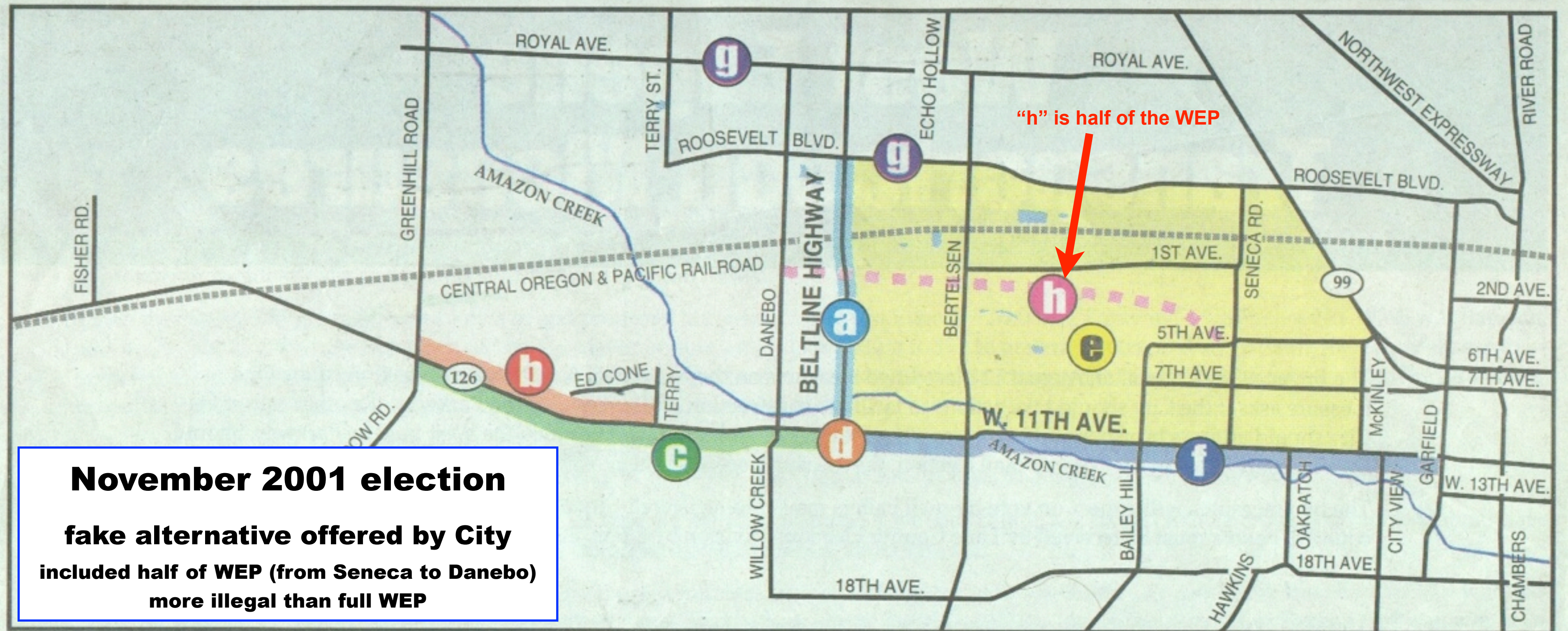


The June 2001 "West Eugene Charette" consensus to select **No Build** received little attention and lasted two months.

In August, the City Council, at the urging of Councilor Gary Pape and Mayor Jim Torrey, moved to put the idea of the WEP on the November ballot (they held a SUNDAY meeting to push this forward). Perhaps the Pape clan and Torrey panicked and realized that unless they did this, the WEP was dead. Perhaps they realized the WEP was dead, but thought that if the voters passed a referendum promoting the porkway, they could then blame the liberal, environmental faction on the Council for disregarding the "will of the voters." However, Pape and Torrey knew that the decision to build or cancel the WEP would be made by the federal government - it was not a City decision and the City had not offered a penny toward construction costs.

The 1986 referendum promoting the WEP passed 80% to 20%, so presumably the promoters felt they had public opinion on their side, even if opponents managed to do better the second time. Their campaign was spearheaded by Torrey, Lane County Commissioner Bobby Green and Oregon Transportation Commissioner Randy Pape, who had agreed to support No Build at the Charette and carefully avoided mentioning this during the election campaign.

## Measure 20-53



**City staff sought to sabotage discussion of alternatives by crafting a strawman alternative that included half of the WEP (east of Danebo road, west of Seneca), which would have been twice as illegal due to legal prohibitions against segmentation of a road to avoid disclosing environmental impacts.**

**Measure 20-53, which was supposedly to show support for alternatives to the WEP, failed by a large margin (even most WEP opponents were skeptical of this measure), but Measure 20-54 to support the WEP barely passed 51% to 49%. This showed the community was evenly split when told "the money is there" (even though it was not) and not told about legal obstacles that made WEP extremely unlikely.**

The outcome was mixed, but ultimately a bigger favor for opponents than supporters. The fact Eugene was not united for the highway made it difficult for politicians and highway planners to advocate for approval and funding. But the election made it easier for leading WEP supporters to blame others for the failure of the project to get legal approval and funding.

In July 2001, then City Councilor Pat Farr, a WEP proponent, conceded that the highway looked like a lost cause. He told his fellow councilors that making better use of Roosevelt Blvd. would serve his northwest Eugene community, perhaps with work to expand its intersections with Highway 99 and Beltline. Despite detailed minutes recording his comments, he later joined in the efforts to blame the failure of the WEP on highway opponents who supposedly disregarded the will of Eugene voters.



# ACTIVIST MALPRACTICE

## **Crandall Arambula: a fake alternative that would have undermined our lawsuit**

In 2002, Portland design consultancy Crandall Arambula crafted a Trojan Horse that would have had worse impacts on wetlands, parklands, forests, farms and homes, and would have ruined our federal legal claims. They had been asked to help design an alternative TO the highway but suggested a new highway design instead.

ODOT wanted about 6 miles of new highway and the consultants suggested over 10 miles, if the expressway to the airport was included in the count. (EUG is a much smaller airport than PDX and does not need a dedicated highway for buses to access the terminal.)

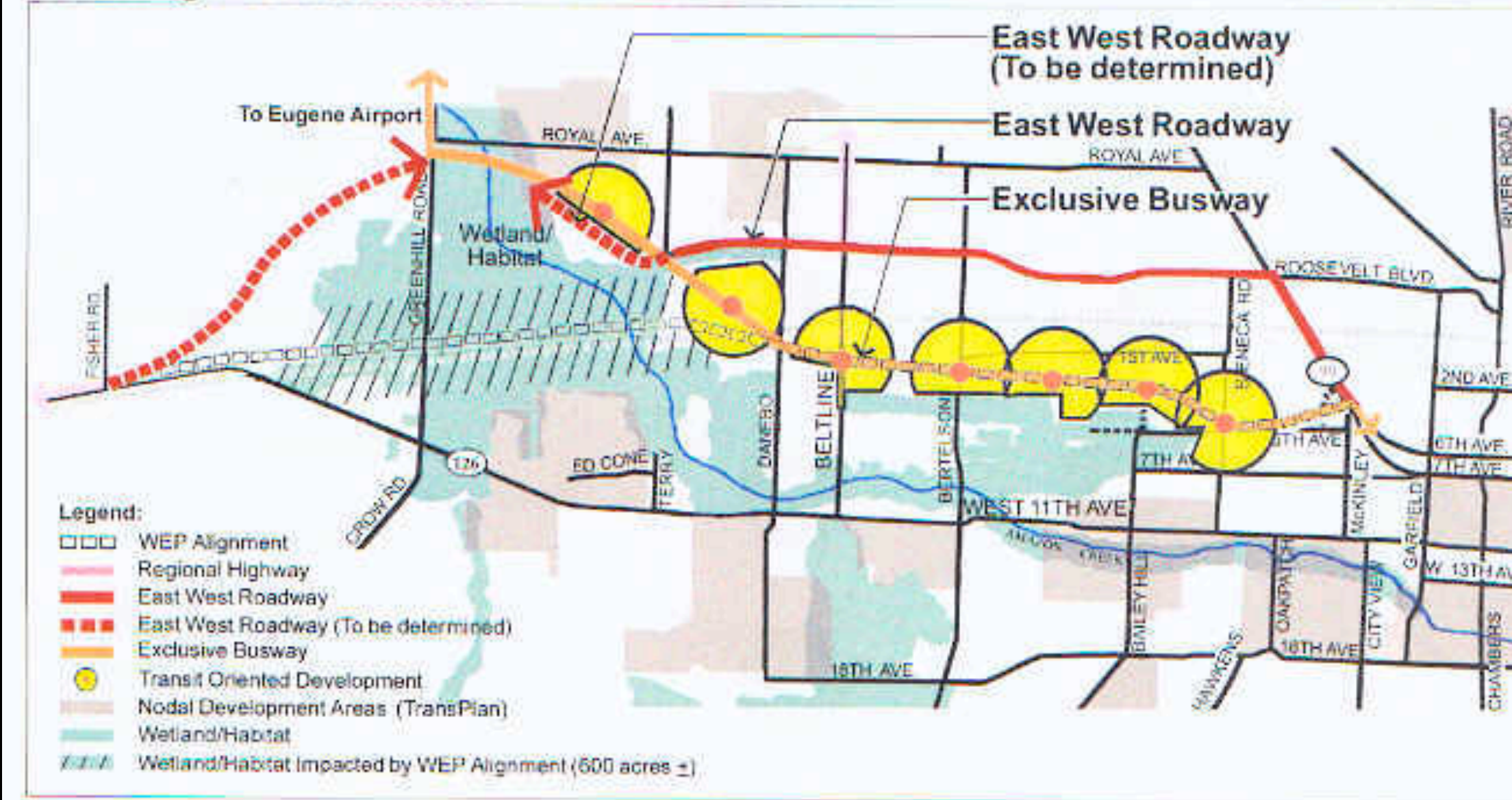
They suggested that each WEP intersection should have dense residential and commercial development to “manage growth” efficiently, not knowing nor caring that those lands were the most ecologically sensitive parts of the federally owned nature preserve.

Mr. Crandall was on the board of 1000 Friends in Portland, a group previously known for their critical role stopping the Portland Western Bypass, so this betrayal was difficult for some to admit.

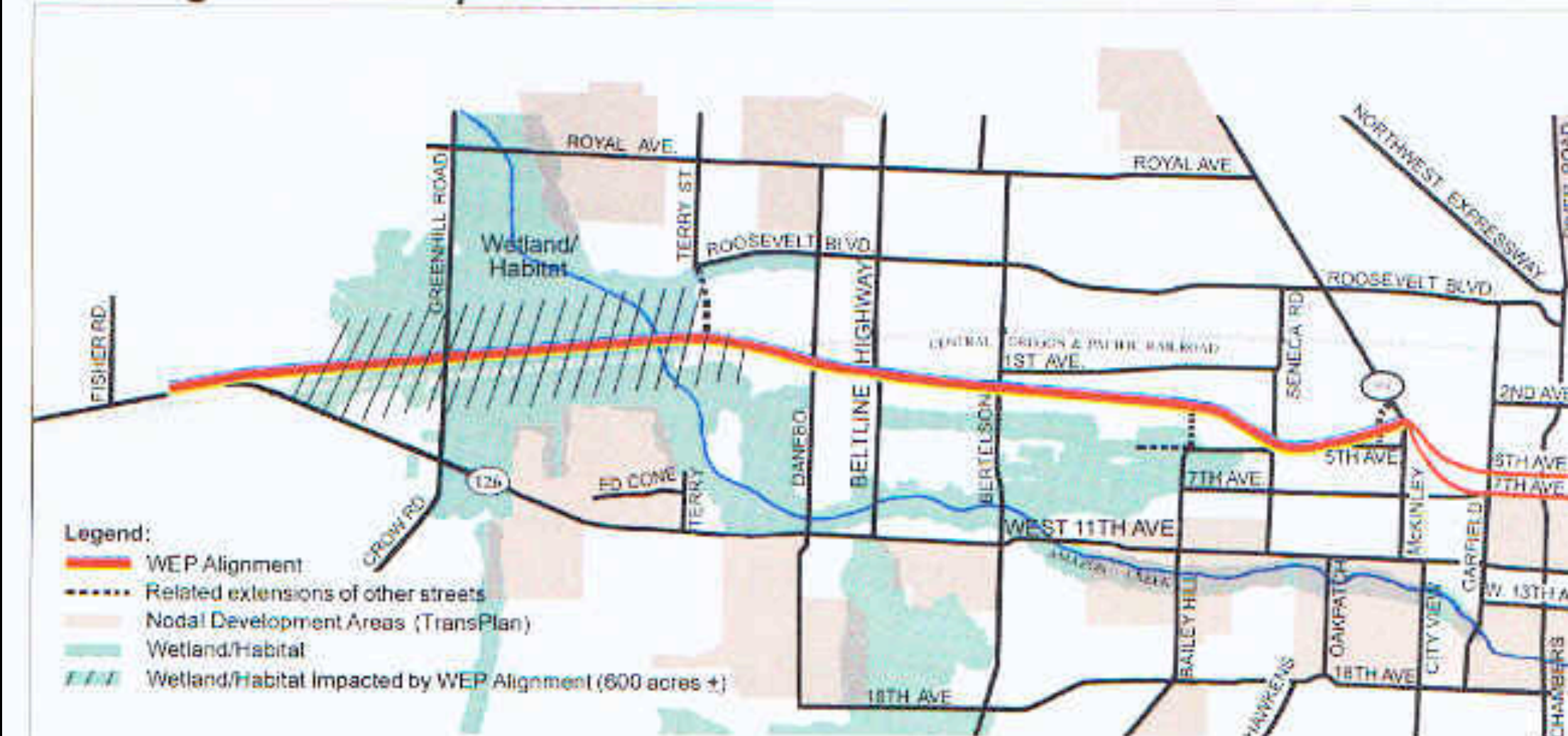
**Federal laws that require consideration of a range of alternatives do not require examining WORSE options than the agency’s preferred alternative.**

## Alternatives West Eugene Parkway Review

### West Eugene Alternative



### West Eugene Parkway









In August 2002, opposing the "Crandall Arambula" worse WEP got me expelled from the Friends of Eugene legal committee even though I was the only member with previous experience fighting freeways.

Their lawyer claimed not to see any legal problems with offering a worse option, even though federal environmental laws do not require consideration of worse ideas.

ODOT told Eugene Mayor Jim Torrey a worse WEP need not be considered. Their letter noted that I had pointed out its problems. ODOT understood WEP would not be built but still spent millions on consultants and land purchases.

The Bureau of Land Management West Eugene Wetlands project renamed part of their property "Bertelsen Nature Park" which ensured the preserve would qualify for Section 4(f) protection.

FHWA privately conceded the WETLANDS lawsuit would likely win.

This activist malpractice is part of a broader problem with environmental groups. Exclusionary approaches marketed as grassroots participation make it harder to protect anything other than ego. Competition for "turf" and "credit" gets in the way of cooperation needed for our collective survival.

## Friends of Eugene Membership

*Your membership, support, and contributions are essential to keep Friends of Eugene going!*  
*Special Current Needs: Help with challenging the Garage Giveaway, with reclaiming downtown Eugene planning, and with costs of fighting the West Eugene Parkway (the WEP).*  
*Any amount is appreciated, small or large!*

Regular Member: \$35 Low-Income Member: \$15  
Contributing Member: \$60 Sustaining Member: \$100

**November 30, 2010**  
**three and a half years after "No Build" was selected**

Please send checks to: Friends of Eugene, PO Box 50753, Eugene, OR 97405

or... [Contribute Online](#) *It's fast, easy, and secure.*

### Email Lists

Please join the Friends of Eugene "members" announcements-only email list, to help stay in touch. You're welcome and invited whether or not you're a dues paying member. Just visit:  
[http://www.designcommunity.com/mailman/listinfo/foe\\_members](http://www.designcommunity.com/mailman/listinfo/foe_members)

And follow the simple steps there to subscribe (and then to unsubscribe, if that's you'd like at any point).

And please consider joining the Friends of Eugene general discussion email list to contribute ideas, information, and events in a two-way email conversation format. Visit:  
[http://www.designcommunity.com/mailman/listinfo/foe\\_discuss](http://www.designcommunity.com/mailman/listinfo/foe_discuss)

And follow the simple steps there to subscribe (and if any time you'd like to unsubscribe).

To send your own message to the discussion list, first subscribe as above, and then address your email to "foe\_discuss@FriendsofEugene.org".

Privacy Note: Friends of Eugene does not exchange the names and addresses of its members with other organizations.

### Board of Directors

Kevin Matthews, designated spokesperson  
541-345-7421 - office and messages  
[matthews@artifice.com](mailto:matthews@artifice.com)



## Stopping WEP: a success and a failure

When the WEP was still under consideration, I wrote this:

*"Ultimately, cancellation of the WEP could force a serious, regional discussion of sustainability that involves the entire community -- at the very least, it will require a major revision for long term planning for the region."*

WETLANDS succeeded in getting "No Build" from Federal Highway Administration without having to file WETLANDS v. FHWA. This technical success did not lead to fundamental rethinking of energy policies as we enter the age of oil depletion, temporarily given a stay of execution by ultrahazardous fracking.

During my involvement in the WEP campaign (1999 to 2007, when the Federal Highway Administration made its "No Build" decision), neither the Register Guard nor the Eugene Weekly dared mention that the decider for the project was the Federal government, not the City of Eugene. It was no surprise that this key point was ignored by the pro-WEP RG, but it was a little surprising that the Weekly also ignored it. Neither publication ever mentioned the work I did to document the illegalities of the proposal, but both did permit a couple letters and op-eds from this writer, the only times the Federal aspect was mentioned.

Some of the most ardent WEP proponents argued that since the voters of Eugene had supported non-binding referenda in favor of the road (about 80% in favor in 1986, and 51% - 49% in 2001) that opponents, especially at City Hall, were violating the will of the public. The City offered no money toward construction of a project that ballooned from \$88 million to at least \$169 million. Federal highway funds meant it was a federal decision, a fact not in the public debate (except through my modest efforts). The WEP would have violated every applicable federal transportation law rarely mentioned. Neither the RG nor EW ever mentioned Section 4(f) of the 1966 Transportation Act, which prohibits federal aid transportation projects through parklands such as the West Eugene Wetlands. Fortunately, the Federal Highway Administration, Oregon Department of Transportation, US Bureau of Land Management (which manages the wetlands park), US Army Corps of Engineers (which would have issued the wetlands destruction permit) all came to understand that 4(f) meant the highway would likely lose in court.

If the media had fully informed the public the aftermath of the WEP might have had less community division. Ego got in the way, unfortunately. WEP supporters did not want to admit they promoted a destructive, expensive project long after they recognized it was unlikely to be built. Some WEP opponents did not want to admit that I, Mark Robinowitz, was focused on core parts of the project -- 4(f) -- that they did not already know about and did not want to cede "credit" for supposedly stopping it.

Stopping the WEP was a success in the sense the road proposal is dead, unlikely to ever be revived. ODOT sold off some of the "wrong of way" bought for the highway. The City allowed a couple buildings to be built in other sections.

The WEP cancellation failed to create policy shifts appropriate for the peak oil and climate change future we are all entering. Other highway expansions through the Eugene Springfield metro area continue unabated, notably widenings of I-5, the Beltline I-5 interchange, and soon, the Beltline widening across the Willamette River. Perhaps worst of all was the blame game by conservative WEP proponents (such as Pat Farr) and the failure to acknowledge why the WEP was stopped by liberal WEP opponents.

Lane County is a multi polarized place and the WEP reflected this.

## WEP land for sale proof of cancellation







# PEAKTRAFFIC.org

**a legal strategy to cancel trillion dollar highway plans and prepare for post peak travel**





# PEAK TRAFFIC AND TRANSPORTATION TRIAGE

## Mark Robinowitz • PeakTraffic.org

Whether you focus on Peak Energy, Climate Chaos or what is euphemistically called the "Great Recession," each of these aspects of reaching the limits to growth mandate an end to highway expansion. We cannot afford to build more roads when we cannot maintain what we already have. The transition from cheap, abundant oil to expensive, hard to get oil is reducing the amount that people drive and damaging the economic system that requires endless growth to function. Peak Energy is starting to reduce the physical ability to grow traffic levels, regardless of economic circumstances. Burning fossil fuels pollutes the thin film of the atmosphere, with health consequences and environmental impacts, including global warming. Ecology, energy and money are interconnected and inseparable, and each require a holistic integration with the others to address any of them.

Energy depletion is not merely about personal transportation. Driving less will be uncomfortable, but eating less would be far more difficult. Most food eaten in the US crosses time zones, some travels across international borders. As fossil fuels decline we need to grow food where it is eaten. Relocalizing food production, growing food in cities, community gardens, suburban "food not lawn" efforts, and protection of farmland from asphalt and concrete are all needed to cope with oil depletion.

**George H.W. Bush's highway law - the 1991 Intermodal Surface Transportation Efficiency Act (ISTEA) - requires Federal aid highway plans to be designed for traffic conditions two decades in the future, not current traffic congestion.**

It's anyone's guess what energy (and therefore, traffic) levels will be in the 2030s, but under any physically possible scenario the flow rates of petroleum will be lower, since conventional fossil fuels have peaked globally. There will be oil extraction in the 2030s but less than current flow rates. Future fuels will be the dirtier, more expensive, difficult to extract "bottom of the barrel" supplies. Electric cars, public transit, car sharing, and relocalization could mitigate these impacts but not prevent them. It takes fossil fuels and minerals to make electric cars and repave roads.

**Transportation planning needs to focus on maintaining the enormous road networks already built, not expanding them further for travel demand that will not materialize on the energy downslope. Investments euphemistically called "modernization" should be dedicated toward train service, not super wide superhighways.**

The National Environmental Policy Act (NEPA) mandates a "Supplemental" Environmental Impact Statement must be prepared if there are "new circumstances" not anticipated when the scoping process was conducted. Surely reaching the global peak of petroleum production is relevant for a transportation project allegedly designed for travel long past the peak.

**If the Federal Highway Administration included Peak Energy in environmental analyses, this would be a seismic shift in transportation planning across the United States. Plans need to consider energy depletion and the limits to growth on a finite planet.**

There are several ways this shift could happen: a successful Federal lawsuit forces FHWA to include Peak Energy, the start of gasoline rationing (delayed by fracking and tar sands mining) forces transportation planners to consider alternatives, or a change in national policies.

**Peak Energy and Peak Vehicle Miles Traveled are "new circumstances" relevant for proposed transportation projects.**



### Council on Environmental Quality regulations

40 CFR 1502.9:

Draft, final and supplemental statements.

