

Port of Humboldt Bay Harbor Revitalization Plan

Executive Summary

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Prepared for:
Humboldt Bay Harbor, Recreation and Conservation District

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Executive Summary

The Humboldt Bay Harbor, Recreation and Conservation District—along with the City of Eureka and Humboldt County—has undertaken the Port of Humboldt Bay Harbor Revitalization Plan aimed at establishing a new and sustainable maritime focus for the community.

The Port's strategy for revitalization involves two phases, channel deepening and landside improvement. After a 12-year effort, the Humboldt Bay Channel Deepening Project was completed in April 2000. The new 48-foot deep Bar and Entrance Channels and 38-foot deep North Bay and Samoa Channels now provide for greater navigation safety and improved vessel economics. The reduction of light loading and increased economies of scale now possible at Humboldt Bay, particularly for the larger forest products carriers, promises to improve the Port's competitiveness for marine trade.

With the completion of the Channel Deepening Project, the focus of the Harbor Revitalization Plan is on the marine facilities, landside access, diversification opportunities, and the associated economic development and marketing of the Port. As a result of this effort, significant new opportunities were identified for Humboldt Bay, including marine-dependent industrial projects, niche dry and liquid bulk cargoes and the potential for a tourism/marine science cluster. Opportunities for expansion or continuation of existing aquaculture and commercial fishing operations were also identified.

Implementation of the recommended plan emphasizes two key issues:

- Site readiness – A number of steps are need to be taken prior to specific opportunities arising in order to remove property restrictions, prepare key publicly-owned sites for marketing and development, and positively position Humboldt Bay.
- Intensified marketing – A dedicated harbor marketing function is also recommended within the Harbor District, City and/or County that will act as a single focal point to proactively identify and pursue opportunities for which Humboldt Bay is competitive.

Key Sites

The study area includes all current and potential marine industrial and commercial properties in Humboldt Bay from the Samoa Bridge (CA 255) to the end of Fields Landing Channel on the mainland, and from the Samoa Bridge to the channel entrance on Samoa Peninsula. Using Humboldt County parcel data 80 key parcels were identified and grouped into 16 major sites for consideration in the preparation of the Harbor Revitalization Plan. In some cases, contiguous parcels under separate ownership were initially grouped together into a single site in order to evaluate the full potential of the properties.

The 16 key sites evaluated include six sites with active cargo terminals, five sites with inactive cargo terminals, and five industrial, commercial or other public sites. They include:

Figure 1 – Key Sites

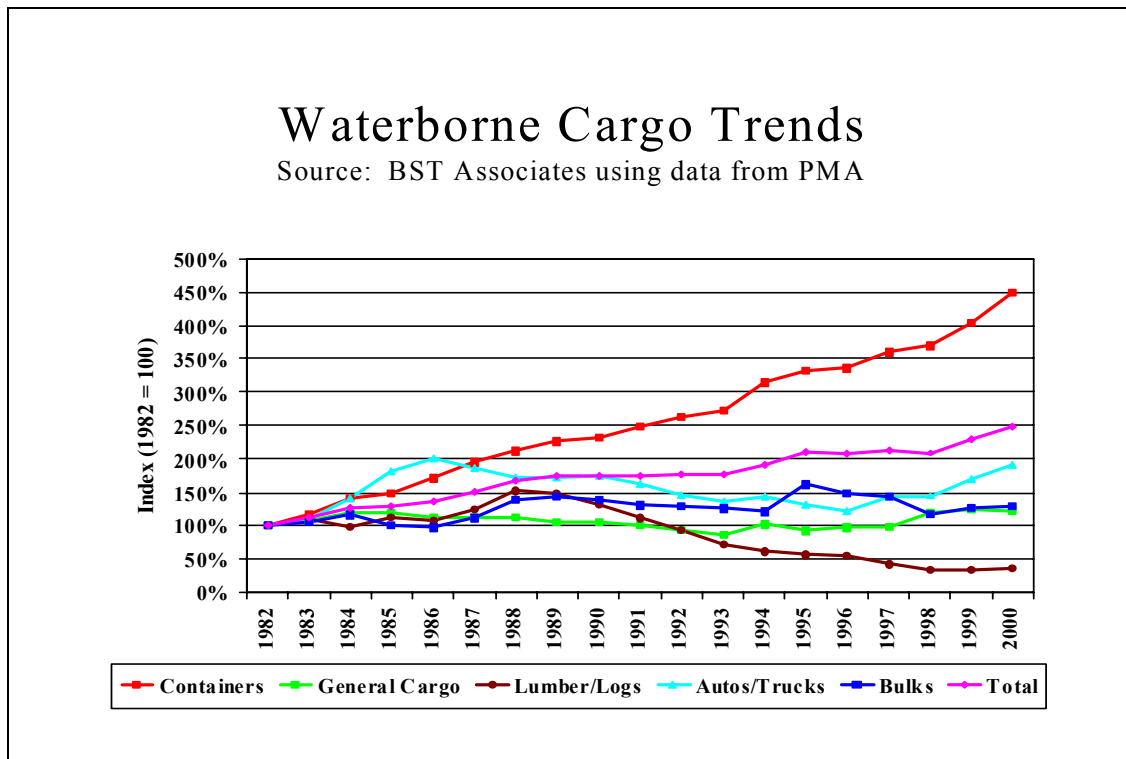
Sites With Active Cargo Terminals	Sites With Inactive Cargo Terminals	Other Industrial, Commercial & Public Sites
Schneider Dock Eureka Forest Products/Preston Prop.* Chevron Terminal Humboldt Bay Forest Products* Samoa Pacific Chip Export Dock Simpson Property/Fairhaven Terminal	Dock B/Balloon Track* Phillips Petroleum Fields Landing Terminal Area* Simpson-Samoa (Redwood Dock) Site* Samoa Pacific Pulp Mill Dock	Halvorsen/City Sites* HSU Boating Center Commercial Street/C Street Docks* Parcel 4 Eureka Airport Property

