Thirteenth Coast Guard District
Waterways Analysis and Management System

Coos Bay
18587
Pacific Ocean to Coos River

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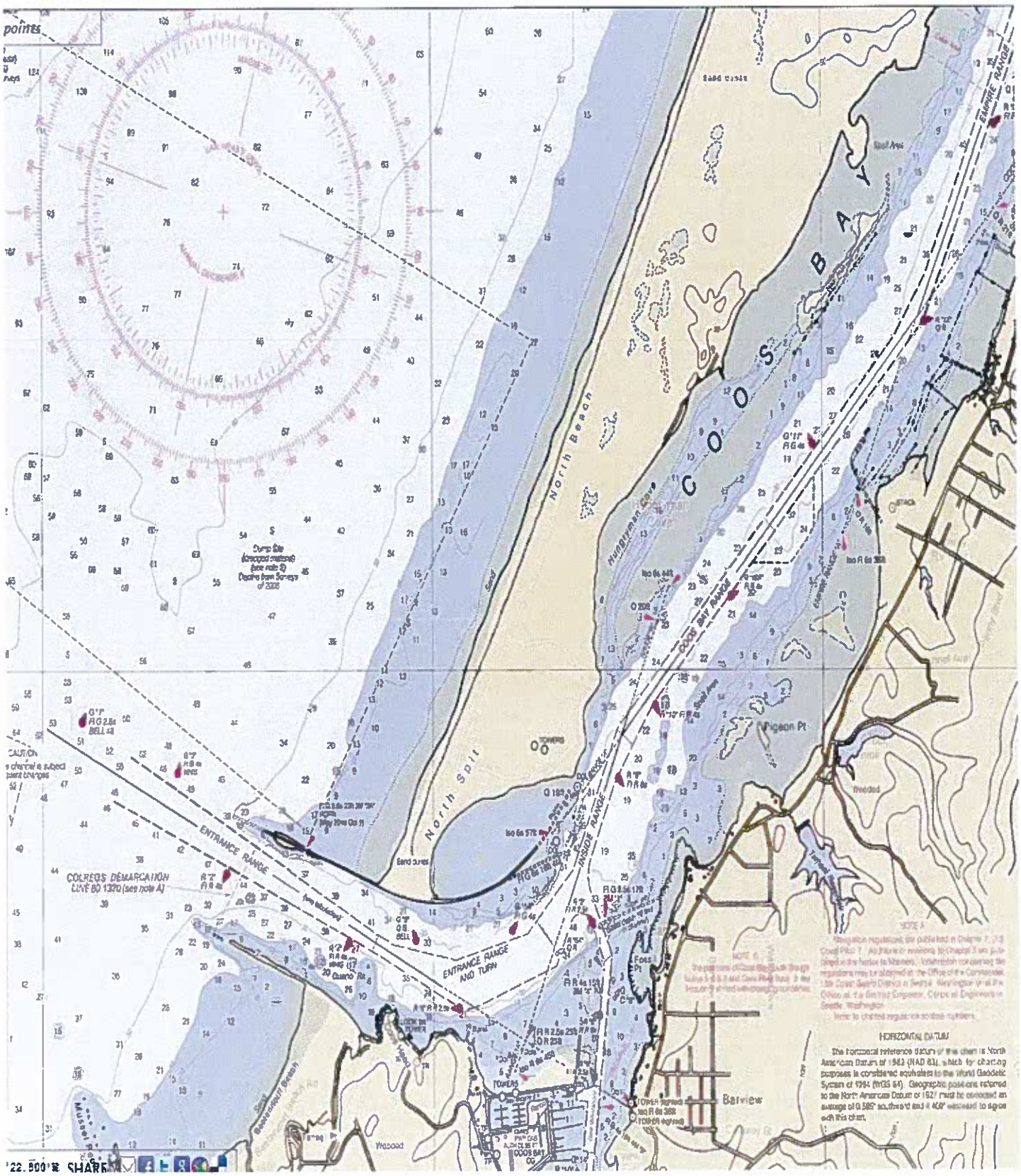
Coos Bay WAMS
II. Table of Contents