(c) Agencies:

(1) Shall prepare supplements to either draft or final environmental impact statements if:

- (i) The agency makes substantial changes in the proposed action that are relevant to environmental concerns; or
- (ii) **There are significant new circumstances or information** relevant to environmental concerns and bearing on the proposed action or its impacts.

### Federal Highway Administration regulations

23 CFR 771.130:

Supplemental environmental impact statements.

(a) A draft EIS, final EIS, or supplemental EIS may be supplemented at any time. An EIS shall be supplemented whenever the Administration determines that:

- (1) Changes to the proposed action would result in significant environmental impacts that were not evaluated in the EIS; or
- (2) **New information or circumstances relevant** to environmental concerns and bearings on the proposed action or its impacts would result in significant environmental impacts not evaluated in the EIS.

**"These forty million [poor] people are invisible because America is so affluent, so rich; because our expressways carry us away from the ghetto, we don't see the poor."**

**— Martin Luther King, "Remaining Awake Through a Great Revolution," March 31, 1968**



# Percent reduction in total fuel use by IEA region, selected measures

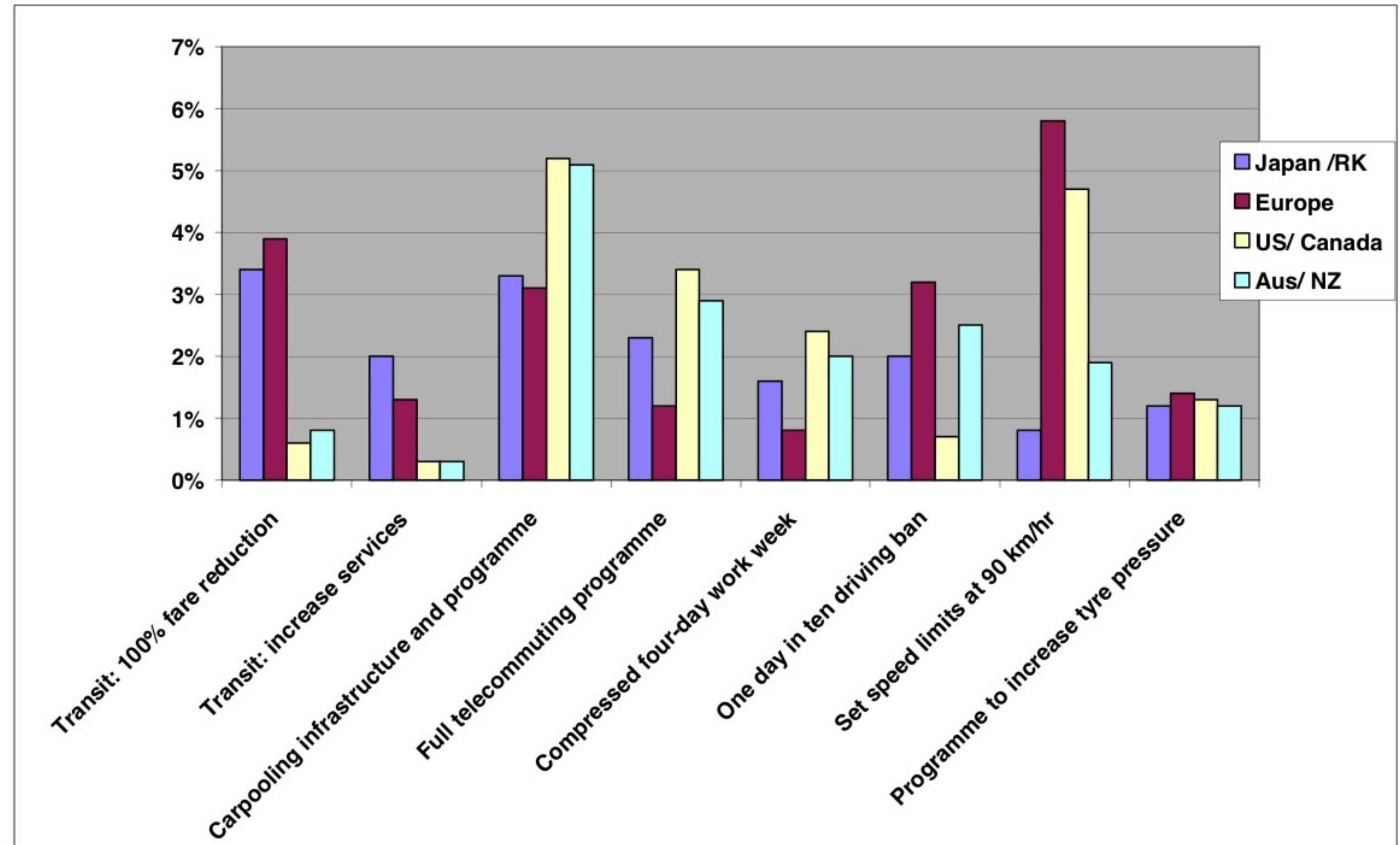
Saving Oil in a Hurry is from an International Energy Agency conference in 2005. This chart shows a variety of policies that could quickly reduce oil consumption in the event of urgent need. The specific reason was left vague but could include depletion of oil fields, policies to address climate change and of course, war that disrupts production.

Some policies would be more effective in some places than others. Making public transit free would have more impact in Japan, the Republic of Korea and Europe than in the US, Canada, Australia and New Zealand. Conversely, car pooling would help more in the latter countries than in the former.

The late activist Jan Lundberg, who left his family's oil consultancy to campaign against car culture, said the New York Times once offered to publish an op-ed by him but only if he focused on increasing tire pressure to make cars more efficient. He declined their offer. Among Jan's projects were the Alliance for a Paving Moratorium, Culture Change and the Sail Transport Network.

About a decade ago I shared this graphic with the Climate and Energy staffperson for the City of Eugene. He was literate about the risks Peak Oil poses to everything and said this graphic was extremely helpful. I asked what he planned to do with it, would he share it with his colleagues planning Eugene's future? He replied that he would keep it to his files, waiting for a time when sharing it would be better received. Unfortunately, advance planning for crisis works better than waiting for chaos.

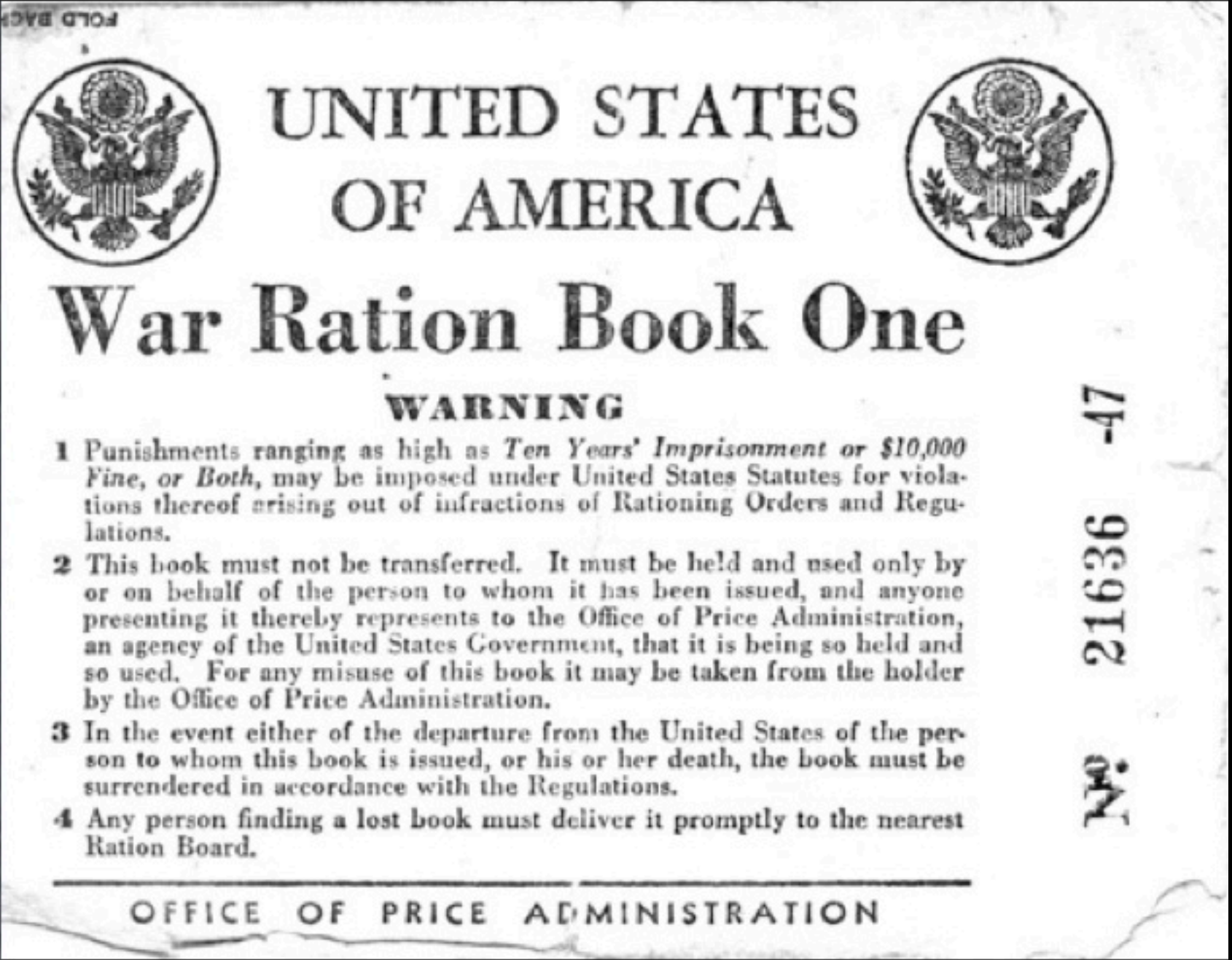
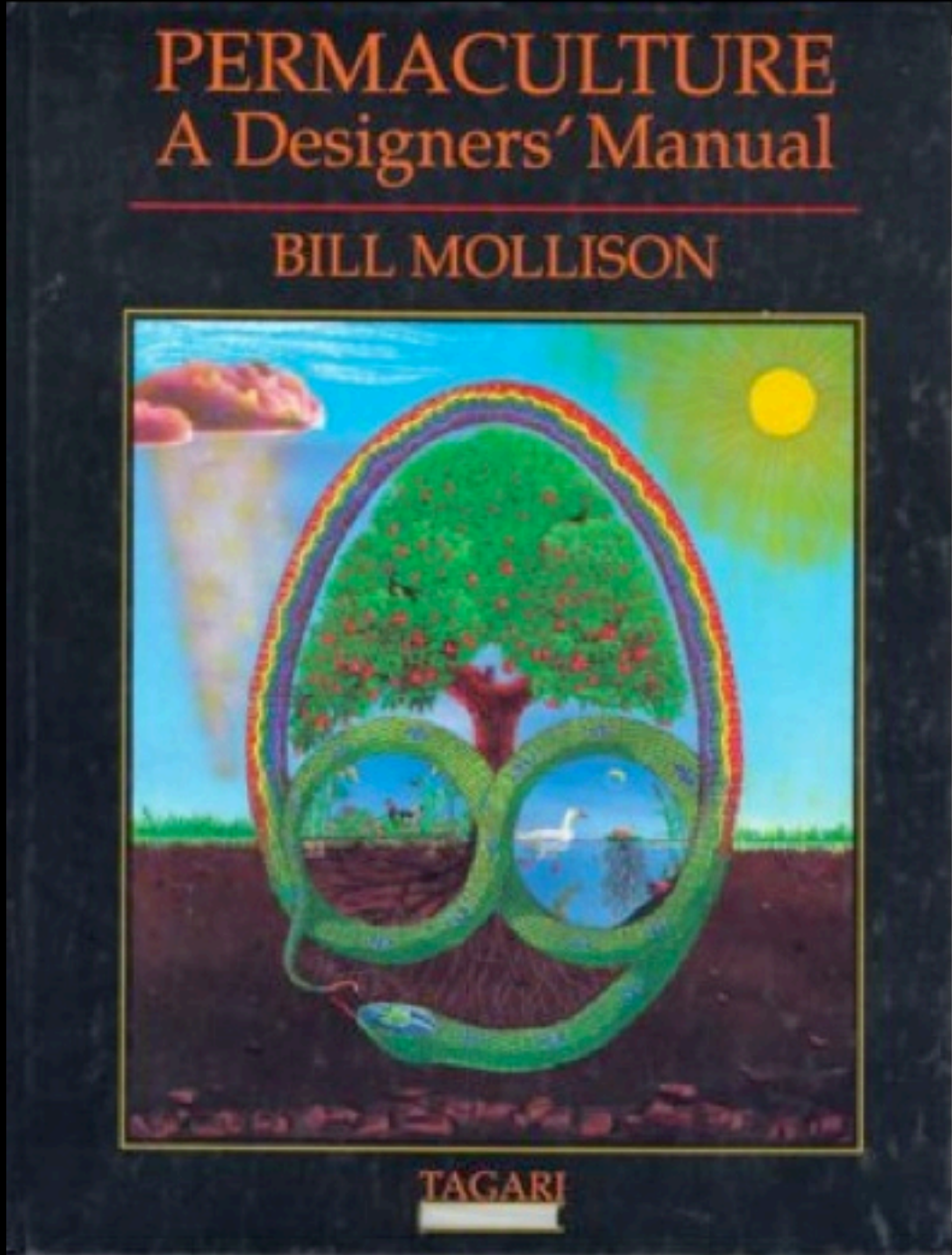
Being in less of a hurry would save oil in a hurry.





# two responses to resource depletion

**RATIONING** imposed by military force  
**PERMACULTURE** to shift society toward sustainability









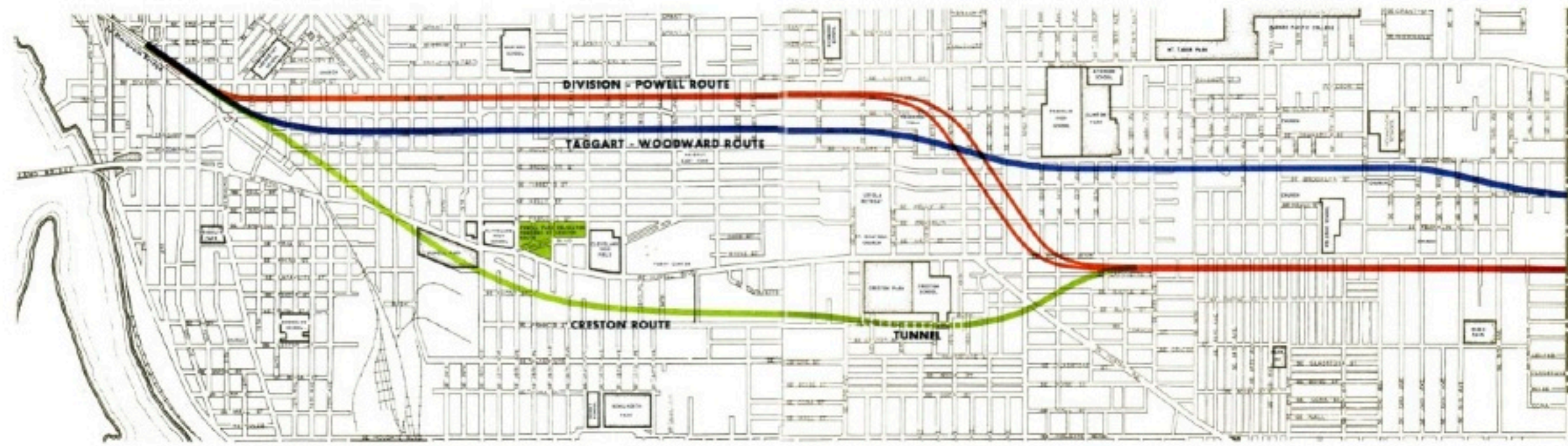


Figure 31. Mt. Hood Freeway alternatives, Skidmore-Owings and Merrill Report, 1972  
(Source: ODOT GF).

[Code of Federal Regulations]  
[Title 23, Volume 1, Part 1]  
[Revised as of April 1, 1997]  
From the U.S. Government Printing Office via GPO Access  
[CITE: 23CFR476]

[Page 131-135]

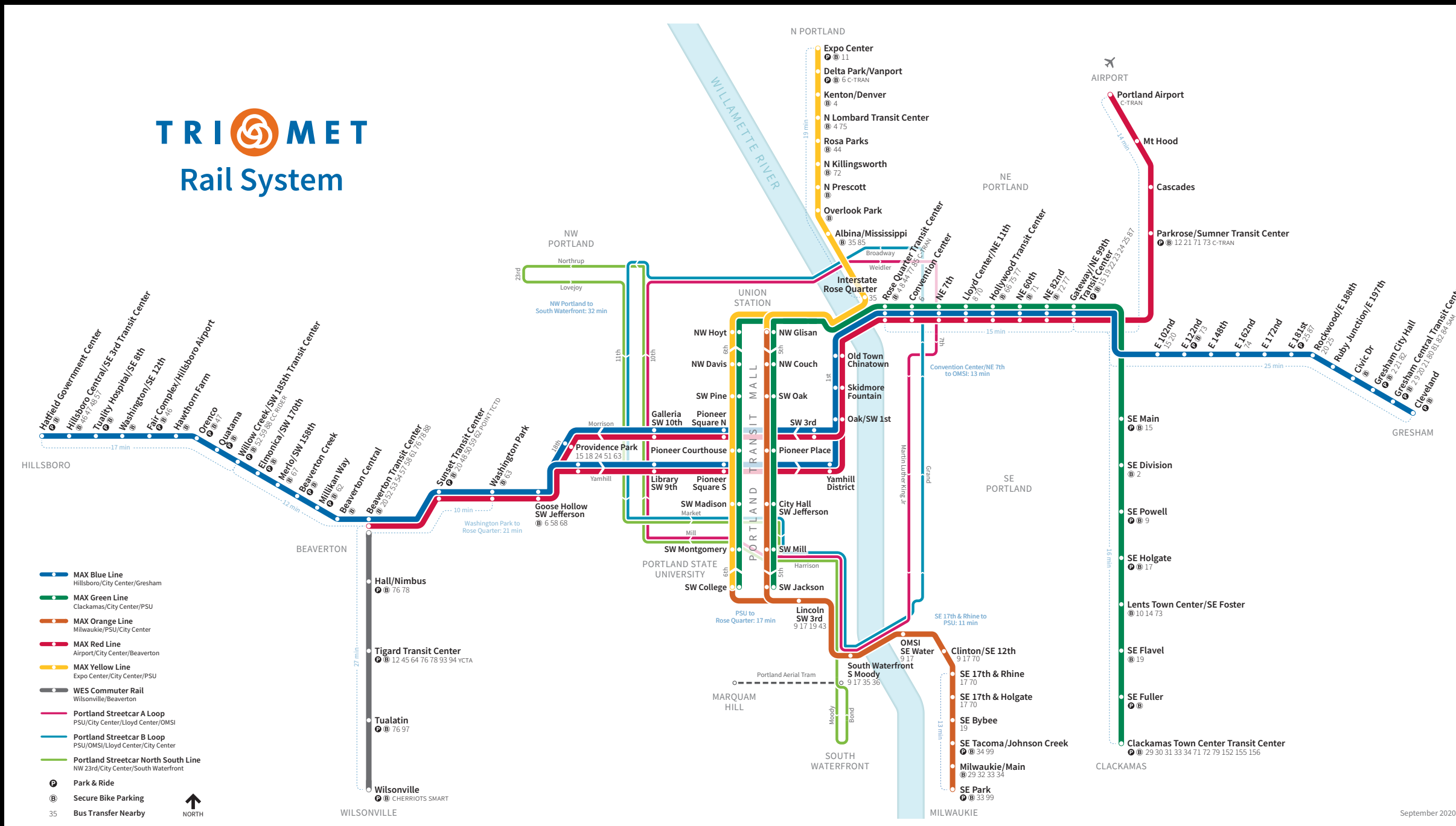
TITLE 23--HIGHWAYS

PART 476--INTERSTATE HIGHWAY SYSTEM--Table of Contents

Subpart D--Withdrawal of Interstate Segments and Substitution of Public Mass Transit or Highway Projects or Both

Source: 45 FR 69397, Oct. 20, 1980, unless otherwise noted.

Federal highway funds for Mt. Hood freeway were redirected to the first light rail line in Portland (to Gresham)



through S.J.R. 18, 1915, and adopted by the people Nov. 7, 1916]

**Section 1c. Financing redevelopment and urban renewal projects.** The Legislative Assembly may provide that the ad valorem taxes levied by any taxing unit, in which is located all or part of an area included in a redevelopment or urban renewal project, may be divided so that the taxes levied against any increase in the assessed value, as defined by law, of property in such area obtaining after the effective date of the ordinance or resolution approving the redevelopment or urban renewal plan for such area, shall be used to pay any indebtedness incurred for the redevelopment or urban renewal project. The legislature may enact such laws as may be necessary to carry out the purposes of this section. [Created through S.J.R. 32, 1959, and adopted by the people Nov. 8, 1960; Amendment proposed by H.J.R. 85, 1997, and adopted by the people May 20, 1997]

**Section 2. Legislature to provide revenue to pay current state expenses and interest.** The Legislative Assembly shall provide for raising revenue sufficiently to defray the expenses of the State for each fiscal year, and also a sufficient sum to pay the interest on the State debt, if there be any.

**Section 3. Laws imposing taxes; gasoline and motor vehicle taxes.** [Constitution of 1859; Amendment proposed by S.J.R. 11, 1941, and adopted by the people Nov. 3, 1942; Repeal proposed by S.J.R. 7, 1979, and adopted by the people May 20, 1980]

**Section 3. Tax imposed only by law; statement of purpose.** No tax shall be levied except in accordance with law. Every law imposing a tax shall state distinctly the purpose to which the revenue shall be applied. [Created through S.J.R. 7, 1979, and adopted by the people May 20, 1980 (this section and section 3a adopted in lieu of former section 3 of this Article)]

**Section 3a. Use of revenue from taxes on motor vehicle use and fuel; legislative review of allocation of taxes between vehicle classes.** (1) Except as provided in subsection (2) of this section, revenue from the following shall be used exclusively for the construction, reconstruction, improvement, repair, maintenance, operation and use of public highways, roads, streets and roadside rest areas in this state:

(a) Any tax levied on, with respect to, or measured by the storage, withdrawal, use, sale, distribution, importation or receipt of motor vehicle fuel or any other product used for the propulsion of motor vehicles; and

(b) Any tax or excise levied on the ownership, operation or use of motor vehicles.

(2) Revenues described in subsection (1) of this section:

(a) May also be used for the cost of administration and any refunds or credits authorized by law.

(b) May also be used for the retirement of bonds for which such revenues have been pledged.

