

NEW CARISSA REVIEW COMMITTEE

REPORT AND RECOMMENDATIONS to the GOVERNOR OF THE STATE OF OREGON

Submitted to:
Governor John A. Kitzhaber

From:
The New Carissa Review Committee
Representative Mike Lehman-Chair

April 2000



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NEW CARISSA REVIEW COMMITTEE

"AN OUNCE OF PREVENTION IS WORTH A POUND OF CURE"

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PREFACE

The nine member New Carissa Review Committee has reviewed the issues surrounding the grounding of the MV NEW CARISSA. The Committee examined local, state, and volunteer involvement in the incident, then identified areas where oil spill planning, prevention, and response could be improved. The Committee's findings and recommendations are reported to the Governor of the State of Oregon in the pages that follow.

The New Carissa Review Committee was charged with identifying opportunities for future improvement in marine spill prevention, preparedness, and response. The Committee was not charged with determining causation, casting blame, or criticizing individual decisions made during the heat of battle. The Committee's report provides constructive recommendations to enhance marine spill prevention, preparedness, and response in the future. The New Carissa Review Committee did not conduct a formal investigation of the NEW CARISSA incident. The Committee neither subpoenaed witnesses nor compelled testimony. The Committee's report is based upon information provided during invited testimony. It should be noted that the Committee members were disappointed by the lack of availability of the incident commanders who were involved in the initial response. The Federal On Scene Coordinator and the State On Scene Coordinator that were involved in the response were not available to testify before the Committee at the conclusion of the process.¹ The Responsible Party On Scene Coordinator declined invitations to testify in front of the committee during the final meetings.

The US Coast Guard has completed their investigation and determined their cause for the NEW CARISSA grounding. Commander Chris Lockwood, US Coast Guard Investigating Officer, conducted a formal investigation, held a public hearing, and submitted a report with his findings of fact and conclusions regarding causation.² His investigation report should be referenced to answer questions about the events preliminary to the actual grounding.

The US Coast Guard Federal On Scene Coordinator has also submitted a report³ to the US Coast Guard, the US Environmental Protection Agency and the Regional Response Team. His report describes many of the issues that arose during the response, identifies lessons learned, and makes recommendations for future improvements. That report should be considered a companion to the New Carissa Review Committee's Report and Recommendations to the Governor of the State of Oregon.

The Review Committee met a total of seven times in as many months. The Committee received public input in Coos Bay and Newport during open public comment

¹ The Federal On Scene Coordinator has been transferred to US Coast Guard Headquarters in Washington, DC, and the State On Scene Coordinator left the Oregon Department of Environmental Quality and is now employed by the US Environmental Protection Agency.

² Commander C. K. Lockwood, US Coast Guard, "Investigation Into the Circumstances Surrounding the Grounding of the Motor Vessel NEW CARISSA, Lloyd's Number L8716136, off Coos Bay, Oregon, on 04 February 1999, with Major Pollution and No Personal Injuries or Loss of Life" (Investigation Report to Commandant, US Coast Guard [G-MOA] September 16, 1999).

³ Captain M. J. Hall, US Coast Guard, "Crisis on the Coast" (Federal On Scene Coordinator's Report, June 1999) Volumes I, II, and III. "Crisis on the Coast" is available from the US Coast Guard, MSO Group Portland, and can be accessed on the Internet at www.uscg.mil/d13/m/new-carissa/.

periods. Additionally, participants at subsequent meetings provided input and responded to questions. Representatives from industry, interested parties, agencies, tribes, and maritime organizations provided testimony. The Committee also commissioned an Internet web⁴ page to disseminate information and to allow for public comment, although only a few comments were received through this medium. Media interest was high throughout the process.

As we embark upon our analysis of the NEW CARISSA oil spill response, an overview of the landscape is appropriate. First and foremost, a ship landed on our beach. No one asked for it and no one put it there on purpose. It was there as a result of human error. Second, a lot of people were suddenly and unexpectedly thrown together and asked to deal with what can only be viewed as a very extraordinary event. Indeed, we had a bona fide emergency on our hands. Third, this group of people worked extremely hard, for a very long period of time, and under less than desirable conditions towards a common goal. Last, but for the efforts of that group, things likely would have turned out a lot worse.

We have a final task. We must critically review the spill response. This review is not being conducted because of a perception that something went horribly wrong. It is being conducted so that we can identify ways that we might make improvements for the future. A review such as this should be considered an appropriate finale to any major and extraordinary operation. The aim of this review is to identify and develop opportunities to improve marine spill prevention, preparedness, and response to better protect Oregon's environment. That was the charge for this committee.

⁴ See Internet site: <http://www.deq.state.or.us/wmc/nc/ncrc.htm>

I.

INTRODUCTION

The M/V NEW CARISSA, an empty wood chip carrier of foreign registry⁵, arrived off the Oregon Coast in the evening hours of February 3, 1999. The vessel had just completed the sea passage from Japan. The vessel master intended to board a maritime pilot (a Coos Bay pilot) immediately upon arrival. Then, with the pilot's assistance, the vessel would transit from the open sea to one of Coos Bay's lumber docks. As the vessel approached the port limits, however, the Coos Bay pilot advised that "the weather conditions at Coos Bay would prevent the NEW CARISSA from entering Coos Bay until the following morning."⁶ Thereafter, the master moved his vessel in closer to the Oregon shore and dropped one anchor just north of the harbor entrance, fewer than 2 miles off the beach. **NOTE: The decision to drop anchor was what most experts deemed to be the single largest error causing the subsequent grounding.** With the anchor down and pilot boarding planned for 7:00 a.m. the following morning, the crew of the NEW CARISSA awaited the arrival of a new day.

Gale conditions were experienced and rising seas were forecast on the Oregon coast when the NEW CARISSA dropped anchor.⁷ Those forecast seas eventually caused the NEW CARISSA's anchor to drag, and then, in concert with strong onshore winds, drove the empty vessel back into the surf zone.⁸ After he became aware that his vessel was being driven shoreward, the master attempted to weigh anchor and move farther offshore. But, his efforts proved futile in the face of the strong environmental forces acting upon the vessel, and the NEW CARISSA was driven aground at 8:30 a.m. on February 4, 1999.⁹ At the time of the grounding the vessel was empty of cargo, but contained 359,000 gallons of heavy fuel oil in six tanks and 37,400 gallons of diesel oil in one tank.

