

Draft

Environmental Assessment

NATIONAL MARINE FISHERIES SERVICE
Proposed HMSC Newport Facility
Newport, Oregon

Prepared for

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
Western Administrative Support Center
Facilities and Logistics Division
Seattle, Washington

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In compliance with the
National Environmental Policy Act of 1969

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June 2000

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ENVIRONMENTAL ASSESSMENT

Proposed HMSC Newport Facility

1.0 INTRODUCTION

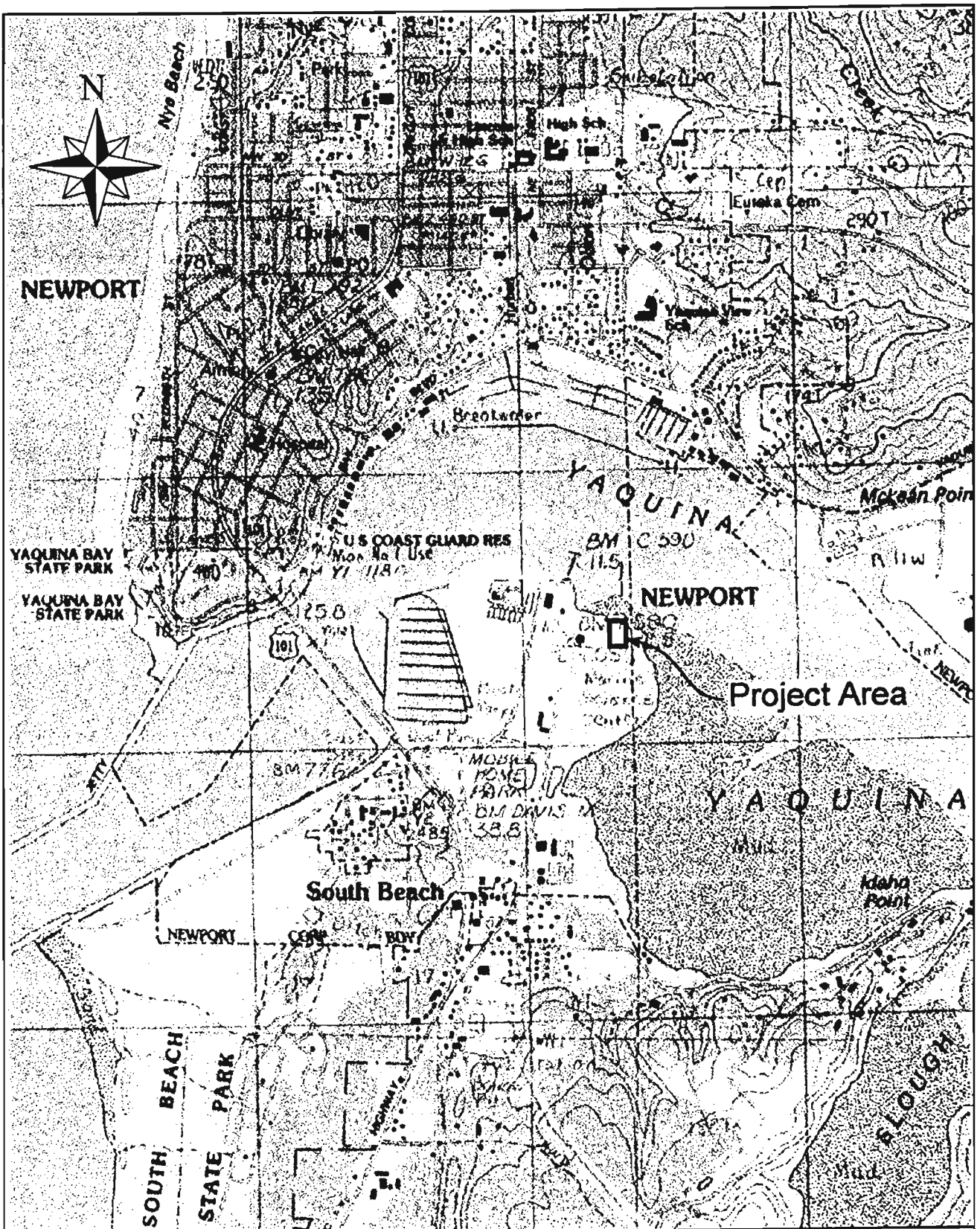
The National Oceanic and Atmospheric Administration (NOAA) proposes to construct an office and storage facility to replace an existing 1.1 acre structure that is presently owned by NOAA. This project is located in Newport, Oregon (Figure1) and is intended to accommodate existing and future space requirements for NOAA at the Hatfield Marine Science Center (HMSC). The Project site is depicted in Figure 2. The funding for this project was provided by congressional appropriations in 1996/1997 and after a thorough evaluation of available alternatives, the identified project alternative was selected by NOAA. This monetary appropriation is considered adequate for completion of the project.

This environmental assessment is part of an initial planning process and has been prepared in accordance with provisions of the National Environmental Policy Act (NEPA) of 1969, as amended; Council of Environmental Quality regulations for implementing the procedural provisions of NEPA [Code of Federal Regulations (CFR) 40 CFR 1500-1508]; and those issued by the Department of Commerce (DOC) in Department Administrative Order (DAO) 216-6, and NOAA Administrative Order NAO 216-6, implementing the National Environmental Policy Act. The environmental assessment describes proposed facilities and operations, addresses impacts that could be associated with the proposed action, and discusses cumulative impacts associated with continued growth of facilities and operations at the HMSC facility. Finally, the environmental assessment includes a discussion of alternatives and list of environmental regulations.

2.0 PROJECT DESCRIPTION

NOAA proposes construction of a new building to provide additional space for addressing its management and research responsibilities on the Oregon Coast, and to accommodate its mission of supporting the long-term environmental and economic health of the nation. More specifically, construction of a new building would increase efficiency, effectiveness and productivity of NOAA's Newport operations by alleviating overcrowded conditions in the existing NOAA buildings. The new facility would provide for additional flexible space for consolidation and expansion of specific NOAA programs located at the Hatfield Marine Science Center, while allowing consolidation of other research programs in existing space.

The new space will provide 15,000 square feet of contiguous office space, additional covered storage, and a staging area for field research. This is the space requirement for current and short-range NOAA plans at the National Research Station (NRS). The new space should also provide long term flexibility to readily expand or reconfigure the



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Area Map

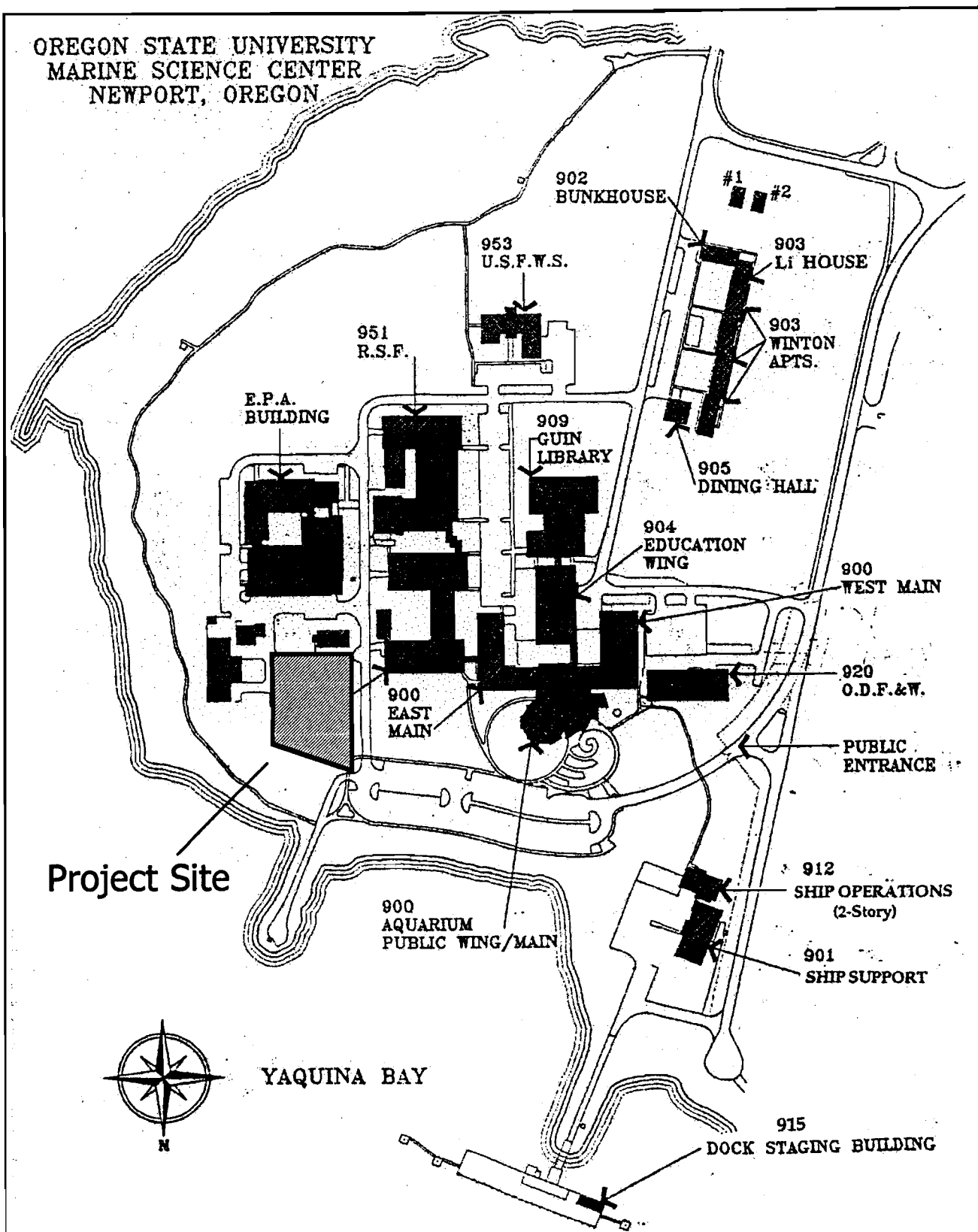
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EA for Proposed HMSC Newport Facility

FIGURE

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OREGON STATE UNIVERSITY
MARINE SCIENCE CENTER
NEWPORT, OREGON



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Vicinity Map

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FIGURE

2

building interior, as program needs change. Finally, the new building should serve as the focal point for NOAA's Newport Research Station (NRS) at HMSC, providing a central reception and access control point, and creating an opportunity for promoting the benefits of the research being conducted at the station. The cost of the project should not exceed \$3.5 million.

3.0 PURPOSE AND NEED

Understanding the complex oceanic and coastal ecosystems in addition to managing the nation's fisheries at sustainable levels necessitates scientific research and application of the research findings. The NRS provides the facilities for a number of research programs that contribute to this management objective. The Facility Program Requirements Study (Summit Technology 1998) documents overcrowding at the existing NOAA facilities located at the HMSC, with a lack of office, laboratory, and storage space for existing and expanding research programs. In particular, the growth of the Groundfish Program at the HMSC requires additional office and laboratory spaces. NOAA has identified a long-term need for up to 21,500 square feet of additional space to support existing and planned program operations. The Facility Program Requirement Study identified an immediate need for approximately 6,000 square feet of office space, 1,700 square feet of staff support space and 4,200 square feet of warehouse-type storage for equipment, supplies and staging activities. The study determined that this space would need to be housed in approximately 15,000 square feet of additional building area that is in close proximity to existing NOAA labs, OSU and nearby state and federal agencies to support on-going collaboration.

In addition to overall lack of space, present configuration and space allocation for specific programs is also a problem. Staff offices within some research units are scattered throughout the existing NOAA buildings and are not contiguous, while offices of these or other research units are located at considerable distance from their laboratories. As a prudent, low cost, temporary solution, shop space in the existing buildings is presently being displaced and used as makeshift offices. The principal results of these conditions are program inefficiency and storage of goods outside in the coastal marine environment. These conditions negatively impact the ability of the researchers and other staff to work in an effective and efficient manner. Additionally, no single entrance exists in the current NOAA complex to provide access control, central reception for visitors, or other benefits.