(c) If from levies under paragraph (b) of subsection (1) of this section on campers, motor homes, travel trailers, snowmobiles, or like vehicles, may also be used for the acquisition, development, maintenance or care of parks or recreation areas.

(d) If from levies under paragraph (b) of subsection (1) of this section on vehicles used or held out for use for commercial purposes, may also be used for enforcement of commercial vehicle weight, size, load, conformation and equipment regulation.

(3) Revenues described in subsection (1) of this section that are generated by taxes or excises imposed by the state shall be generated in a manner that ensures that the share of revenues paid for the use of light vehicles, including cars, and the share of revenues paid for the use of heavy vehicles, including trucks, is fair and proportionate to the costs incurred for the highway system because of each class of vehicle. The Legislative Assembly shall provide for a biennial review and, if necessary, adjustment, of revenue sources to ensure fairness and proportionality. [Created through S.J.R. 7, 1979, and adopted by the people May 20, 1980 (this section and section 3 adopted in lieu of former section 3 of this Article); Amendment proposed by S.J.R. 44, 1999, and adopted by the people Nov. 2, 1999; Amendment proposed by S.J.R. 14, 2003, and adopted by the people Nov. 2, 2004]

**Section 3b. Rate of levy on oil or natural gas; exception.** Any tax or excise levied on, with respect to or measured by the extraction, production, storage, use, sale, distribution or receipt of oil or natural gas, or the ownership thereof, shall not be levied at a rate that is greater than six percent of the market value of all oil and natural gas produced or salvaged from the earth or waters of this state as and when owned or produced. This section does not apply to any

Oregon's Constitution prohibits using gas taxes for public transit. It has long been a goal of some transit advocates to use some gas tax funds, which would also benefit motorists by encouraging some to take transit (which could reduce traffic congestion, especially for those who would still drive). Increases in the price of petroleum make gas taxes even more difficult to enact.



**Selected Alternative**



# Columbia River Crossing

## I-5 widening: 12 lane bridge up to 16 lanes in Vancouver legally approved but unfunded

In 2013, the Oregon House voted 45-11 in favor of \$450 million toward the \$4 billion CRC and the State Senate voted 18-11 in favor. Only two Democrats in the House and one in the Senate voted against. Washington legislators want the road but not the light rail to Vancouver, so they did not appropriate anything. The environmentalist lawsuit was unsuccessful. It discussed impacts to salmon in the river more than highway law violations.



### CRC FORECAST VS. ACTUAL TRAFFIC

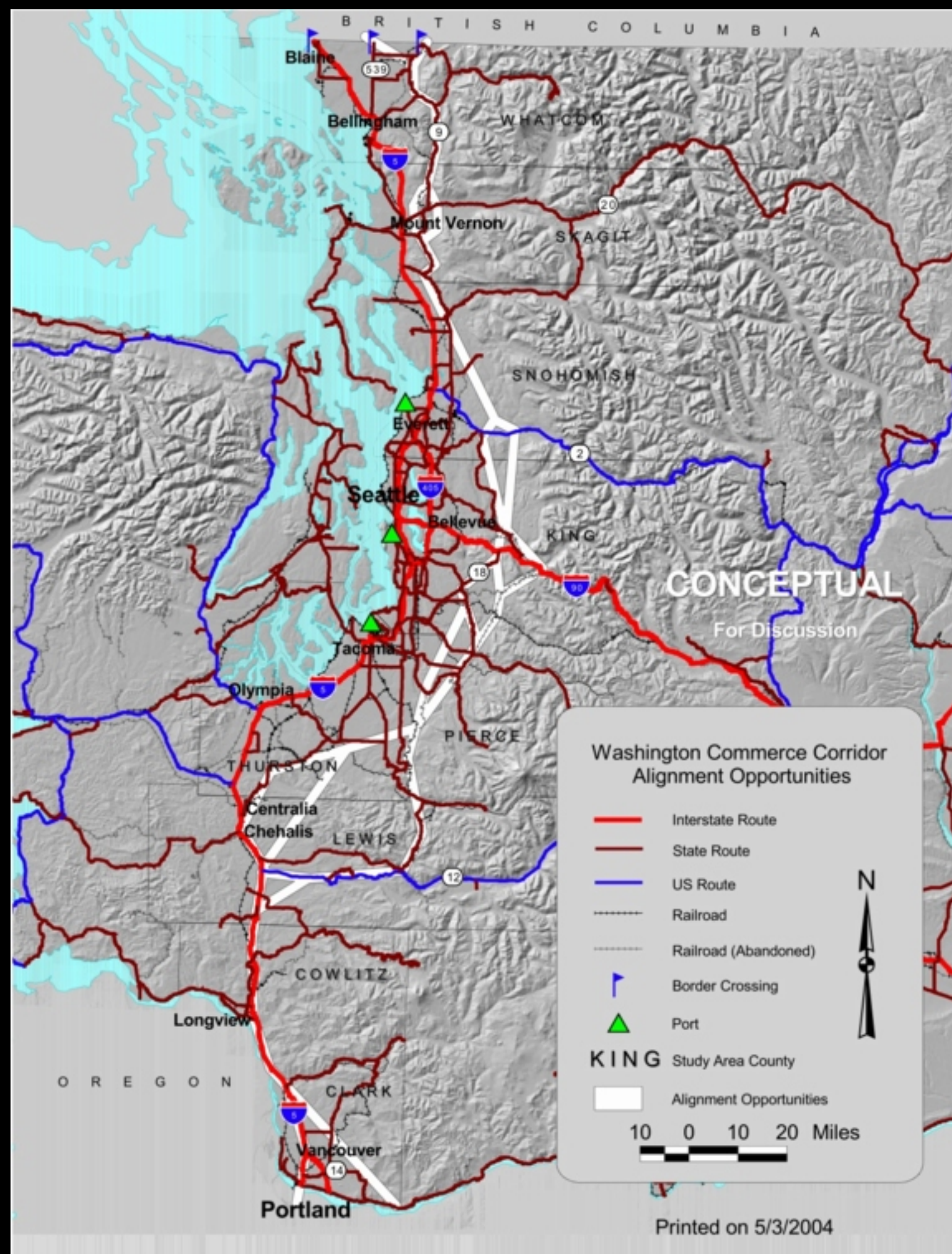
Behind schedule: Actual daily crossing of the I-5 bridge between Portland and Vancouver (lower line) have lagged far behind the projections upon which the project is based.





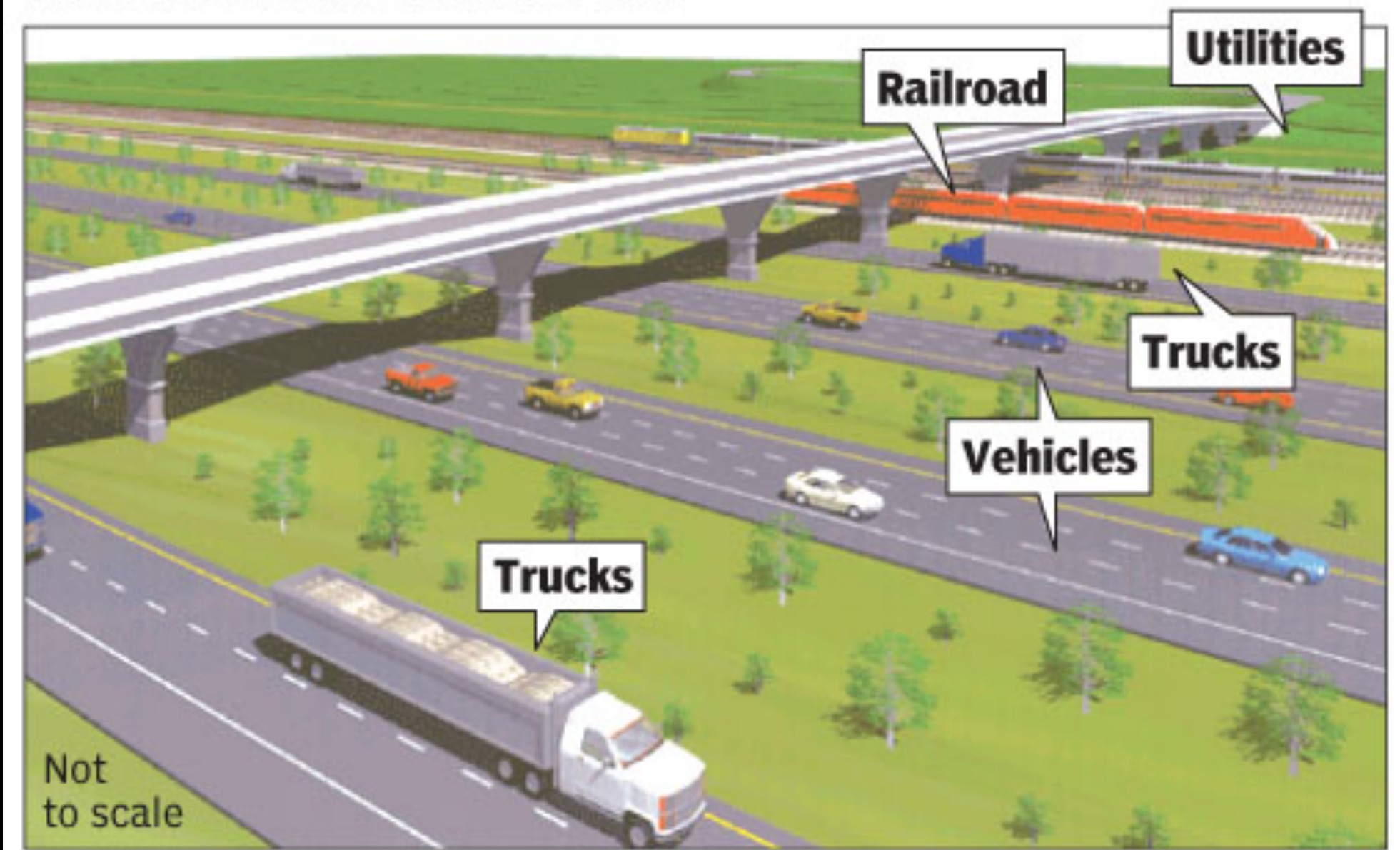
# Washington Commerce Corridor

NAFTA Superhighway: Vancouver to Vancouver would resemble Trans Texas Corridor proposal withdrawn for now, but shows long term thinking



## Trans-Texas Corridor plan

This artist rendering released by TxDOT in 2002 showed the Trans-Texas Corridor as a 1,200-foot-wide mix of roads, railways and utilities. The image, as well as the intent behind it, stoked political opposition that has engulfed the transportation concept since shortly after Gov. Rick Perry introduced it. On Tuesday, Perry and TxDOT said that the name is no more and that the corridor width would be no more than 600 feet.



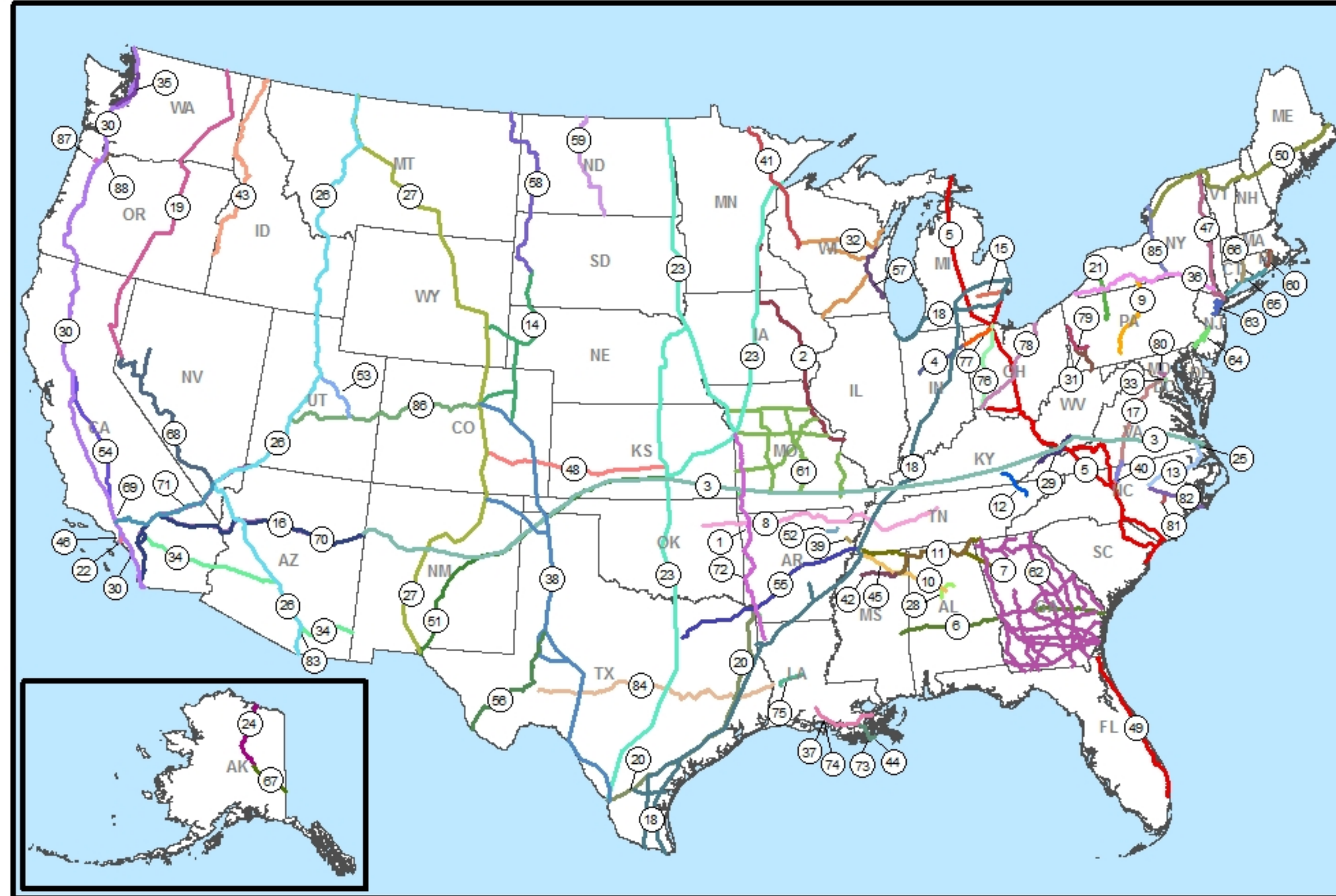
Source: Texas Department of Transportation

AMERICAN-STATESMAN





## Congressional High Priority Corridors on the National Highway System



Notes:  
\*\*Corridor numbers correspond to statutory listing in Section 1105(c) of ISTEA, as amended.  
\*\*Colors are added for clarity only.  
\*\*Corridors based on information available as of December 4, 2015  
\*\*In some corridors, alignments are in project development stage.

December 16, 2015

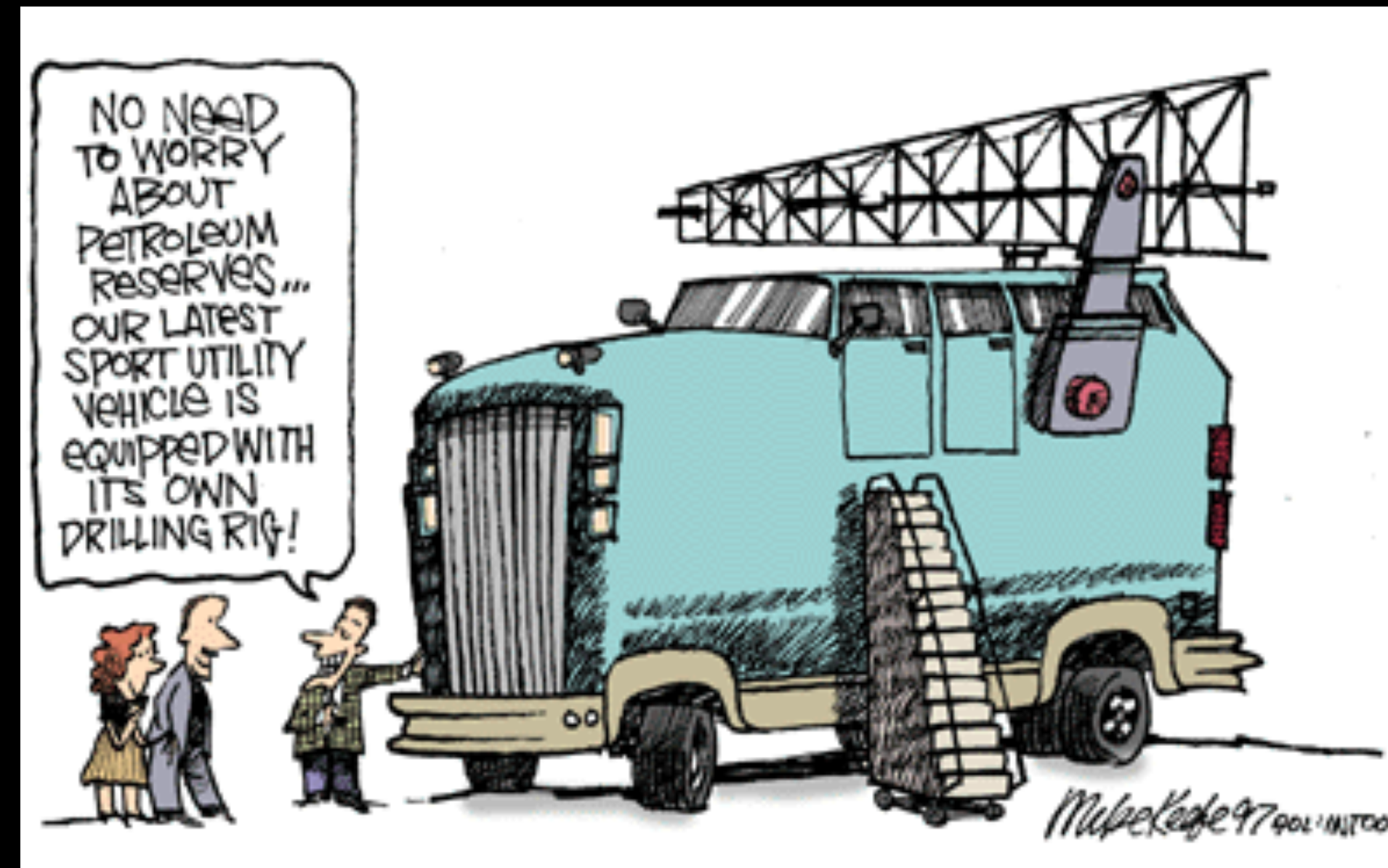
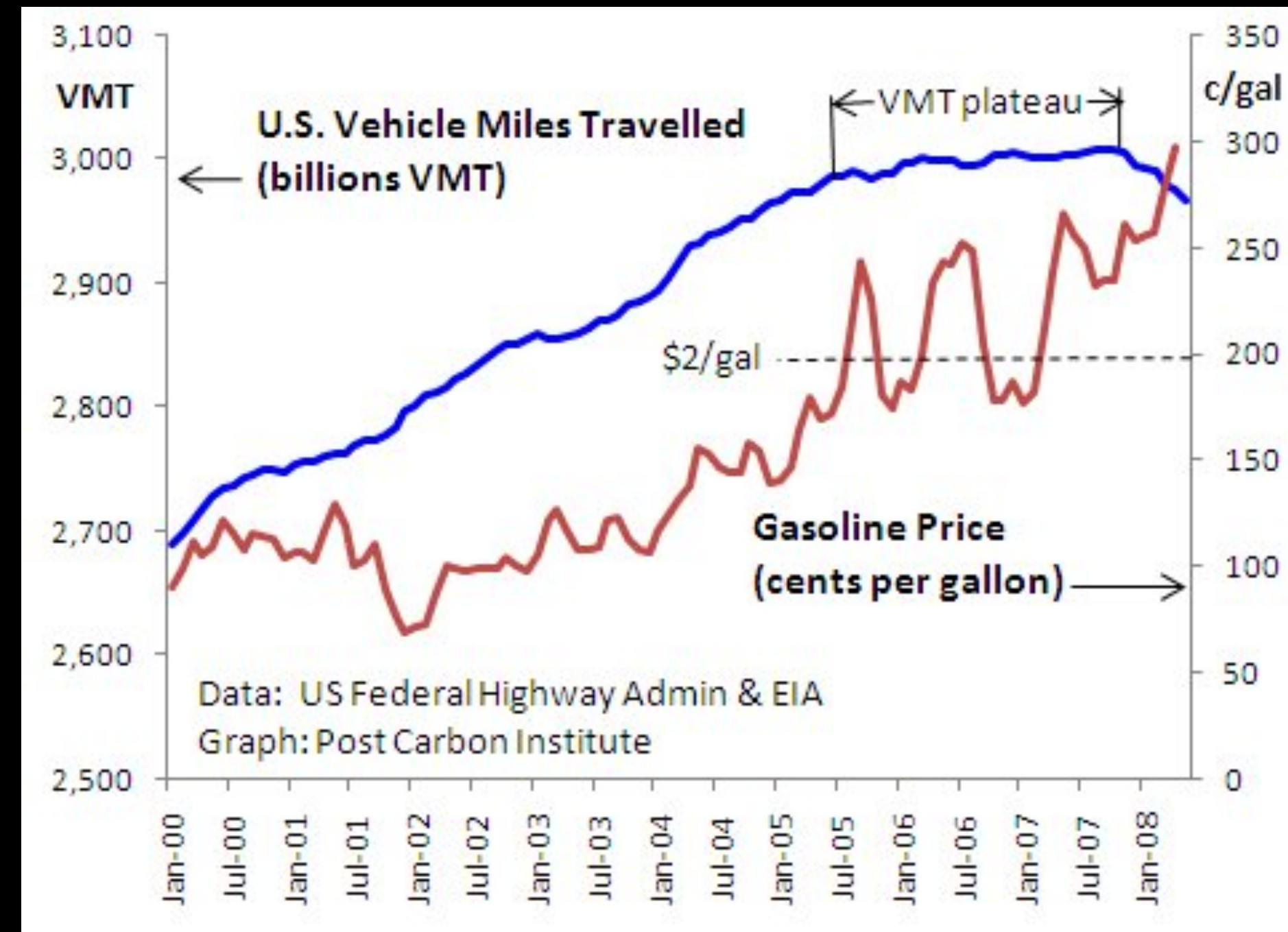
The 1991 federal transportation law "ISTEA" created a list of "Congressional High Priority Corridors" which are the projects that Congress loves the most (they are a small subset of overall highway plans). The numbers for the corridors are not route numbers, they are the numbering from the law's list of projects.

Some of these projects are new interstate highways. Some are new limited access roads but not formally called "interstates" for bureaucratic reasons. Some are upgrades, converting arterials (rural or urban) to divided highways, not necessarily built to interstate standards.