Shortly after the grounding, the US Coast Guard Captain of the Port, who is the pre-designated Federal On Scene Coordinator, activated a response organization headed by a unified command. The Unified Command was composed of the Federal On Scene Coordinator (Captain M. J. Hall, US Coast Guard), the State On Scene Coordinator (Mr. Mike Szerlog, Oregon Department of Environmental Quality), and the Responsible Party On Scene Coordinator (Mr. William Milwee, a contractor to Gallagher Marine Systems, Inc.).

Initially, refloating the NEW CARISSA and removing her from the beach was viewed as the best method to prevent the vessel from breaking up and spilling oil. But, time was of the essence. The chances of saving the vessel ebbed with each passing hour. Large winter swells relentlessly assaulted the imperiled vessel and threatened its structural integrity.

Attempts to free the stranded ship were not successful. Just before 12:00 noon on February 4th a US Coast Guard helicopter airlifted a Coos Bay pilot aboard. Thereafter,

⁵ The M/V/ NEW CARISSA was registered in Panama, owned by Green Atlas Shipping S.A. of Panama, and operated by TMM Company Ltd., of Tokyo, Japan.

⁶ Commander C. K. Lockwood, *op. cit.*, p. 5.

⁷ *Ibid.*, p. 4.

⁸ *Ibid.*

⁹ *Ibid.*, pp. 25-27.

the pilot and the master attempted to use the vessel's engines to maneuver NEW CARISSA off her strand. No tug assistance was available during this initial attempt, and it quickly became apparent that the NEW CARISSA could not be extracted under her own power.

There has been considerable speculation that towboats capable of assisting the stranded NEW CARISSA were readily available, but, for one reason or another, were not used. The Committee heard from many sources (including the owners of the available towboats) that due to ocean and weather conditions it was impossible to mobilize towboats to the site of the grounding. In addition, there were no specialized salvage vessels available and standard towboats have limited effectiveness in the salvage arena. Specialized salvage equipment with strong pulling capability is generally necessary to move a stranded vessel into deeper water. The most powerful standard towboats in Coos Bay when the NEW CARISSA grounded were capable of exerting 42.5 tons of bollard pull and had no specialized salvage equipment on board. The SALVAGE CHIEF, a specialized salvage vessel, can exert 300 tons of bollard pull. Even if a standard towboat could have been dispatched to assist the NEW CARISSA when she first grounded, it is questionable whether such tugboat could have affected the outcome.

The Astoria based SALVAGE CHIEF, owned by Fred Devine Diving and Salvage, was the salvage vessel nearest the grounding site. The Responsible Party contacted the SALVAGE CHIEF at about 9:30 a.m. on February 4th and alerted them that a salvage vessel was going to be needed. But, the SALVAGE CHIEF was not ready to immediately get underway for the 24-hour journey from Astoria to Coos Bay. Fuel, supplies, and equipment had to be loaded, and additional crewmembers had to be hired. The CHIEF, which had been idle for over a year, began to mobilize.

During the early afternoon of February 4th, the owners of the NEW CARISSA retained Smit Americas as their salvage contractor. At 6:30 p.m. the Responsible Party advised the SALVAGE CHIEF that Smit had been retained, and the Smit salvage team was scheduled to fly to Coos Bay the following day. The CHIEF, however, continued to mobilize, planning to proceed to Coos Bay on speculation, hoping to be hired by either Smit or the shipowner.

SALVAGE CHIEF finished mobilizing and was ready to get underway from Astoria in the morning hours of February 5th, about 18 hours after they were first notified. But, by then the weather conditions on the Columbia River Entrance Bar had become severe, and the SALVAGE CHIEF could not proceed to sea. The vessel was trapped in port and would remain trapped for the next 2 days. This same severe weather that foiled the SALVAGE CHIEF's initial attempt to get underway would continue to foil response efforts throughout this event.

On February 5th, the NEW CARISSA's crew and the Coos Bay pilot were evacuated from the vessel for safety reasons. Swells had reached 25 feet and the wind was gusting to 70 knots. The Unified Command considered mobilizing a Long Beach, CA based salvage vessel; however, they considered that option to be less favorable than awaiting the arrival of the SALVAGE CHIEF. It was unlikely that the Long Beach based salvage vessel could have arrived in Coos Bay much before February 9th. On February 7th, the weather on the Columbia River Bar abated sufficiently to allow the SALVAGE CHIEF to get underway for Coos Bay. **NOTE: The decision not to mobilize the Long Beach salvage vessel was the subject of some disagreement within the Unified Command.**

The Committee was unable, based on testimony heard, to determine whether that decision not to mobilize contributed to the crisis.

On the morning of February 8th the NEW CARISSA began to leak oil. By that evening extensive structural damage was confirmed,¹⁰ and tar balls began washing up on the ocean beaches. Also, the SALVAGE CHIEF arrived in Coos Bay.

On February 9th, the SALVAGE CHIEF attempted to get into position to pull the damaged vessel off the beach. Unfortunately, the wind and swell had driven the NEW CARISSA closer to shore, and the large ocean swells prevented the CHIEF from getting close enough to the stricken vessel for her tow gear to reach. The NEW CARISSA continued to leak oil and lose structural integrity.

On February 10th, a major structural failure occurred in the engine room and that space flooded with seawater. This flooding marked a turning point in the operation for two reasons. First, the ship's hull insurer declared the NEW CARISSA a constructive total loss. Responders were now dealing with a shipwreck rather than a salvageable vessel. Second, the NEW CARISSA was totally disabled. The ship's internal systems could no longer be used for propulsion, or to transfer oil or ballast water within the vessel. Response options became severely limited.

Up to this point, the response had focused on saving the vessel and keeping as much of the oil as possible contained within. On February 10th that was no longer an option. "A 15 to 20 foot vertical fracture became visible in the shell plating on the starboard side on the vessel, at the forward end of the #6 cargo hold."¹¹ Break-up was believed to be imminent. It was feared that a massive spill would coincide with break-up. The response focus shifted from containing the oil on board to preventing as much oil as possible from spilling.

The Federal On Scene Coordinator decided that if the ship could not be pulled off the beach, the best alternative to avoid a significant spill was to burn the fuel oil on board the vessel. This option had been in development as a contingency since the vessel first started leaking oil on February 8th. The final decision to burn had to be made quickly. Burning the oil on board the NEW CARISSA in order to prevent it from spilling was viewed as the best alternative of several undesirable choices. The first attempt to burn the oil on board NEW CARISSA was made on the evening of February 10th, but ignition failed. Plans were laid for a second attempt on the following day.