*Site includes contiguous parcels under separate ownership.

West Coast & Humboldt Trade Trends

Over the last 20 years, West Coast port traffic has grown by 150 percent as seen in Figure 2, led by containers and automobiles. Bulk cargoes and general breakbulk cargo have grown slightly, while lumber and forest products have declined by more than 50 percent.

Figure 2 – Comparison of West Coast Cargo Trends



As shown in Figure 3, waterborne commerce in Humboldt Bay increased consistently to a peak of over 1.2 million tons in 1991, then dropped significantly to between 400,000 and 600,000 revenue tons for the remainder of the study period. Most notably, declines occurred in general cargo and dry bulks, which are dominated by forest products.

Figure 3 – Humboldt Bay Cargo Trends

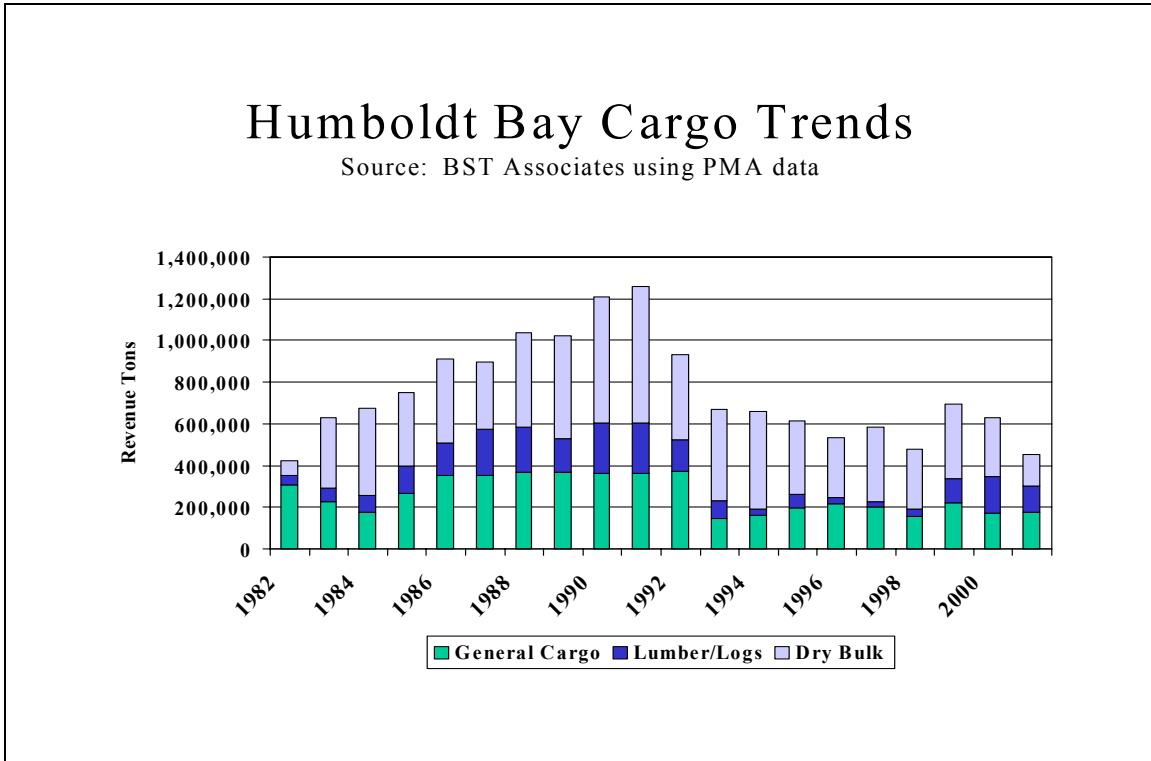
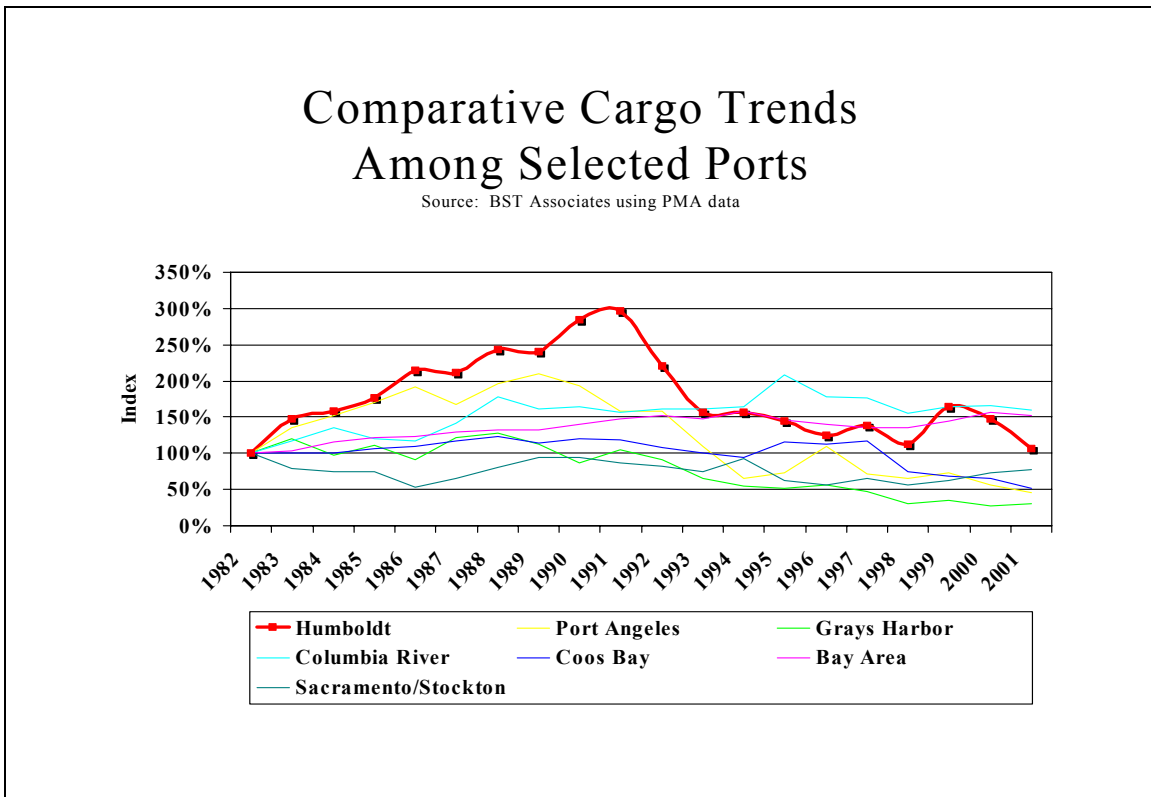


Figure 4 – Relative Cargo Trends Among Selected Ports



By direction of trade, Humboldt Bay’s waterborne commerce has exhibited the following trends:

- Exports declined at 9.4% per year between 1990 and 2000; Imports increased sporadically during the time period, with an average annual increase 13.1% between 1990 and 2000;
- Coastwise shipments were also volatile during this time period, increasing at 6.6% per year; and
- Coastwise receipts grew at 1.6% per year during the study period.

Humboldt Bay’s decline in waterborne commerce is compared with other similarly situated ports in Figure 4. As shown, Humboldt Bay experienced a 200% increase between 1982 and 1992, after which volumes consistently fell. The relative level of waterborne commerce in 2001 is equal to the volume in 1982. By contrast, most other comparable ports have experienced a decline to levels below their 1982 volumes.