Most people have now heard of the concept of Peak Oil, but there is still not much public awareness of the implication and virtually no official response to the crisis. Peak Oil does not mean that the oil has run out, it merely is the point where oil extraction rates can no longer be increased no matter how much effort is expended. The end of the growth of fossil fuel use has tremendous implications for every aspect of civilization - beyond the scope of this short presentation - but it is safe to say that how we manage the downslope of petroleum is the most critical task facing our species. How will we use the rest of the oil - to help prepare future generations for living without any oil, or to pretend that business as usual will remain possible. Technological changes for efficiency will be useful, but they will not be sufficient to cope with the scale of these problems.

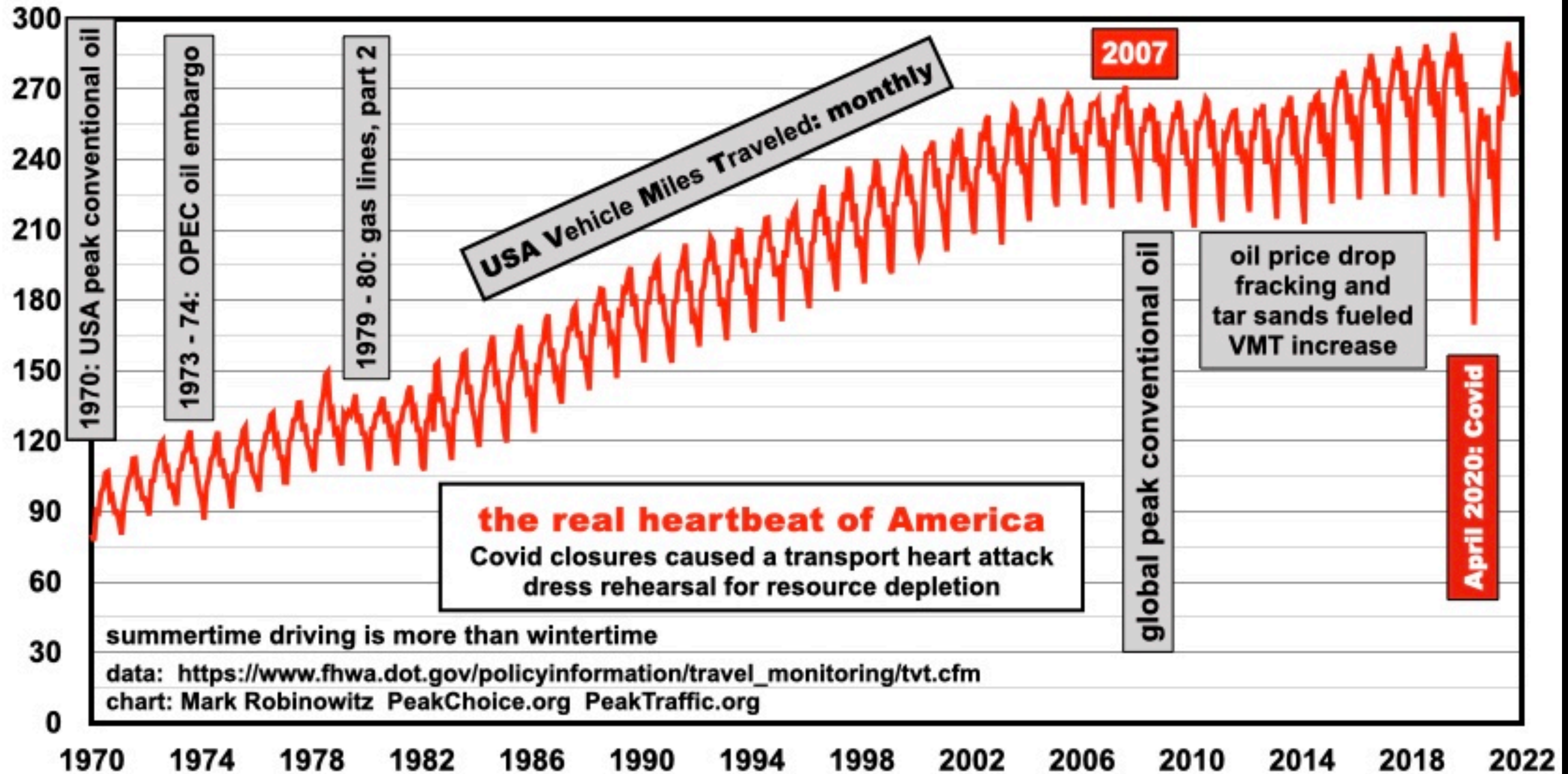
The Peak Oil curve mirrors the rise of Vehicle Miles Travelled on our highways, even showing temporary decreases after the 1973 Saudi oil embargo and the 1979 Iranian revolution. But the current leveling off of traffic levels is a permanent condition, since on the downslope of oil production there will be less energy available for transportation, and a diminished economy capable of sustaining this level of activity. Even a more rapid introduction of hyper efficient cars or electric vehicles will merely change the slope of the Peak Traffic downslope, since it takes a long time to convert existing infrastructure, it takes a lot of energy to make the alternative technologies, and we should have done this decades ago for the transition to be painless.





# USA VMT January 1970 - November 2021

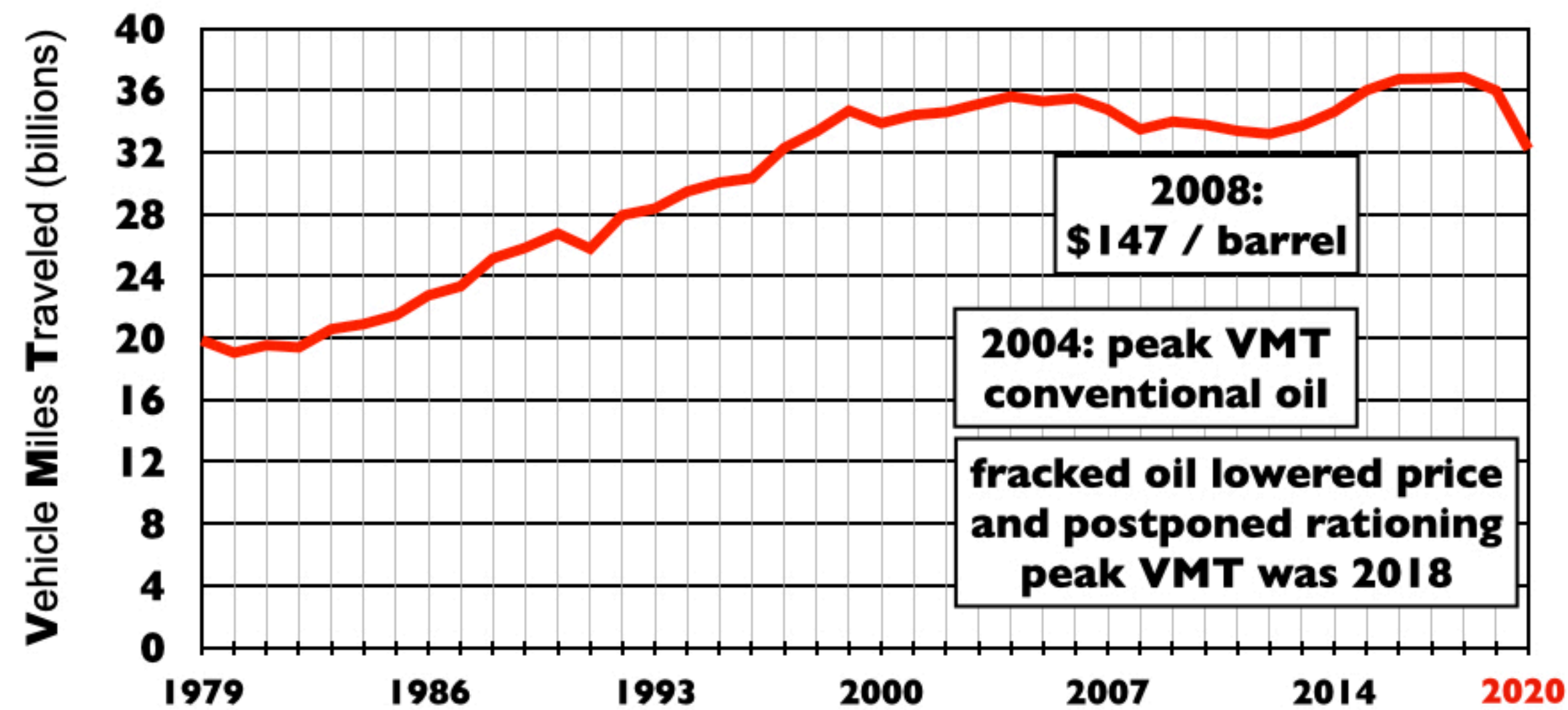
billions of miles per month





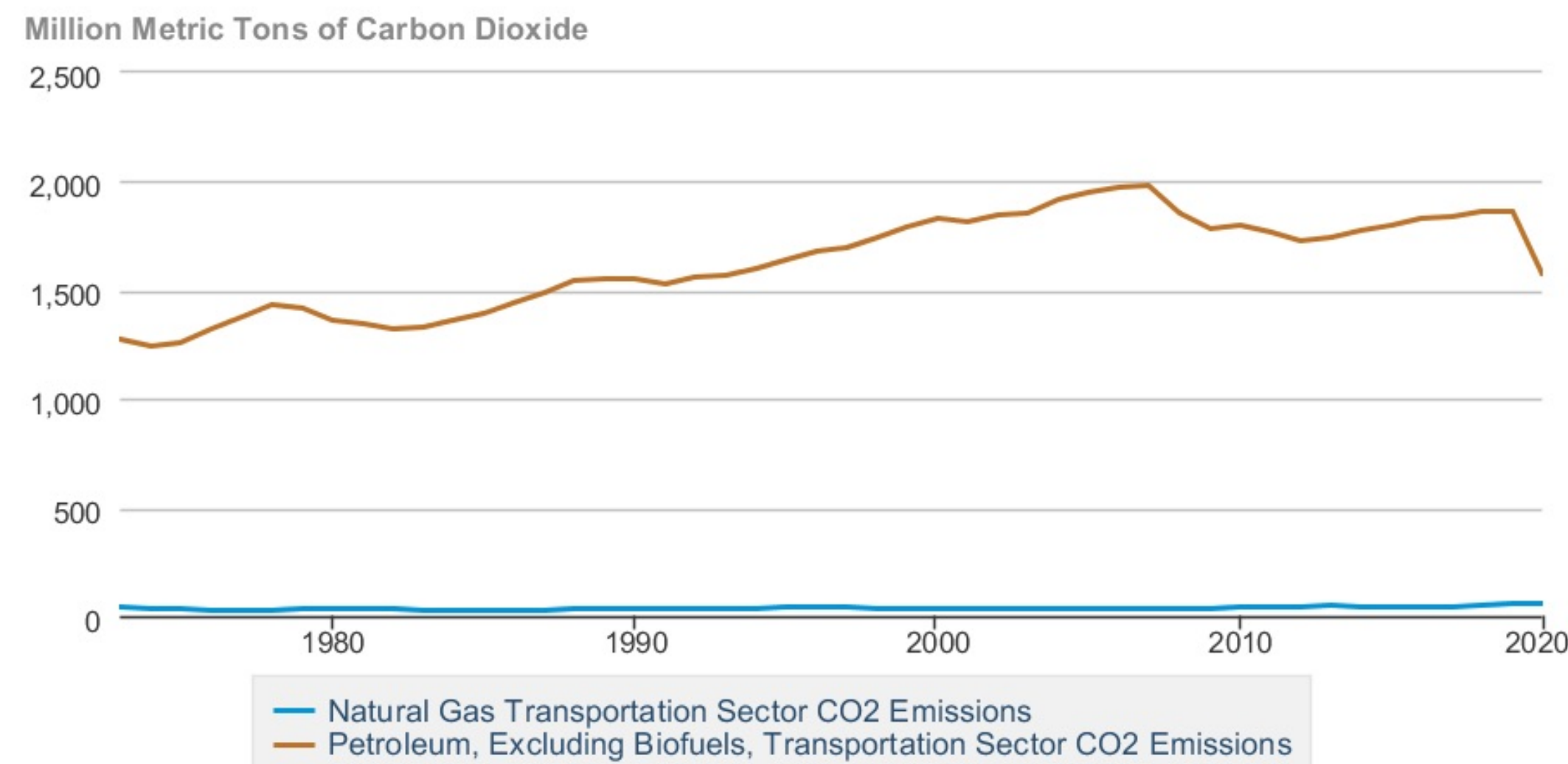
# Oregon: all roads VMT 1979 to 2020

data source: [www.oregon.gov/ODOT/Data/Pages/Traffic-Counting.aspx](http://www.oregon.gov/ODOT/Data/Pages/Traffic-Counting.aspx)  
 chart: Mark Robinowitz - Peak Choice.org - PeakTraffic.org - SustainEugene.org

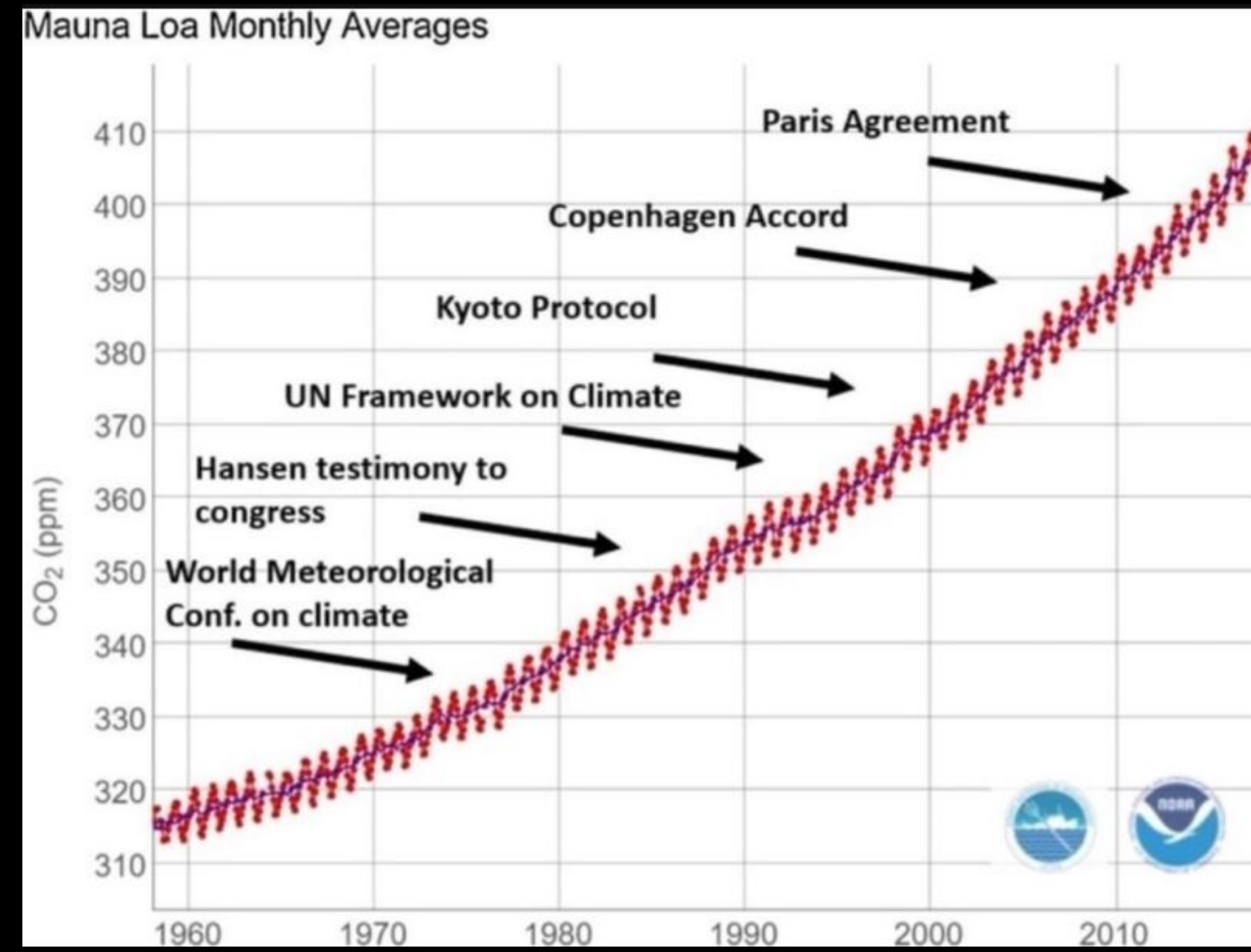


**Covid closures  
 cut carbon  
 more than  
 climate activism**

Table 11.5 Carbon Dioxide Emissions From Energy Consumption: Transportation Sector

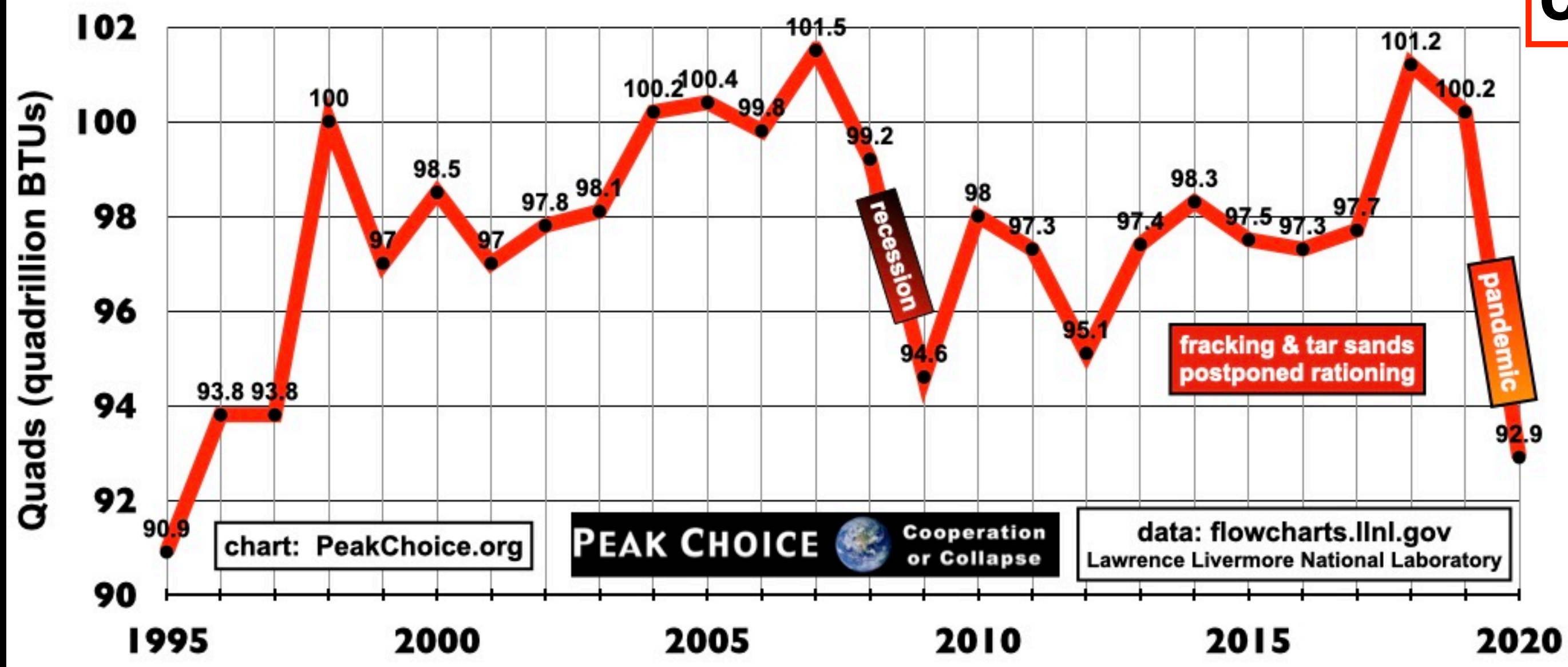






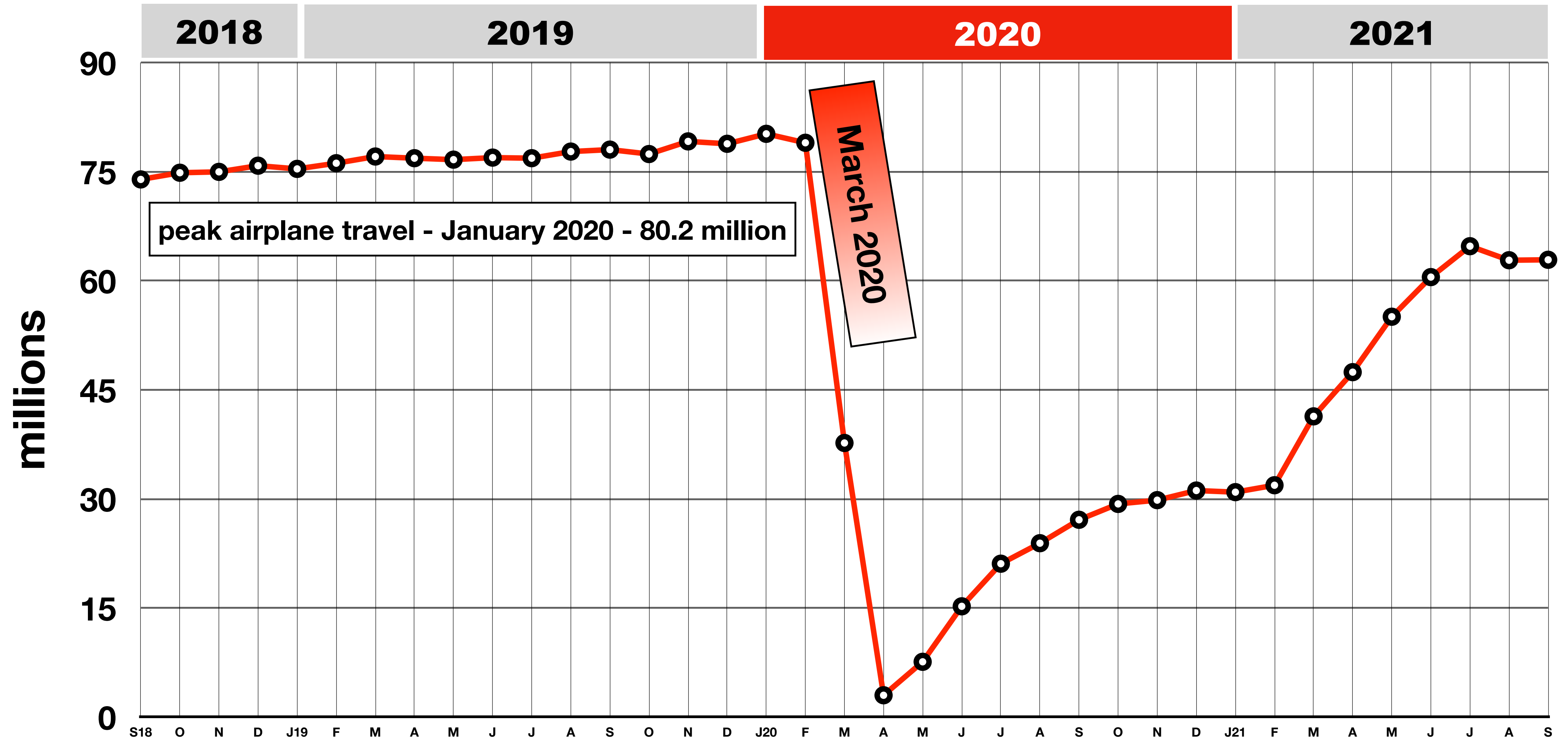
**Covid closures cut carbon more than climate activism**