The second burn attempt was undertaken on February 11th at 5:45 p.m. Ignition succeeded and the fuel oil on the vessel began to burn. **NOTE: The burn was facilitated by one bit of rare "good luck" – offshore winds blew the smoke to sea and away from populated areas.**

Three hours later the NEW CARISSA broke in half near the boundary between #5 and #6 cargo holds. By the next morning most of the fires had burned out with the exception of a small fire near the stern which continued to burn for 33 hours. Weather conditions remained stable with offshore winds for several days, allowing numerous re-ignitions. Air quality in the area was monitored with no measurable impacts detected. It is estimated that 200,000 gallons of oil, roughly half, were consumed in the fire.

Approximately 130,000 gallons of oil remained in the bow section after the burn. The Unified Command made the decision to tow the bow section, along with the oil, to

¹⁰ Captain M. J. Hall, *op. cit.*, Volume II, p. 5.

¹¹ *Ibid.*, Volume II, p. 7.

sea and sink it. It was concluded that cold deep-ocean temperatures would solidify the 130,000 gallons of remaining oil and entomb it within the bow section. Preparations for the tow commenced.

During the time the bow was being prepared for the tow, the Unified Command attempted to pump the remaining oil out of the bow section. These attempts were largely unsuccessful due to the thick viscous character of the heavy fuel oil, and the inability to heat the oil-water mixture in the vessel's flooded fuel tanks.

On the evening of March 1st, after days of pulling, the tug SEA VICTORY, which had been hired by the Responsible Party, extracted the battered bow section from the beach and began towing it to sea. During the afternoon of March 2nd, the weather deteriorated with heavy seas and 100-MPH winds. A wire strap, which connected the towline to the tug, broke in heavy weather. The bow section was adrift in a violent winter storm and was headed ashore once again.

On the morning of March 3rd, the bow section washed up on a sandy beach near Waldport, spilling additional oil and causing the clean-up crews, the Unified Command, and the entire response organization to move north to a new impact area. By March 6th a towline had been reattached, and by the 8th the bow section was once again on its way to a watery offshore grave. At 3:52 p.m. on March 11th the bow section was sunk in over 10,000 feet of water 282 miles west of Waldport.

II.

MARINE VESSEL ACCIDENT PREVENTION

Marine vessel accidents can cause catastrophic environmental impacts. Structural failures resulting from groundings, collisions, or allisions can lead to fuel and/or cargo oil discharges into marine waters and severe environmental damage. The State of Oregon has a strong interest in minimizing potential human health and environmental damage resulting from marine vessel accidents.

Prevention of marine vessel accidents is the most effective method to minimize environmental damage from marine spills. Once the oil makes it to the water, the battle has largely been lost. It is extremely difficult and costly to remove spilled oil from the marine environment. Most removal techniques have limited effectiveness. Clearly, accident prevention is the key.

Unfortunately, marine vessel accidents do occur in Oregon waters. Since the M/V NEW CARISSA grounded, four serious marine vessel accidents, notable due their high potential for environmental harm, have occurred on the Columbia River. On June 10 the S/S FREDERICKSBURG, a loaded oil tanker, grounded under power at River Mile 43. On September 7 the CENT KAPTANOGLU, a 611-foot bulk carrier, lost all power and allided with BHP/Kalama North Dock. On October 19 the HANJIN HONG KONG, an 800-foot container ship, grounded under power at River Mile 40. On November 9 the SVETI NICOLA 1, a 600-foot cargo ship, grounded under power at River Mile 29. Fortuitously, these incidents did not result in accidental discharges of oil. The FREDERICKSBURG, HANJIN HONG KONG, and SVETI NICOLA 1 groundings occurred in areas of the Columbia River characterized by soft mud banks. The CENT KAPTANOGLU was not so fortunate when she lost power. That vessel careened out of the shipping channel and allided with the Kalama North Dock. The damage, while extensive, was restricted to the forward portion of the vessel and no fuel oil was spilled. Had any one of these accidents occurred in certain parts of the River, they could have resulted in a major discharge of oil.¹²

It has been recognized that human factors contribute to most marine vessel accidents. "Despite regulatory, quality management, and education initiatives, approximately 80 percent of commercial and recreational waterborne accidents can be traced to human error."¹³ Human error was identified as the root cause of the NEW CARISSA grounding as well.¹⁴ While we can never eliminate human error, we can take steps to reduce it and reduce the impacts of human error when it does occur.

¹² In 1984, the loaded tanker MOBIL OIL lost steering, ran uncontrollably out of the channel, and grounded on Warrior Rock. That accident was similar to last year's FREDERICKSBURG grounding except for location. Both were loaded tankers, both experienced a random steering failure, and both grounded. The primary difference was the MOBIL OIL grounded on a rock and spilled a significant quantity of oil into the Columbia River. The FREDERICKSBURG came ashore in an area of the River characterized by soft mud banks and suffered no damage.

¹³ US Department of Transportation, An Assessment of The US Marine Transportation System, A Report to Congress (September 1999), p. 42.

¹⁴ Commander C. K. Lockwood, op. cit., p. 30.

Oftentimes, these human errors can be traced to less than adequate communication and/or coordination. In a recent report to Congress, the US Department of Transportation noted that Marine Transportation System stakeholders often work without knowledge of each other's activities or concerns. The Report went on to note a system-wide failure to adequately share information and stated, "Currently, there appears to be insufficient coordination at the local/regional and national levels. System users are often unaware of the other public and private users' activities and inherent limitations."¹⁵

Likewise, the New Carissa Review Committee has noted that Marine Transportation System stakeholders in Oregon often work without knowledge of each other's activities and fail to adequately share information. The following recommendations facilitate improved coordination and communication between Marine Transportation System stakeholders and encourage stakeholders to adopt quality management principles aimed at continuous improvement.

PORTS AND WATERWAYS SAFETY COMMITTEE

Recommendations:

- ◆ The State of Oregon should take a more active role in the Ports and Waterways Safety Committee¹⁶ and, in partnership with the US Coast Guard and other maritime stakeholders, reinvent a new Ports and Waterways Safety Committee aimed at continuously improving marine safety in the Columbia River System and Oregon coastal waters. That more active state role should include sharing the Ports and Waterways Committee staffing burden.
- ◆ The State of Oregon should request the US Coast Guard Marine Safety Office Group Portland Captain of the Port to encourage the Ports and Waterways Safety Committee to address the marine safety issues identified by the New Carissa Review Committee as enumerated in this report.

Marine safety is not addressed systematically by the State of Oregon. Many different entities share involvement over a broad spectrum of marine safety concerns, but there is insufficient coordination between entities. A formally structured mechanism or process for communication and coordination among local/regional and national Marine Transportation System stakeholders is absent or under-utilized.