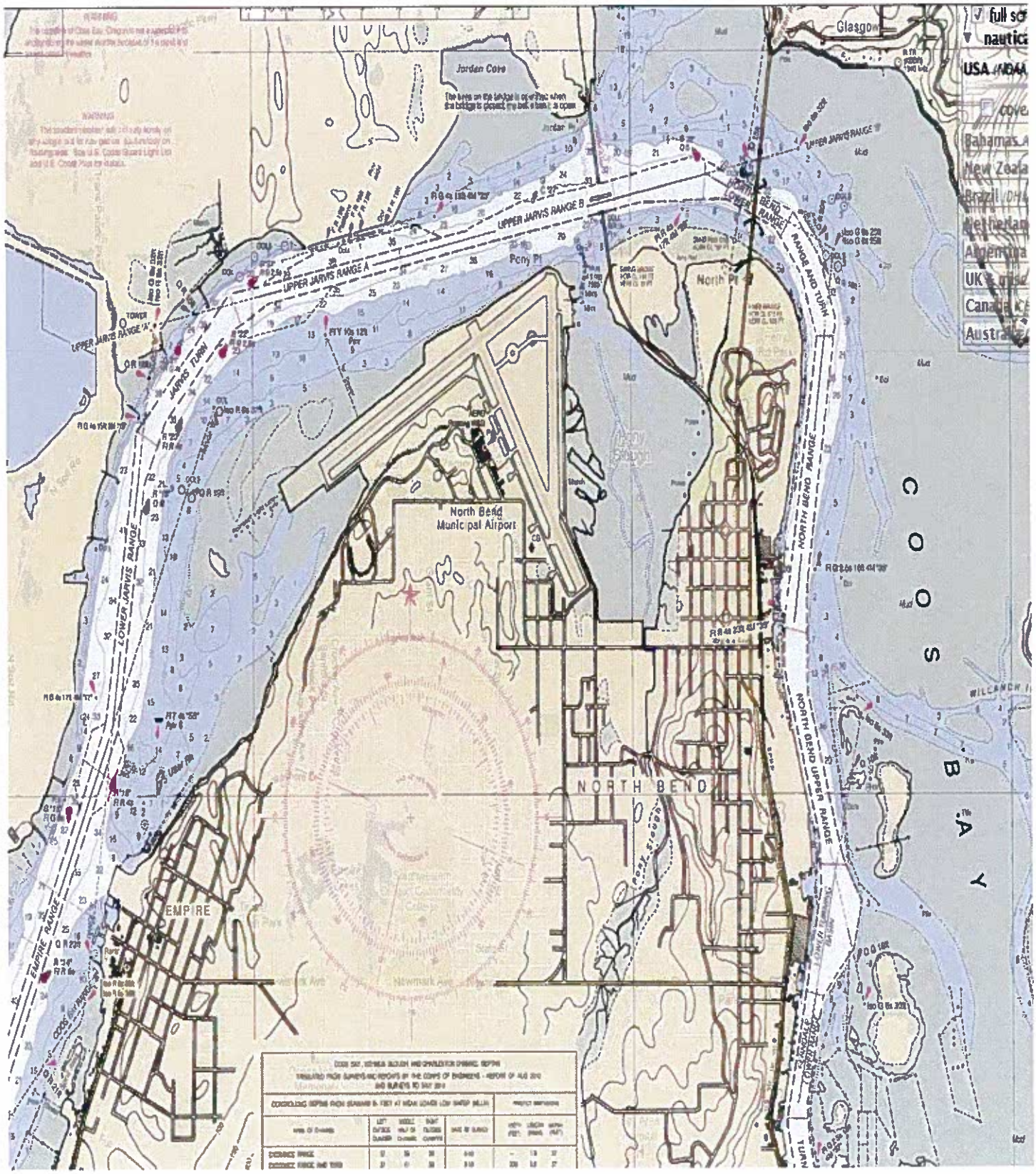
Enclosures:

1) **List of Aids to Navigation (ATON)**
2) **Local Notice to Mariners Message**
3) **Survey Questionnaire**