The relative loss of forest products exports and domestic shipments has substantially impacted all ports from Humboldt Bay north to Bellingham, WA. The loss of these cargoes has resulted in heightened competition for the remaining general cargo and dry bulk cargoes.

Market Opportunity Analysis

Market opportunities for the Port of Humboldt Bay were analyzed for the full range of cargo types and a variety of non-cargo waterfront commercial, recreational and industrial markets as shown below.

Figure 5 – Cargo and Non-Cargo Markets Evaluated

Marine Cargo Markets	Waterfront Commercial & Recreational Markets
Dry bulk cargo Liquid bulk cargo Marine-dependent industrial opportunities Non-containerized cargo (breakbulk and general cargo) Fully assembled autos/trucks Containers Ocean barge feeder services	Commercial fishing Aquaculture Marine labs & science centers Public aquariums Marinas, boating & yachting Cruise ships & tour boats Boat building & vessel repair Vessel homeporting Naval vessel museum

A wide range of data sources and analytical methods were used in the market assessment, including Pacific Maritime Association (PMA) cargo data and other sources addressing trade trends along the West Coast and in Northern California. Over 100 interviews were conducted with exporters, importers, domestic shippers, carriers, stevedores, terminal operators, economic development agencies, ports, energy companies, fishing and aquaculture operators, aquariums, marine science centers, the military, ship/boat builders and repair companies, and individuals involved with marine trade in Humboldt Bay. In addition, case studies of seven ports were performed to identify how they have developed

marketing strategies, the relative success of their programs, and the potential relevance of these strategies for Humboldt Bay.

The market assessment focused on identifying opportunities for the Port of Humboldt Bay among traditional markets and potential new diversification markets.

Core Advantages

In the course of the market assessment, a number of core competitive advantages were identified for the Port of Humboldt Bay, including:

- Large waterfront industrial sites;
- Natural resource availability;
- Unique tourism surroundings and attractive downtown waterfront nucleus;
- Marine science and environmental base; and
- Livability.

Humboldt Bay has at least three sites in excess of 200 acres, each located on the 38-foot shipping channel. These include the publicly-owned City airport site, the privately-owned Simpson site and the Simpson-Samoa (Redwood Dock) site with mixed ownership, all located on the Samoa Peninsula. Most have had some prior development, which should facilitate permitting, and future development. Large waterfront industrial sites on deep water such as these are a rarity and, thus, a significant advantage for Humboldt.

In addition to forest products, the Humboldt area possesses additional natural resources that are in demand and require waterborne transportation. In particular, bulk aggregates, rock and surplus fresh water are abundant in Humboldt's immediate area and few alternatives are available to compete with waterborne transportation via Humboldt Bay.

Humboldt is fortunately situated amidst unique tourism features, both natural and historical. These include the redwood forests, Eureka's Victorian seaport and Arcata's Victorian homes, all of which receive some measure of national recognition. Likewise, Eureka's Old Town district, waterfront boardwalk and other features create a potentially vibrant downtown waterfront environment. Taken together, these tourism and downtown waterfront features are a unique advantage that can be built upon to revitalize the harbor.

The presence of Humboldt State University (HSU), its marine science program, and the region's strong environmental ethic provide a potential base for new activity on the Humboldt waterfront that could complement the tourism advantages discussed previously. These features create a vibrancy in the Humboldt area that does not exist in most other coastal ports facing similar declines in traditional industries.

Humboldt's natural surroundings, size and amenities offer a very livable environment for its residents. As urban areas in California and the Northwest continue to grow and become congested, Humboldt's livability should be attractive to employees, professionals and managers of new industry that could locate in the area.

Key Limitations

The key disadvantages at Humboldt Bay were identified as:

- Small local market size; and
- Inland transportation access.

The limited size of the population and economic base in Humboldt’s natural hinterland area are a clear disadvantage in attracting traditional marine cargo business. As a first priority, ocean carriers, importers and exporters look for strong local markets as a basis for establishing waterborne trade and transportation operations. Humboldt’s small local market limitation is exacerbated by the fact that the local area is primarily a producing region, generating very little inbound freight for consumption. The one-way nature of the Humboldt local market area diminishes the viability of waterborne, rail and truck transportation operations that could otherwise be feasible with a two-way move.