The State of Oregon needs to prioritize marine safety and take an active role in marine safety issues. A systematic approach to marine safety and coordination among maritime stakeholders is needed. "The importance of coordination among stakeholders in

¹⁵ US Department of Transportation, *op. cit.*, p. 40.

¹⁶ The Ports and Waterways Safety Committee is currently organized and staffed by the US Coast Guard Marine Safety Office/Group Portland. The Ports and Waterways Safety Committee is the Harbor Safety Committee for the Columbia River System. The US Coast Guard is presently taking steps to modify that committee to meet the growing needs of the Columbia River System. These steps include establishing sub-committee work groups, identifying goals, and defining projects.

the decision-making process has long been recognized, and local and/or regional safety committees have been established in many port areas. The Harbor Safety Committees in California and the Harbor, Navigation, and Operations Committee in New York [are] often cited as good examples of local forums that have been undertaken and address a breadth of long- and short-term local/regional issues involving a diverse group of interests."¹⁷ Such forums can enhance safety in many ways, not the least of which are: fostering partnerships, promoting active dialogue between marine stakeholders, encouraging waterway users to adopt appropriate quality assurance measures comparable to ISO 9000/9002, investigating ways to reduce the risks associated with mixed waterway use, fostering training programs, and raising awareness through shared near miss and vessel accident information. "Coordinating mechanisms, such as the Harbor Safety Committees, can implement a systems approach to handling vessel operations on the waterways and at the ports."¹⁸

At present, US Coast Guard Marine Safety Office Group Portland facilitates the Ports and Waterways Safety Committee. This ad hoc safety committee has addressed marine safety issues on the Columbia River System since its formation in 1992; however, it is presently neither staffed nor structured adequately to fully address the commercial marine safety issues identified by the New Carissa Review Committee. The Ports and Waterways Safety Committee has no formal membership structure and lacks significant participation from the State of Oregon. The US Coast Guard, however, is undertaking to evolve the Ports and Waterways Safety Committee to meet the growing needs of the Columbia River System and become a vehicle for continuous improvement in marine safety. Additionally, the US Coast Guard is taking steps to establish similar safety committees in Coos Bay to address maritime safety issues in that region.

Many marine safety issues important to the State of Oregon have been identified by the New Carissa Review Committee and follow in this report. These issues should be researched and resolved by a stakeholder body expert in maritime affairs. Rather than forming a state sponsored Harbor Safety Committee to address these issues, the State of Oregon should take advantage of the existing US Coast Guard forum. The State of Oregon should collaborate with the US Coast Guard Marine Safety Office Group Portland Captain of the Port to encourage the Ports and Waterways Safety Committee to address the marine safety issues identified by the New Carissa Review Committee and as enumerated in this report.

At present no single state organization has a broad level of involvement in commercial marine safety. The Oregon Department of Environmental Quality, the Oregon Board of Maritime Pilots, and the Marine Board all have some involvement, but each is narrowly focused and limited to certain issues. In order to ensure that marine safety issues are addressed on a broad continuing basis and that state interests are served during that process, the State of Oregon should take a more active role in the Ports and Waterways Safety Committee and, in partnership with the US Coast Guard and other maritime stakeholders, reinvent a new Ports and Waterways Safety Committee aimed at continuously improving marine safety in the Columbia River System and in Oregon

¹⁷ US Department of Transportation, *op. cit.*, p. 40.

¹⁸ *Ibid.*, p. 43.

Coastal waters. To this end the State of Oregon should:

- Establish a lead agency to coordinate commercial marine safety issues in Oregon;
- Encourage the appropriate state agencies and the Oregon Board of Maritime Pilots to participate in the Ports and Waterways Safety Committee on a regular basis;
- Share the Ports and Waterways Safety Committee staffing burden;
- Partner with the US Coast Guard to evolve the Ports and Waterways Safety Committee into meeting the growing needs of the Columbia River system and promote other forums to address marine safety in Oregon coastal waters; and,
- Take action in support of the recommendations made by the US Coast Guard Captain of the Port to the Oregon Board of Maritime Pilots,¹⁹ and thereby assist the US Coast Guard's effort to establish "safe practices of the port" for all Oregon ports and waterways and promote a system of continuous improvement in marine safety.

MASTER-PILOT RELATIONSHIP

Recommendations:

- ◆ The Oregon Board of Maritime Pilots should examine the relationship between state licensed maritime pilots and vessel masters, and develop procedures to ensure that in the future proper information exchanges take place between such pilots and masters when vessels arrive offshore, both when initial communications between pilot and vessel occur prior to pilot boarding, and later, when the pilot actually boards the vessel. The use of standardized communication formats should be investigated.
- ◆ The Oregon Department of Justice, in consultation with the Oregon Board of Maritime Pilots, should assess the current state pilot indemnity statutes (ORS 776.510-540), determine the limits of statutory indemnity, and, if necessary, determine how that statute should be changed to ensure that maritime pilots can freely give advice to arriving vessels prior to boarding, without fear of liability.
- ◆ The Oregon Board of Maritime Pilots and the pilot associations they represent should work in collaboration with other maritime stakeholders and the Ports and Waterways Safety Committee to promote a proactive approach to marine safety and encourage systematic information sharing between Marine Transportation System users in all phases of vessel and terminal operations.

¹⁹ See Appendix G, "Statement to Oregon Board of Maritime Pilots on 16 November 1999" from Captain James D. Spitzer, and see Appendix H, "Statement to Oregon Board of Maritime Pilots on 21 November 1999" from Captain James D. Spitzer, USCG.

It is assumed that a vessel master has expertise with regard to the maneuvering characteristics specific to his/her vessel and to navigation in general. It is unreasonable, however, to require or expect vessel masters, who could trade in any part of the world, to possess detailed knowledge for every port of call to which their trade might take them. Each port has unique regulations, geographic features, traffic patterns, weather conditions, and customs. Furthermore, each port's specific body of local knowledge changes over time. It would be difficult, if not impossible, for vessel masters to acquire or retain vast specialized knowledge for every port of call.

Throughout the world, maritime pilots possessing specialized local knowledge necessary for safe navigation offer their services to arriving and departing vessels. Maritime pilots are experts on the requisite body of knowledge pertinent to the port(s) for which they are licensed. In Oregon, pilots are licensed by the State.

