

The Humboldt Bay Alternative Rail Route Feasibility Study

County Engineers Association of California

July 12, 2012

Humboldt Bay's Harbor

- Humboldt Bay is the second largest natural bay in California
- The only deep water harbor along ~400 miles of coast between San Francisco, CA and Coos Bay, OR
- One of only 11 deep water harbors in CA
- Harbor activity limited to the portion of Humboldt Bay from the Samoa Bridge to the end of the Fields Landing Channel

HUMBOLDT BAY

Eel River

Mad River

Elk River

Freshwater Creek

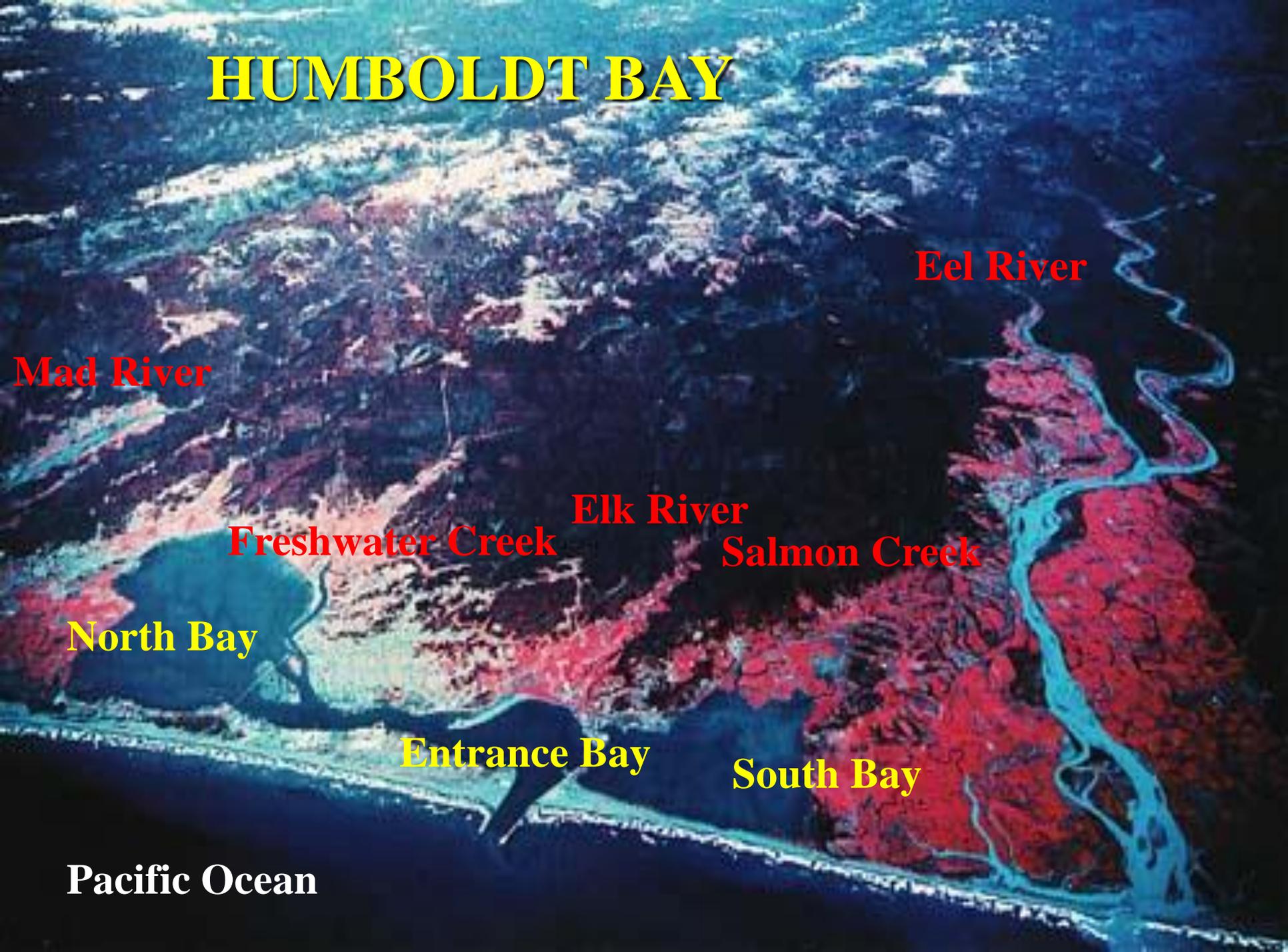