4.0 PROPOSED ACTION AND PROJECT ALTERNATIVES

4.1 Proposed Action

The proposed action is to build a new two-story office building with adjacent warehouse on 1.1 acre of NOAA-owned land directly northeast of building 950 in the existing NOAA

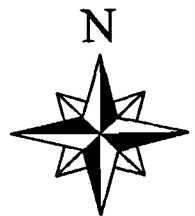
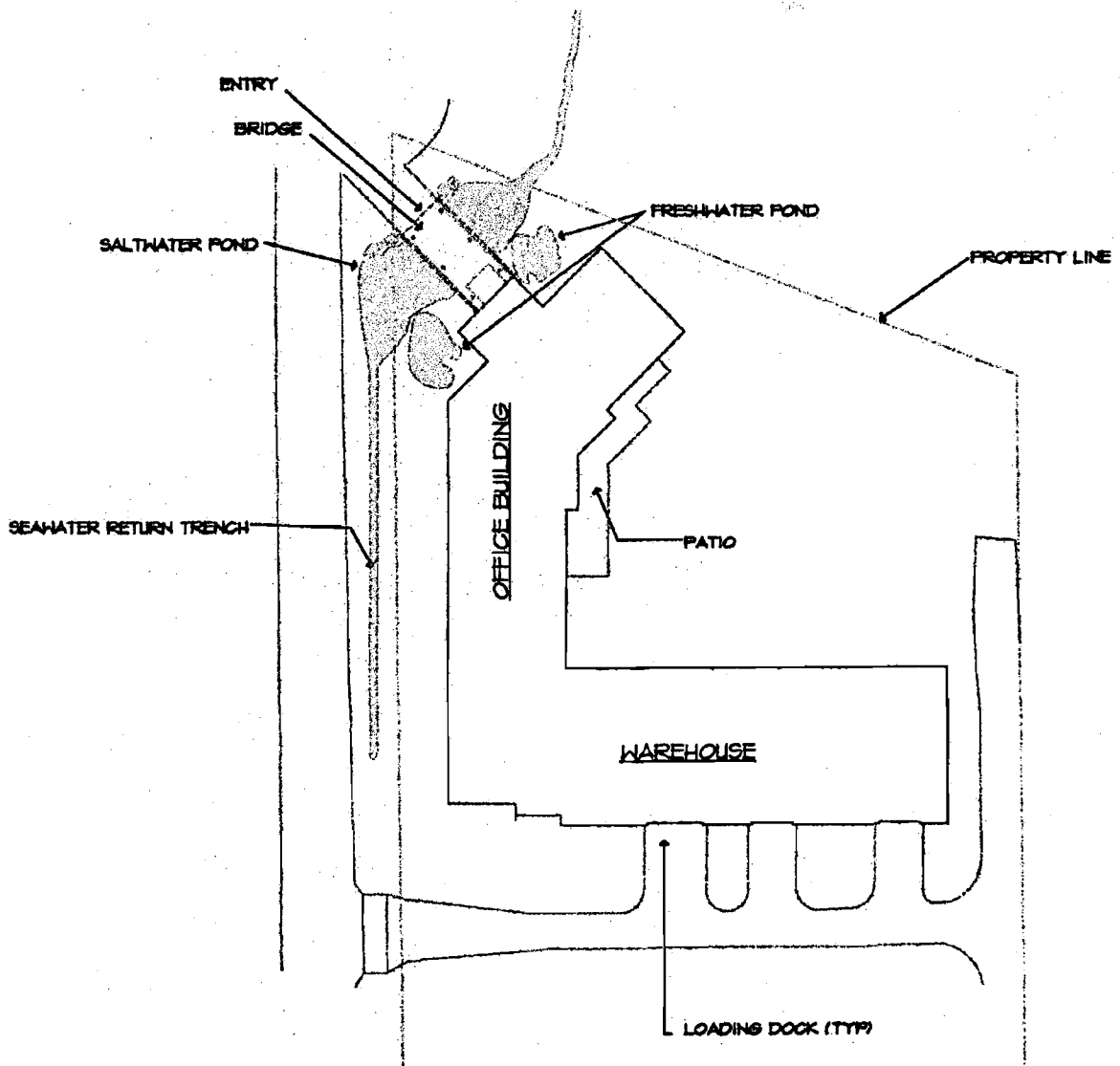
complex. Building on NOAA-owned land is the only reasonable option given the projected cost of purchasing new land and the limited amount of funding available for the project. Due to the limited budget, the 21,500 square feet size would be reduced to approximately 15,000 square feet to accommodate available monetary appropriations. This estimated size corresponds with the appropriated \$3.5 million budget, and would provide for immediate and near-term space requirements.

The existing structures on the site include two seawater-settling ponds that are presently abandoned by NOAA. These existing structures will be demolished, removed from the site and then transferred to a landfill or recycled as appropriate.

The proposed building would consist of a of 10,000 square-foot, two-story office building and an adjacent, 5,000 square-foot, single-story warehouse. It is important to note that the square footages include allocations for circulation, a layout factor, and net-to-gross conversion of square footage needs. These percentages are used to estimate the gross building areas that would be required to support the designated building areas identified in this project.

The proposed building would be occupied almost exclusively by staff of the Northwest Science Fisheries Center (NWSFC) Groundfish Program, which currently consists of 20 scientists. The Groundfish Program is expanding and expected to increase by eight to 10 members in the next few years. The relocation of the Groundfish Program to the new building will release 4,500 square feet of space in the existing buildings. Placement of the Groundfish Program in the new building would consolidate program personnel into one work area, and would be the least disruptive option for all other NOAA programs at HMSC. This option would not require new laboratory space, making it the most economical decision considering the very limited funding available. The most cost-effective and preferred alternative for users of existing laboratory space within the NOAA buildings is for all other research programs to remain in their current buildings and not move to other locations.

An overview of the site development footprint is presented in Figure 3. The designed structure will adhere to existing building standards for the area and will range from 20' to 34' in height. Design of the building will integrate special construction measures to protect against earthquakes and site liquefaction. The roofing and outside wall color will match existing buildings within the HMSC. Runoff from the structure will primarily be routed to the ground through gutters and downspouts, and utilize concrete splash block-type diffusers to minimize soil erosion and channel water away from the building foundation. This water will soak into the porous soils, or flow into a drainage channel that connects with the bay. A portion of the roof drainage system will flow to two small freshwater ponds located at the northwest corner of the structure and will eventually be directed during seasonal overflow into the bay. The site drainage plan will integrate Best Management



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Site Design

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FIGURE

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Practices (BMPs) within the design and it will be monitored according to standard National Pollutant Discharge Elimination System (NPDES) permit regulations.

4.2 Proposed Alternatives

4.2.1 Relocation to Alternate Locations.

To permanently resolve office space issues, or at least reduce project costs, the Facilities Needs Program Study investigated the possibility of moving NOAA staff to neighboring agencies at HMSC either temporarily or permanently. The study authors contacted each of the other agencies located at HMSC to determine whether any excess space was available. It was determined that the neighboring agencies, the Environmental Protection Agency, Oregon State University, and U.S. Fish and Wildlife Service, were all currently or soon to be operating at capacity, and therefore, could not provide space to NOAA (Gardner Memo 1999).

4.2.2 Expanding Building 950 and 951

This alternative involved the acquisition of land adjacent to NOAA buildings and constructing additions on the acquired land. According to the Gardner Memo (1999), this option was reviewed in 1997 and again in 1998 by National Marine Fisheries Service. It would require that NMFS acquire the land from the Port of Newport at a high cost and eliminate the only remaining open lawn area adjacent to Building 950. This option was considered financially unfeasible due to limited fund availability. In addition to the financial considerations, it was the opinion of HMSC Director that the additions to these existing buildings would degrade the aesthetics of the site.

4.2.3 Leasing Off-Campus

The option of renting or leasing offices off-campus was considered, but rejected due to distance from the HMSC and existing NOAA offices. This would separate research teams and result in operational deficiencies that are presently an identified problem. In addition, the long-term costs would exceed the budget for construction.

4.2.4 Renovation of Existing Space

A secondary expansion alternative reviewed comprised adding a second story to the two existing NOAA buildings at HMSC. According to consulting engineers, the buildings were not constructed to support the load of a second floor and would require extensive structural modifications. The electrical and mechanical systems in these buildings would also require extensive and costly modifications, and an architectural redesign would also be necessary to ensure compatibility with other structures at the center. Consequently, the cost of adding additional floors to buildings 950 and 951 would cost twice as much as

per square foot as constructing a new facility. Since funding is limited, and given that approximately half the office and storage space can be obtained by adding second floors to NOAA buildings as by constructing a new facility, the upward expansion alternative was determined to be financially unfeasible.

4.2.5 No Action

The No Action alternative would allow existing NOAA facilities to continue operation at current levels of activity. If adopted, the No Action alternative would leave in place the existing overcrowded and inefficient conditions caused by the current space deficit. The programs housed by the existing facility would not be able to expand as planned. All these conditions would severely limit the ability of NOAA's Newport programs to accomplish their mission.

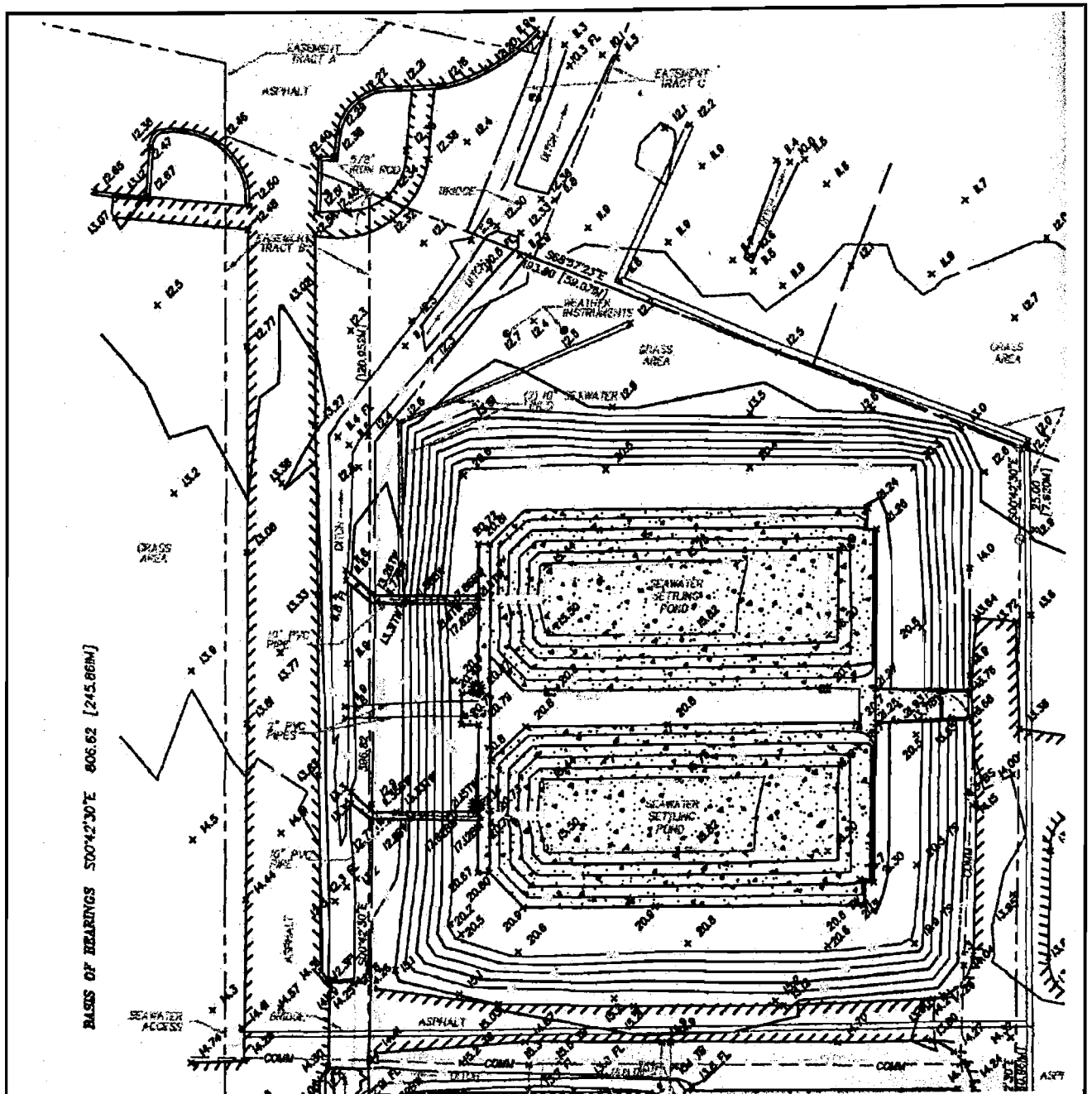
5.0 AFFECTED ENVIRONMENT

5.1 General Site Conditions

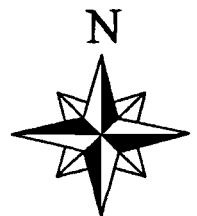
The office and warehouse building proposed in the preferred alternative would be located on NOAA owned land at the Oregon State University-Hatfield Marine Science Center (Figure 2). The building would be located at the northeast corner of the HMSC complex, replacing two abandoned concrete settling basins that currently occupy the site (Figure 4). The HMSC site was formerly part of Yaquina Bay, but was filled with dredge spoils during the 1970's.

Topography. The City of Newport is located on a narrow strip of marine terrace formed by wave action eroding into the existing bedrock. South of Yaquina Bay, the landform is quite flat. South Beach peninsula, the site of the Hatfield Marine Science Center, is a landform partially created by disposal of dredged material from the construction of the Yaquina Bay navigation channel and ship turning basin (Harvey and Nutt 1976). The existing ground elevation ranges from 11 to 15 feet (GRI 2000).

Climate. The climate of Yaquina Bay and the Newport area is a humid and mild coastal marine climate influenced by the Pacific Ocean directly to the west. It is characterized by moderate temperatures and high precipitation. Normal annual precipitation at Newport is 65 inches, most of which falls in the form of rain. Approximately 70% of the rain occurs between the months of November and March. Average temperatures are moderate, ranging from 44 degrees in January to 56 degrees in July. Prevailing winds are from the southwest in the winter and the northwest in the summer and average 10-15 miles per hour (mph). Extreme wind gusts in winter storms can top 100 mph along coastal headlands. (City of Newport 1991)



BASIS OF BEARINGS 500°42'30"E 806.62 [245.86M]



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Site Map

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FIGURE
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5.2 Geology and Soils

The geology of the site is underlain by marine deposits consisting of sandstone and siltstone, which are typically overlain with sand and gravel material. The existing site has been altered by fill material to establish existing grades.

The soils and substrate on the site have been evaluated by GRI Consultants (2000) and are composed of dredge spoils, mostly sand with some shell fragments, soils and substrate that extend to a depth of 46 feet. All areas within the proposed site have been disturbed previously due to prior site development and prior placement of fill during the dredging of the Yaquina Bay navigational channel and turning basin.