"PILOT. 1. A qualified individual possessing local knowledge of shallows, rocks, currents, and so on, and usually licensed by public authority, who is taken on board at a particular place, to conduct a ship through a river, road or channel, or from or into port. Pilots are established by legislative enactment at the principle seaports, and have rights and are bound to perform duties in accordance with the provisions of the laws establishing them."²⁰

When an ocean going vessel calls at a seaport, a pilot is taken aboard near the port limits, generally a mile or two outside the entrance channel. Using expertise in such things as localized weather patterns, waterway configuration, terminal requirements, and customary anchorage areas, the maritime pilot acts in an advisory capacity to the vessel master. The vessel master generally turns control of the navigation over to the pilot, who then conducts the vessel to its destination.

The legal relationship that exists between vessel masters and maritime pilots is often misunderstood. When a pilot is aboard and directing the vessel navigation, the vessel master, with few exceptions, retains authority over the pilot, and remains ultimately responsible for the safe navigation of the vessel. The master has the same power to displace the pilot that he/she has to remove any subordinate officer of the vessel, and may exercise that power at his/her discretion. The master should displace a pilot in cases of pilot incapacity or incompetence, apparent danger, or other necessity. In theory, the vessel master remains at the pilot's side throughout the navigation, approving, either tacitly or explicitly, every command issued by the pilot.

The actual relationship between vessel masters and pilots can be quite different than the legal relationship. Only rarely will a vessel master relieve a pilot of his/her duty. In fact, many vessel masters will hand complete control of their vessels over to a pilot. Oftentimes, particularly on long inland transits such as the Columbia River, the vessel master will not even remain on the navigating bridge to monitor the pilot's performance. Even though the master retains a thin veil of legal authority, it is oftentimes the pilot who has control over the safe navigation of the vessel, and it is the pilot's skill and competence alone that are determinative of a safe and satisfactory result.

Even though the master retains authority and remains responsible for the safe navigation of the vessel, a pilot is not without duty. A pilot is generally liable for his/her own acts of negligence, both to the owner of the vessel piloted and to third parties injured by his/her negligence. However, it is common for state licensed maritime pilots to be

²⁰ Kerchove, Rene de, International Maritime Dictionary (Princeton, 1961), p. 581.

indemnified by statute. Oregon pilots are indemnified under ORS 776.510-540. **NOTE: Oregon maritime pilots enjoy indemnity when they are working within their state pilot license.²¹ However, the pilots worry that the indemnity statute might not cover their activities prior to the time they board a vessel and enter into a contract with the vessel master.**

When the M/V NEW CARISSA arrived off the Oregon coast on the evening of February 3, 1999, the Coos Bay pilot communicated with the vessel master by radiotelephone.²² The Coos Bay pilot advised the master that entry into port would be postponed until the following morning.²³ "The Coos Bay Pilot did not offer advice on what the NEW CARISSA should do, or inquire as to what the Master's intentions were."²⁴ The master, faced with approximately 15 hours to wait, had two choices. He could either remain underway offshore steaming slowly back and forth or anchor his vessel near shore. He decided to anchor. "The decision not to remain underway ultimately resulted in the vessel going aground."²⁵ That decision made by one person affected the lives of countless Oregonians, caused adverse environmental impacts, and consumed millions of dollars in resources.

The New Carissa Review Committee is concerned about whether or not an adequate information exchange took place between the Coos Bay pilot and the master of the NEW CARISSA when that vessel first arrived offshore, and about what steps should be taken in the future to ensure that proper and adequate information exchanges between vessel masters and pilots do in fact take place.

Upon analysis, two potential problems become evident. First, due to lack of standardized communication procedures, content of pilot-to-vessel communications varies from one pilot to another, and certain crucial information can be omitted. Second, some pilots, fearing personal liability, might decline to offer crucial advice when communicating with offshore vessels.

Individual pilot behavior is governed in part by custom. Even though state pilot boards and pilot organizations regulate certain aspects of pilotage service, the majority of this regulatory effort is directed towards pilot licensure, pilotage fees, and standards governing actions against a pilot's state license. There is little standardization with regard to operational procedures. Each pilot within an organization is an independent contractor and develops his or her own operating standards and procedures. As an example, there is presently no prescribed standardized communication format or checklist guiding the informational exchange for pilot communication with the master of a vessel arriving offshore.²⁶ Unless such a standard communication format or checklist is provided by the vessel (some do, some do not), none is used.

²¹ See ORS 776.510, 520, 530, and 540.

²² Commander C. K. Lockwood, *op. cit.*, p. 17.

²³ The pilot postponed NEW CARISSA's entry into Coos Bay due to poor weather conditions and because of his concern about an out of position navigation buoy in the entrance channel. *Ibid.*

²⁴ *Ibid.*, p. 19.

²⁵ *Ibid.*, p. 30.

²⁶ Nor is a standardized communication checklist prescribed for Oregon state pilots to use when they board a vessel and conduct a master/pilot exchange of information prior to taking over navigational control. Such checklists, both for master/pilot communications with vessels arriving offshore and for master/pilot exchanges upon boarding a pilot have been recommended for years by industry; however, these recommendations have been primarily aimed at vessel operators. Only in recent years have such recommendations been directed at pilot organizations. At present the Oregon Board of Maritime Pilots is

Oregon should consider whether it is satisfactory to rely on the procedures (or lack thereof) used by arriving vessels to ensure that standardized communications take place between vessel masters and maritime pilots. The majority of oceangoing vessels arriving in Oregon waters are foreign registered and foreign crewed. Some of these vessels have very high operational standards and some do not. There is little the State of Oregon can do to control or standardize the conduct and behavior of vessel masters licensed in foreign countries; however, we can control and standardize the conduct and behavior of our own state licensed maritime pilots.

The Oregon Board of Maritime Pilots should examine the relationship between state licensed maritime pilots and vessel masters, and develop procedures to ensure that in the future proper information exchanges take place between such pilots and masters when vessels arrive offshore, both when initial communications between pilot and vessel occur prior to pilot boarding, and later when the pilot actually boards the vessel. The use of standardized communication formats should be investigated. Simple checklists describing standardized communication formats could be easily developed and used to ensure that crucial information is conveyed to arriving vessels, both during initial radio contact and when the pilot first boards the vessel.

The ocean anchorage outside Coos Bay is dangerous in the winter because it is unprotected and exposed to the full fury of the North Pacific Ocean. Large swells and heavy winds characterize the anchorage area during the winter, like all unprotected areas of the Oregon coast. These extreme environmental conditions can suddenly and unexpectedly besiege the unwary with catastrophic results. The prevailing direction of both swell and wind will drive disabled or improperly handled vessels onto the shore.