Salmon Creek

North Bay

Entrance Bay

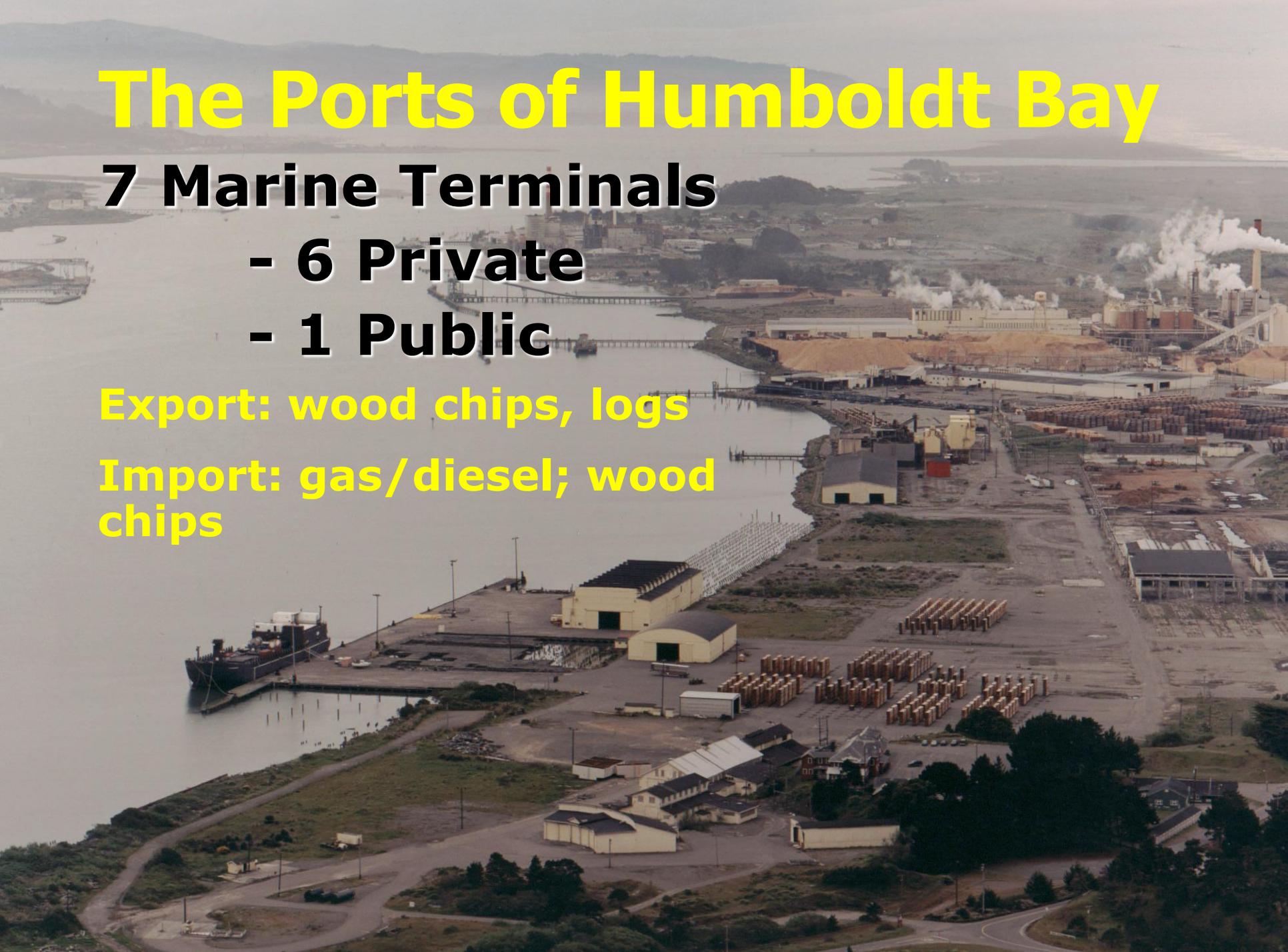
South Bay

Pacific Ocean



Present Harbor Economic Activity

The Ports of Humboldt Bay

An aerial photograph of Humboldt Bay, California. The bay is filled with water, and a large dark ship is docked at a pier on the left. The shoreline is lined with industrial buildings, including a large sawmill with several smokestacks emitting white smoke. In the foreground, there are numerous stacks of lumber and several smaller buildings. The background shows a range of mountains under a hazy sky.