5.3 Natural Hazards

The natural hazards that may occur on the site include tsunami and seismic activity. The Oregon Department of Geology and Mineral Industries (DOGAMI) (1996) have identified the project site within a tsunami inundation zone. A summary of seismic activity for Lincoln County and general project area has been reviewed by DOGAMI (1994). According to this review, the area around Newport is located in Zone 4 of the seismic probability map. This is an area described as receiving up to moderate damage from earthquakes. Eight earthquakes have occurred since the early 1900's along the fault lines in the Yaquina Bay and River area (Harvey and Nutt 1976). The subject site is presently constructed on recent fill material, specifically dredge spoils. This type of soil often exhibits a trait called 'liquefaction' when subjected to severe earth shaking. Liquefaction can cause severe stresses on buildings and foundations, and produce damage beyond what is experienced on more stable substrate.

5.4 Hydrology

The proposed building site is located along the south edge of Yaquina Bay, an estuary at the mouth of the Yaquina River. The site is approximately one mile east of the mouth of the bay and the Pacific Ocean. According to V. Mettle of the City of Newport (Pers. com., 2000), a section of the site is within an identified floodplain.

Yaquina Bay is Oregon's fourth largest estuary. It is located at the mouth of the Yaquina River, which drains 253 square miles of upland area and is approximately 59 miles long. The bay has a surface area of 3,910 acres, of which 1,353 acres are tidelands. Tidal influences reach up to RM 26, and the mean tide range is 5.9 feet with an extreme range of 11.5 feet. (Montagne and Associates 1977).

Groundwater at the site has been described by GRI Consultants (2000), who identified water at depths of 5 to 10 feet below surface. Depth of groundwater is tidally influenced

and varies with seasonal precipitation.

5.5 Drainage

The City of Newport does not have an identified storm sewer system to service the project site (City of Newport 1991). The drainage of stormwater within the project area either percolates into the highly porous sandy soil, collects on the asphalt surfaces on the site and is directed offsite, or flows via sheet flow into man-made drainage channels which direct seawater into Yaquina Bay. The seawater channel is located along the west boundary of the site, where the channel is unlined and uncovered. A section of this seawater drainage channel flows across the northwest corner of the property.

The proposed building site contains two large open concrete holding tanks, approximately 110' x 50' each, which connect to a piping system that allows the tanks to drain through a concrete spillway into the seawater drainage channel. Stormwater captured in the tanks is therefore not part of the area sheet flow, but spills directly into the channel, and ultimately, Yaquina Bay.

5.6 Water Quality

Water quality for the project area has been sampled at the Yaquina River from 1986-1995 by Oregon Department of Environmental Quality (2000). In general, the water quality index is poor to fair as the result of high nitrate levels accompanied by increases in total solids, phosphates, and biological oxygen demand. The Yaquina River violated the 303(d) pollution standards for bacteria in the upper Tidal Portion and for temperature from Mill Creek to Simpson Creek in 1998 (Oregon DEQ 2000). Water quality within Yaquina Bay is influenced by sewage outfalls at Toledo (RM 12.6) and the Georgia-Pacific pulp mill at Toledo, which discharges ~10 thousand gallons per day of process water through a pipeline outfall 1 mile to the north of the estuary.

5.7 Air Quality

Air quality within the City of Newport is very good according to the Oregon Department of Environmental Quality (City of Newport 1996). This is attributed to the meteorology of the area, which provides optimal mixing, and circulation of the coastal air mass. In addition, the Newport area does not have significant point sources of pollutants.

5.8 Biological Conditions

5.8.1 Vegetation

The natural communities of terrestrial vegetation in the Yaquina Bay area consist of the tideland community, ocean front community, and coastal forest community (USACOE

1974). The ocean front community is comprised of coastal dunes and associated deflation plains, covered by herbs and grasses, with patches of shore pine (*Contorta*). The tideland community includes mudflats (see below) and tidal marshes which includes various species of sedges (*Carex* spp.), rushes (*Juncus* spp.) and grasses. The coastal forest consists of several dominant species of conifers and hardwood trees including Sitka spruce (*Picea sitchensis*), western red cedar (*Thuja plicata*), Douglas fir (*Pseudotsuga menziesii*), western hemlock (*Tsuga heterophylla*), and red alder (*Alnus rubra*).

Aquatic vegetation in Yaquina Bay consists of green algae (*Ulva* and *Enteromorpha*), brown algae (*Laminaria*), and phytoplankton (Harvey and Nutt 1976). Eel grass (*Zostera marina*) beds also form important habitat areas in the waters adjacent to the proposed site (Harvey & Nutt 1976; U.S. Fish and Wildlife 1968).

On-site vegetation is comprised mostly of introduced plant species such as European beach grass (*Ammophila arenaria*), Scotch broom (*Cytisus scoparius*), blackberry (*Rubus* sp.), and lupines (*Lupinus* sp.) (Hatfield Marine Science Center 1994). No wetlands were identified on the subject property.

5.8.2 Wildlife

The Yaquina Bay area has abundant and varied wildlife with over 180 species of birds recorded and numerous mammals including pinnipeds, large ungulates, raccoons, and small mammals (U.S. Fish and Wildlife 1968; Philips and Osis 1997).

Wildlife use of the site is low and consists mostly of small mammals and a few species of passerine birds. Terrestrial mammals in the area consist of deer mouse (*Peromyscus maniculatus*), California ground squirrel (*Spermophilus beecheyi*) and brush rabbit (*Sylvilagus bachmani*). The reptile species that may occur in the project area are the common garter snake (*Thamnophis sirtalis*) and the northwestern garter snake (*Thamnophis ordinoides*); no amphibians are known to occur in this area (Harvey & Nutt 1976).

5.8.3 ESA and T/E Species

Threatened bald eagles (*Haliaeetus leucocephalus*) and endangered peregrine falcons (*Falco peregrinus*) routinely occur around Yaquina Bay (US Fish and Wildlife Service 1994). Threatened snowy plovers (*Charadrius alexandrinus*) nest on the outer dunes near the mouth of Yaquina Bay (U.S. Fish and Wildlife 1968). Several federally threatened fish species or candidate species use the estuary (Streamnet 2000; Bob Buckman, pers. com.). These include the Oregon Coastal Coho Salmon (*Oncorhynchus kisuth*), which is threatened and candidate species which include the Oregon Coastal

Steelhead (*Oncorhynchus mykiss*), and Oregon Coastal Cutthroat Trout (*Oncorhynchus clarki clarki*).

No threatened, endangered or candidate species use the proposed site, and the site does not provide habitat for any of these species. Bald eagles and peregrine falcons occasionally fly over the HMSC complex, but site specific use has never been recorded. No critical habitat occurs on, or adjacent to the site.

5.9 Human Conditions

5.9.1 Socioeconomic

The City of Newport is a medium-sized city located in Lincoln County on the Oregon Coast. The population is approximately 10,000, with a projected population of 13,500 by the year 2010 (City of Newport 1996). The city is 114 miles southwest of Portland, Oregon, 57 miles west of Corvallis, Oregon, and 69 miles west of Interstate 5, the major north south highway on the West Coast. Over the past decade, the city's population has grown at an average annual rate (AAR) of 2.6%, or about twice the AAR of Lincoln County. About 16.5% of the population are over the age of 65 (Marketek 1999).

While no recent census data is available for Newport, median family income in Lincoln County as a whole is \$35,100, 81% of the statewide median family income, and 75% of the national median family income (Marketek 1999). In 1990, Newport's median household income was 88% of the statewide median household income. The racial distribution within Newport is predominantly White (95.0%) with Black, Hispanic, Asian and American Indian comprising the remaining 5% of the population. Additionally, while much of Oregon and the rest of the country have experienced a 10-year stretch of declining unemployment, Lincoln County's unemployment level has actually increased from 6.0% in 1990 to 7.8% in 1998 (Marketek 1999).

Until recently, Newport and Lincoln County's economy has been based on natural resources, particularly commercial fishing and timber. Throughout the last decade or two, these industries have been in decline due to a reduction in these resources. These industries have been replaced in their importance by tourism and government as primary employers in the region and city. The 1994 employment levels for Newport were as follows: Manufacturing (including fish processing) – 11.5%; Retail – 21.7%; Service – 21.1%; Government – 21.0%; and, Other (including fishing) – 21.6% (City of Newport 1996).

The City of Newport has a compressed tax rate (combined school and non-school tax rate) of \$15.51 per thousand dollars of assessed property value. Total assessed value for property in the City of Newport is \$743,847,058.

5.9.2 Land Use

This project site has been identified by the HMSC for expansion of existing facilities such as the preferred alternative proposed by NOAA (Hatfield Marine Science Center 1994). The area has also been zoned for Water-Related Activities and Development by the City of Newport (1996), and designated in the City Master Plan for development. The City's management objective states, "Management Unit 7 (including HMSC) shall be managed to provide for development compatible with existing uses and consistent with the resource capabilities of the area" (City of Newport 1996).

5.9.3 Transportation

Newport and its surroundings are served by a comprehensive road system with Highways 20 and 101 as its primary inter-city road connections. The City is also serviced by the Lincoln County transit system, which includes a scheduled stop system along with dial-a-ride services connecting cities in the county. Water transportation serves an important function in the tourism, commercial fishing and commercial shipping industries, which use Yaquina Bay and provide a significant impact on the local economy. The City of Newport owns Newport Municipal Airport, which provides general aviation services (City of Newport 1998).

SE OSU Drive is the primary road access to the HMSC and is designated as a minor arterial street in the Newport Transportation System Plan (TSP). As defined in the TSP, the function of arterial streets is to, "Interconnect and augment the principal arterial system and accommodate trips of somewhat shorter lengths. Such facilities interconnect residential, shopping, employment and recreational opportunities within the community." (City of Newport 1998) SE OSU Drive connects directly to State Highway 101, which provides high volume traffic access to all points beyond. The capacity of OSU Drive is limited by the operation of the roadway intersection at Highway 101. Based on information provided by the City of Newport staff, (pers. com., 2000, Michael Shoberg and Earl Lighthill) existing traffic volumes are significantly below capacity and there are no existing roadway capacity issues. The City has not performed specific roadway or intersection traffic counts and this information is not currently available.

The existing parking area within the HMSC will be adequate to accommodate the additional spaces required by additional NOAA staff. Usage of these additional spaces will be implemented according to a Joint Project Agreement between Oregon State University and NOAA.

5.9.4 Public Utilities and Services

Water: The City of Newport supplies Potable water to the HMSC. Big Creek provides the raw water supply for the City, which is then treated by the Newport Water Treatment Plant

located on Big Creek. HMSC's water supply is transported from the primary transmission system through a 12-inch distribution line that runs under Yaquina Bay. The City has a Water System Master Plan which if followed will provide adequate quantity and quality water to the system users through the year 2010. The City is expected to update this plan every 10-15 years according to state regulations to stay well ahead of any shortages or other problems. (City of Newport 1996)

Sewer: The HMSC is connected to the City of Newport's sewage treatment system, which provides secondary treatment facilities. The City has a Wastewater Master Plan that, if followed, will provide adequate wastewater treatment facilities to the system users through the year 2010. As part of implementation of the plan, the City of Newport is proposing major sanitary sewer improvements. These include rehabilitating the lift station that services HMSC and building a new 12" raw sewage force main to transport sewage from the site to the new Wastewater treatment plant in south Newport. (USACOE 1999)

Fire and Police Services: The City of Newport is responsible for providing both fire and police protection for the HMSC area. City of Newport's fire protection operations are located at 245 NW 10th Street. The fire department is staffed with a mixture of both paid and volunteer staff, who are on 24-hour call. The Insurance Services Office (ISO) classifies municipalities on their fire defenses and physical conditions. Newport's ISO rating is 4 on the ISO scale of 1 – 10, "1" as the highest level of protection and "10" the lowest. The City of Newport provides police services within its municipal boundaries. As of 1989, the police department had a total staff of 24, with 18 being police officers or sergeants, the remaining being support staff and Chief of Police. (City of Newport 1996)

Energy. The Oregon Department of Energy (ODOE 1989) has completed a detailed evaluation of energy usage and distribution in the City of Newport. The major sources of energy consumption are residential, transportation and industrial use. Electricity represents the majority of energy use with remaining contribution from oil and gas. The major electrical utility for the area is Central Lincoln PUD. The City encourages energy conservation through enforcement of Unified Building Codes and ongoing public conservation programs.

5.9.5 Noise

The Newport area contains relatively few chronic noise problems (City of Newport 1996). Traffic accounts for a majority of sources within the City, mostly within the commercial district and away from sensitive residential or educational uses. The few noise problems that do constitute a nuisance are handled on a complaint basis. The city is particularly concerned with noise generated in residential areas between the hours of 10:00 p.m. and 7:00 a.m.

5.10 Historical and Cultural Resources

A detailed cultural resource evaluation is presented in the appendix. As indicated in this evaluation, site records maintained by the State Historic Preservation Office (SHPO) in Salem indicate that no prehistoric or historic sites have been previously recorded in the project area. Along the south shore of Yaquina Bay, the nearest recorded site, 35LNC16, is located approximately 0.7 km to the south on the property of the Oregon Coast Aquarium (Collins 1953). Human remains encountered during construction of the aquarium led to small-scale excavations in 1991 that located prehistoric shell midden deposits. Charcoal recovered during these excavations yielded a radiocarbon date of 750 ± 60 RCYBP (Radiocarbon Years Before Present) (Minor et al. 1992; Hemphill 1991). Based on its reported location "on the south side of the river, at the mouth," this site may correlate with the village of *Na-aic'* identified in an 1884 ethnographic study of the Yaquina Indians (Dorsey 1890).