The Coos Bay pilots know anchoring in ocean waters outside Coos Bay during winter months is dangerous. However, they do not as a routine matter apprise arriving vessels of this known danger. Rather they leave it to the vessel master to recognize the danger and make a correct decision. If a vessel master asks for advice or otherwise indicates an intention to anchor, the pilots may warn of the known dangers associated with wintertime anchorage, but, as a practice, they do not give unsolicited advice.²⁷ The pilots are concerned they might face increased liability as a result of giving unsolicited advice.

The New Carissa Review Committee is concerned that it might not be reasonable to depend on masters of arriving vessels to recognize the dangers associated with winter time anchorage in the ocean waters outside Coos Bay, and make proper anchoring decisions on their own. Vessel masters cannot be depended upon to always make correct decisions if they do not have access to necessary information about local conditions. Additionally, we have seen that when we rely on one individual to make important decisions, a one-person error can lead to a disaster. This is particularly true when that one person is unfamiliar with local conditions and might not even know the correct questions to ask. A free flow of advice between decision-makers is crucial to good decision-making. Increased marine safety could be achieved by insuring that local experts freely give advice and share information.

reviewing a checklist proposed by the State of Washington. However, no checklist governing the content of initial radio contact with arriving vessels is being considered.

²⁷ The Coos Bay pilot assigned to dock the NEW CARISSA on February 3rd testified, both in front of the New Carissa Review Committee and during the US Coast Guard investigation, that he does not offer unsolicited advice about anchoring to arriving vessels.

The New Carissa Review Committee acknowledges maritime pilots' concern about their personal liability, but finds that Oregon's concern for marine accident prevention must take precedence. The New Carissa Review Committee finds that the free flow of information between maritime pilots and other Marine Transportation System users is vital to marine safety, and should not be limited by fear of liability, either perceived or real. The Oregon Department of Justice, in consultation with the Oregon Board of Maritime Pilots, should assess the current state pilot indemnity statutes (ORS 776.510-540), determine the limits of statutory indemnity, and, if necessary, determine how that statute should be changed to ensure that maritime pilots can freely give advice to arriving vessels prior to boarding, without fear of liability.

Adequate communication and information sharing are important components of a safe Marine Transportation System. "Marine transportation is a complex and difficult process that introduces risk to personnel, property, and the environment. One of the key areas requiring attention is managing the human element in Marine Transportation System operations. Specifically, working in the area of vessel navigation, recreational boating, and accidental discharges promise [sic] the greatest risk reduction return on investment. Marine pilots and US Coast Guard personnel represent the initial points of contact when a vessel approaches a port, and their communications and interaction with vessel officers and crew constitute an important element in the safety and environmental protection system."²⁸

The New Carissa Review Committee finds that the need to adequately share information within our Marine Transportation System is not limited to the sharing of information between maritime pilots and vessel masters. Both pilots and masters need to proactively share information with other stakeholders as well. A proactive approach to information sharing should be the standard in our Marine Transportation System. There should be voluntary dialogue between those with local knowledge and those who occasionally enter our waters. The presumption or default position should always be to overly share information rather than to be uncommunicative. The expertise of the maritime pilot is crucial to this goal. Also, their involvement in Oregon maritime activities is pervasive. The Oregon Board of Maritime Pilots and the pilot groups they represent should work in collaboration with other maritime stakeholders and the Ports and Waterways Safety Committee to promote a proactive approach to systematic information sharing between Marine Transportation System users in all phases of vessel and terminal operations. **NOTE: The Committee did not hear testimony that there is a problem with master-pilot relationship in most instances. In fact, there was testimony that in most cases the current system works well. Simply, the NEW CARISSA accident is an example of where there may have been a breakdown in effective communication contributing to the grounding.**

²⁸ US Department of Transportation, *op. cit.*, p. 94.

NAUTICAL CHARTS AND COAST PILOTS

Recommendations:

- ◆ The State of Oregon, through the Oregon Board of Maritime Pilots, the pilot associations they represent, and the Ports and Waterways Safety Committee, should encourage all Marine Transportation System users in Oregon to routinely provide the input needed to maintain accurate nautical charts and publications.
- ◆ The Oregon Board of Maritime Pilots in conjunction with the Ports and Waterways Safety Committee should develop procedures to ensure that pilot organizations conduct periodic reviews and updates of the information specific to their pilotage grounds that is contained on nautical charts and in the US Coast Pilot.

The New Carissa Review Committee finds:

- The tools used by mariners when navigating within Oregon waters (nautical charts and publications) must be maintained with the most up-to-date and accurate information;
- Individual Marine Transportation System users must understand that they are the stewards of information relating to marine safety on our waterways, and they need to share that information; and,
- Marine Transportation System stakeholders must provide adequate and timely information needed by the "Notice to Mariners" system (chart and publication corrections).

It is the mariner's responsibility to consult specified information sources when calling at any seaport or traversing any ocean or coastline. Harbor and coastal charts combined with text found in the List of Lights and the US Coast Pilot (or similar documents²⁹) provide the mariner with a good general overview of the hydrographic and geographic features associated with coastal and harbor areas. The US Coast Pilot contains information about water depths, land features, prominent marks, aids to navigation, anchorage areas, wharves, port services, weather, recommended routes and warnings. Mariners are required to have these publications in their possession prior to entering upon US territorial waters. The NEW CARISSA did have a copy of the US Coast Pilot on board.

Unfortunately, the mariner's tools used to safely navigate Oregon's waters might not always contain the most up-to-date information. For instance, neither the US Coast Pilot nor the nautical chart for the ocean waters off Coos Bay contained a warning about the unsafe winter conditions associated with the anchorage area outside Coos Bay. Local users knew that wintertime anchorage in the area was unsafe; however, that information was not available to the master of the NEW CARISSA. He received no warning from

²⁹ Coast Pilots and Sailing Directions, offering volume by volume coverage of the entire world, are generally produced by either the US or British governments. Both governments coordinate content.

local users, nor was there a warning pertinent to that danger in any of the charts or publications available at that time.

There are three components to ensuring that mariners' tools, such as the US Coast Pilot, do in fact contain the most up-to-date information and warnings: information must be collected from the field, collected information must be disseminated to the mariner population at large, and individual mariners must in fact utilize the correction information to update nautical charts and publications. The systems of disseminating information and ensuring mariner utilization are fairly sound. This system is called "Notice to Mariners." This "Notice to Mariners" system has been in place for many years and is international in scope.