7 Marine Terminals

- 6 Private

- 1 Public

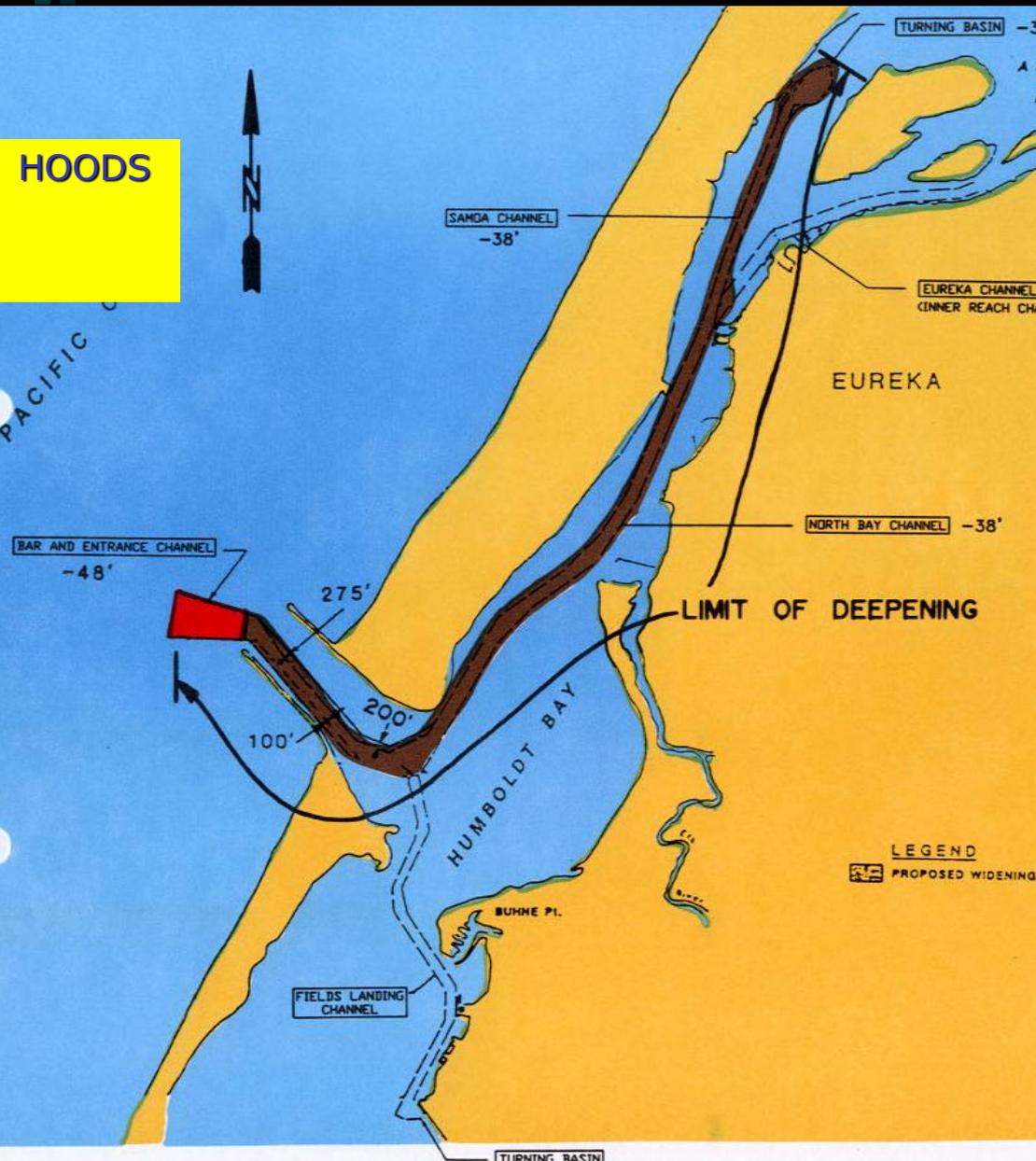
Export: wood chips, logs

Import: gas/diesel; wood chips

Typical Log Export Ship - 2011



Humboldt Bay Navigation Channels



HOODS

Channel Length

9.9 miles

Channel Depths

Entrance -48' MLLW

North Channels: -38' MLLW

South Channel: -26' MLLW

(DEEPENING)
CALIFORNIA
SCALE IN FEET
5000 0 5000
SOUTH PACIFIC DIVISION
U S ARMY ENGINEER DISTRICT SAN FRANCISCO
CORPS OF ENGINEERS