Marine shell fragments from estuarine mussels and clams cover much of the ground surface in the project area. In fact, these materials occur over most of the ground surface within the HMSC. Marine shell fragments, reflecting evidence of marine resource exploitation by native peoples, are often found at prehistoric archaeological sites in coastal settings. Instead of representing evidence of prehistoric occupation, however, the shell fragments observed at the HMSC are believed to have been introduced in dredge deposits (Heritage Research Associates 2000). None of the shell fragments observed on the surface appears to have been burned. The absence of materials that commonly co-occur with marine shell fragments in archaeological sites (fire-cracked rock, charcoal, animal bones, artifacts), strongly suggests that the shell fragments observed in the project area and elsewhere at the HMSC are from dredge rather than archaeological deposits.

5.11 Visual Quality

Visual quality is an important concern for this project due to the significant setting in which the project site is located. Appearance of the project when viewed from off-site has been determined to be the main environmental issue involved in the project up to this point (Burby, et al. 1999). A selection of views from Yaquina Bridge and Yaquina Bay Road are presented in the Appendix.

5.11.1 General Setting

The City of Newport is located on Yaquina Bay along the central Oregon coast. The bay provides many quality vistas and is the visual anchor for downtown Newport. A mix of developed and natural settings surrounds it. Views along the bay range from the Coast Guard station and downtown waterfront with its fishing boats and wharves on the northern margins, to the ocean entrance to the bay under the Yaquina Bay Bridge with its

sweeping views of the Pacific. Viewpoints also include the south shore of the bay with both natural salt marshes and South Beach peninsula with the Hatfield Marine Science Center, South Beach Marina, and the Oregon Coast Aquarium.

5.11.2 Site Specific

The site of the proposed building is on the northeast corner of the South Beach peninsula. It is located on the southern edge of Yaquina Bay, about a mile east from the mouth of the bay and the Pacific Ocean. The landmass of the peninsula is very low, rising to the south to a high point of less than 20 feet in elevation. There is little in the way of vegetation other than beach grass and low-lying shrubs. Of particular visual importance in this area is the Yaquina Bay Bridge, which crosses the bay less than one mile west of the peninsula and the HMSC facility. The peninsula can be viewed from the downtown waterfront, McClean Point, and the upland residential districts with views of the bay directly north and northeast of downtown as well as directly from the Yaquina Bay Bridge.

5.11.3 Built Environment

The HMSC includes over fifteen buildings and other associated structures located on the western half of the South Beach peninsula. Overall, the buildings are arranged in a manner that provides identity, connectivity and a sense of order to the entire center. All of the buildings at HMSC have a common architectural style with similar massing, rooflines and vertical projection. They are single and two-story, with most having hybrid gable – hipped roofs, wide overhanging eaves and muted earth colors, all typical of the Pacific Northwest style of architecture. Viewed together as a group of buildings, the complex provides a consistency and harmony that characterizes the HMSC. This complex can also be viewed as a single unit that enhances and complements a previously undeveloped area of the bay.

5.12 Recreational Resources

A detailed inventory of parks and recreation for the Newport area has been compiled by the Oregon Department of Parks & Recreation (1988) and summarized in the City of Newport's Comprehensive Plan (1991). Sources of recreation within the Newport area include sports fishing, recreational boating, shell fishing, and exploring the mudflats and nearby beaches. Public and private moorages and boat ramps are available throughout the bay. A trail system that traverses around Yaquina Bay and an aquarium for public uses are located near the proposed project site.

5.13 Coastal Zone Management

The project site is located within Oregon's coastal zone and is subject to Oregon Coastal

Zone Management Program. This program is implemented by the Land Conservation and Development Commission (LCDC) and is responsible for reviewing federal actions for consistency with use and allocation of coastal resources. The determination of consistency will include statewide planning goals, comprehensive plans and applicable state statutes.

6.0 ENVIRONMENTAL IMPACTS OF PROPOSED ACTIONS

The environmental impacts from the proposed project are evaluated from the perspective of significance according to CEQ regulations and NOAA NAO 216-6 guidance. Those environmental areas, which either represent a potential concern or require mitigation, are identified in this section.

Water Quality. The construction phases may result in the release of chemical constituents that have the potential to adversely impact receiving water quality within Yaquina Bay. Site preparation and construction may result in erosion of sediments and a corresponding impact on turbidity within the bay. A storm water management plan and/or spill prevention plan will be implemented to mitigate any significant impacts to water quality and sensitive biota within the bay.

The proposed structure and associated landscape features will slightly alter existing drainage characteristics at the site, and should not represent a significant adverse impact to water quality conditions.

Noise. The construction phase of the project will result in elevated ambient noise within the HMSC area. These impacts will occur during standard operating time periods and will adhere to City and Oregon Department of Environmental Quality noise standards. These impacts should not represent a significant adverse impact to the area.

Biological Conditions. The project will replace existing structures onsite and provide a 200-foot buffer between the project and the Yaquina Bay ecosystem. Water quality impacts to sensitive and threatened biota from the construction and operation phases may be mitigated through a storm water management plan and spill prevention plan.

Socioeconomics. The proposed project will result in an infusion of \$3.5 million into the local and regional economy. On-going financial benefits from a larger labor pool working at the facility is anticipated. The project would not cause disproportionately high and adverse impacts on minority or low-income populations. These benefits represent a beneficial impact to the City of Newport.

Traffic. Transportation impacts from construction of the proposed building on the HMSC site are not anticipated to create any significant adverse transportation impacts. Initially,

staffing is not anticipated to increase with construction of the proposed building; however, staffing is projected to increase by 8 to 10 FTE in the 8 to 10 years following construction of the building. Based on the Institute of Transportation Engineers (ITE) Trip Generation Manual, a general office building is expected to generate 3.32 trips per employee on the average weekday. Using this rate, an increase of 10 employees will generate additional 33 daily trips in the 10 years following construction of the proposed building. City of Newport staff has indicated that the proposed improvements, and resulting vehicle trips, will not significantly impact the operation of the existing transportation system.

Visual Quality. The proposed project is being constructed within the HMSC complex and will result in the replacement of cement ponds with a building that integrates the design elements of adjoining structures. Height of the building will vary from 24 to 34 feet. The wall material, texture and color of the building will be similar to existing buildings and should visually blend into the complex mosaic as viewed from a distance.

The complex mosaic within the HMSC area provides an ability to absorb the site development while maintaining its visual integrity. The existing retention tanks are not aesthetically pleasing when viewed from the existing HMSC parking lot, the main entry to the HMSC, and as seen from Naterlin Drive (Appendix, Plate 3). The new building will assist in screening the parking lot area as viewed from across the bay in a south and easterly direction (Appendix, Plates 1 through 9) without impacting the existing visual composition. The proposed site development will alter the existing visual landscape and provide a long-term beneficial impact to the HMSC area.

7.0 GROWTH INDUCING IMPACTS

The proposed project is intended to provide office and storage space to remediate an overcrowded situation. This project is part of an existing facility and should not directly influence additional expansion of the HMSC area. In the long term, this project may result in the increase of eight to ten additional employees. These additional employees may be hired from the local population or be transferred from outside the area. These changes are minor in relationship to the existing population size and are not anticipated to represent a significant adverse impact.

8.0 CUMULATIVE IMPACTS

The construction of the proposed NOAA project will result in an increase in traffic levels within the HMSC area, which may result in minor impacts from traffic congestion. These impacts are short-term and based upon existing construction and growth for the local area, these impacts should not represent a significant contribution to the cumulative impacts for the HMSC area.

9.0 ENVIRONMENTAL IMPACTS OF ALTERNATIVES

9.1 Relocation to Alternate Locations

The integration of additional office and storage space within the existing HMSC facility will not impact the existing resources within the site or alter existing site usage. However, the anticipated impacts will have a negative effect on existing operations and efficiency within each agency at HMSC which includes NOAA, Environmental Protection Agency, Oregon State University, and U.S. Fish and Wildlife Service. This alternative will not have a significant adverse impact on the environmental resources for the area.

9.2 Expanding Building 950 and 951

The expansion of facilities onto an adjacent open space from Buildings 950 and 951 would alter an undeveloped area that is flat and landscaped. This expansion would alter the existing design layout for HMSC and result in an impact to the visual aesthetics of the area. The financial burden of land acquisition and site development would exceed the available budget and represent a negative impact to NOAA's ability to construct the project. This alternative will not have a significant adverse impact on the environmental resources for the area.

9.3 Leasing Off-Campus

The leasing of buildings off-campus from the HMSC area would not result in the impact to any identified natural resources. It would however, result in an increase of traffic and parking demands for the occupancy area. Operational and communication inefficiencies from separating NOAA research groups from the HMSC area would occur and employee morale may be impaired. This option would represent a more costly option over time and according to the Gardner memo (1999), NOAA presently has no budget for rental or lease options. This alternative will not have a significant adverse impact on the environmental resources for the area.

9.4 Renovation of Existing Space

The renovation of existing space within building 950 and 951 will require considerable site preparation and redesign to accommodate the proposed project. The environmental impacts would be similar to the proposed project except for site drainage and water quality, which should not be impacted due to distance from the drainage channel and bay. The additional height to accommodate the renovation should blend with existing structures and because of the presence of an existing building at the site, the changes should also represent a beneficial effect on visual quality. This alternative will not have a significant adverse impact on the environmental resources for the area.

9.5 No Action

The no action alternative would allow the existing NOAA facilities to remain unchanged and would not result in additional impacts to the natural environment. However, this alternative will not alleviate the adverse working conditions of NOAA employees that are presently overcrowded nor will it alleviate the inefficient use of workspace within the NOAA facility.

10.0 COMPLIANCE WITH OTHER REGULATIONS

The proposed action will result in the removal of identified structures and the construction of a building within the identified site. All phases of site preparation, construction and operation will adhere to applicable state, federal and local regulations. These include the following:

Local and State

- a. City of Newport Comprehensive Plan and Ordinances,
- a. Oregon Statewide Planning Goals, Oregon Coastal Zone Management Program, and State and Local Building Codes.

These plans, ordinances, codes and programs would be evaluated during design review and permitting phases of the project.

Federal

Clean Water Act of 1997 (33 U.S.C. 1344): The offsite drainage would be managed by a storm water management plan and a spill prevention plan would be implemented to address accidental spills.

Coastal Zone Management Act of 1973, as amended: The proposed project site is located within Oregon's coastal zone. Applicable portions of the local land use plans should be obtained from the City of Newport and Lincoln County Planning Departments for use in preparing the consistency determination. The proposed action is expected to be consistent with State Coastal Zone Management goals, and the City of Newport Comprehensive Plan and Zoning Ordinance criteria.

Endangered Species Act of 1973, as amended: As a result of this review, biologists have determined that the proposed work should not impact endangered species or their critical habitat. Further consultation with U.S. Fish and Wildlife should not be required. Further consultation with NMFS would be necessary only if

incidental taking of identified salmon is expected during construction.

Fish and Wildlife Coordination Act: This action will be coordinated with appropriate Federal and State resource agencies.

Marine Protection, Research, and Sanctuaries Act of 1972, as amended: A Section 103 Evaluation would have to be prepared for compliance with this act.

Cultural Resources Act: Cultural resources will not be impacted by the project. The work would be conducted in previously disturbed material. Coordination with the State Historical Preservation Office has been initiated. (See attached report).

Executive Order 11988, Flood Plain Management, 24 May 1977: No flood plain would be altered by the proposed work.

Executive Order 11990, Protection of Wetland, 24 May 1977: No wetlands would be impacted by the proposed activity.

11.0 AGENCY COORDINATION

Federal, state and local agencies were contacted regarding environmental information for inclusion into the environmental assessment. A list of agencies contacted is presented in the Appendix. Each of these agencies was forwarded a letter and project description requesting that comments or concerns be forwarded for review. A draft copy the EA will be forwarded to each agency for review and their comments will be included in the Appendix.

12.0 CONCLUSIONS AND RECOMMENDATIONS

A summary of the impact evaluation is presented in Figure 5. According to Figure 5, the resource areas that may be affected by either the project or alternatives are identified in Column 1. The project and alternatives are identified along the upper section of the figure. The connecting box within this impact matrix identifies the type of effect or impact that may occur from the project or alternative on the respective resource area. The type of effect is symbolized in the legend which identifies the following: 'no effect', 'minor adverse effect', 'major adverse effect', and 'beneficial effect'. Short-term effects or impacts from construction activities are identified by an open or clear box and long-term impacts from operational effects are associated with a gray box. All long-term impacts are inclusive of short-term impacts associated with site development and construction.

As indicated, no significant adverse impacts from the proposed project were identified. All identified minor or insignificant impacts will be mitigated through identified plans and permitting requirements to address sensitive environmental issues. No significant adverse impacts were identified for Alternative #1 through Alternative #4. The No Action alternative would have no effect on the environmental resources.

The proposed project will affect most of the identified resources, with the exception of socioeconomics, these impacts would be of minor significance. Due to the positive impact on the local economy and visual quality, the proposed project would represent a long-term beneficial impact to the City of Newport. The increase in transportation and use of public utilities due to limited expansion of the workforce will represent a long-term impact that is adverse and minor.

A review of the magnitude of impacts indicates that all alternatives reflect either no impact, or minor and beneficial impacts to the environment. Only the No Action alternative provides a 'no effect' on the environment. From the standpoint of the alternatives ability to satisfy existing space and storage requirements within the budgetary constraints, only the proposed project alternative can best accomplish this objective. Based upon available evidence, the proposed project would not represent a major adverse impact on the environment and should qualify for a Finding of No Significant Impact (FONSI) determination.