If a weakness exists in the "Notice to Mariners" system, that weakness is receipt of information from users in the field. Responsible federal agencies conduct periodic field surveys to investigate reports and verify accuracy of information contained in the US Coast Pilot and on nautical charts. However, the National Ocean Service and the US Coast Guard rely primarily on reports from Marine Transportation System users, such as maritime pilots and other mariners, to provide timely information about irregularities and omissions in the system. "Mariners and others are urged to report promptly to the NOS [National Ocean Service] errors, omissions, or any other conditions found to differ or to be additional to those published in the Coast Pilot or shown on the charts in order that they may be fully investigated and proper corrections made. A Coast Pilot Report form is included in the back of this book . . . for your convenience."³⁰

The New Carissa Review Committee finds that it is important for Marine Transportation System users to report promptly to the National Ocean Service or to the US Coast Guard any errors, omissions, or other conditions found to differ or to be additional to those published in the US Coast Pilot or shown on a nautical chart.

For one reason or another, system users sometimes do not provide needed information to either the US Coast Guard or the National Ocean Service. As an example, there was local knowledge that the anchorage outside of Coos Bay was dangerous in the wintertime, but this information was not conveyed to the appropriate authority. The State of Oregon, through the Oregon Board of Maritime Pilots, the pilot associations they represent, and the Ports and Waterways Safety Committee, should encourage all Marine Transportation System users in Oregon to routinely provide the input needed to maintain accurate nautical charts and publications.

Only maritime pilots possess much of the information needed to maintain accurate nautical charts and publications. For example, it is unlikely that a National Ocean Service field inspection team or a periodic marine user would have recognized the dangers associated with wintertime use of the Coos Bay anchorage. The reality is that some information can find its way into the system only if offered by the local maritime pilots, as they have exclusive ownership of much needed information. The Oregon Board of Maritime Pilots in conjunction with the Ports and Waterways Safety Committee should develop procedures to ensure that Oregon pilot organizations conduct periodic reviews and updates of the information specific to their pilotage grounds that is contained on nautical charts and in the US Coast Pilot.

³⁰ US Coast Pilot 7, US Department of Commerce, National Oceanic and Atmospheric Association/National Ocean Service, 31st Edition 1997, Preface.

VESSEL ANCHORAGE IN OCEAN WATERS

Recommendations:

- ◆ The State of Oregon should take steps to discourage vessels greater than 300 gross tons from anchoring in ocean waters within three (3) nautical miles of the Oregon shore, unless in emergency, distress, or special circumstances. Additionally, the State of Oregon should require prior notification of intent to anchor anytime a vessel greater than 300 gross tons does in fact anchor within three (3) nautical miles of the Oregon shore. Such notification shall be to the US Coast Guard and, when applicable, to the appropriate maritime pilot association.
- ◆ The Oregon Board of Maritime Pilots should ensure that the Coos Bay Pilots Association and Columbia River Bar Pilots Association collaborate with the Ports and Waterways Safety Committee, the US Coast Guard, and the National Oceanic and Atmospheric Administration/National Ocean Service to develop a written warning indicating the exposed coastal waters of Oregon do not provide safe anchorage during winter months because of the rapid onset of severe weather. Such warning, once developed, should be broadly disseminated via the appropriate authorities to reach the general maritime community.

The New Carissa Review Committee finds:

- It is sometimes dangerous to anchor a large vessel on the Oregon coast, particularly during periods when strong winds and swells can act in concert to drive a vessel onto the shore (usual winter conditions);
- Some vessel masters, unfamiliar with the area, might not recognize these dangerous winter conditions without being warned; and,
- The single greatest error that precipitated the M/V NEW CARISSA grounding was a one-person error—the decision by the vessel master to drop anchor near the Oregon shore in the prevailing weather conditions.

The New Carissa Review Committee discussed extensively what, if any, restrictions the State of Oregon should impose on vessels anchoring within territorial waters. There was testimony that there should seldom be a need for vessels the size of the NEW CARISSA to anchor within three (3) miles of the coast. The dangers typically outweigh the need. Nevertheless, the Committee is concerned about arbitrarily preventing vessel masters from anchoring off the Oregon coast. As a result, the Committee could not reach consensus on the necessity of imposing a blanket anchorage prohibition on the entire Oregon Coast. No other West Coast state has imposed such a prohibition. The State of Oregon should actively discourage the anchoring of large vessels in coastal waters unless such anchoring is absolutely necessary. The necessity of controlling the anchoring

activities of smaller vessels that do not pose a significant pollution threat is questionable.³¹

The State of Oregon should take steps to discourage vessels greater than 300 gross tons from anchoring in ocean waters within three (3) nautical miles of the Oregon shore, unless in emergency, distress, or special circumstances. Additionally, the State of Oregon should require prior notification of intent to anchor anytime a vessel greater than 300 gross tons does in fact anchor within three (3) nautical miles of the Oregon shore. Such notification shall be to the US Coast Guard and, when applicable, to the appropriate maritime pilot association. This notification requirement will ensure that the appropriate parties are cognizant of large vessel anchorage activities and can take appropriate action, to include advising or warning vessels before they stand into danger.

The State of Oregon should also ensure that an appropriate warning is included in the tools relied upon by mariners navigating in state waters. The Oregon Board of Maritime Pilots should ensure that the Coos Bay Pilots Association and Columbia River Bar Pilots Association collaborate with the Ports and Waterways Safety Committee, the US Coast Guard, and the National Oceanic and Atmospheric Administration/National Ocean Service to develop a written warning indicating the exposed coastal waters of Oregon do not provide safe anchorage during winter months because of the rapid onset of severe weather. The pilot associations should 1) collaborate with the US Coast Guard and local maritime interests through the Ports and Waterways Safety Committee to develop the locations, weather conditions, and time-frames for these warnings, and 2) provide detailed warning recommendations to the National Oceanic and Atmospheric Administration/National Ocean Service so that the warning can be included in the US Coast Pilot Number 7 and on the appropriate nautical charts.

³¹ Although it should be noted that some vessels under 300 gross tons, such as fish processing vessels, may carry significant amounts of fuel oil.

DESCRIPTION OF OREGON BAR AND RIVER PILOTAGE GROUNDS

Recommendation:

- ◆ The Oregon Department of Justice, in consultation with the Oregon Board of Maritime Pilots, should develop draft statutory language that clearly and unambiguously defines the geographic boundaries of the State of Oregon bar and river pilotage grounds (ORS 776.025). Such draft language must specifically describe the complete boundaries of the ocean portions of state pilotage grounds, and define when and where a pilot is required to be aboard a vessel. This statutory revision should also address the required use of pilots to anchor vessels off the Oregon shoreline. This statutory revision should be presented to the next legislative session. Once enacted, the appropriate statutory language should be included in the US Coast Pilot Number 7.