Federal Channel Maintenance: \$2.5 - \$6 Million/Year



Humboldt Bay Maximum Ship Size: 950' in length; 38' draft



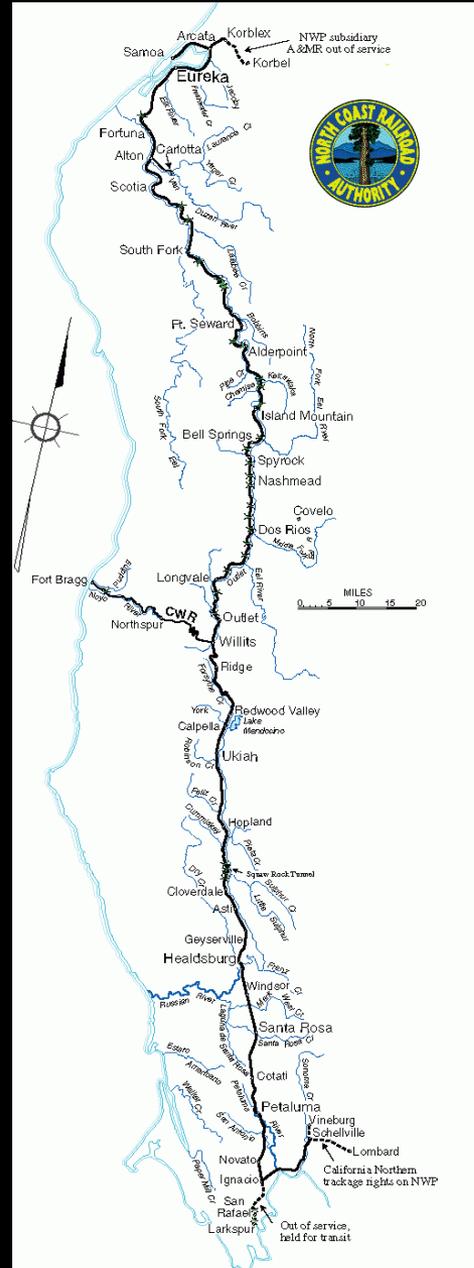
Other Transportation Links to the Ports of Humboldt Bay

Highways

- **North-South – Highway 101**
- **East-West – Highways 199 & 299**

Railroad

- **Northwestern Pacific Railroad administered by North Coast Railroad Authority (inactive connection since 1999)**



Nautical Miles and Times from Hong Kong @ 25 Knots

Humboldt Bay Closer Than Other California Ports to Asia

- **Humboldt Bay** **5868** **9 days**
- **Oakland** **6147** **10 days**
- **Long Beach** **6363** **11 days**
- **San Diego** **6534** **11 days**