Humboldt’s limited inland rail and truck access is also a significant disadvantage. Truck access to Interstate 5 should be enhanced with improvements to CA 299 at Buckhorn Pass, but highway access will still be less desirable via Humboldt than at competing ports located directly on the interstate system. Likewise rail access may be restored with the reactivation of the North Coast Railroad Authority (NCRA) line, but the time-consuming and circuitous southbound routing—which must backtrack through other competing port areas—will remain a limitation on Humboldt Bay’s attractiveness for most rail-oriented marine cargoes to/from points beyond the Bay Area where superior rail connections are needed to compete. However, the restored rail service will be important for marine-dependent industrial opportunities (discussed below) where adequacy of rail service is needed to compete.

Market Priorities

Each opportunity was rigorously analyzed in terms of its overall attractiveness and Humboldt’s competitiveness, using the factors identified in Figure 6 below. Those markets that were found to be most attractive, and for which Humboldt was found to be competitive, were assigned the highest priority; those least attractive and for which Humboldt is least competitive were assigned the lowest priority.

Figure 6 – Market Evaluation and Prioritization Factors

Market Attractiveness Factors	Humboldt Bay Competitiveness Factors
Overall market size Market growth & stability Capital/infrastructure requirements Profitability Business operating risk Ease of entry Intensity of customer/supplier leverage Intensity of competition	Market share, reputation & image Proximity to the market or resource Navigation access & cost Rail access & cost Highway access & cost Site availability & readiness Facility & operating cost position Workforce availability & productivity Support services availability Business climate Livability

Significant global trends driving new opportunities for Humboldt Bay were found to be the rising demand and shortages in the construction, energy, water and seafood markets, as well as growing interest in tourism and the environment. The most promising opportunities are in marine-dependent industrial projects, niche dry and liquid bulk cargoes, aquaculture, tourism and marine science, and boat building. A summary of the attractiveness and Humboldt Bay’s competitiveness in each market is presented below in Figure 7.

Figure 7 – Market Prioritization Map

	Weak Competitive Position	Neutral Competitive Position	Favorable Competitive Position
Attractive Market Segment	Marine Industrial (w/o rail) Vessel Homeporting	Marine Industrial (w/ rail) Liquid Bulks Coastal Lumber Barge (w/o rail) Marine Lab/Science Center Repositioning Cruise Ships	Bulk Aggregates/Rock Aquaculture
Neutral Market Segment	Project Cargoes Coastal Lumber Barge (w/ rail) Rail-On-Barge (w/ rail) Automobiles	Import Forest Products Rail-On-Barge (w/o rail) Public Aquarium Boat Building & Vessel Repair Naval Vessel Museum	Commercial Fishing Marina/Boating/Yachting
Unattractive Market Segment	Containers Breakbulk Steel Fruit	Container Barge	Export Forest Products

	Highest Priority
	Priority
	Selective/Potential Priority
	Lowest Priority

Marine-dependent industrial opportunities are essentially manufacturing facilities requiring a major marine shipping component, either to bring in raw materials or to ship out finished products. Examples include a sheetrock manufacturing plant that imports bulk gypsum or a mini steel mill the imports iron products and/or exports steel slabs and coils. Humboldt’s advantages are the availability of large sites on Samoa Peninsula with access to the 38-foot channel, relatively low cost land, labor and livability. While these opportunities are not frequent, they result in a high volume of marine trade and high employment. Readiness and consistent marketing are keys to success.

Dry bulk cargo opportunities include the shipment of bulk aggregates and rock to the Northern California construction market. Resources in Humboldt County are being closely analyzed by a number of companies, with the likelihood that high volumes of bulk aggregate and rock will need to be shipped by ocean barge.

Liquid bulk cargo opportunities exist in liquefied natural gas (LNG) and export water. Energy producers and marketers continue to pursue projects to serve the California market, and a major company has shown significant interest in Humboldt Bay as an LNG terminal location, connecting to the California natural gas pipeline system. Likewise, various companies have proposed water export to Southern California over the past several years, and presently a global consortium is exploring the potential to ship surplus Humboldt water using ocean-going waterbag technology.

Aquaculture is an attractive market, given its growth outlook, the relatively low investment requirements, and shellfish farming conditions in Humboldt Bay. Based on these growing conditions, Humboldt stands a good chance of building on its competitiveness in oyster production, the only downside being transportation cost from Humboldt to outside markets.

A number of tourist and marine science activities were found to be potential opportunities, particularly if approached as a synergistic cluster. This could include a public aquarium, cruise dock, Naval vessel museum and marine science center, which would build upon Humboldt's unique tourism surroundings and marine science base.

Based on growth in the luxury yacht market and the experience of the Port of Port Angeles, the opportunity to attract a boat builder to Humboldt Bay appears to have merit. The market analysis was not conclusive on the feasibility of such an operation, but further study and investigation is warranted on the basis of Humboldt's water access, central location for delivery on the West Coast and livability.