III. CHARTLET: COOS BAY



***III. CHARTLET*: Coos Bay (Cont'd)**



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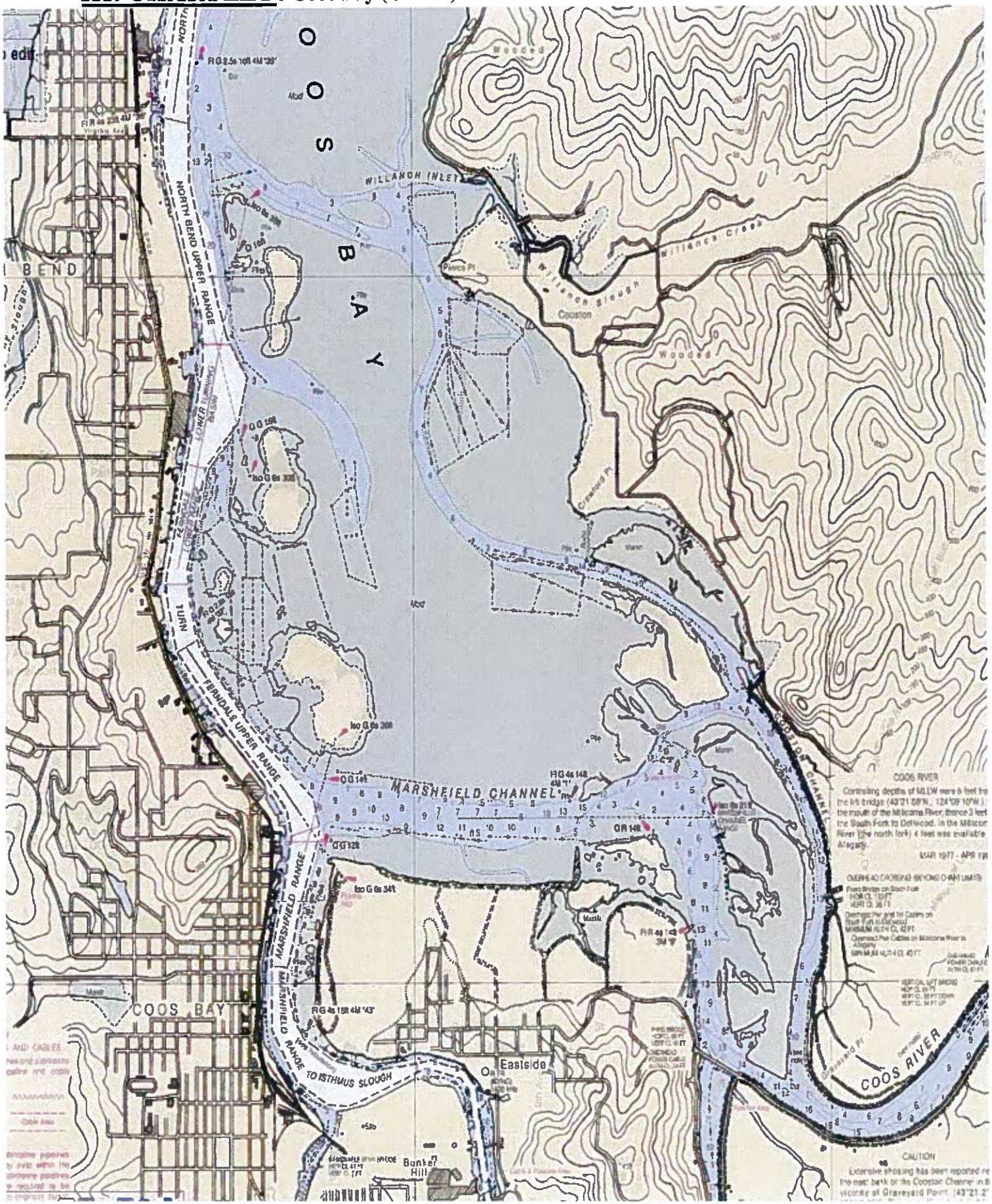

IV. *ACTION SUMMARY*

The Waterways Analysis and Management System (WAMS) is the Coast Guard's primary tool for managing the aids to navigation (ATON) in our waterways. WAMS is a recurring review method to ensure that:

- All aids are required as necessary elements of the ATON system
- Changes to augment and or reduce aids are made when needed to meet changing conditions
- Aids conform to the ATON system criteria
- Aids and the ATON system provide their required operational characteristics, and
- waterways are examined for the effectiveness of the traffic management techniques

The last WAMS that was completed for this waterway was on December 7th 2000. This will be the 4th WAMS done for this area.

V. *INFORMATION COLLECTION*

A. NARRATIVE DESCRIPTION: This study encompasses Coos Bay, OR. Coos Bay is a waterway with many recreational boaters, fishing boats, domestic tug and barges, and deep drafts. The largest commodities shipped in the waterway are wood chips and timber. Traffic has decreased due to the slow economy and has slipped from 93rd to 121st on the national ranking for gross tonnage in exports from 2000 to 2009 respectively. According to the local pilot association, deep draft vessels transits average 2-3 vessels a week.

1. **Geographic Features Coos Bay**:

Coos Bay is located 33 miles N of Cape Blanco, is used as a harbor of refuge and can be entered at any time except in extreme weather. Coos Bay is one of the most important harbors between San Francisco and the Columbia River, and one of the largest forest products ports in the world. Principal foreign exports are logs, woodchips, lumber, and plywood. The coastwise trade consists mainly of logs. From the entrance the bay extends NE for 8 miles with widths of 0.3 to 1 mile, then bends SE for about 4 miles to the mouth of Isthmus Slough. The dredged channel through the bay is bordered by marshland and intersected by several sloughs. The entrance to the bay is protected by jetties.