Available Workforce

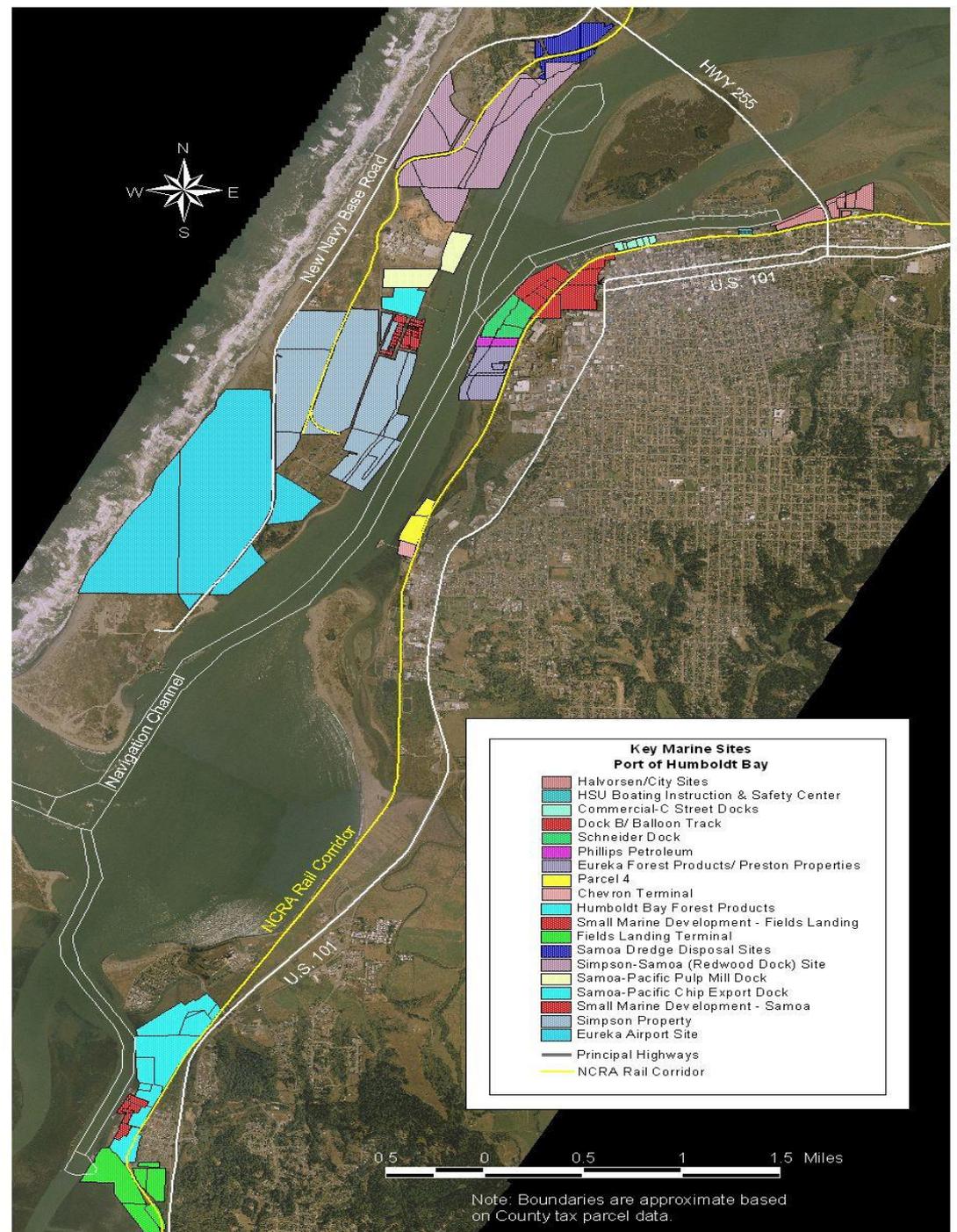
- **ILWU Local 14**
- **Bar Pilots**
- **U.S. Coast Guard**
- **U.S. Customs**
- **U.S. Homeland Security Office**
- **Tug Services**
- **Stevedore Services**

Available Economic Incentives

- Foreign Trade Zone No. 248**
- Enterprise Zone**

Available Waterfront Industrial Property

- ~1,000 Acres Waterfront Commercial and Water Dependent Industrial land available



Summary

- **Humboldt Bay is an active harbor**
- **Humboldt's harbor has:**
 - **Deep water channels**
 - **Underutilized water-dependent property**
 - **7 underutilized shipping docks**
 - **Skilled workforce**
 - **Tax incentives**
 - **Necessary transportation links exist (although some are inactive)**

Past Economic Modeling Predicted a Deepened Harbor Could Have Significant Economic Impacts

(Deepening Completed in April 2000)

5 Million Metric Tons Cargo/Year =

- > 3,500 jobs added
- > \$90 million in wage payments
- > \$400 million increase in Gross Regional Product

Cargo Tonnage 2011: < 500,000 Metric Tons

So What Happened ?

Since 2000, the Lack of Predicted Growth Can Be Attributed Primarily to *Poor Inland Transportation Links*

- Slow modification of highways to modern truck standards**
- Northwestern Pacific Railroad out of service since 1999 with no repair in foreseeable future**
 - Makes Humboldt Bay the only deepwater harbor in California without a railroad and the only one that has shown no growth (actually a decline) in last 10 years**