Figure 5
Summary of Impacts

Resource Area	Proposed Project	Alternative #1	Alternative #2	Alternative #3	Alternative #4	No Action
Geology & Soils						
Hydrology						
Drainage						
Water Quality						
Air Quality						
Biological Resources						
Socioeconomic						
Land Use						
Transportation						
Public Utilities & Services						
Noise						
Cultural Resources						
Visual Quality						
Recreational Resources						

LEGEND

No Effect

Minor Adverse

Long-term

Beneficial Effect

Major Adverse

Short-term

APPENDIX A

Responses and Comments to EA

APPENDIX B

Responses to Scoping Letter



Oregon

John A. Kitzhaber, M.D., Governor

Parks and Recreation Department
State Historic Preservation Office
1115 Commercial St. NE
Salem, OR 97301-1012
(503) 378-4168
FAX (503) 378-6447

April 19, 2000

MARIE MARKS
PBS ENVIRONMENTAL
2645 WILLAMETTE STREET #A
EUGENE OR 97405

RE: NOAA building
Hatfield Marine Center
Newport, Lincoln County

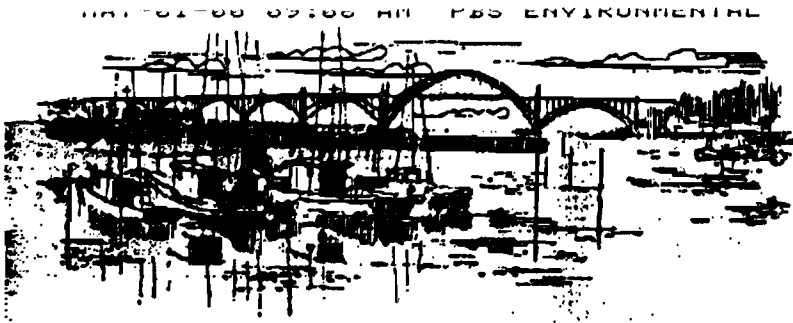
Dear Ms Marks:

Based on an archaeological project done nearby, the area slated for the building is fill over an old sand flat and tidal area. There is the slight possibility that prehistoric fishing weirs (rows of stakes) could be encountered where excavation penetrates the fill, but is unlikely given the distance from the old shoreline. The project will have 'no effect' on sites on, or eligible for inclusion on, the National Register of Historic Places.

If you have any questions, you can contact me at (503) 378-4168 x 232.

Sincerely,

Leland Gilsen
SHPO Archeologist



OFFICE OF
COMMUNITY PLANNING & DEVELOPMENT

CITY OF NEWPORT

810 S.W. ALDER STREET

NEWPORT, OREGON, 97365

(541) 265-5331

TDD/VOICE 1-800-735-2900

April 28, 2000

Dr. Ron Rathburn
PBS Environmental
2645 Willamette Street, #A
Eugene, OR 97405

Re: Construction of NOAA Office & Storage Facility at Hatfield Marine Science Center

Dear Dr. Rathburn:

In the preparation of an environmental assessment (EA) for the proposed 15,000-square-foot office and storage facility for the National Oceanic and Atmospheric (NOAA) at the Hatfield Marine Science Center, please be advised of the following:

(i) It appears that portions of the subject site are located in the floodplain, as identified in the 1982 F.I.R.M. map (Community - Panel Number 410131 0002 C). Therefore, in addition to adhering to local zoning and permitting requirements, the proposed project must also comply with all applicable flood hazard reduction provisions, as established in Section 2-4-6.025/"Provisions for Flood Hazard Reduction" of the City of Newport Zoning Ordinance (No. 1308, as amended).

(ii) Enclosed hereby is a copy of the above-mentioned ordinance.

If I can be of further assistance, please do not hesitate to contact me at 574-0628.

Sincerely,

Victor K. Mettle
Code Administrator/Planner

Enclosure

APPENDIX C

Views of Proposed Site

LOCATION OF PHOTOGRAPHS

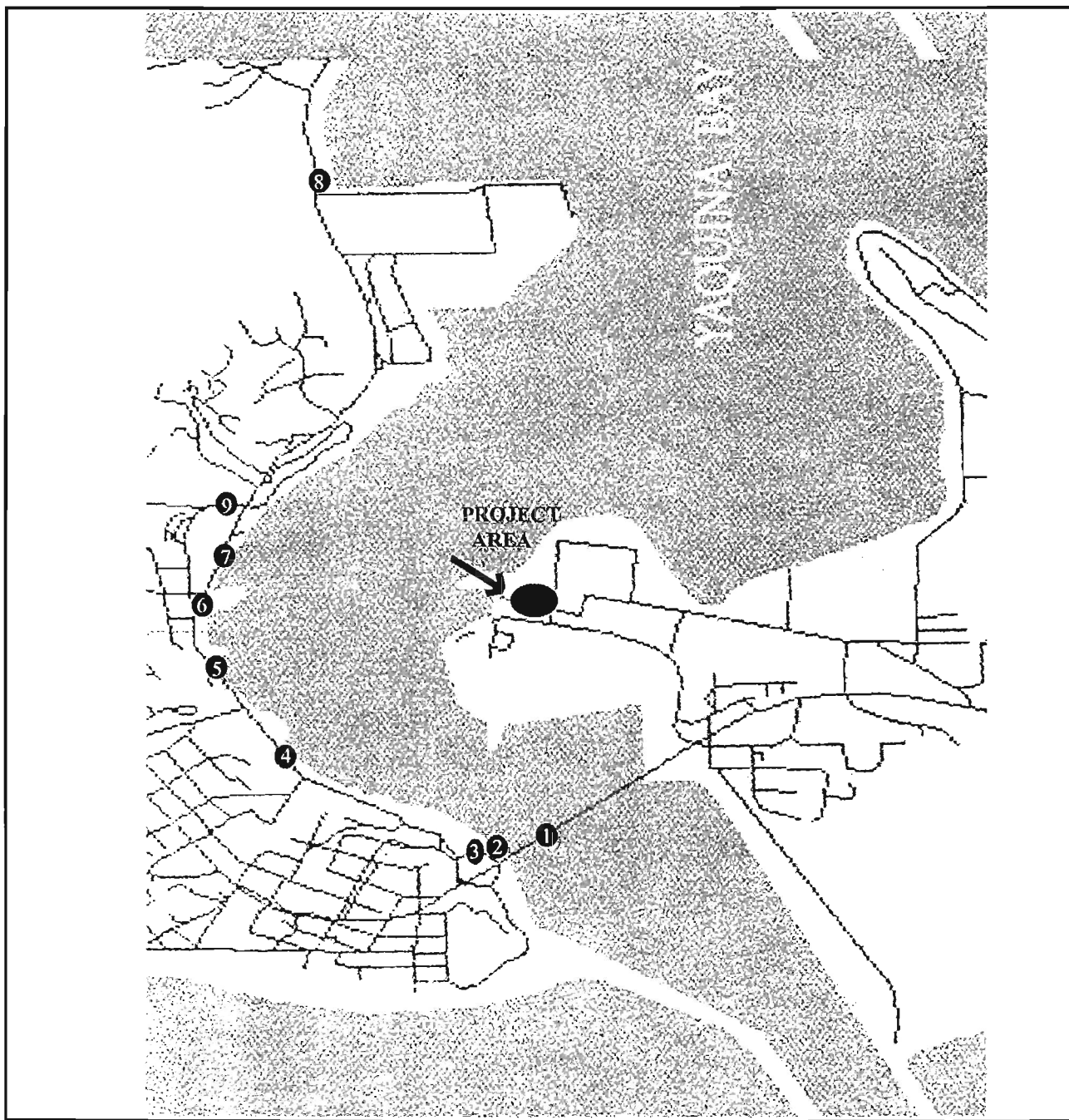




Plate 1: View of site from Yaquina Bay Bridge looking in NE direction.

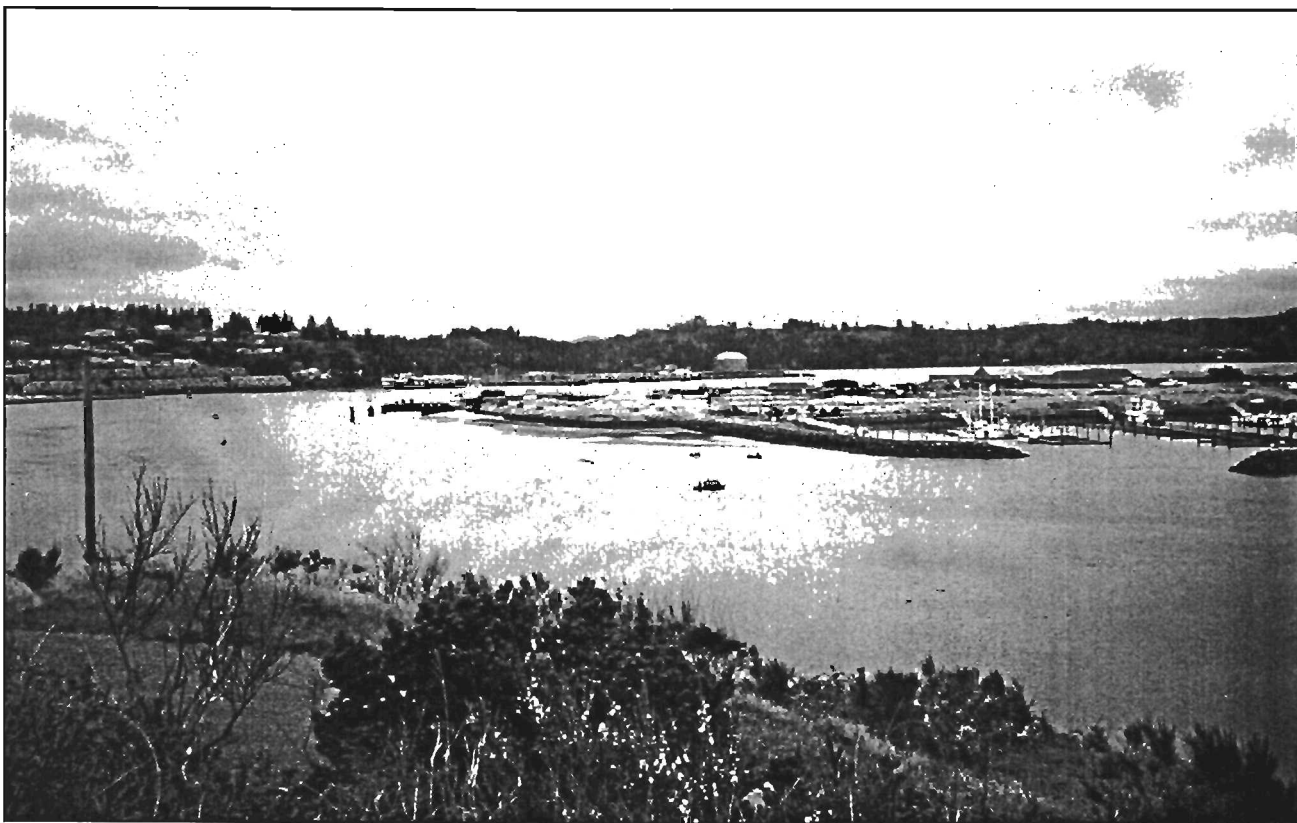


Plate 2: View of site (non-closeup) looking SE from Naterlin Drive.

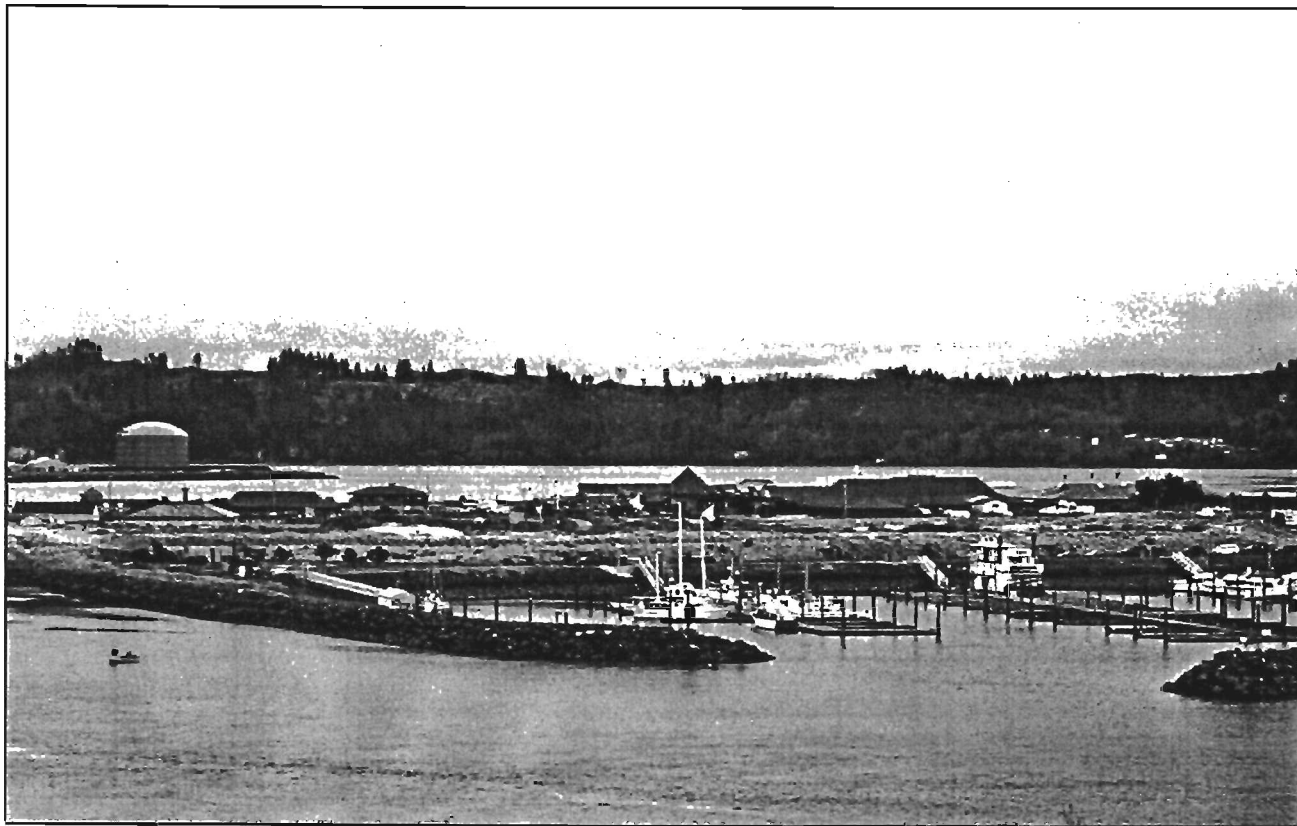


Plate 3: Close-up view of site looking SE from Naterlin Drive.