Anchorage for small craft can be had almost anywhere in the bay outside the dredged channels and below the railroad bridge. The Coos Bay Railroad bridge crosses the waterway 7.5 miles above the entrance, and has a swing span with a vertical clearance of 12 feet. Mariners should use extreme caution when passing through the bridge because of the unpredictable changing winds, currents, and sea conditions reported in this area. In the past, when the bridge was functional, the bridge tender monitored VHF-FM channel 18A and worked on channel 13. Currently, the bridge is non-operational and locked in the open position with no tender present.

Charleston Boat Basin, operated and maintained by the Port of Coos Bay, is 0.3 mile N of Charleston. In 2005, the controlling depth was 9 feet in the entrance; depths of 8 to 16 feet were available in the basin with lesser depths along the N edge. The basin is used by commercial and sport fishermen. About 500 berths with electricity, gasoline, diesel fuel, water, ice, a launching ramp, and marine supplies are available. A pumpout station and wet and dry winter boat storage are available in the basin. A repair facility at the basin has a drydock that can handle vessels to 300 tons, 90 feet long, and 30 feet wide, and a marine railway that can handle craft 70 feet long, 22 feet wide, and 6 feet draft for hull and engine repairs. Electronic repairs can also be made at the basin. Four fish piers are in the basin, and three fish packing facilities are just S of the basin on South Slough. Coos bay Coast Guard Station in on the S side of the basin. A Coast Guard buoy storage area is in Coos Bay about 150 yards E of the channel and about 2.5 miles above the entrance jetties.

North Bend, 9.5 miles above the entrance, is a city with many sawmills and factories; considerable lumber is shipped from here. North Bend Fire Department has a fire boat which ties up along the city. Coos Bay, 12 miles above the entrance, is the principal city on the bay and is the distributing center for the area, which is primarily devoted to lumbering, fishing, and agriculture. Coos Bay also includes the Empire district, situated four miles above the entrance. North Bend and Coos Bay form practically one continuous city extending along the shore from North Point to the mouth of Coalbank Slough.

Three sloughs empty into Coos Bay between the city of Coos Bay and Coos River. Coalbank Slough is unused. Isthmus Slough is used for logging operations to Millington. The highway bridge across the slough has a bascule span with a clearance of 18 feet. Catching Slough is navigable for several miles but is unmarked.

Coos River empties through two channels in the bay at its head. The N unmarked channel follows the E side of the bay and empties abreast of North Bend. Marshfield Channel, marked by a lighted range, lights and buoy, crosses the flats and empties abreast the city of Coos Bay.

B. NEW/CHANGED AIDS TO NAVIGATION SINCE 2000 WAMS

1. **North Jetty Sound Signal (8762):** Horn: 1 blast every 30s (3s bl). Maintained from May to Oct (Seasonal).

2. **Coos Bay Channel Lighted Buoy 6 (8792):** FL R 2.5s, Range 3, Red

3. **Coos Bay Channel Lighted Buoy 6A (8794):** Q R, Range 3, Red

4. **Coos Bay Channel Lighted Buoy 20 (8942):** Fl R 4s, Range 3, Red

5. **Coos Bay Channel Lighted Buoy 21 (8951):** FL G 4s, Range 3, Green

6. **Coos Bay Channel Lighted Buoy 22 (8952):** FL R 2.5s. Range 3, Red

7. **South Slough Lighted Buoy 8 (9168):** Fl R 2.5s Range 4, Red

8. **Coos Bay Leading Light (8770): DISCONTINUED**

C. WATERWAY USERS

1. **Vessels:** Commodities such as lumber and minerals are limited and are transported by large bulker vessels and barges. There are some recreational fishing boats as well as pleasure crafts.

2. **Transit Frequencies:** Channel 16 and Channel 13

3. **Commodities Carried:** Even with the decline of the lumber industry, the lumber industry still produces some traffic. There have been talks with the city and state to develop an LNG terminal which would possibly change the needs of this waterway.

4. **Pilot Associations:** Coos Bay Pilots Association is the main pilot service available, located at 686 N. Front Street, Coos Bay, OR 97420

D. Casualty History: The most recent marine casualties have involved search and rescue incidents which were due to disabled vessels. There are no indications of significant casualties or incidents that can be attributed to waterway design or deficiencies to the ATON system.

E. CHARTS AND SURVEYS: The primary chart used in this WAMS was Chart 18587.

F. AIDS TO NAVIGATION: Coos Bay is marked with federal Aids to Navigation (ATON). A list of these aids is included in enclosure (1).