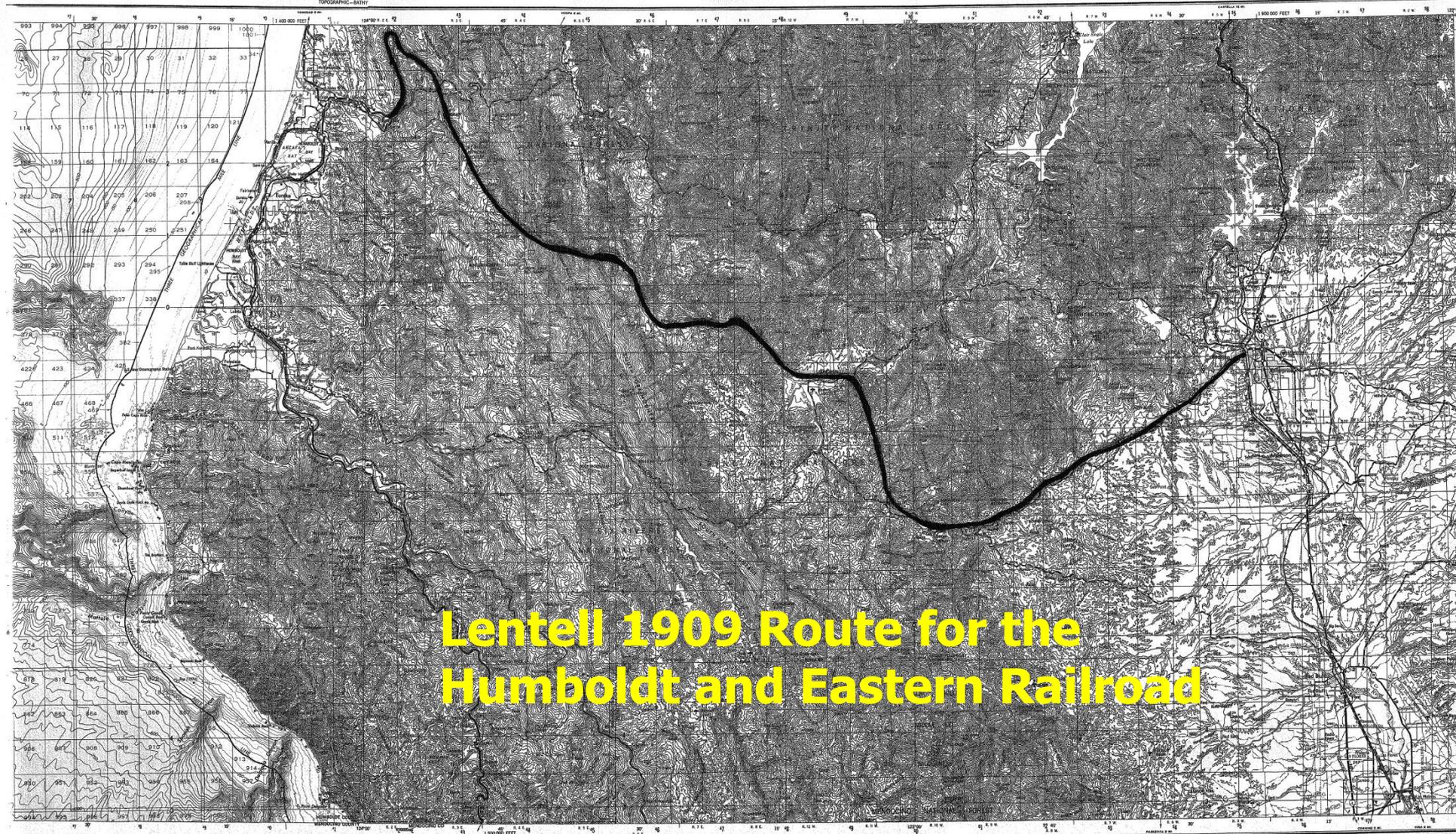
Would a Railroad Have Made a Difference? Missed Opportunities Say – YES!

- Automobile Exports
 - 3 ships/week lost to another port = approx. **\$21,439,500 loss of economic value/year** to community (excluding District and rail income)
- Wind Energy Equipment Imports
 - Estimated loss of 30 ships for entire project = approx. **\$4,287,900 loss of economic value** to community (excluding District and rail income)
- Iron Ore Export
 - Estimated loss of 60 ships per year = approx. **\$16,465,800 loss of economic value/year** to community (excluding District and rail income)

**Solution: Explore the
Feasibility of an
Alternative Rail Route**

What is the “Alternative” Rail Route?

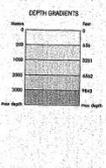
- Simply an Alternative to existing North-South line