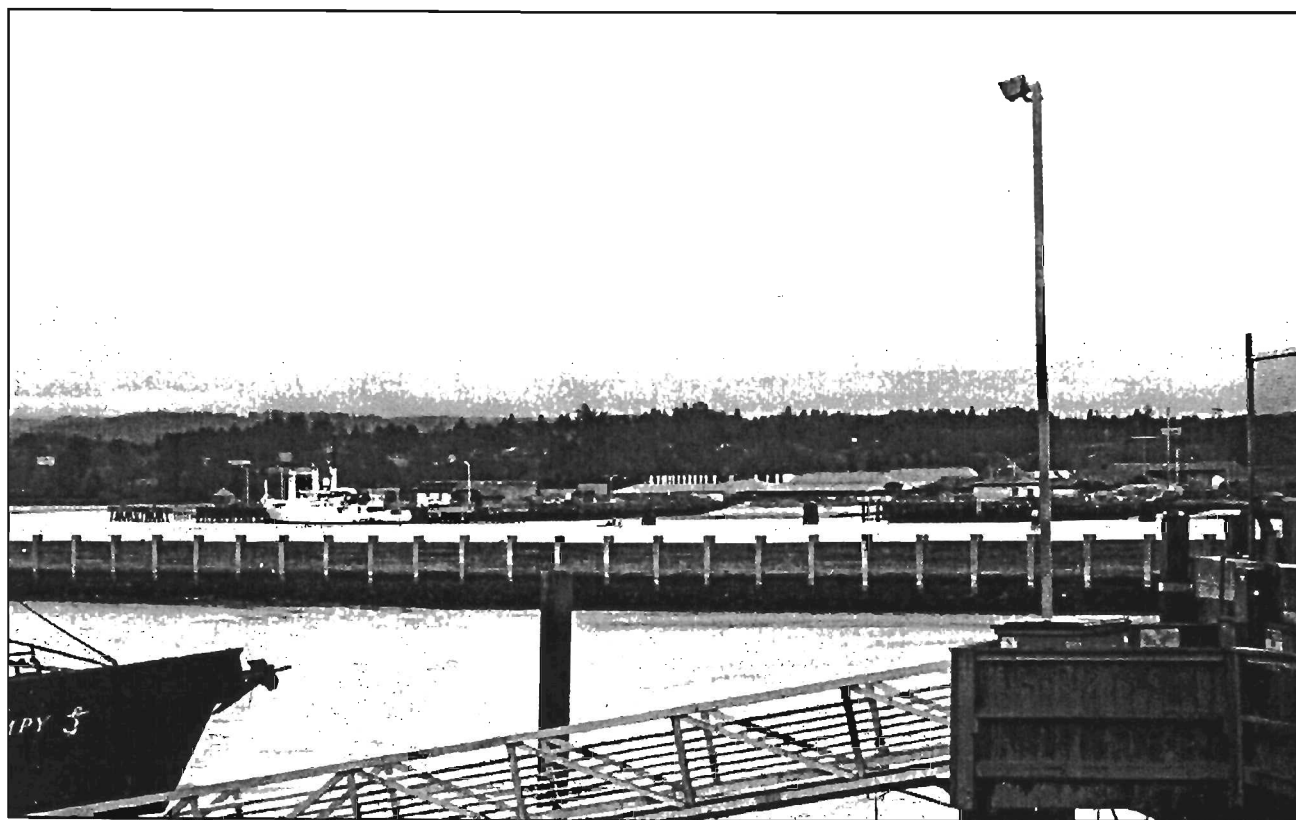


Plate 4: View of site from sidewalk along Yaquina Bay Road looking in SE direction.



Plate 5: View of site from sidewalk along Yaquina Bay Road looking in S direction.

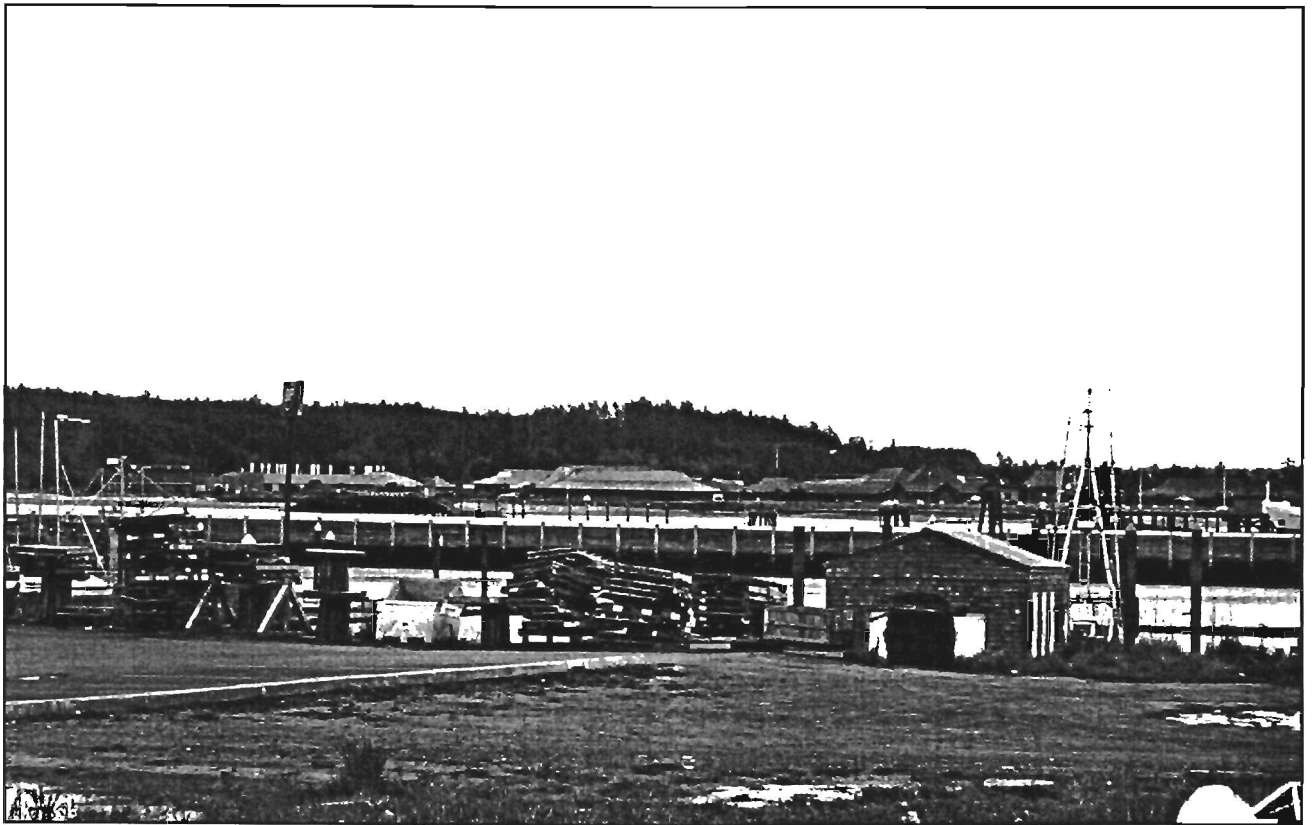


Plate 6: View of site from sidewalk along Yaquina Bay Road looking in S direction.

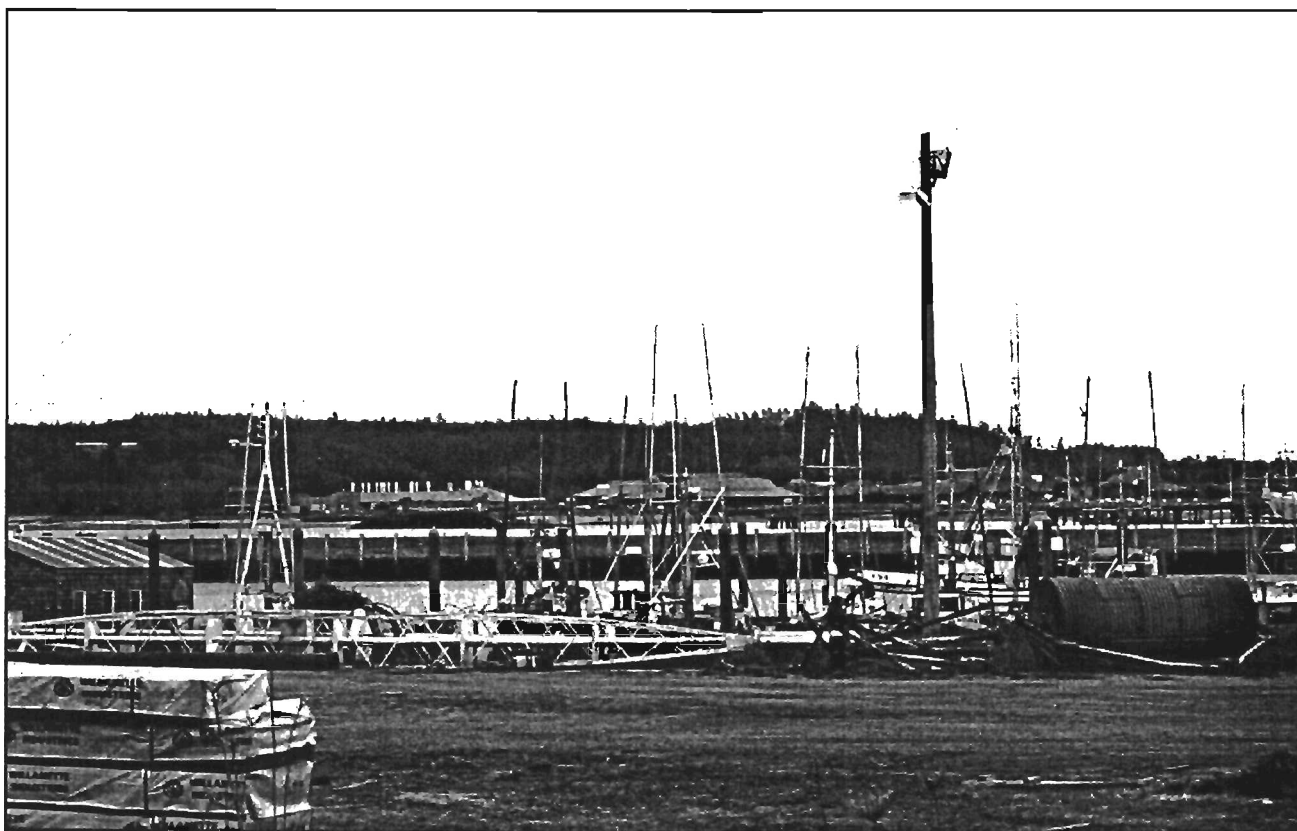


Plate 7: View of site from sidewalk along Yaquina Bay Road looking in SW direction.

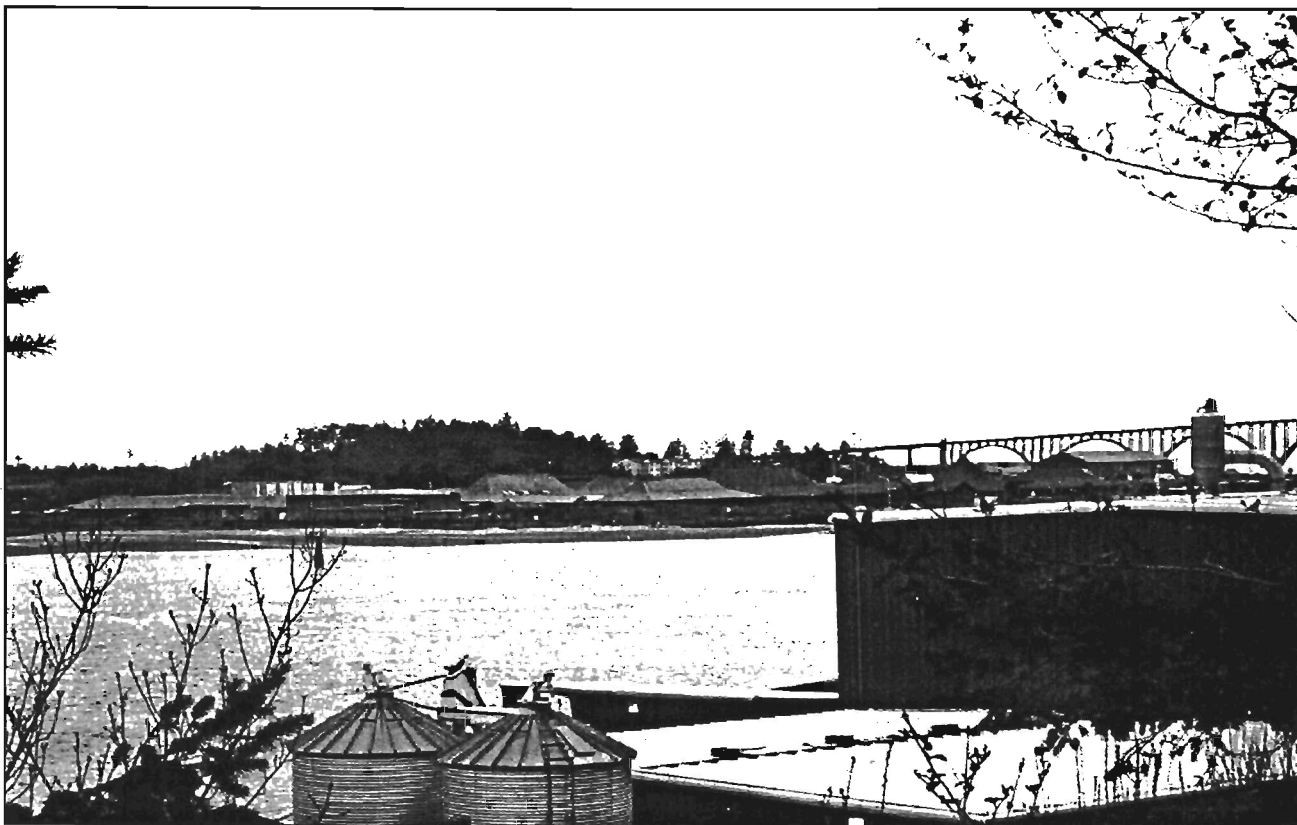


Plate 8: View of site from roadway along Yaquina Bay Road looking in SW direction.