VI. PUBLIC COMMENT COLLECTION

Public comment from various commercial and recreational boaters was solicited/requested by an electronic and paper questionnaire published in the Local Notice to Mariners, enclosure (2), and posted in local harbors, enclosure (3). Only two surveys were returned to the office, from the Charleston Marina Harbor Master and the Coos Bay Pilots.

VII. PREVIOUS WAMS ACTION ITEMS

No Actions Recommended from Previous WAMS

VIII. COMMENTS AND SUGGESTIONS

There were very limited comments and suggestions that were received through the survey and by talking directly with the waterway users. Only two surveys were sent back for the records. Recommendations are discussed in the final section of this report, while other notable items are discussed in brief here.

A. ATON COMMENTS:

- Buoy #4 was re-located several years ago in an attempt to reduce the frequent shifting of the buoy due to wave action. One of the suggestions stated for the buoy to go back into its original position.
- One suggestion was to add an additional buoy south of the North Spit between #5 and #5A to assist in the initial turn made when entering the entrance. It was also noted that the "set" makes it very tight in that area and the new buoy would assist in the turn.
- There were also requests from the Coos Bay Pilot of adding a buoy between #11 and #12 and one between #12 and #14. This was asked to narrow the channel more, and to better define the channel.
- Coos Bay Pilots also asked to move #20 more into the channel.
- Pilots mentioned that many range boards were dim and were hard to see during low visibility.

B. NON-ATON COMMENTS:

- The North Jetty was mentioned to be deteriorating as the swells break on the shore and the rocks.
- Another concern regards the railroad bridge near Jordan Cove and its proper lighting. The south side of the bridge is said to be well lit. However, the North side of the bridge is very dim and does not adequately illuminate that portion of the bridge especially at low visibility. The railroad swing bridge has not been used for years and presents a hazard to navigation.

IX. CRITICALITY DETERMINATION

The working definition of a navigationally critical waterway is "where degradation of the aids to navigation system would result in an unacceptable level of risk of a marine accident, due to the physical characteristics of the waterway, difficult navigational conditions, aid establishment difficulties, or high aid discrepancy rates."

The Coos Bay area exports mainly wood and wood products. Though vessel traffic and production has decreased significantly, there are still a fair amount of commercial traffic including tug and barges carrying timber throughout the port. The bar entrance, bends in the waterway and bridge hazards also make this area navigationally challenging. Given all these factors, and the present chance that Coos Bay will be developing a LNG terminal that will ultimately change the atmosphere of the waterway, Coos Bay is still deemed navigationally critical.

X. RECOMMENDATIONS AND ANALYSIS

Based upon the responses that were received from the public and meeting individually with some of the waterway users, the District staff was able to see and hear the needs of the users. During the first week of March 2011, the Waterways Management staff conducted a ride-along of the waterway and also spoke to the Coos Bay Pilots and the Charleston Marina Harbor Master. From these discussions, recommendations included: move the #4 buoy closer inland, add a buoy between buoy #5 and #5A, add a buoy between the #11 and #12 buoy and also between the #14 and #12 buoy, and move the #20 buoy closer inland.

These recommendations were discussed with ANT Coos Bay and CGC FIR, the two Coast Guard units who maintain the ATON. At this time, we do not recommend placing additional or re-positioning buoys in the area. There are substantial lighted ranges and buoys currently installed in the area that clearly mark the safe water in the channel and assist users for safe passage. Additionally, 33 CFR 62.1 states that "aids to navigation system is not intended to identify every shoal or obstruction to navigation which exists in the navigable waters...but rather provides for reasonable markings of marine features..." Additional gated pairs of buoys would not appreciably increase safety over the existing ranges. Buoy #4 marks hazards along the entrance channel. It has been set in slightly different locations over time, trying to strike a balance between marking the hazard without impeding on the channel. CGC FIR is aware of this recommendation and will review the position on her next visit.

The swinging railroad bridge near Jordan Cove was mentioned for its lack of adequate lighting. The south end of the bridge was well lit even during times of limited visibility but the northern area of the railroad bridge is said to be very dim and hard to see during limited visibility. Currently, the bridge is not in operation and creates a hazard to navigation. With no commerce utilizing this railroad, the rail bridge creates an unnecessary hazard. There have been updates that on April 7th, 2011, representatives inspected the electrical components of the Coos bay Rail Bridge in preparation for restoring power to the north approach span and to the center turn span. The port is currently attempting to bring the bridge into working order, and have commenced a process of bridge inspectors and engineers to plan repairs for the bridge. However, if nothing is to happen to the bridge, it should be deemed as a hazard to navigation and must be ultimately removed.