Lentell 1909 Route for the Humboldt and Eastern Railroad

HYDROGRAPHIC SURVEY INFORMATION

DEPTH	DATE	NAME	OFFICER
4,000	1887	Albatross	Thorp
4,000	1888	Albatross	Thorp
4,000	1889	Albatross	Thorp
4,000	1890	Albatross	Thorp
4,000	1891	Albatross	Thorp
4,000	1892	Albatross	Thorp
4,000	1893	Albatross	Thorp
4,000	1894	Albatross	Thorp
4,000	1895	Albatross	Thorp
4,000	1896	Albatross	Thorp
4,000	1897	Albatross	Thorp
4,000	1898	Albatross	Thorp
4,000	1899	Albatross	Thorp
4,000	1900	Albatross	Thorp
4,000	1901	Albatross	Thorp
4,000	1902	Albatross	Thorp
4,000	1903	Albatross	Thorp
4,000	1904	Albatross	Thorp
4,000	1905	Albatross	Thorp
4,000	1906	Albatross	Thorp
4,000	1907	Albatross	Thorp
4,000	1908	Albatross	Thorp
4,000	1909	Albatross	Thorp
4,000	1910	Albatross	Thorp
4,000	1911	Albatross	Thorp
4,000	1912	Albatross	Thorp
4,000	1913	Albatross	Thorp
4,000	1914	Albatross	Thorp
4,000	1915	Albatross	Thorp
4,000	1916	Albatross	Thorp
4,000	1917	Albatross	Thorp
4,000	1918	Albatross	Thorp
4,000	1919	Albatross	Thorp
4,000	1920	Albatross	Thorp



SEA LEVEL DATUM

To the U.S. Coast and Geodetic Survey, Washington, D.C. 20370. This datum is based on the mean low water of the tide at the location of the datum station, Redding, California, as determined by the U.S. Coast and Geodetic Survey in 1929. The datum is based on the mean low water of the tide at the location of the datum station, Redding, California, as determined by the U.S. Coast and Geodetic Survey in 1929. The datum is based on the mean low water of the tide at the location of the datum station, Redding, California, as determined by the U.S. Coast and Geodetic Survey in 1929.

LEGEND

Figures in red denote approximate distances in miles between stations.

POPULATED PLACES

LOS ANGELES (City)

OMAHA (City)

GALVESTON (City)

Source

Scale: 1:250,000

LEGEND

Figures in red denote approximate distances in miles between stations.

POPULATED PLACES

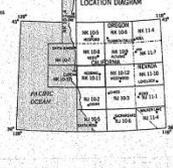
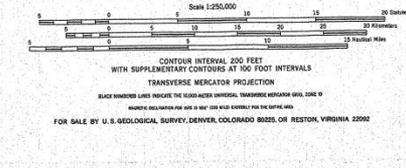
LOS ANGELES (City)

OMAHA (City)

GALVESTON (City)

Source

Scale: 1:250,000



SECTIONIZED TOWNSHIP

SECTION	1	2	3	4	5	6	7	8	9	10	11	12
6	5	4	3	2	1							
7	8	9	10	11	12							
18	17	16	15	14	13							
19	20	21	22	23	24							
30	29	28	27	26	25							
31	32	33	34	35	36							

TOWNSHIP 68 RANGE 12E
LAND GRANT BOUNDARY

SECTIONIZED TOWNSHIP

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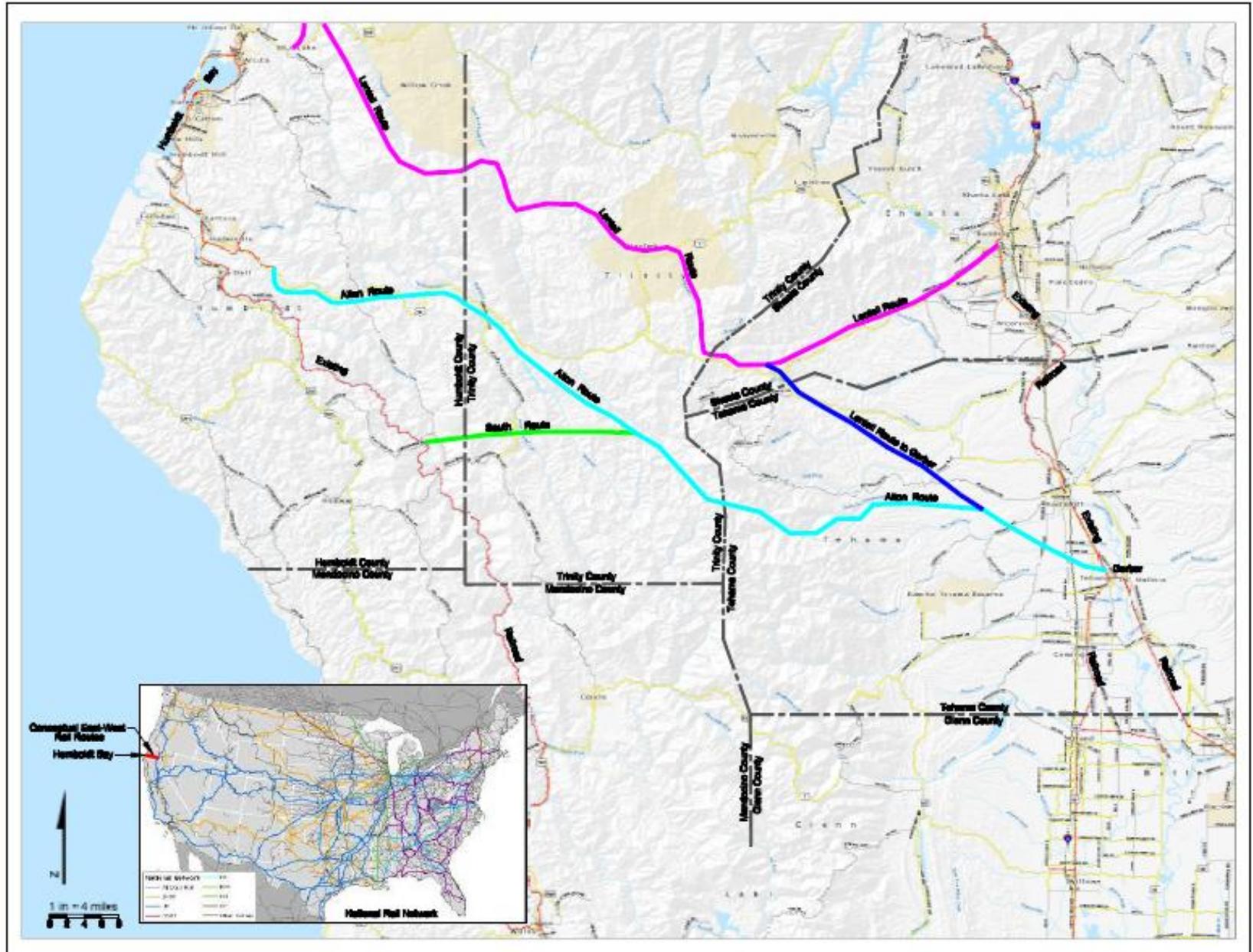
Why an Alternative Rail Concept Now?