## USA peak energy all sources





# monthly USA aviation passengers



**chart: PeakChoice.org**

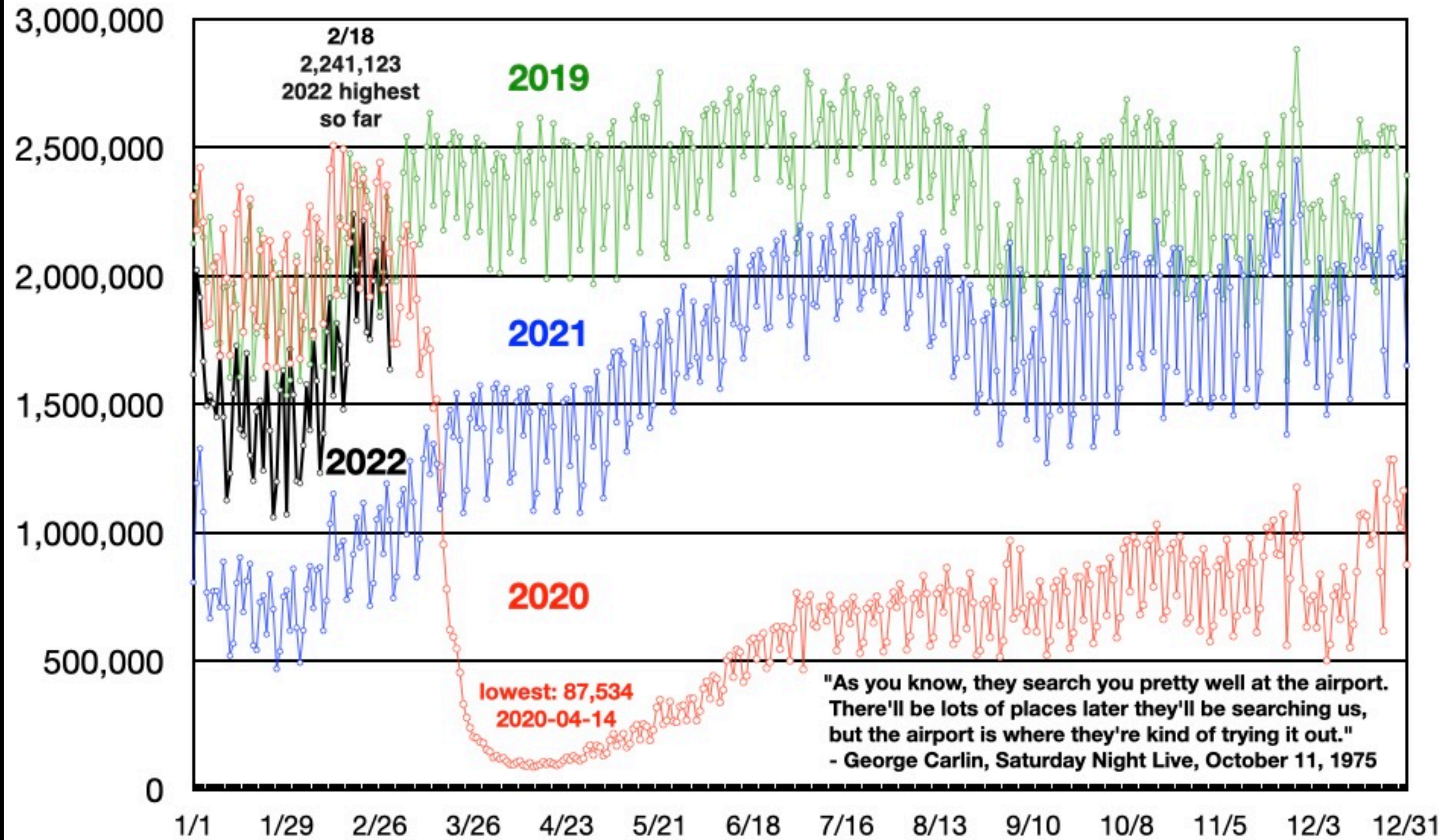
data: [www.bts.dot.gov/newsroom/september-2021-us-airline-traffic-data](http://www.bts.dot.gov/newsroom/september-2021-us-airline-traffic-data)



# TSA daily airport checkpoint — 2019, 2020, 2021, 2022

data: [www.tsa.gov/coronavirus/passenger-throughput](http://www.tsa.gov/coronavirus/passenger-throughput)

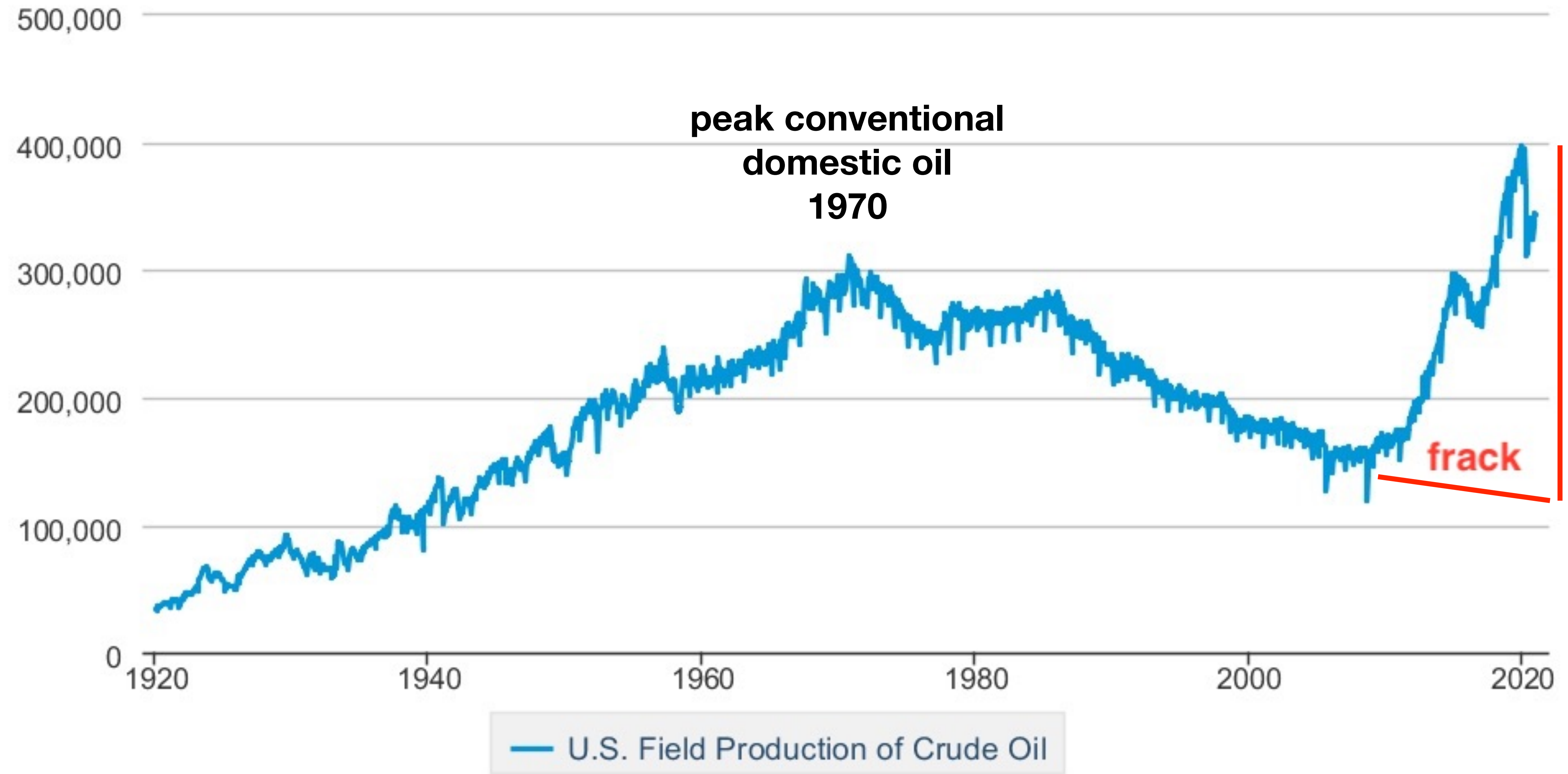
chart: PeakChoice.org - cooperation or collapse





# U.S. Field Production of Crude Oil

Thousand Barrels



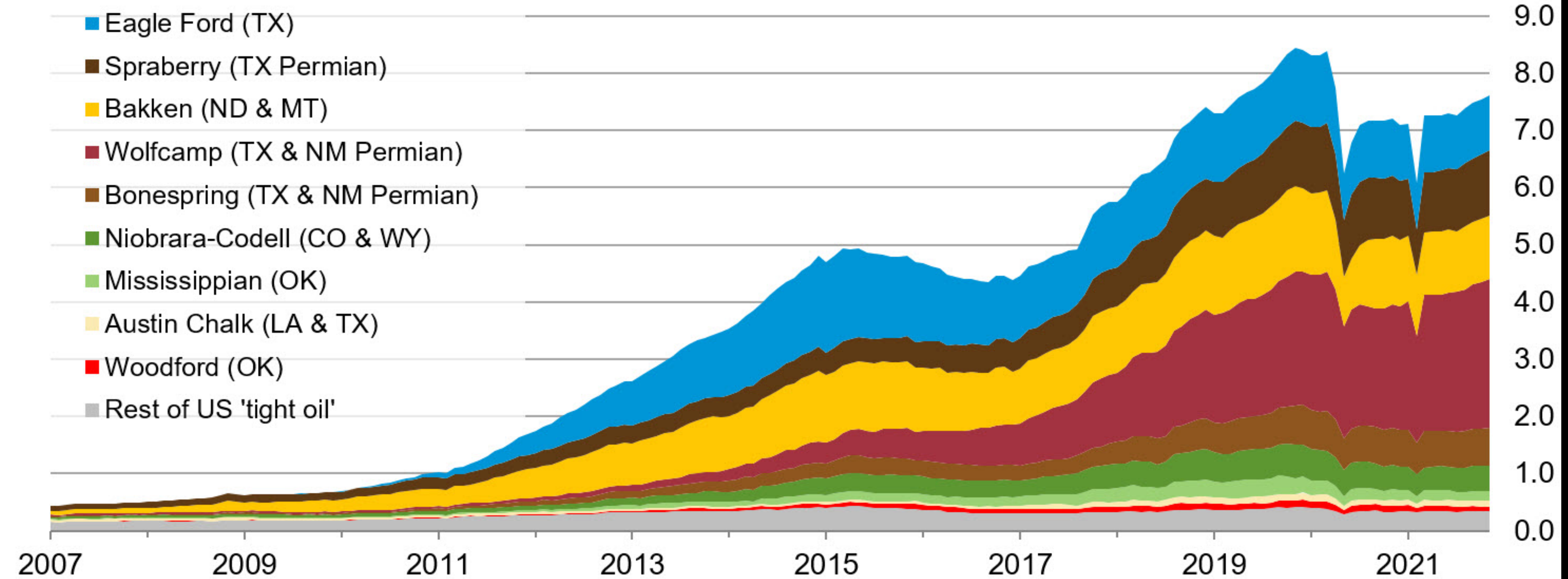
Source: U.S. Energy Information Administration



# U.S. tight oil production – selected plays

million barrels of oil per day

**fracked oil is two thirds of domestic oil production  
fracked wells deplete faster than conventional wells**



Sources: EIA derived from state administrative data collected by Enverus. Data are through November 2021 and represent EIA's official tight oil estimates, but are not survey data. State abbreviations indicate primary state(s).

Note: Improvements to play identification methods have altered production volumes between various plays.





# ALASKA PIPELINE: PEAK & DECLINE

nearing low flow shutdown threshold for Arctic winter operations  
extraction is now less in summer to reserve capacity for winter

drilling "ANWR" might retrieve another billion barrels, maybe more,  
to offset (temporarily) decline of Prudhoe Bay

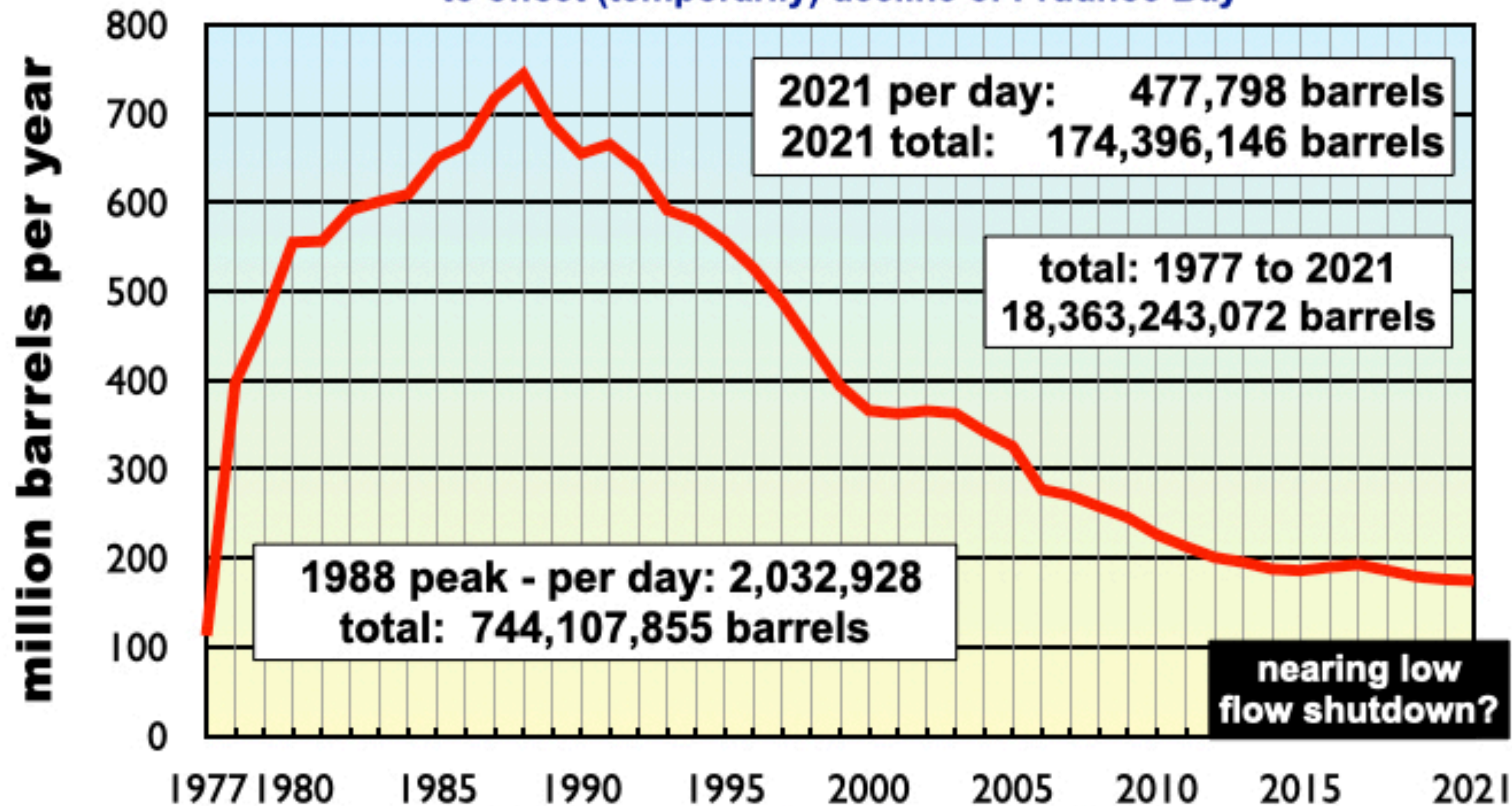


chart: [www.PeakChoice.org/peak-alaska-pipeline.html](http://www.PeakChoice.org/peak-alaska-pipeline.html)

data: [www.alyeska-pipe.com/historic-throughput/](http://www.alyeska-pipe.com/historic-throughput/)



Nearly all petroleum products used in Oregon and Washington are processed at the five refineries in Puget Sound. If you drive a car, an SUV, ride a bus, train or plane, or shop in a grocery store that uses food delivery trucks, you are dependent on the Alaska Pipeline.

Is there a "Plan B" when the Pipeline shuts down due to low flow? Are proposals for oil trains from North Dakota to Cascadia's ports a cover story for using fracked oil and tar sands to prop up our regional economy after Alaska's energy supplies are done? (Fracking is also a temporary, toxic fix since fracked wells deplete faster than conventional wells.) Oregon and Washington do not have ANY oil supplies since we have the wrong geology to make petroleum traps.

# Oregon and Washington State get Alaskan oil via Puget Sound refineries

**BP**  
refinery: Conoco Phillips - Ferndale  
**Conoco**

**Tesoro**  
refinery: Tesoro Anacortes  
**Shell**  
refinery: Shell Anacortes

  
Trident subs  
nuclear war

**U.S. Oil**  
refinery: US Oil & refining - Tacoma Refinery

©2007 Google™

Data SIO, NOAA, U.S. Navy, NGA, GEBCO  
©2012 Cnes/Spot Image  
Image ©2012 TerraMetrics  
©2012 Google  
Streaming 100%

Pointer 48° 5.148' N 123° 6.559' W

Eye alt 283.56 km





This sign showing \$6 per gallon after Katrina was at a Georgia gas station.

Peak Oil is not a scam from the oil companies to raise prices, although they are certainly taking advantage of Peak Oil to transfer vast amounts of wealth into their greedy pockets. If the United States becomes an authentic democracy, we could nationalize the oil companies and use the profits to help the whole society prepare for Peak Oil. Oil profits could be redirected to public transit, insulating homes and renewable energy systems. This would not be “socialism” but changing what is produced, not just who owns the means of production.



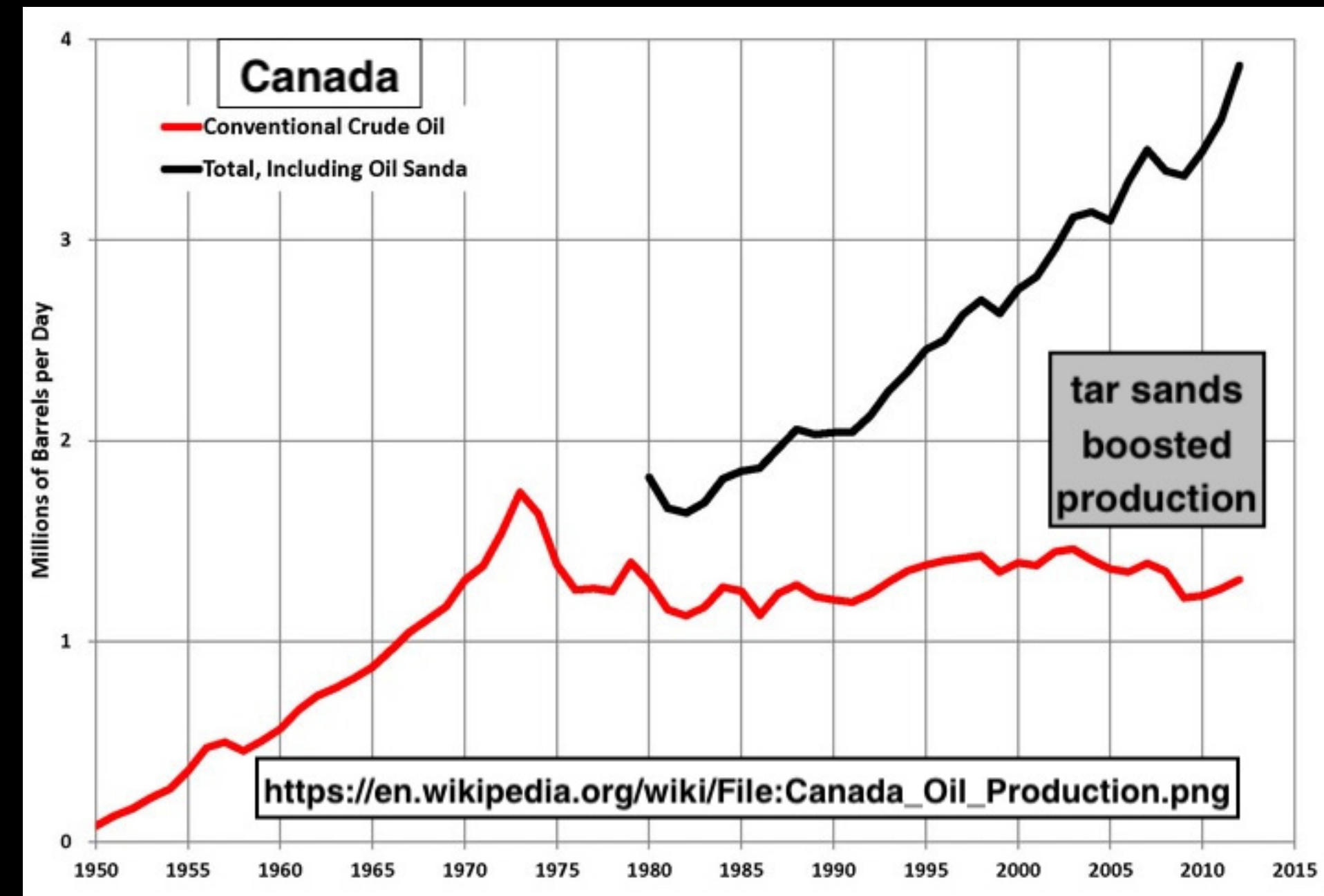


Dick Cheney said the American Way of Life is not negotiable.