Plate 9: View of site from roadway along John Moore Road looking in S direction.

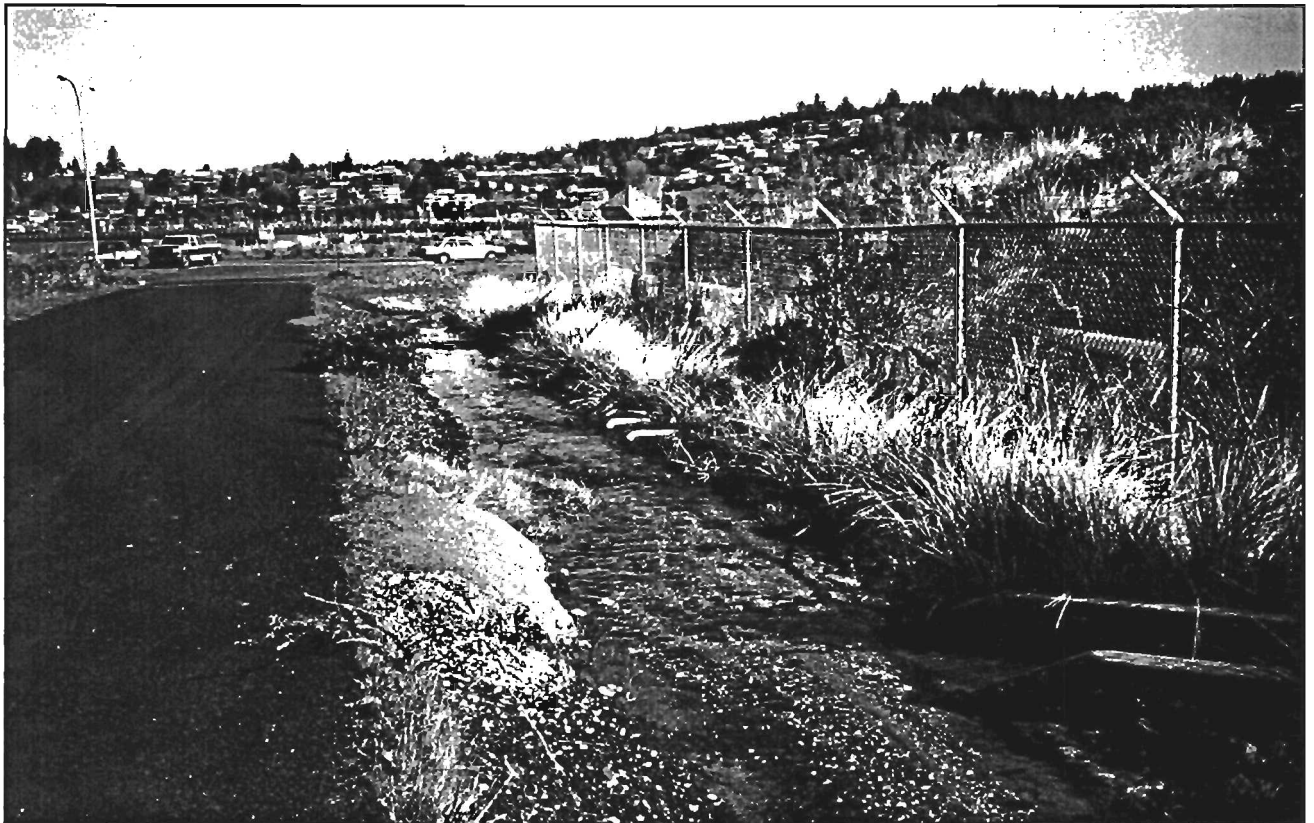


Plate 10: View of seawater drainage channel along westerly boundary of site looking in N direction.

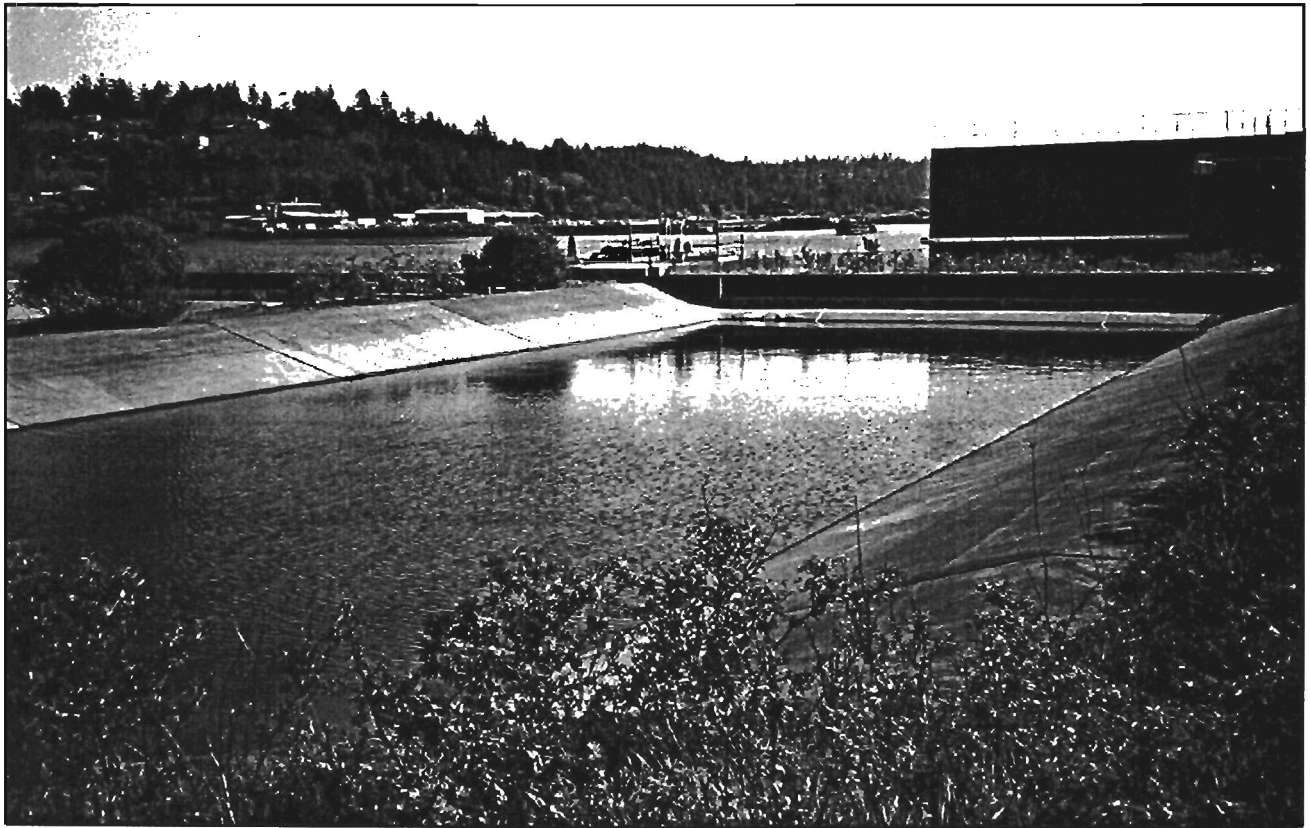


Plate 11: View of containment ponds on site looking in NE direction.



Plate 12: View of asphalt road/walkway south of containment ponds looking in W direction.

APPENDIX D

Correspondence and Background

APPENDIX E

Federal, State and Local Contacts

Federal, State and Local Contacts

Cascade West Council of Governments, Executive Director of Community and Economic Development, PO Box 686, Albany, OR 97321, Cynthia Solie.

Central Lincoln PUD, Safety Operations Manager, PO Box 1126, Newport, OR 97365, Whit Patrick.

City of Newport, City Planner, 810 S.W. Alder St., Newport, OR 97365, Mike Shoberg.

City of Newport, Fire Chief, 810 S.W. Alder St., Newport, OR 97365, Rick Crook.

City of Newport, Head of Parks, 810 S.W. Alder St., Newport, OR 97365, Steve Dickinson.

City of Newport, Police Chief, 810 S.W. Alder St., Newport, OR 97365, Terry LaLiberte.

City of Newport, Public Works Director, 810 S.W. Alder St, Newport, OR 97365, Lee Ritzman.

City of Newport, Staff Engineer, 845 NE Third Street, Newport, Oregon 97365, Earl LightHill.

Hatfield Marine Science Center, Director, 2030 South Marine Science Dr., Newport, OR 97365, Dr. Lavern Weber.

Lincoln County, Planning and Development, 210 S.W. 2nd St., Newport, OR 97365, Matt Spangler and Jessica Bondy.

Lincoln County Extension Service, Extension Sea Grant Agent, 29 SE 2nd St., Newport, OR 97365, Ginny Goblirsch.

Newport Chamber of Commerce, Economic Development Director, 555 SW Coast Hwy, Newport, OR 97365, Lisa Noah.

Office Civil Rights and Environmental Justice, USEPA Region 10, 1200 6th Ave, MS:CEJ163, Seattle, WA 98101, Joyce Kelly.

Oregon Board of Higher Education, Vice-chancellor Corporate and Public Affairs and Board Secretary, PO Box 751, Portland, OR 97207, Diane Vines.

Oregon State University, Director of Sponsored Programs, 312 Kerr Administrative Building, Corvallis, OR 97331, Peggy Lowery.

Port of Newport, 600 S.E. Bay Blvd., Newport, OR 97365, Don Mann.

Siletz Tribe, Tribal Council Chairperson, P.O. box 549, Siletz, OR 97380, Delores Pigsley.

State Historical Preservation Office, 1115 Commercial NE, Salem, OR 97301, Lee Gilsan.

U.S. Fish and Wildlife Service, Oregon Coastal Refuges, 2127 SE OSU Drive, Newport, OR 97365, Carrie Philips.

APPENDIX F

List of Preparers

APPENDIX LIST OF PREPARERS

<u>Name</u>	<u>Company</u>	<u>Responsibility</u>
Ron Rathburn, Ph.D.	PBS Environmental	Human Resources
Chuck Gottfried, M.A.	PBS Environmental	Air Quality, Noise Hydrology
Dulcy Berri, M.S.	PBS Environmental	Geology & Soils
Peggy O'Neill, M.S.	PBS Environmental	Biological Resources
Dan Taylor, M.S.	PBS Environmental	Recreation
Tim Leavitt, M.S.	PBS Environmental	Project Information Hydrology
Ian Chane	PBS Environmental	Graphics
Marie Marks	PBS Environmental	Editor
Katheryn Toepel, Ph.D.	Heritage Research	Cultural & Historical
Christopher Clemow, P.E.	Balzhiser & Hubbard Engineers	Traffic
Eran Schlesinger	Schirmer, Schlesinger & Associates	Visual Quality

APPENDIX G

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APPENDIX H

Cultural Resource Report



**HERITAGE
RESEARCH**
ASSOCIATES, INC.
ARCHAEOLOGY
AND HISTORY

TO: Ron Rathburn, PhD
Senior Ecologist
PBS Environmental
1310 Main Street
Vancouver, Washington 98660

FROM: Rick Minor, PhD
Senior Archaeologist
Heritage Research Associates, Inc.
1997 Garden Avenue
Eugene, Oregon 97403

DATE: April 19, 2000

HRA Letter Report 2000-12: Cultural Resource Survey for Proposed NOAA
Facility, Hatfield Marine Science Center, City of
Newport, Lincoln County, Oregon

This letter reports the results of a survey for cultural resources carried out in the area of a proposed building for the National Oceanic and Atmospheric Administration (NOAA) at the Hatfield Marine Science Center (HMSC). Since NOAA is a federal agency, federal laws regarding the protection of cultural resources apply. These laws, which include the Antiquities Act (1906), the National Historic Preservation Act (1966 and amended), and the Archaeological Resources Protection Act (1979) have been enacted to insure that significant cultural properties are not inadvertently harmed or destroyed by federal undertakings.

Following a review of pertinent archaeological and historical literature, an on-the-ground survey of the project area was undertaken by the author on April 17, 2000. The survey was facilitated by Bruce McCain, facility manager, who provided orientation to the project area. No evidence of prehistoric or historic use of the project area was found, and construction of the new building is not expected to have any effect on cultural resources in the vicinity.