- No rail service for more than 10 years resulting in the loss of multiple business opportunities .
- NCRA has no timetable for restoring rail service to Humboldt Bay.
- Economic modeling has shown that Humboldt Bay's harbor has capacity for up to 10x its current level of activity.
- Eastern route has a long history and is half the length and has less tunnels and bridges than existing route.
- Citizen led effort has brought the concept to connect Humboldt Bay to the national rail network into the spotlight.

What might be in a Alternative Rail Route Feasibility Study?

- Identification of a proposed route and alternatives
- Identification of land ownerships
- Assessment of market potential
- A conceptual development plan that will include:
 - Ownership/governance
 - Prelim engineering
 - Highway/port connectors
 - Additional uses of the corridor (fiber optic, trail, etc)
 - Estimated permitting needs
 - Estimated environmental issues and mitigations
 - Estimated development costs and timelines

Conceptual East-West Rail Routes



Feasibility Study Support

- In January 2012, the City of Eureka took action to lead an effort to inform other governmental agencies of the concept.
- To date, the following governmental agencies support a feasibility study:

City of Eureka

County of Tehama

County of Trinity

Six Rivers National Forest

City of Fortuna

Shasta Trinity National forest

City of Rio Dell

Wiyot Tribe

Humboldt State University

Non-Governmental Support

- To date, numerous business, labor and citizen interests have rallied to support a feasibility study:
 - Eureka Chamber of Commerce
 - Humboldt Redwood Company
 - Northwestern Pacific Railroad
 - Central Labor Council, AFL-CIO
 - International Longshore and Warehouse Union, Local 14
 - California Marine and Intermodal Transportation Advisory Council
 - UpState Economic Development Commission
 - Rail and Port Infrastructure and Transportation Committee
 - Building and Construction Trades Council of Humboldt and Del Norte Counties

The Process

1. City of Eureka agrees to lead effort to explore feasibility of an alternative rail route – January 17, 2012
2. City of Eureka explores public agency, business, labor and citizen support for feasibility study – in process
3. Obtain funding for feasibility study
4. Retain consultant to complete the feasibility study
5. If feasible, use feasibility study results to identify capital and principals
6. Project begins
 - a. ROW acquisition, special studies, environmental documentation, permitting, mitigation, construction, etc.

Next Steps

- Encourage other agencies and stakeholders to voice their support for a feasibility study on an alternative rail line
- Collaborate with Counties and other agencies to approve an MOU detailing cooperative mechanisms to obtain funding and accomplish the feasibility study

Conceptual East-West Rail Routes

Thank you!



Questions?