While a high priority is recommended for the markets addressed above, existing import and export forest product terminal handling activities should continue to be supported and monitored for potential new opportunities; the potential for a coastal forest products barge service or rail-on-barge service warrant monitoring and further investigation; and the needs of commercial fishing should continue to be supported.

Humboldt's basic weaknesses are in the areas of local market size, lack of proximity to a large metropolitan market and limited inland truck and rail access. These are major competitive disadvantages for cargo handling activities including containers, automobiles, breakbulk steel, fruit, and project cargoes. Furthermore these markets are considered to be unattractive for a niche port or new entrant because of the intensity of competition, high customer leverage, short contract durations and resulting high risk. These markets should be given the lowest priority.

Strategic Focus Areas

Building on Humboldt's core advantages and the specific market opportunities identified, several strategic areas of focus were identified for the Harbor Revitalization Plan, including a mix of new and traditional harbor activities:

- Marine-dependent industrial opportunities;
- Niche dry and liquid bulk cargoes;
- Coastal barge feeder market access;

- Tourism and marine science;
- Aquaculture and commercial fishing;
- Boat building & vessel repair; and
- Forest products cargo handling.

Harbor Revitalization Alternatives

Alternative Scenarios

Alternative revitalization plans for Humboldt Bay were evaluated under six alternative scenarios relative to rail service and public terminal investment. Given the circumstances surrounding the inactive NCRA rail line, alternatives were assessed based on (1) current rail conditions and (2) assuming restoration of rail service in accordance with the operating plans developed in the *Long Term Financial Feasibility of the Northwestern Pacific Railroad* (a companion report to this study). Likewise, three levels of public marine terminal investment were considered including a public general cargo terminal, public investment in bulk or marine industrial docks, and no public investment. The six scenarios are illustrated in Figure 8.

Figure 8 – Alternative Harbor Revitalization Scenarios

	With Rail Service Restored	With Current Rail Conditions
With Public General Cargo Terminal	Marine-Dependent Industrial Projects Niche Bulk Cargoes Marine Science & Tourism Aquaculture & Commercial Fishing Boat Building & Vessel Repair Forest Products Cargo Handling <i>PLUS</i> Public General Cargo Terminal	Marine-Dependent Industrial Projects Niche Bulk Cargoes Marine Science & Tourism Aquaculture & Commercial Fishing Boat Building & Vessel Repair Forest Products Cargo Handling <i>PLUS</i> Public General Cargo Terminal Coastal Feeder Barge Development
With Public Investment In Bulk Or Marine Industrial Docks	Marine-Dependent Industrial Projects Niche Bulk Cargoes Marine Science & Tourism Aquaculture & Commercial Fishing Boat Building & Vessel Repair Forest Products Cargo Handling <i>PLUS</i> Public Bulk/Marine Industrial Dock Investment	Marine-Dependent Industrial Projects Niche Bulk Cargoes Marine Science & Tourism Aquaculture & Commercial Fishing Boat Building & Vessel Repair Forest Products Cargo Handling <i>PLUS</i> Public Bulk/Marine Industrial Dock Investment Coastal Feeder Barge Development
With No Public Terminal Investment	Marine-Dependent Industrial Projects Niche Bulk Cargoes Marine Science & Tourism Aquaculture & Commercial Fishing Boat Building & Vessel Repair Forest Products Cargo Handling	Marine-Dependent Industrial Projects Niche Bulk Cargoes Marine Science & Tourism Aquaculture & Commercial Fishing Boat Building & Vessel Repair Forest Products Cargo Handling <i>PLUS</i> Coastal Feeder Barge Development

The most common type of public marine terminal is a public general cargo terminal used for handling breakbulk cargoes and possibly containers carried by steamship common carriers, and breakbulk, possibly bulk and other cargoes carried by charter vessels. In this scenario, the port authority typically develops and maintains the facilities, contracts out the operation to a private terminal operator/stevedore, and jointly markets the facilities with the operator. The contract commitments by the terminal operator and customers are relatively short (1 to 3 years) resulting in fairly high business risk.

It is also possible for a port authority to participate in the development of a bulk cargo terminal. In this scenario, terminal development is deal-driven, with the port and a private party (the exporter, importer, carrier or terminal operator) jointly developing and maintaining the facilities. The port is typically responsible for preparation of the site and development/maintenance of the waterfront structures (docks or piers), while the operator often provides and maintains all of the bulk material handling facilities.