Project Description

The proposed project involves construction of one or two buildings with a total of 15,000 ft² of office, storage, and support space. Although designs have not yet been completed, the buildings most likely will be two-story, wood-frame structures with concrete slab-on-grade floors. The majority of the project area is presently occupied by two above-grade concrete-lined settling ponds. These structures will be removed. Site grading is expected to consist of cuts and fills of less than two feet; no significant below grade construction is planned (GRI 2000:1).

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Location and Setting

The proposed new building will be situated in the northeast portion of the HMSC campus, between existing buildings and Yaquina Bay. Specifically, the project area is located in the NE¼ of NE¼ of Section 17, Township 11 South, Range 11 West, W.M. (Figure 1). The existing ground surface ranges from 11 to 15 feet in elevation (NGVD). The top of the berm around the settling ponds is typically about 20 to 21 feet in elevation; berm slopes are approximately 2H:1V. The majority of the project area, including the berms surrounding the settling ponds, is covered by sparse vegetation (GRI 2000:2).

The HMSC and nearby marina and boat basin were reportedly constructed on a landfill created from dredge materials (Wilsey and Ham 1974:139). In terms of geology, the project area is underlain by marine deposits that typically consist of sands and occasional gravels over siltstone and sandstone (GRI 2000:2). More specifically, geotechnical investigations including three borings (Figure 2) indicate that the project area is underlain by at least 45 feet of sand. In addition, "some fill has probably been placed to achieve existing grades" (GRI 2000:2). Groundwater occurs at depths between 5 and 10 feet below surface.

Cultural Resource Background

A review of site records maintained by the State Historic Preservation Office (SHPO) in Salem indicates that no prehistoric or historic sites have been previously recorded in the project area. Along the south shore of Yaquina Bay, the nearest recorded site, 35LNC16, is located approximately 0.7 km to the south on the property of the Oregon Coast Aquarium (Collins 1953). Human remains encountered during construction of the aquarium led to small-scale excavations in 1991 that located prehistoric shell midden deposits. Charcoal recovered during these excavations yielded a radiocarbon date of 750 ± 60 RCYBP (Radiocarbon Years Before Present) (Minor et al. 1992; Hemphill 1991). Based on its reported location "on the south side of the river, at the mouth," this site may be correlated with the village of *Na-aic'* identified in an 1884 ethnographic study of the Yaquina Indians (Dorsey 1890:229).

In conducting background research in connection with the archaeological work at the Oregon Coast Aquarium, the following information was reported that is pertinent to the potential presence of cultural resources at the HMSC:

In addition to this recorded archaeological site [35LNC16], it has been reported that "the Marine Science Center, on the south side of the bay, is located on a known Indian village site" (U.S. Army Corps of Engineers 1976:31). The source of this information is unknown, but this idea may derive from the fact that "Indian artifacts, namely arrowheads, spear points, scrapers, and items of this sort" were retrieved from dredge spoils from the bottom of the bay during the dredging of 1967 (Wilcox 1974). No report of a prehistoric site at this location was ever filed with the State Historic Preservation Office, however (Minor et al. 1992:3).

About 2 km to the east of the present project area, prehistoric sites 35LNC17 and 35LNC18 were recorded on Idaho Point (Collins 1953). Although briefly mentioned in the subsequent archaeological literature (Hartmann 1978a, 1978b), little is known about the present condition of these sites. Farther upstream, past "The Bend" in the Yaquina River, three prehistoric fish weir sites have been recorded (Byram 1995, 1998). These sites are noteworthy as they have produced the earliest radiocarbon dates from fish weirs so far obtained along the Oregon coast, including 1920 ± 80 RCYBP from 35LNC77, 2120 ± 70 RCYBP from 35LNC76, and 2220 ± 80 RCYBP and 2410 ± 80 RCYBP from 35LNC78 (Byram 1985:81-84).

Cultural Resource Survey

As previously noted, the majority of the project area is occupied by two concrete-lined settling ponds. In fact, these settling ponds occupy so much area that in the geotechnical report it was noted that "available drilling locations were limited due to the steep slopes of the existing seawater settling pond berms and the presence of numerous utilities including underground power and several seawater lines" (GRI 2000:2). In short, very little, if any, of the project area has escaped disturbance during previous construction.

Marine shell fragments from estuarine mussels and clams cover much of the ground surface in the project area. In fact, these materials occur over most of the ground surface within the HMSC. Marine shell fragments, reflecting evidence of marine resource exploitation by native peoples, are often found at prehistoric archaeological sites in coastal settings. Instead of representing evidence of prehistoric occupation, however, the shell fragments observed at the HMSC are believed to have been introduced in dredge deposits. None of the shell fragments observed on the surface appears to have been burned. The absence of materials that commonly co-occur with marine shell fragments in archaeological sites--fire-cracked rock, charcoal, animal bones, artifacts--strongly suggests that the shell fragments observed in the project area and elsewhere at the HMSC are from dredge rather than archaeological deposits.

Conclusions

No evidence suggesting the existence of prehistoric or historic cultural resources in the project area was encountered either during the background literature search or during the on-the-ground field survey. Marine shell fragments observed on the ground surface in the project area appear to be from dredge deposits. This inference is consistent with the report that the HMSC was constructed on a landfill created from dredge deposits. These dredge deposits apparently extend at least as far south as a point roughly midway between the HMSC and the Oregon Coast Aquarium where a U.S. Fish and Wildlife Service building was proposed for construction (Cunningham 1994; Valentine 1994).

Although construction of the proposed NOAA building represents a federal undertaking that is covered by federal laws regarding the protection of cultural resources, Oregon state laws are applicable as well. While there is little likelihood that buried prehistoric or historic cultural resources are present in the project area, project personnel should be aware that if cultural deposits or artifacts are encountered

during construction, Oregon state law (ORS 358.920) requires that work in the vicinity of any discovery be suspended. This is especially important if human remains are encountered (ORS 97.745). If such an event should occur, SHPO and the appropriate tribes must be notified, and a qualified archaeologist should be called in to evaluate the discovery and recommend subsequent courses of action in consultation with SHPO and the tribes.

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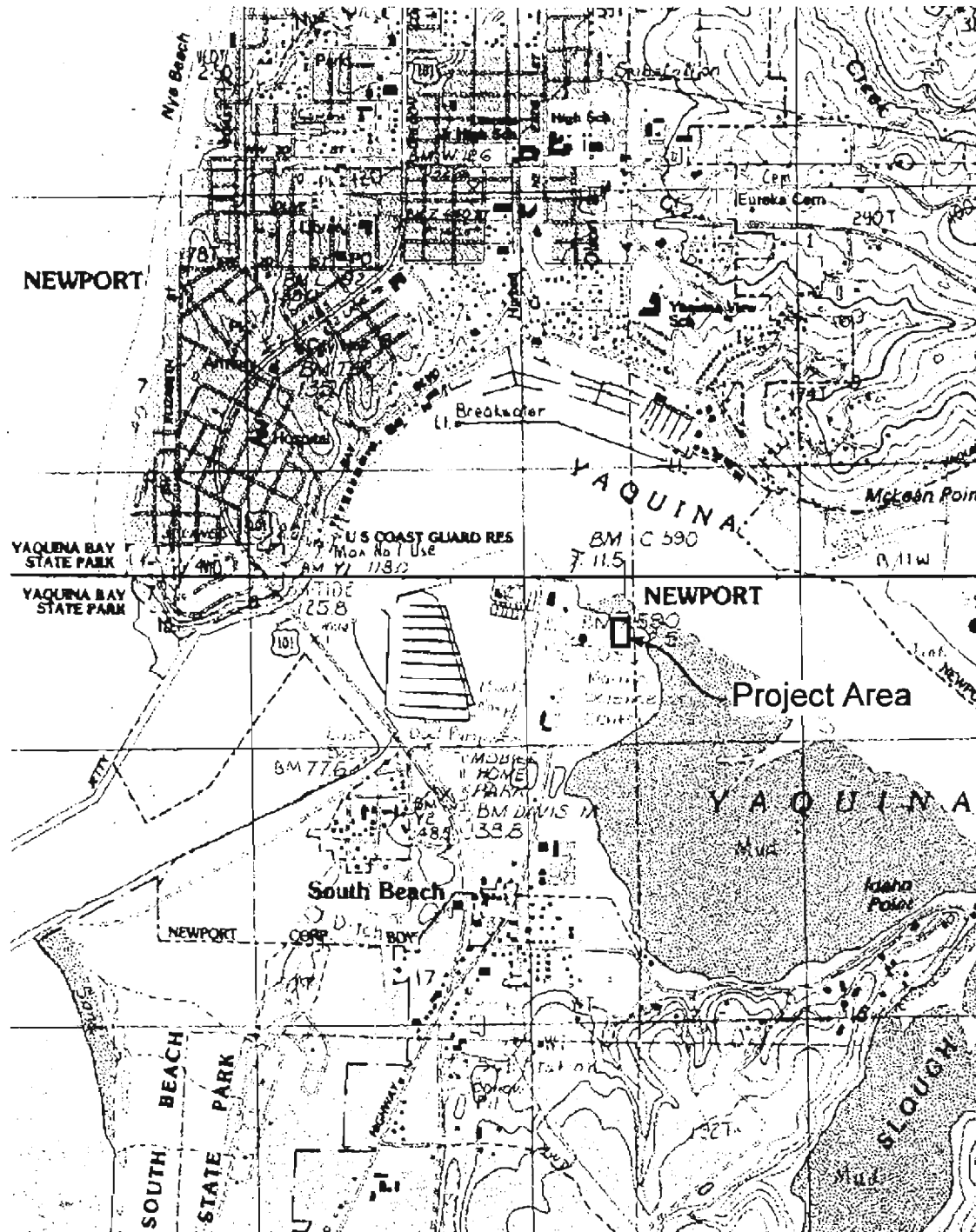


Figure 1. Location of proposed NOAA building at Hatfield Marine Science Center, Newport, Oregon (USGS Newport North and Newport South 7½' quadrangles, 1984).

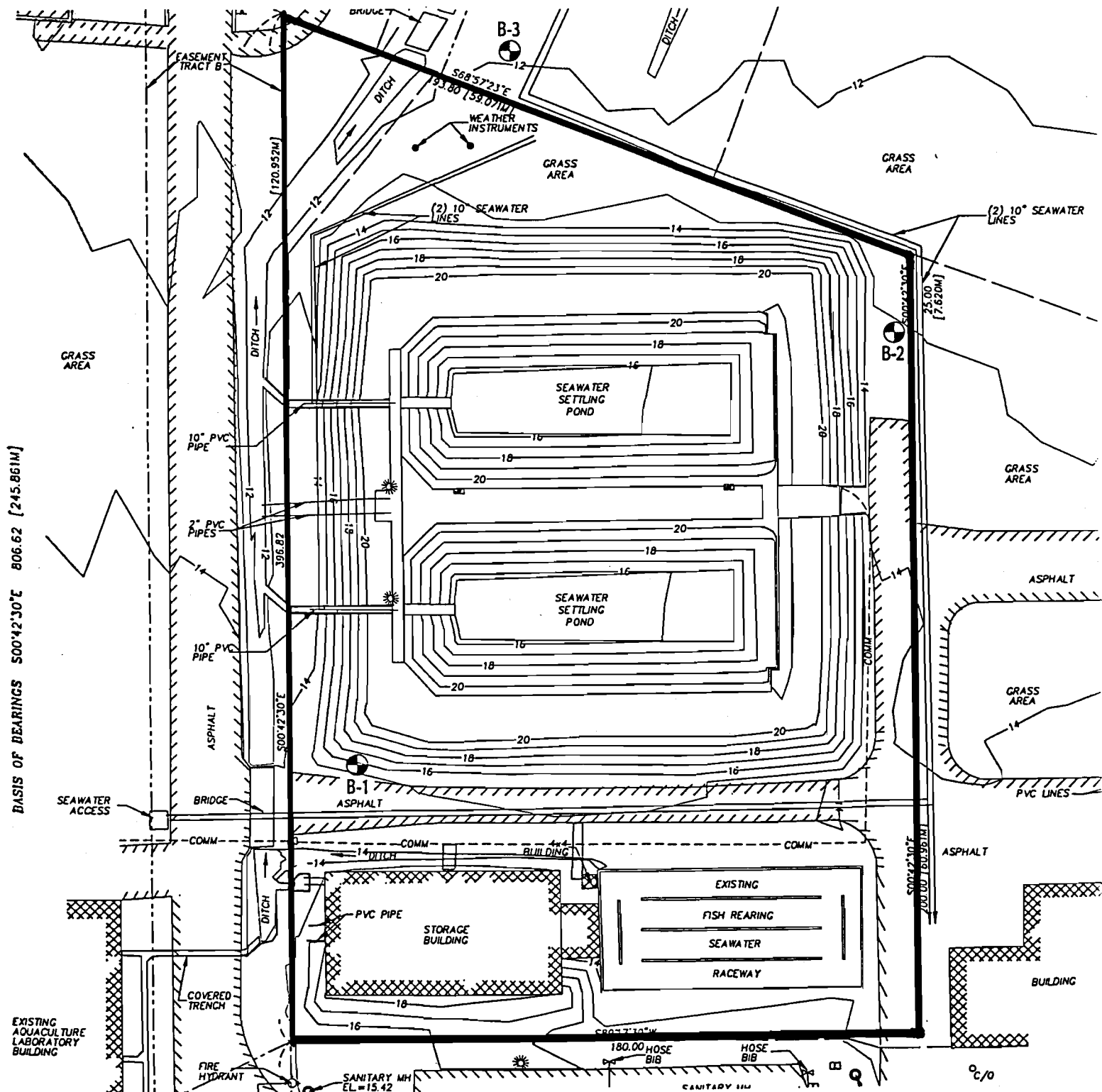


Figure 2. Detail map of project area showing current conditions (project map provided by PBS Environmental).