**Tar Sands**  
eating the Earth  
for cars

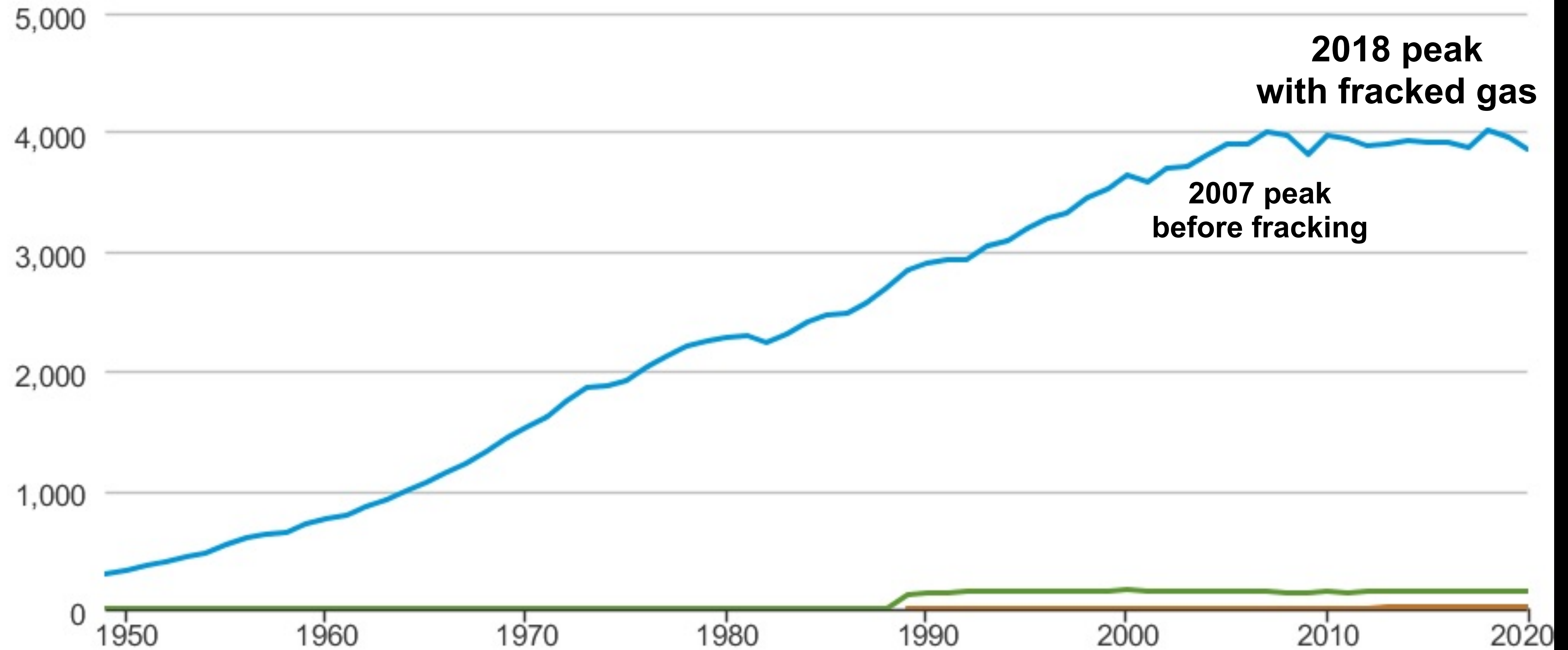




**Table 7.1 Electricity Overview**

**Peak Electricity all 50 states**

Billion Kilowatthours



— Electricity Net Generation, Electric Power Sector — Electricity Net Generation, Commercial Sector  
— Electricity Net Generation, Industrial Sector



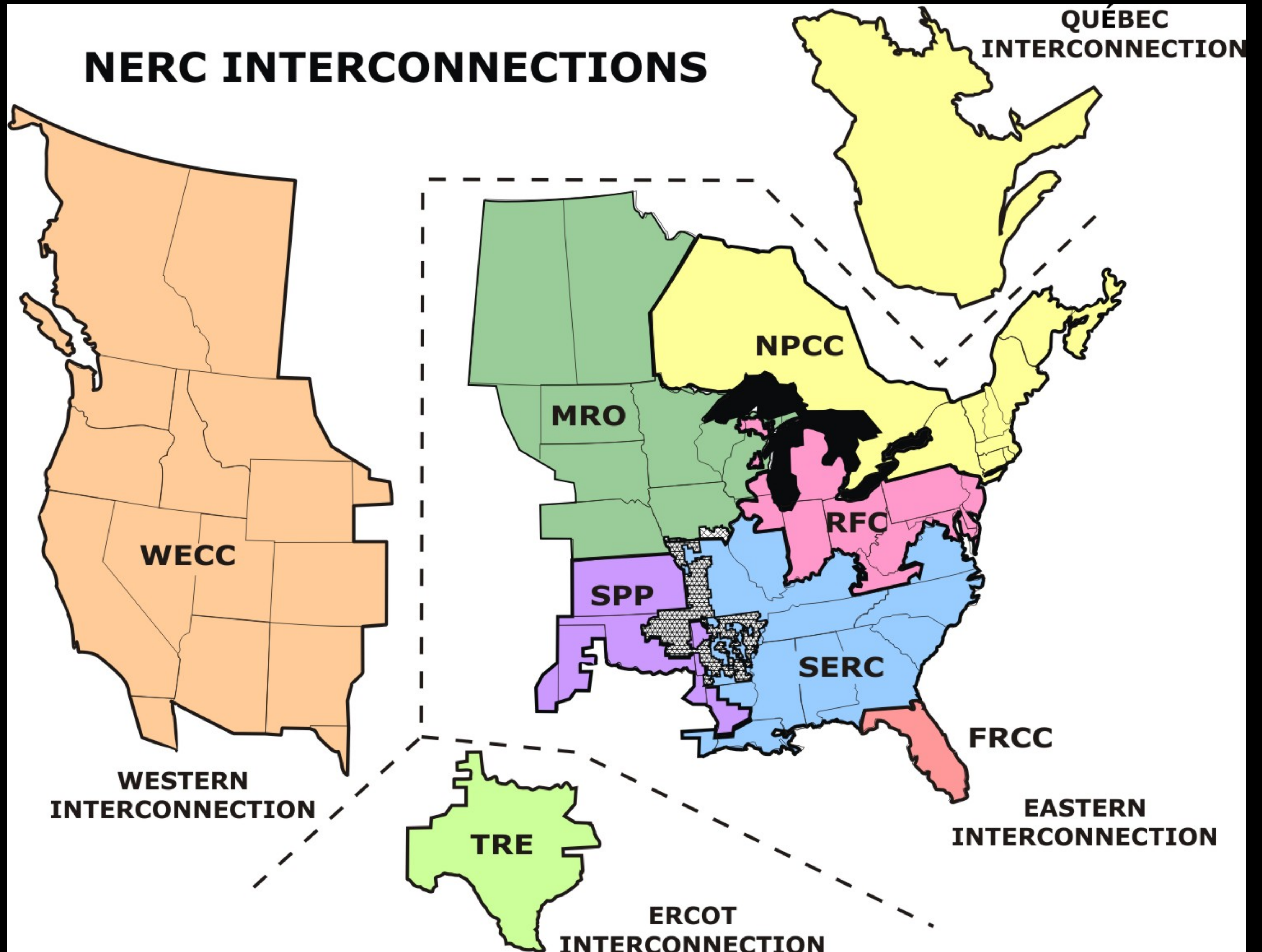
Source: U.S. Energy Information Administration



The **North American Electric Reliability Council** is a consortium of electric utilities that operate three major grids in the USA: west, east and Texas. No man is an island and no utility is an island, either. Electric grids balance generation and demand in real time, constantly, every day. A utility that has local hydropower is still interconnected with a broader grid and keeping all of the uses powered, non stop, requires careful attention to ensuring generation all over the country with a variety of energy sources.

The Pacific Northwest has had an electricity exchange with California for decades. California's electric demand is greatest during summer heat waves (to power the air conditioners). Cascadia's peak use has been the coldest times of winter (electric heaters). This coincides with excess generation capacities with the other region - when snowmelt in the warm months provides the most capacity for Columbia River dams that is when California needs the extra power. California has extra generation capacity in the winter when the air conditioners are not on so their utilities generate more to send north to Oregon and Washington heaters. Since California's top energy source for generating electricity is natural gas, this further ensures that "electric only" uses in Cascadia are totally dependent on gas.

The largest energy source for the western grid is burning unnatural gas, as it is for the other two major grids.



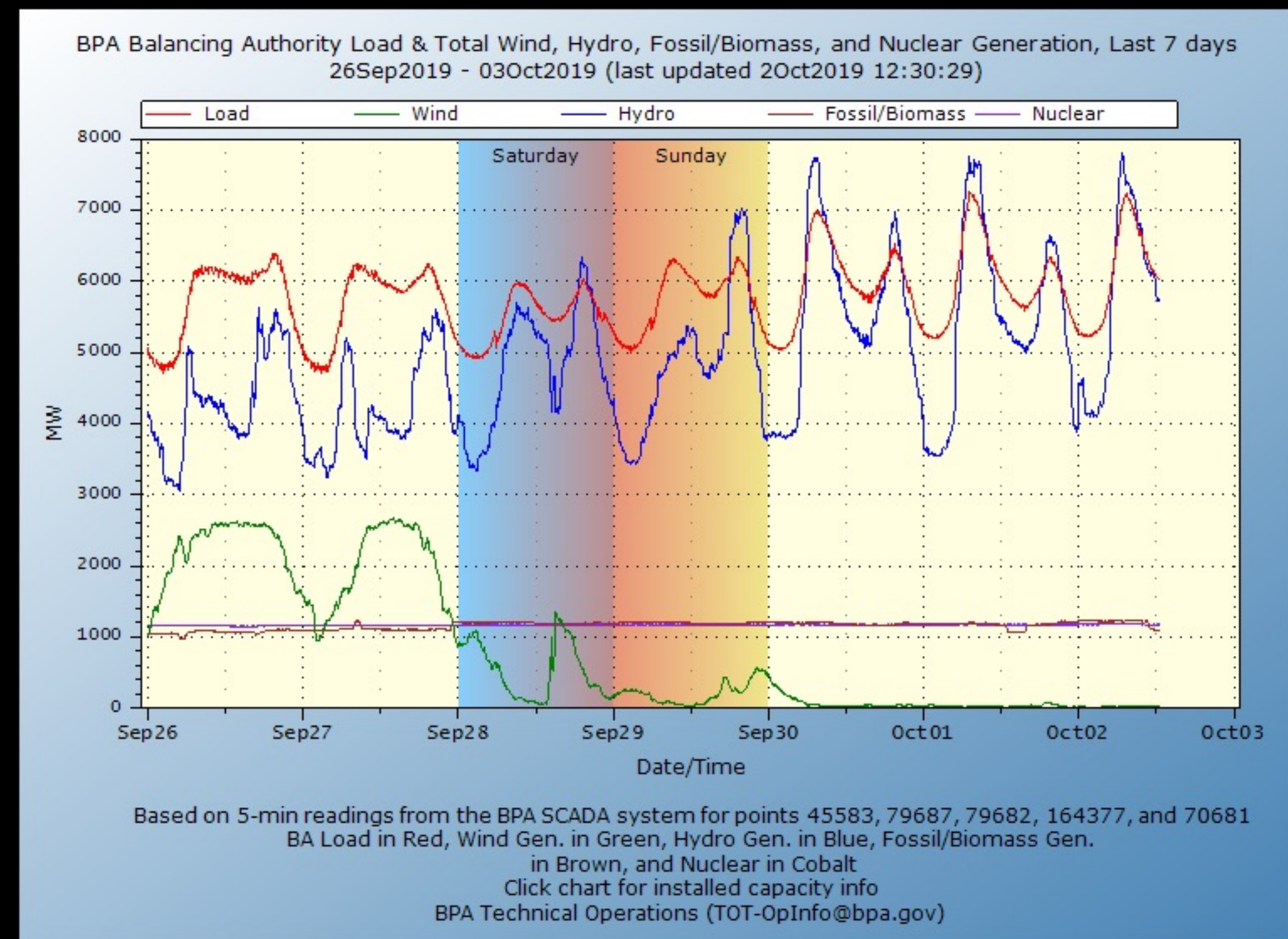


Bonneville Power Administration is a federal agency that sells electricity from the Columbia River dams and the Columbia Generating Station nuclear power reactor at Hanford. This chart shows the first few days of fall in September 2019. A front passed through the region, generating lots of wind power. After it passed, the wind became calmer and the power was more intermittent - green line. In response, BPA increased water flows through the dams - blue line - to keep the total generation - red line - able to meet demand. The two flat lines represent nuclear in purple / blue and biomass (burning trees) in brown. BPA is a subset of the Western Electricity Coordinating Council western power grid, but is regionally significant in its role in keeping the grid balanced (too little generation and the network would have voltage drops and brown outs).

A problem with calls for “100% clean” electricity is the clean sources - solar and wind - are variable. Sometimes there is a lot of sunlight and sometimes there is a lot of wind, but not always. When I first learned how to use solar electric panels in 1990 the primary lesson was to adapt one’s demands to what was available. This lesson also applies at the societal level, but controlling our use is anathema in our culture. Digging up coal, uranium, natural gas forces Nature to provide on demand, non stop, without consideration of consequences.

Living with solar panels, especially in the winter, has been far more educational than reading technical reports and political polemics. Even powering small things like flashlights or radios solely with solar is a tremendous teaching tool.

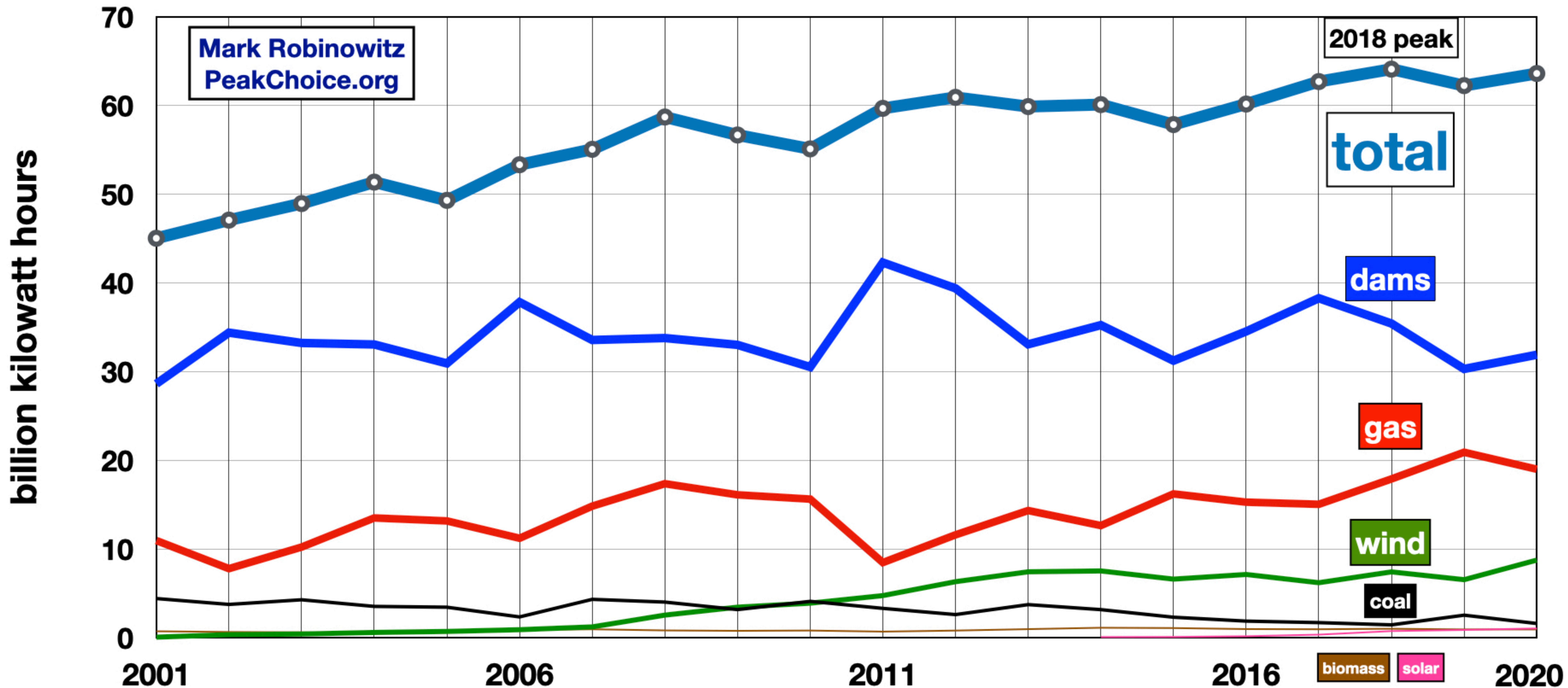
Bottom line: using solar energy directly (electric, hot water) and indirectly (wind, firewood) is awesome but cannot sustain the unsustainable. The Earth is abundant and finite. Entropy is not a good idea, it’s the law.





# Oregon in state electric generation 2001 - 2020

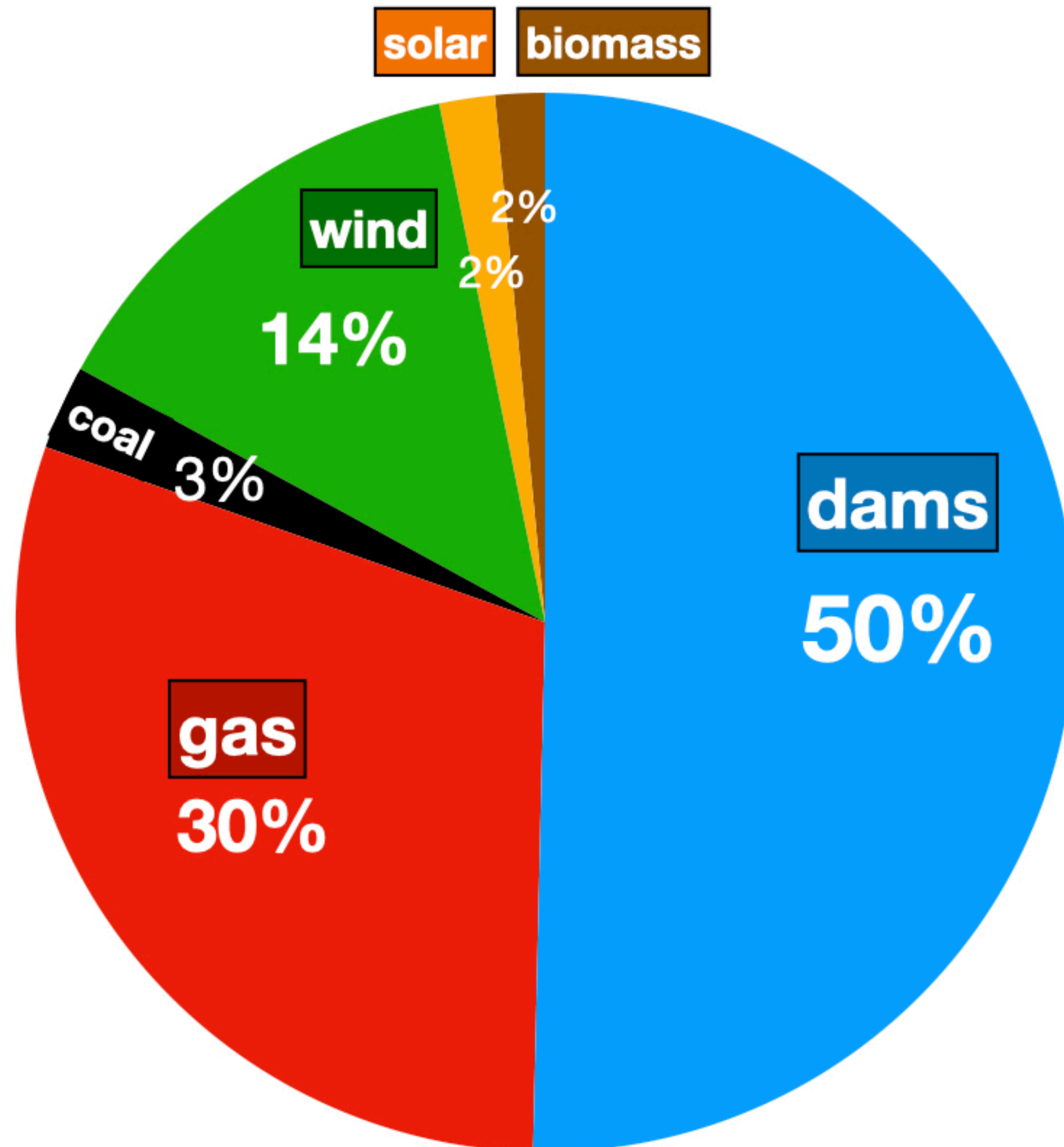
○ total — dams — nat. gas — coal — wind — solar — biomass



<https://www.eia.gov/electricity/data/browser/#/topic/0?agg=2,0,1&fuel=vvvu&geo=000000000002&sec=g&freq=A&start=2001&end=2019&ctype=linechart&ltype=pin&rtype=s&pin=&rse=0&matype=0>



# Oregon electricity generation 2020



In 2020 the Boardman, Oregon coal powered generator closed. No more coal is burned for electricity in Oregon, but we are connected electrically to coal burners on the rest of the Western Electricity Coordinating Council western power grid.

**Nat. gas** is the largest energy source for WECC, which includes B.C., Alberta, Pacific Northwest, California, Arizona, Tijuana, Great Basin, Rocky Mountains.