The third scenario is public investment in the waterfront facilities serving a marine-dependent industry. This is very similar to investment in a bulk cargo terminal as described above, assuming that the manufacturer/importer/exporter is involved on a long-term basis. In this case, the port prepares the site and develops and maintains the waterfront structures, and the manufacturer develops and maintains the industrial facilities.

Site Utilization Alternatives

Numerous site utilization alternatives were then evaluated to match the priority markets with the key sites in Humboldt Bay, based on detailed siting criteria developed for each market use.

Recommended Harbor Revitalization Plan

Four broad criteria were used to evaluate the alternative revitalization scenarios and associated siting options to arrive at a recommended plan. These are:

- ***Market Justification*** – Is the strategy scenario supported by the market analysis or does it contain key elements that are unsupported?
- ***Risk and Reward*** – Does the strategy assume reasonable risks commensurate with the potential benefits that can be created?
- ***Site Utilization*** – Does the plan assign the available sites in Humboldt Bay to their highest and best use, resulting in a reasonable supply of land for the various markets and considering potential environmental issues?
- ***Synergy*** – Does the overall plan utilize the available sites in a balanced, coherent and synergistic way, or does it lead to inherent conflicts within the harbor?

Recommended Strategy

Using these criteria, the scenarios involving public investment in bulk and marine-dependent industrial dock facilities are recommended. These strategies target the harbor activities most justified by the market in terms of their overall attractiveness and the Port

of Humboldt Bay's competitiveness. Furthermore, by pursuing public investment in bulk and marine-dependent industrial dock facilities, the Harbor District, City and County can play a vital role in attracting and securing new harbor opportunities with an appropriate level of risk. Because these types of facility developments tend to be deal driven and long-term in nature, direct Harbor District participation in their development, or the application of port-issued, tax-exempt industrial development bonds, could provide a valuable service while assuming a reasonable business risk.

The scenarios that include a public general cargo terminal are not recommended because they are not supported by the market analysis and they involve an unreasonably high level of risk. Almost all of the markets that would be involved in public general cargo terminal operations were identified as unattractive in the prioritization analysis, and Humboldt Bay was found to be uncompetitive in most of them as well. The 'build it and they will come' nature of public general cargo terminals, combined with the short contract terms common in the trade, high customer leverage, and intense port competition, would result in excess capacity and a level of risk that is not commensurate with the limited market opportunity available.

As to the rail conditions, a strategy of supporting restoration of the NCRA rail line but preparing for the continuation of no rail service is recommended. The availability of rail service will no doubt enhance the marine-dependent development strategy and the two should be coupled when promoting the Port's needs with state and Federal agencies and representatives. However, there is no certainty that rail service will be funded and restored in the foreseeable future. Therefore, the Harbor District should continue to periodically explore the feasibility of coastal barge feeder services as an alternative to rail.

Recommended Site Utilization

The priority markets identified in the recommended revitalization strategies were matched with the key sites to develop a recommended site utilization plan as shown in Figure 9.

The Eureka Airport Site and Simpson-Samoa (Redwood Dock) Site are recommended for marine-dependent industrial opportunities. The public ownership aspects of these areas will ensure that the Humboldt community can market these sites for their intended use. Reconfiguration of the Simpson-Samoa (Redwood Dock) area to consolidate coastal dependent industry to the south and other uses to the north could enhance the utility of this area for marine-dependent industrial opportunities. With these two sites, Humboldt will have sufficient property to accommodate two or three major marine industrial customers over the long term.

The Dock B/Balloon Track site is recommended for consideration as a tourism/marine science cluster, possibly including a public aquarium, marine lab, cruise dock, Naval vessel museum and related activities. This location has the advantage of synergy with existing tourism features in Humboldt, including the Old Town area and waterfront boardwalk, which are within walking distance. With proper land use protection, the fisherman's work area would also add maritime ambiance for tourists. Development of

the Halvorsen/City site at the east end of this downtown waterfront strip could compliment the Dock B/Balloon track development, with the two acting as book ends or anchor tenants in a lively people-oriented waterfront district. The site could also be served by a rail trolley connecting the attractions in the district, a water taxi to Woodley Island and Samoa, and the terminus of a short line excursion railroad as discussed in the *Long Term Financial Feasibility of the Northwestern Pacific Railroad*. Until feasibility and master planning are addressed, the Dock B and Balloon Track parcels should be considered together as a single potential site for this use.

Figure 9 – Summary of Recommended Sites for the Priority Markets

Marine Use	Recommended Sites
Marine-Dependent Industrial Opportunities	Eureka Airport Property Simpson-Samoa (Redwood Dock) Site
Bulk Aggregates/Rock	Fields Landing Terminal (southern origin) Samoa-Pacific Pulp Mill Dock (northern origin)
Liquid Bulks	Samoa-Pacific Pulp Mill Dock Simpson Property/Fairhaven Terminal
Marine Science/Tourism	Dock B/Balloon Track Property
Aquaculture Facility	Fields Landing Small-Parcel Site (current needs) Parcel 4 (long term growth)
Boat Building & Vessel Repair	Fields Landing Terminal (public site) Schneider Property (private site)
Fisherman's Work Area	Commercial Street/C Street Dock
Coastal Lumber Barge Service	Eureka Forest Products/Sierra Pacific (open storage) Fairhaven Terminal (covered storage)
Rail-on-Barge Service	Fields Landing Terminal Humboldt Bay Forest Products Schneider Dock
Forest Products Cargo Handling	Eureka Forest/Sierra Pacific (chips, logs lumber) Fairhaven Terminal (pulp, plywood, veneer) Humboldt Bay Forest Products (logs, lumber) Samoa-Pacific Chip Export dock (chips)

For aquaculture development, the Fields Landing Small Parcel Site (Vita Sea Corp.) was found to be most suitable for meeting current needs, based on its location, size and existing infrastructure. It also has the advantage over the Samoa Peninsula Small Parcel Site of being located away from potential deep draft vessel traffic. For long-term needs, if expansion and related aquaculture support and research facilities are pursued, Parcel 4 is recommended because of its larger size.

Humboldt Bay Vision

The recommended Harbor Revitalization Plan results in a vision for Humboldt Bay incorporating several interrelated elements:

- People-oriented activities to the north and industry to the south, on both the Eureka side of the harbor and the Samoa Peninsula side, considering the Samoa township development;
- Large-parcel marine-dependent industrial development on Samoa Peninsula south of the Samoa township;
- Niche dry and liquid bulk cargoes on Samoa Peninsula and at Fields Landing Terminal.
- Potential public-private development of marine-dependent industrial and bulk docks;
- Long-term focus on downtown waterfront tourism and marine science with the Dock B/Balloon Track development;
- Permanent homes for aquaculture and commercial fishing work areas; and
- Active development of coastal barge feeders at private terminals as market conditions warrant.

Implementation Plan

A detailed implementation plan is provided, which emphasizes steps to improve site readiness and intensify marketing. These steps include recommended actions in the areas of site planning, zoning, utilities, transportation infrastructure, follow-up study work, government relations, property negotiations, and other issues. The following key issues relating to site readiness, feasibility and marketing are addressed in the implementation plan:

- Removal of the airport use deed restriction on the Eureka Airport Site in order to ready that location for marine industrial, and a plan for reconfiguration of the site, addressing relocation of New Navy Base Road and environmental issues.
- Resolution of potential ownership, zoning and use conflicts at the Simpson-Samoa (Redwood Dock) Site in order to achieve the optimum configuration for marine-dependent industrial opportunities.
- Conceptual facility planning, environmental evaluation, cost estimates and a business plan for Fields Landing Terminal to address exclusive-use or common-user aggregate handling as soon as an initial user is ready to move to the site selection stage.
- A more detailed market analysis, feasibility study, master plan and business plan for the development of a tourism and marine science cluster the Dock B/Balloon Track area.
- Monitoring and assessment of the feasibility for coastal feeder barge service as market conditions evolve.

- Finalization of site selection for a common use aquaculture facility and continued development of the commercial fisherman's work area.
- A dedicated harbor marketing function within the Harbor District, City and/or County that will act as a single focal point to proactively identify and pursue opportunities for which Humboldt Bay is competitive.
- Incorporation of the Harbor Revitalization Plan recommendations into the appropriate comprehensive or general land use plans to ensure ease of local permitting when opportunities arise.
- Programmatic CEQA reviews when the Revitalization Plan's conclusions and recommendations are incorporated into action plans that establish commitments to carry out the Plan.

Harbor Revitalization Technical Advisory Committee

Humboldt Bay Harbor, Recreation and Conservation District

David Hull, Chief Executive Officer, Project Manager

Ron Fritzsche, Commissioner

Dennis Hunter, Commissioner

City of Eureka

David Tyson, City Manager

Jack McKellar, Councilmember

Virginia Bass Jackson, Councilmember

County of Humboldt

Kirk Girard, Director of Community Services

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