**2020 wind power increased about a quarter more than 2019. Natural gas dipped slightly. Gas and wind have similar amounts of installed capacity but gas generates much more power because it is constant (baseload) and wind is variable.**

**In 2020, solar generated more megawatt hours than biomass for the first time.**

**Washington State generates more hydroelectricity than Oregon.**

**chart: Mark Robinowitz PeakChoice.org**

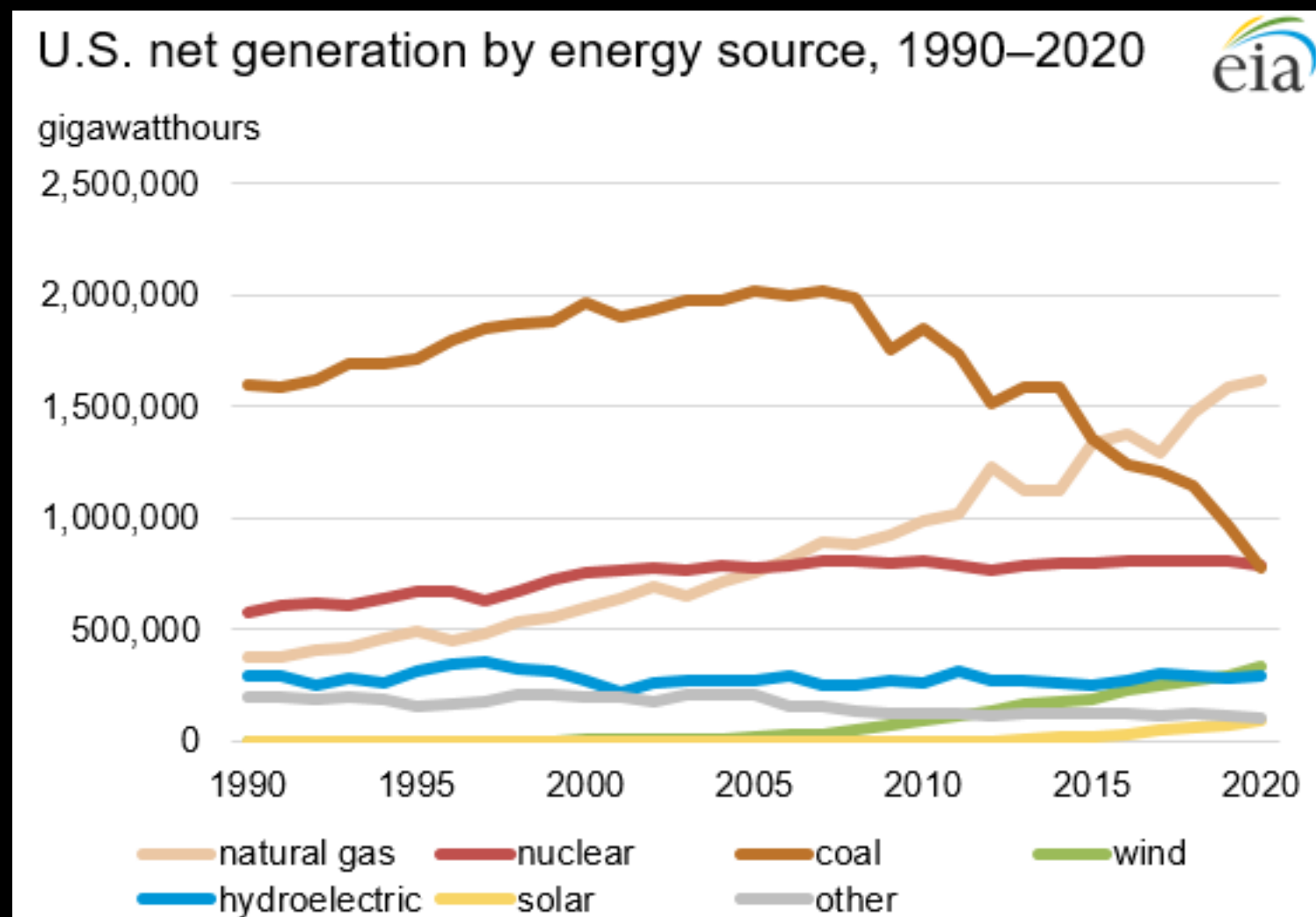
**data: <https://www.eia.gov/electricity/data/browser/#/topic/0?>**

**agg=2,0,1&fuel=vvvvu&geo=000000000002&sec=g&req=A&start=2001&end=2019&ctype=linechart&ltype=pin&rtype=s&pin=&rse=0&maptype=0**



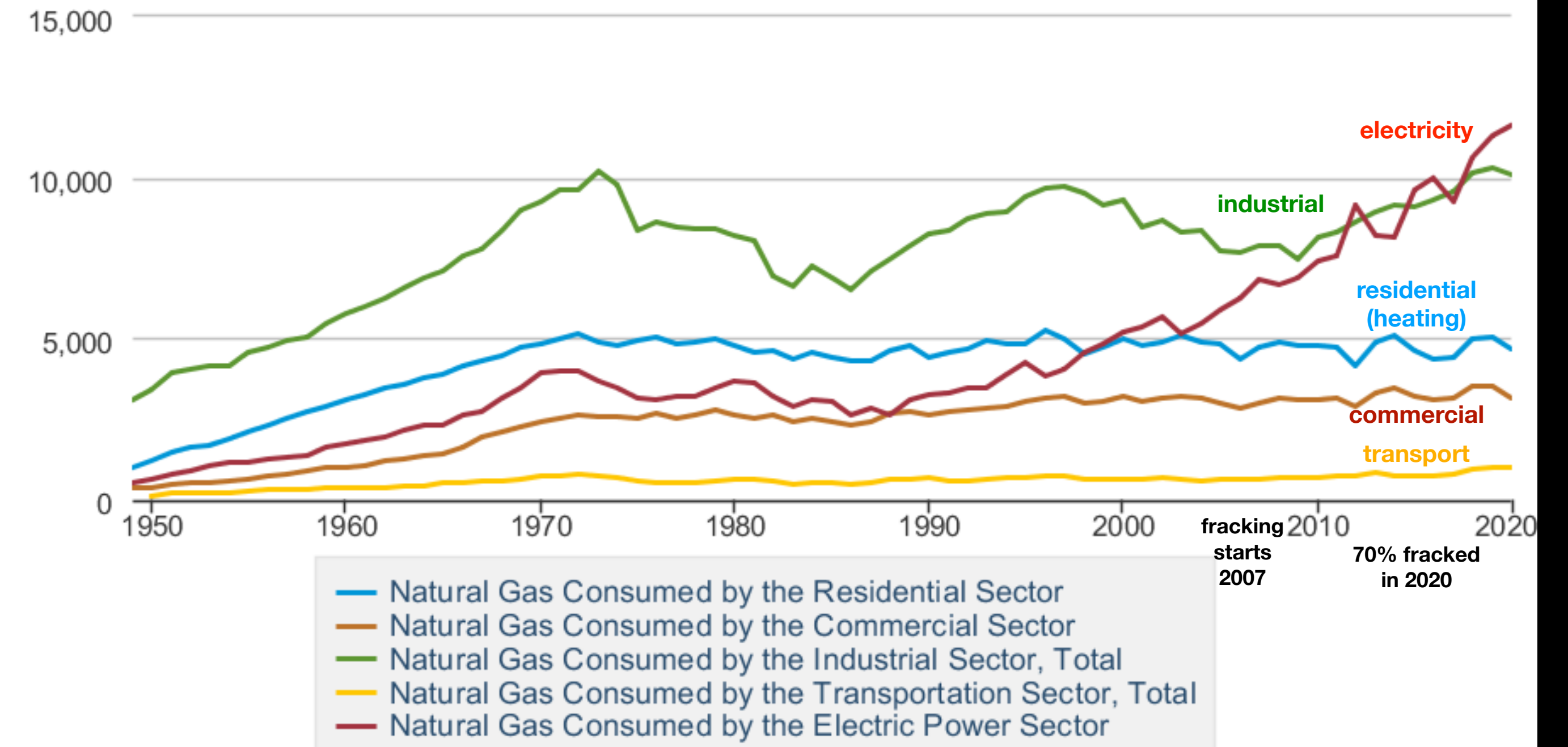
**The main increase in the use of unnatural gas in the US in recent decades has been baseload for electric grids.** Nat. gas generators are easier to approve under the Clean Air Act than coal burners (and coal is in permanent geologic decline, a physical fact obscured by discussion of its more obvious pollution problems). However, gas supplies were never sized to both power electricity and heat cold cities in the winter. Conventional gas decline has been mitigated by the sudden, sharp increase in fracked gas since 2008, but fracked gas is not only more toxic than conventional gas wells, it's also more expensive and fracked wells rise and fall faster than conventional drilling.

**Campaigns to restrict nat. gas use in favor of more electricity ignore that gas is a primary power source for electricity.** Here in Oregon, there has been a huge increase in nat. gas combustion east of the Cascades in Klamath Falls and Boardman, hard to notice in the liberal cities of Portland and Eugene, but gas is a key source of power. Burning that gas and sending the electrons over the Cascade mountains might be less efficient than just burning the fuel closer to where the energy is wanted. Using less energy, including less electricity, is usually belittled.



**Table 4.3 Natural Gas Consumption by Sector**

Billion Cubic Feet



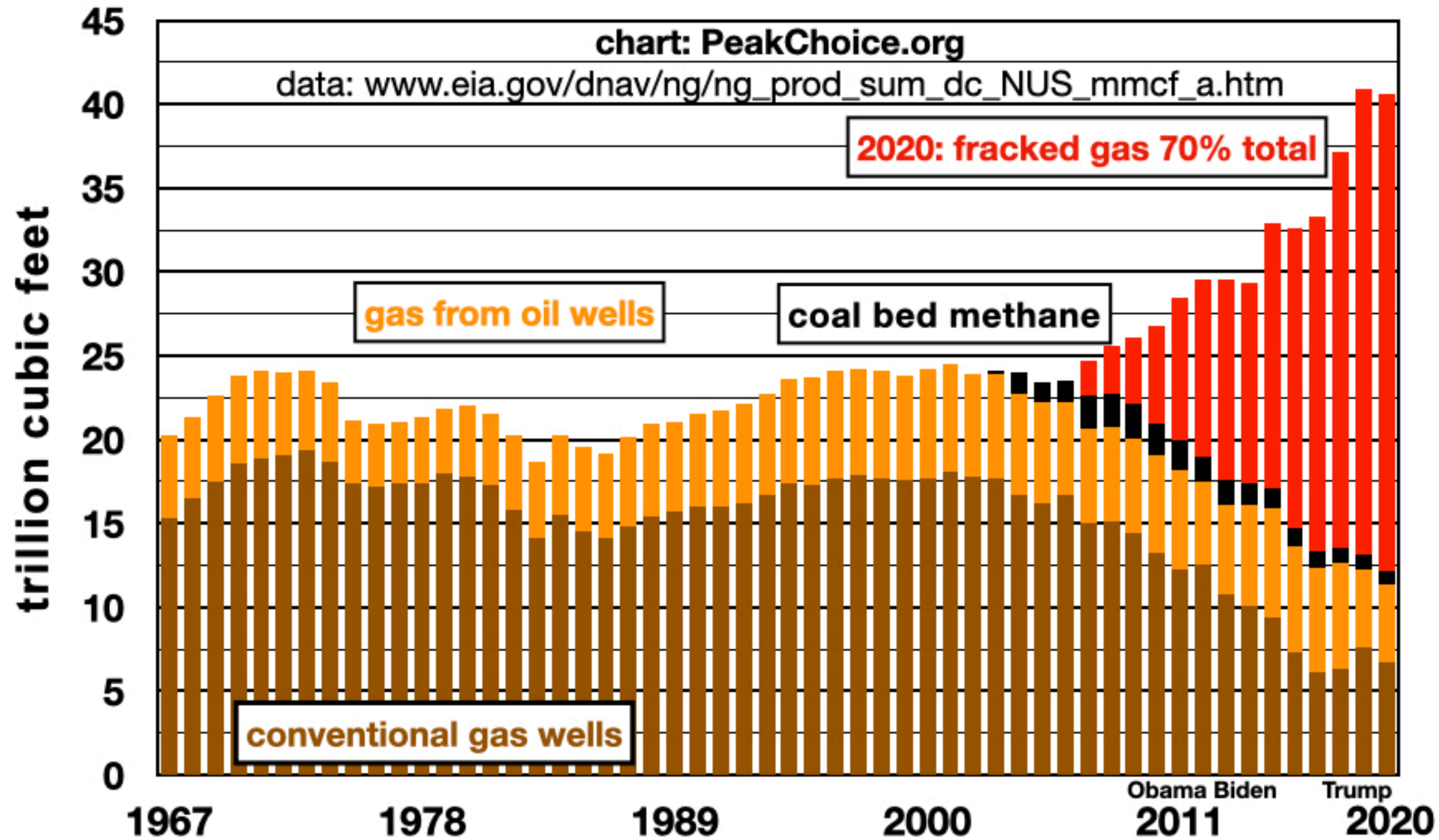
Source: U.S. Energy Information Administration



# USA conventional unnatural gas peaked 1973

## fracking postponed rationing

■ gas wells ■ gas from oil wells ■ coalbed methane ■ fracked gas



fracked gas was 8% of supply in 2007, in 2020 it was 70%

2017 fracked gas (19.927 trillion) surpassed 1973 conventional gas peak (19.371 trillion)

2017 conventional gas and from oil wells combined (12.873 trillion), 1957 level (12.9 trillion)



# Grading on a Curve

Enviro 'champs' ignoring the biggest issues

ARTICLE | FEBRUARY 13, 2014 | BY MARK ROBINOWITZ

On Nov. 27, EW's Slant profiled the "Environmental Scorecard" of the Oregon League of Conservation Voters. EW drew attention to "the relatively high scores racked up by state reps and senators in our part of the valley." Unfortunately, OLCV was grading on a curve to make Democrats in Salem look better than they are.

One of the most important votes of the 2013 session, not included in OLCV's scorecard, was to appropriate \$450 million toward the Columbia River Crossing (CRC), a \$3 billion to \$4 billion dollar boondoggle that would widen I-5 to 16 lanes north of the bridge. The Oregon House voted 45-11 in favor and the Senate voted 18-11 in favor. Only two Democrats in the House and one in the Senate voted "no."

EW highlighted Rep. John Lively's 94 percent OLCV rating, but did not mention his vote for the CRC nor his previous promotion of bigger roads while working for ODOT.

OLCV's website cites 10 state reps as environmental champions, but only one of those 10 voted against the CRC. Designating highway expansion supporters as "environmental leaders" suggests political partisanship has become more important than environmental protection.

The only legislator representing Lane County who was against CRC was Rep. Bruce Hanna of Roseburg, a Republican. Some Republicans expressed dislike of the token transit component. Republicans were freer than Democrats to oppose Gov. Kitzhaber's campaign for CRC.

CRC is now bogged down in financial chaos since Washington state legislators did not appropriate anything for it. However, the project is legally approved and an Obama administration priority.

In November 2008, Gov. Kulongoski's Transportation Vision Committee released a report that called for \$18 billion in new and expanded state highways, including over \$1 billion in Eugene and Springfield. 1000 Friends of Oregon, Oregon Environmental Council and Environment Oregon were part of this committee, but they were window dressing to show that all points of view were supposedly considered. If these groups had a minority report to dissent from the highway promotion, they kept it very quiet.

In 2013, ODOT started building two new highways: the Newberg Dundee Bypass (through farmland) and the Sunrise Freeway in Clackamas County. Both projects only have part of their funding, so ODOT is building segments and hoping for the rest of the money in the future. I attended public hearings for both of these

**Mark Robinowitz of Eugene is author of "Peak Traffic and Transportation Triage: a Legal Strategy to Cancel Trillion Dollar Highway Plans and Prepare for Post Peak Travel," at PeakTraffic.org.**

Sent to me from "a long time environmental activist and former OLCV board member": OLCV continues to disappoint me. I wrote them after the special session in which local control over genetic engineering was thrown under the bus and told them they should target on a Democrat architect of that compromise for defeat in the primary, just to show that environmentalists mean business. I received no reply. That they left off the CRC from their list of counted votes doesn't surprise me in the slightest. They are an arm of the Democratic party and deathly afraid of organized labor.

**Troubled Bridges Over Water  
Time for Transportation Triage  
Federal law requires 20 year plans  
Highway plans ignore Peak Traffic**

bypasses and did not see any environmental groups at either event.

Also in 2013, ODOT approved a new freeway in Medford, the Route 62 bypass. I didn't attend the hearing. The only environmental group that sent comments was Rogue Valley Audubon Society, which complained construction would harm birds.

Federal aid highways such as CRC have to plan for traffic two decades in the future, not current congestion. Our transportation plans ignore the fact that traffic levels peaked in Oregon in 2003 and Oregon's main fuel source, the Alaska Pipeline, peaked in 1988 and has dropped three quarters since then. It's anyone's guess how much energy will be available for traffic in the 2030s, but it will be much less than the current flow, especially if the Alaska Pipeline closes due to "low flow." Current levels are just above the minimum threshold needed for the pipeline to operate in the Arctic winter.



**Here in Eugene from 1999 through 2007, I was the "road scholar" for a proposed lawsuit that prevented the West Eugene Parkway, a bypass of West 11th through the West Eugene Wetlands. WETLANDS vs. Federal Highway Administration was not filed because the feds withdrew the project and selected "no build." Details are at SustainEugene.org.**

**The lawsuit focused on legal precedents, including Section 4(f), which prohibits federal aid highways through parks. But it also would have tried to have set a new precedent combining the facts of peak oil and peak traffic as reasons the 20-year planning rule no longer justifies highway expansions.**

**Since then, I have looked for other freeway fights around the country that could use this legal strategy to create a precedent. A state-by-state list of plans for \$1 trillion of highway expansions across the country is at PeakTraffic.org.**

The most energetic environmental efforts against new roads are often in places where liberal Democrats are surrounded by conservative Republicans (Bloomington, Ind., and Louisville, Ky., are examples). The professional environmentalists in these places know the state government is not their ally (nor their funder).

**While trains and transit could play important roles for post-peak transportation, recognizing we're passing the limits to growth and relocalizing food production are probably the most important responses to peaked traffic and peaked energy.**

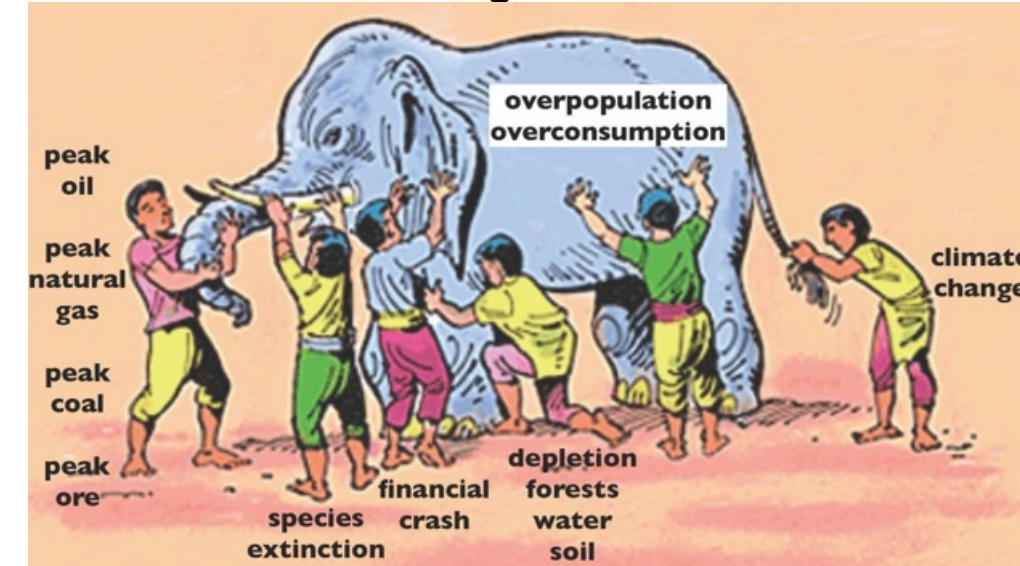




# PEAKED ENERGY and CLIMATE CHAOS

The most important question facing humanity is how we respond to the interconnected crises of **Peaked Energy, Climate Chaos, overpopulation, overconsumption and resource conflicts as we pass the limits to growth on a round, finite planet.**

These crises resemble the parable of the blind men touching an elephant. Each observer correctly describes a part of the elephant, but none have a holistic understanding. **Peaked Energy and Climate Change are two facets of ecological overshoot, and neither can be mitigated without the other.**



The global crises of the end of cheap fossil fuels and the start of climate change require global levels of solutions — we need to relocalize everywhere. We are not merely at peak energy, we are at peak technology, peak money, peak communication, and peak everything else. Real solutions would require us to redirect the energy, talents and resources of global capitalism, the military industrial complex, media, universities, and other societal institutions.

We have enough resources and talent to shift civilization to create a peaceful world that might be able to gracefully cope with the end of concentrated fossil fuels, or to create a global police state to control populations as the resources decline. The “War on Terror” is actually a long planned World War to control finite fossil fuels as we pass their peaks.

Understanding why civilization did not respond to the warnings of resource depletion decades ago is needed if a shift toward sanity is still possible at this late date. This is a simple question that has a complex answer — and these decisions were not made democratically. Mitigating Peaked and Climate would require world peace instead of peak oil wars.

We are not “addicted” to oil — the modern world is completely dependent upon fossil fuels for industrial agriculture, transportation networks, and the growth based monetary system. Addictions are things you can give up — but oil runs our civilization.

## Peaked and Climate are interconnected

Focusing on energy shortage while ignoring ecology led to the false solutions of offshore drilling, fracking, tar sands, liquid natural gas, biomass electricity, mountaintop removal, and nuclear power.

Focusing only on “carbon” while ignoring energy limits is one of the reasons for the political backlash against climate change awareness. Environmental groups frame these concerns as we *should* reduce energy consumption instead of we *will* reduce use because we cannot burn fuel that does not exist.

**Framing the question as how we will use the remaining fossil fuels could bypass climate denial.** We will reduce our “carbon footprint” whether we want to or not, since the oil, coal and unnatural gas will be mostly depleted before 2050, when our footprints are supposed to be much smaller. Reducing use by 2050 is code for depletion by 2050.

Our exponential growth economy has hit the end of growth of resource consumption, imposed by nature. Building lots of wind turbines, railroads and relocalizing agriculture would require reallocating resources used for endless warfare and wasteful consumerism. After Peak Everything there will be fewer resources available for “transition.” We need triage on a planetary scale for the remaining fossil fuels and minerals.

David Holmgren, co-originator of permaculture, is author of *“Future Scenarios: How Communities can adapt to Peak Oil and Climate Change.”* [www.futurescenarios.org](http://www.futurescenarios.org)

*“Economic recession is the only proven mechanism for a rapid reduction of greenhouse gas emissions ... most of the proposals for mitigation from Kyoto to the feverish efforts to construct post Kyoto solutions have been framed in ignorance of Peak Oil. As Richard Heinberg has argued recently, proposals to cap carbon emissions annually, and allowing them to be traded, rely on the rights to pollute being scarce relative to the availability of the fuel. Actual scarcity of fuel may make such schemes irrelevant.”*

**Living on our current solar budget would power a smaller, steady state economy. We will live on our solar budget as the oil, unnatural gas and coal deplete. Future generations need us to choose wisely and use remaining fossil fuels for relocalization and power down.**



Fake debate of whether we are causing climate change or not reduced public discussion to partisan divisiveness. The binary approach — climate is or is not being changed by industrial activities — is a dangerous distraction. Admitting that climate change is real is not the goal; it is barely a first step. Scaling back everything, toward a gentler impact on the planet, is a minimal step for mitigation. The categories presented here oversimplify but are a step toward seeing complexities. This map is not the territory. — Mark Robinowitz, September 20, 2019

two types of climate change denial

**1. climate and peak denial: blaming environmentalists for fossil energy decline**

**the five stages of Peak Acceptance:**

**Peak Denial and Plausible Deniability**

**Peak Blame: Pique and Scapegoating**

Peak Bargaining: techno-fixes and the promised land after oil

Peak Trauma Social Disaster (PTSD)

Peak Acceptance: Nature is abundant and finite

**The Republican Party is the epicenter of denial that human caused climate change is happening. A potential antidote could be energy literacy — awareness that fossil fuels are finite and depleting.**

Climate denial is partly rooted in the fact that **most people like the benefits of fossil fuels**, including unprecedented transport of ourselves, moving stuff all over the world (including foods out of season), indoor heating in cold climates, high tech communication, advanced medicine, and other concentrated energy dependent activities. These are easier done with fossil fuels than with “renewables” that can be local (dams), intermittent (solar and wind), or hard to scale up (biomass). The difficulty of replacing fossil fuels doesn’t mean they aren’t changing the climate.

We are approaching the cliff of energy descent, temporarily postponed by fracking, tar sands, offshore drilling and other extreme extraction. As conventional oil and gas continue their decline and the fracking bubble subsides we will enter **the era of permanent shortages, which could trigger energy rationing**. These consequences may be intensely unpopular. **Mitigating the likely backlash will probably require practical responses more than protest of energy companies. Societies unable to meet basic needs seek scapegoats to blame— Germany after the Great Depression is a sobering example.**

**2. governments quietly consider climate & peak a permanent state of emergency**

in public they disbelieve or downplay climate concerns

in private they plan for collapse



**Homeland Insecurity: covert preparation for climate chaos resource depletion societal collapse**

**Climate movements are calling for governments to declare “climate emergency.” These demands fail to recognize that elites have been preparing for disaster but not in compassionate ways.**

In private, governments, corporate leaders, militaries consider climate chaos, peak everything and other aspects of ecological overshoot to be a **permanent state of emergency**. The US military and CIA have studied the implications for decades: resource wars and refugee migrations.

One example: **the civil war in Syria had many causes, including extreme drought** that disrupted food production and **Syria’s domestic peak oil** which reduced governmental budgets that paid for social programs. These stresses worsened existing problems.

Climate, peak, overconsumption and overpopulation threaten every aspect of industrialized societies, including growth based fiat money and food supplies. The billionaire class and governments encourage distractions and division while building leaky lifeboats for themselves. We could have converted militarism to global cooperation decades ago but ignored the warnings. Brace for impact and help your neighbors.

**recommended reads:**

**Peak Fascism: Peak Energy, Climate Chaos, Civil Liberties**  
www.oilempire.us/peak-fascism.html

**Pentagon bracing for public dissent over climate and energy shocks:** NSA Prism is motivated in part by fears that environmentally-linked disasters could spur anti-government activism by Nafeez Ahmed, Friday 14 June 2013  
www.guardian.co.uk/environment/earth-insight/2013/jun/14/climate-change-energy-shocks-nsa-prism

climate change is real

three views

**1. techno-fixes: electric cars, carbon credits, nuclear powered green growth**

**The Democratic Party admits climate change is real and wants a techno-fix approach to power more “green growth.” Voluntarily scaling back the American Way of Life (AWOL) is not considered.**

Rep. Ocasio-Cortez says the **“Green New Deal”** should consider **new nuclear power** reactors. Gov. Inslee, briefly the “climate” candidate for President, also wants more nukes. Data For Progress (working with 350.org and Sunrise Movement) says nuclear is **“clean”** even though there is no way to detoxify nuclear waste. Radioactive decay can take a very long time to subside.

Democrats promote **electric cars** while pushing plans for a trillion dollars worth of expanded highways. Making electric cars and building roads requires fossil fuels and mineral ores. Redirecting road efforts to public transit and trains gets only token mention. Relocalizing production and living locally would prevent pollution.

Most official “climate plans” include **carbon offsets and credits** to supposedly achieve carbon neutrality. Here are three resources that refute this greenwashing: **“Cheat Neutral”** (hilarious parody) [www.youtube.com/watch?v=f3\\_CYdYDDpk](http://www.youtube.com/watch?v=f3_CYdYDDpk) **“The Story of Cap and Trade”** [www.youtube.com/watch?v=pA6FSy6EKrM](http://www.youtube.com/watch?v=pA6FSy6EKrM) **“FutureScenarios: “How Communities Can Adapt to Peak Oil & Climate Change” by David Holmgren, permaculture co-originator: “proposals to cap carbon emissions annually, and allowing them to be traded, rely on the rights to pollute being scarce relative to the availability of the fuel. Actual scarcity of fuel may make such schemes irrelevant.” FutureScenarios.org**

**2. “100% solar & wind instead of fossil fuels” great goal, ignores limits to growth**

Grassroots Democrats and most environmental groups want “100% solar and wind” instead of fossil fuels. They claim this is a political choice that could be achieved with protests, elections, lawsuits, investments. The reason we use fossil fuels is not corporate greed. **Fossil fuels are more concentrated than living on our solar budget**, with a much greater Energy Return on Energy Invested (EROEI) than the alternatives.

The goal of **“decarbonization by 2050”** is a sly way to hint that fossil fuels will be mostly depleted by then. We will use much less whether we want to or not.

The International Panel on Climate Change (IPCC) recently warned we have **12 years to fix the climate**, which ignored the 1990 UN Environmental Program warning that the 1990s were the decade of decision and Al Gore’s 2006 warning we had a decade.

Just because someone says they are concerned about climate does not mean they are telling the truth.

Climate movement leaders urge a **“World War II” mobilization** to address the countless challenges. I appreciate the intention but also like Albert Einstein’s caution that a problem cannot be solved by the mindset that created it. World War II gave birth to the USA Military Industrial Intelligence Congressional Financial Media University Entertainment Complex, including “three letter agencies” that are extrajudicial additions to government. The Manhattan Project during World War II invented atomic bombs. Its legacy includes nuclear waste and our nuked democracy — not a good role model for living without toxic, depleting fossil fuels. **Mitigating climate chaos would require unprecedented cooperation and radical honesty.**

**3. climate chaos and peaked everything are part of interconnected crises beyond limits to growth: fossil fuels, minerals, fresh water, forests, fish, food**

**Climate and peak are interconnected crises that cannot be addressed isolated from the others. Each makes the other harder to solve.**

Focus on climate while ignoring peak enabled official greenwashing and the backlash of climate denial.

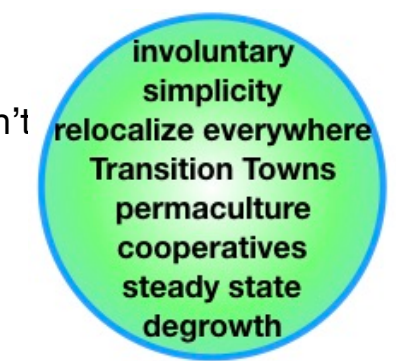
Focus on peak while ignoring climate led to unconventional extraction (fracking, tar sands), nuclear power, GMO corn ethanol and other toxic practices.

If we combined climate concerns with the math of fossil fuel depletion and density, we might better understand the crises. Seeking to sustain the unsustainable makes it less likely we will avert the worst case scenarios. A solar powered society could be ecological and fairer, powering a smaller, steady state economy — not endless growth on an abundant, round, finite planet.

I have used solar panels since 1990 — they are great but can’t replace our “current” consumption.

Our challenge is not whether to phase out fossil fuels, but **how we can adapt to inevitable energy depletion with minimal social chaos.**

**details:**  
[www.peakchoice.org/peak-climate.html](http://www.peakchoice.org/peak-climate.html)  
[www.peakchoice.org/peak-money.html](http://www.peakchoice.org/peak-money.html)  
**Peak Money: a permanent change**





# PEAK MONEY: a permanent change

## we are past limits to growth, not a cyclical recession

Some of the media, government elites, and the financial world knew the 2008 financial crash was imminent but feigned surprise in public while planning their exit strategies and wargaming how to manage and manipulate the crisis to protect their power (not just more profits). The financial meltdown is not a cyclical recession, it is a permanent economic shift. The End of Growth transcends ideologies and partisan politics.

Even if we convert transnational corporations into democratic, locally owned cooperatives, we are in overshoot, beyond Earth's carrying capacity.

**Can we move beyond Peak Denial and Blame to equitably share the shrinking economic pie?**

---

"This is not so much financial bad weather as financial climate change" — James Howard Kunstler

"Communism forgets that life is individual. Capitalism forgets that life is social, and the kingdom of brotherhood is found neither in the thesis of communism nor the antithesis of capitalism but in a higher synthesis that combines the truths of both. Now, when I say question the whole society, it means ultimately coming to see that the problems of racism, the problem of economic exploitation, and the problem of war are all tied together."

— Martin Luther King, "Where do we go from here?"  
August 16, 1967 [www.jfkmlkrfk.com](http://www.jfkmlkrfk.com)

## energy and money

- **"the recession that will not end in our lifetime"**  
[www.PeakChoice.org/peak-money.html](http://www.PeakChoice.org/peak-money.html)  
[peakchoice.org/audio/interview-mark-robinowitz.mp3](http://peakchoice.org/audio/interview-mark-robinowitz.mp3)
- Richard Heinberg, Post Carbon Institute  
"The End of Growth" [www.postcarbon.org](http://www.postcarbon.org)
- Chris Martsenson, "The Crash Course"  
[www.peakprosperity.com/crashcourse](http://www.peakprosperity.com/crashcourse)
- Center for the Advancement of the Steady State Economy [www.steadystate.org](http://www.steadystate.org)
- Gail Tverberg, OurFiniteWorld.com

## steady state economics for an ecological society

The dominant paradigm teaches money is the most important value, energy conservation and ecological sanity are nice if we can afford them.

Most of the environmental movement has embraced the concept of the Triple Bottom Line, which suggests that the economy needs to consider ecology and social justice issues. While it is good to factor these into economic decisions, the deeper truth is **the environment makes the economy possible. Energy creates money, not the other way around. There are no jobs on a dead planet.**

It is probably not a coincidence that many of the political voices calling attention to the problems of fiat currency, the Federal Reserve and other structural problems rarely mention the underlying ecological limits. Worse, some of them seem fixated on Jewish bankers who allegedly run the world.

**We need to weave together social justice advocacy with understanding of how fiat money is created now that we have reached the limits to growth on a round, abundant, finite planet.**

---

"Awareness of Climate Change by the media and general public is obviously running well ahead of awareness about Peak Oil, but there are interesting differences in this general pattern when we look more closely at those involved in the money and energy industries. Many of those involved in money and markets have begun to rally around Climate Change as an urgent problem that can be turned into another opportunity for economic growth (of a green economy). These same people have tended to resist even using the term Peak Oil, let alone acknowledging its imminent occurrence. Perhaps this denial comes from an intuitive understanding that **once markets understand that future growth is not possible, then it's game over for our fiat system of debt-based money.**"

— David Holmgren, co-originator of permaculture  
"Money vs. Fossil energy: the battle to control the world" [www.holmgren.com.au](http://www.holmgren.com.au)



**David Holmgren, co-originator of permaculture, is author of *Future Scenarios: How Communities can adapt to Peak Oil and Climate Change.* [www.FutureScenarios.org](http://www.FutureScenarios.org)**

“The simultaneous onset of climate change and the peaking of global oil supply represent unprecedented challenges for human civilisation.

“Global oil peak has the potential to shake if not destroy the foundations of global industrial economy and culture. Climate change has the potential to rearrange the biosphere more radically than the last ice age. Each limits the effective options for responses to the other.

“The strategies for mitigating the adverse effects and/or adapting to the consequences of Climate Change have mostly been considered and discussed in isolation from those relevant to Peak Oil. While awareness of Peak Oil, or at least energy crisis, is increasing, understanding of how these two problems might interact to generate quite different futures, is still at an early state.

“FutureScenarios.org presents an integrated approach to understanding the potential interaction between Climate Change and Peak Oil using a scenario planning model. In the process I introduce permaculture as a design system specifically evolved over the last 30 years to creatively respond to futures that involve progressively less and less available energy.”

**“Economic recession is the only proven mechanism for a rapid reduction of greenhouse gas emissions**

... most of the proposals for mitigation from Kyoto to the feverish efforts to construct post Kyoto solutions have been framed in ignorance of Peak Oil. As Richard Heinberg has argued recently, **proposals to cap carbon emissions annually, and allowing them to be traded, rely on the rights to pollute being scarce relative to the availability of the fuel. Actual scarcity of fuel may make such schemes irrelevant.**”

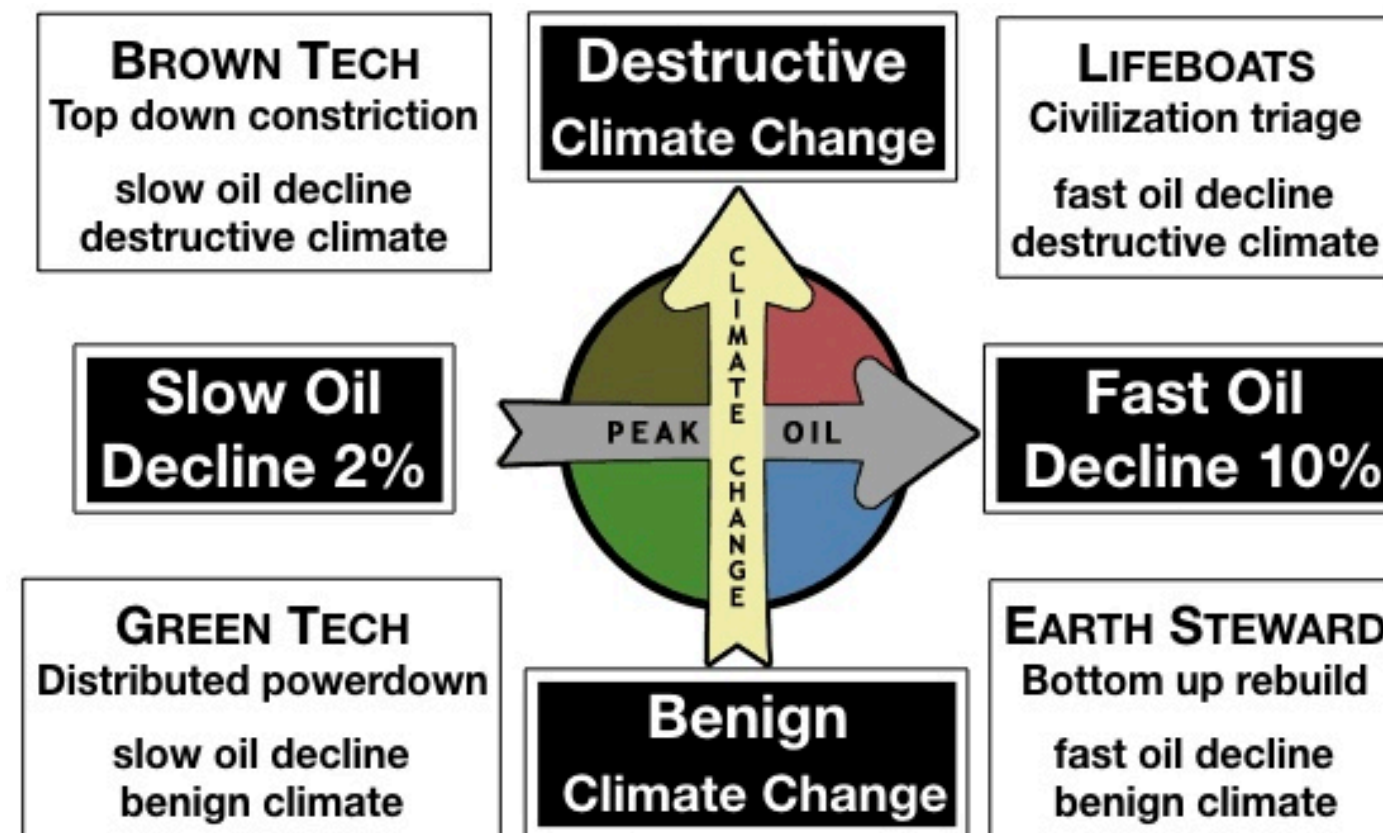
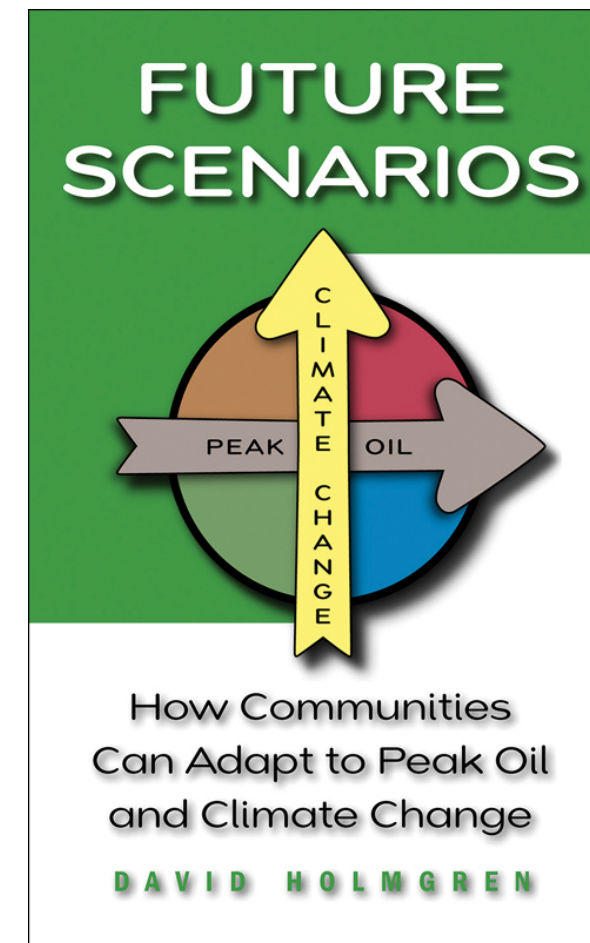
— Future Scenarios, May 2008

“Awareness of Climate Change by the media and general public is obviously running well ahead of awareness about Peak Oil, but there are interesting differences in this general pattern when we look more closely at those involved in the money and energy industries. **Many of those involved in money and markets have begun to rally around Climate Change as an urgent problem that can be turned into another opportunity for economic growth (of a green economy).** These same people have tended to resist even using the term Peak Oil, let alone acknowledging its imminent occurrence.

**Perhaps this denial comes from an intuitive understanding that once markets understand that future growth is not possible, then it's game over for our fiat system of debt-based money.”**

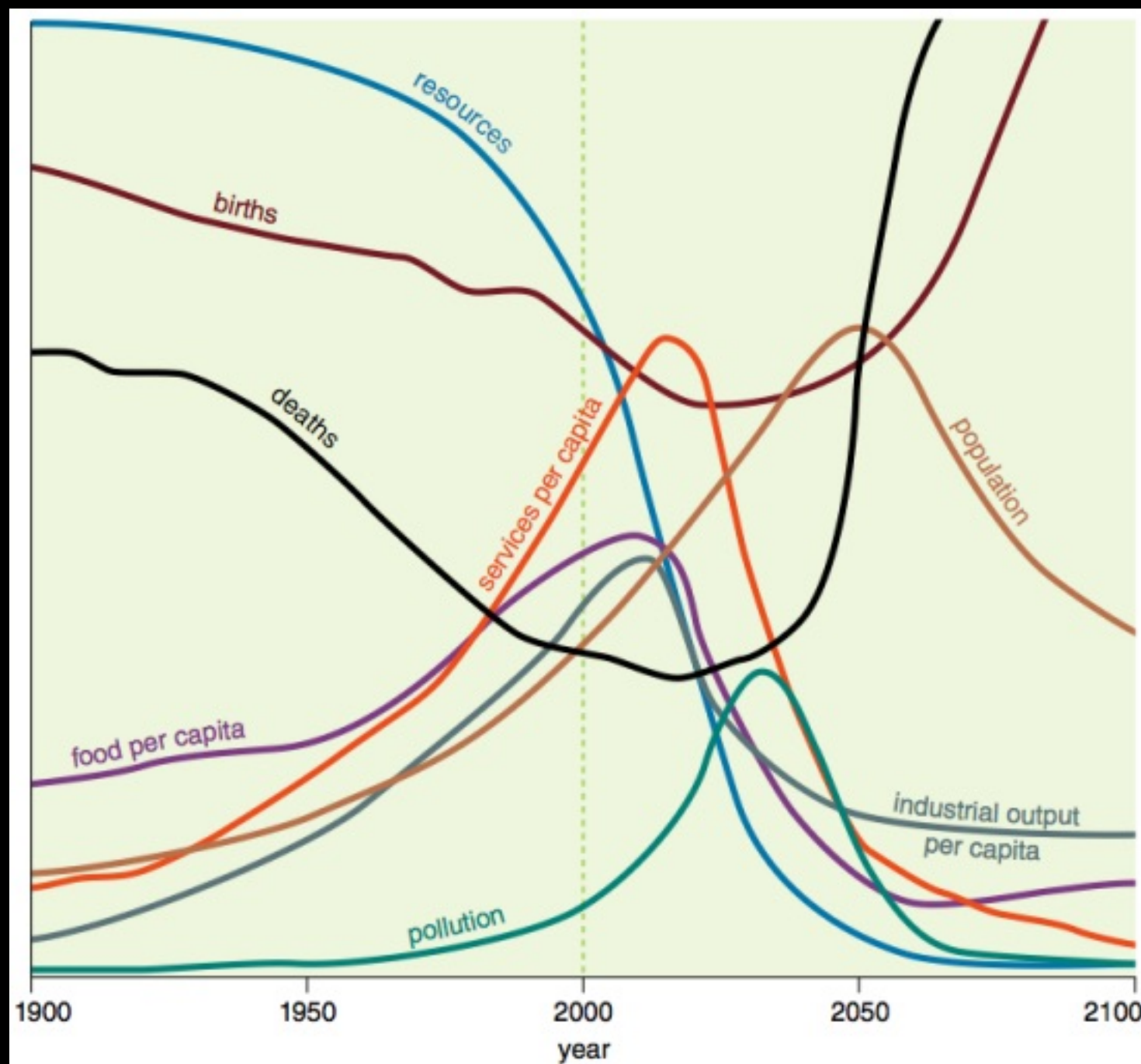
-- David Holmgren, “Money vs. Fossil energy: the battle to control the world”

[http://holmgren.com.au/wp-content/uploads/2013/02/Money\\_vs\\_Fossil\\_Energy.pdf](http://holmgren.com.au/wp-content/uploads/2013/02/Money_vs_Fossil_Energy.pdf)



scenario modeling from David Holmgren, *Future Scenarios: How Communities Can Adapt to Peak Oil and Climate Change*





### Limits to Growth - 1972

Study predicted permanent resource crisis after the turn of the century, with peak pollution coming after peak resource use. Fracking and tar sands confirm this.

### overpopulation