The current statutory language does not adequately delineate the north and south boundaries of the ocean portions of the pilotage grounds. ORS 776.025 indicates that the seaward limit, or western boundary, of the ocean pilotage grounds is at the 30-fathom line. That definition, however, fails to describe where the north and south boundaries lie. This is usually not an issue for vessels proceeding directly from sea to port or vice-versa; however, it can become an issue when vessels must go to anchor in coastal ocean waters near port limits, and the pilots have no operational certainty in this regard.

The Oregon Department of Justice, in consultation with the Oregon Board of Maritime Pilots, should develop draft statutory language that clearly and unambiguously defines the geographic boundaries of the State of Oregon bar and river pilotage grounds (ORS 776.025). Such draft language must specifically describe the complete boundaries of the ocean portions of state pilotage grounds, and define when and where a pilot is required to be aboard a vessel. This statutory revision should also address the required use of pilots to anchor vessels off the Oregon shoreline. This statutory revision should be presented to the next legislative session. Once enacted, the appropriate statutory language should be included in the US Coast Pilot Number 7.

WEATHER BUOYS

Recommendation:

- ◆ The State of Oregon should encourage the National Oceanic and Atmospheric Administration/National Weather Service and our federal delegation to improve the system of offshore weather buoys and current meters.

The New Carissa Review Committee finds:

- Adequate weather and current information is crucial for a wide array of maritime, environmental, and natural resource issues;
- Weather and current buoy coverage in Oregon coastal and offshore waters may presently be inadequate to provide sufficient real time weather/current information and accurate weather forecasts; and,
- Buoy coverage was better in the past; the system has been cut back.

NOTE: There is no evidence that the lack of buoys or data contributed to the NEW CARISSA grounding. Although, there is some evidence that the lack of buoys contributed to the inability to respond to the spill correctly and may even have contributed to the second grounding due to a lack of real-time information about ocean conditions.

Better real-time marine weather information, oceanographic data, and marine weather forecasts might help prevent future marine casualties. The Coos Bay Pilots Association, in their September 28, 1999 letter to the New Carissa Review Committee, states, "The nearest weather buoy to Coos Bay is off of the central Oregon coast about 100 miles from Coos Bay. A wave and weather reporting buoy near the entrance to Coos Bay would provide much more accurate information to CBPA and ships calling in Coos Bay, as well as all other vessels in the area. Some years ago there was a buoy off the mouth of the Coquille River near Coos Bay, which was very useful, but it was removed and has been much missed in the years since it's removal."

Additionally, better real-time marine weather and ocean current information would allow for better spill trajectory projection during oil spill response efforts. Such information can be crucial to efficient allocation of response resources during an emergency. **NOTE: A common complaint of those involved in the crisis was the inadequacy of reliable information on ocean and weather conditions, hampering salvage and clean-up efforts.** The State of Oregon should encourage the National Oceanic and Atmospheric Administration/National Weather Service and our federal delegation to improve the system of offshore weather buoys and current meters.

INTERNATIONAL TUG OF OPPORTUNITY SYSTEM³²

Recommendation:

- ◆ The State of Oregon should collaborate with the Ports and Waterways Safety Committee to evaluate the benefits of extending the International Tug of Opportunity System to Oregon coastal waters. The State of Oregon should examine the cost effectiveness of that system, and identify potential funding mechanisms.

The New Carissa Review Committee finds:

- Tug assistance will at times be needed to stabilize a vessel drifting in Oregon coastal waters following a marine casualty;
- There may not be sufficient randomly available tugboats of adequate configuration to support an International Tug of Opportunity System in Oregon waters;
- Stabilization of a drifting vessel was not an issue in the NEW CARISSA incident because that vessel was nearly aground before anyone other than the vessel crew knew there was a problem; and,
- Given the nature of the incident and the weather conditions, there is not reliable evidence that if an International Tug of Opportunity System had been in place, this crisis would have been averted or the outcome altered. Although, there is some indication that if the circumstances had been different, the lack of a tug could have had a negative material impact. There has been much public debate and speculation concerning whether tug availability might have materially affected outcome. The Review Committee notes that given the facts before the Committee—in particular the weather conditions experienced throughout the response—it would have been very fortuitous if a tug, other than a salvage tug, could have had any impact on outcome.

The International Tug of Opportunity System coordinates the availability of tugboats when a marine vessel needs assistance. The system is offered as a less expensive alternative to strategically stationed, dedicated rescue tugs. The International Tug of Opportunity System tracks the location of participating tugboats as they travel about during the normal course of their business. This real-time tugboat location information can then be used by the US Coast Guard to organize response to a marine vessel incident, such as a propulsion or steering failure. The primary aim of the International Tug of Opportunity System is to facilitate expeditious dispatch of tug assistance to stabilize a drifting vessel. An International Tug of Opportunity System is presently operating in Washington State waters and is funded by vessel assessments per port call.

The effectiveness of the International Tug of Opportunity System is dependent upon tugboat traffic patterns and waterway configuration. Sufficient participation of adequately configured tugboats is necessary to support the system. The type of tugboat

³² See www.itos.org for an explanation of the International Tug of Opportunity System.

traffic should be considered³³ as should waterway geography. The Review Committee finds that waterway configuration and tugboat availability in Oregon waters are different than in Washington waters. Consequently, the benefits Oregon would realize from an International Tug of Opportunity System might vary from those realized by Washington. The State of Oregon should work with the Ports and Waterways Safety Committee to evaluate the benefits of extending the International Tug of Opportunity System to Oregon coastal waters. The State of Oregon should examine the cost effectiveness of that system, and identify potential funding mechanisms.

SALVAGE VESSEL READINESS

Recommendations:

- ◆ The State of Oregon should examine the cost effectiveness of maintaining adequate salvage resources for rapid deployment to the scene of stranded vessels threatening to discharge a hazardous substance into Oregon waters.
- ◆ The State of Oregon should initiate discussions with the US Coast Guard concerning the implementation of a federally funded national salvage plan. Concurrently, the availability of US Navy salvage vessels should be assessed.
- ◆ The State of Oregon should investigate opportunities to partner with neighboring state governments to ensure adequate salvage resources are available on the US West Coast.

There may have been an opportunity to extract the M/V NEW CARISSA from the beach during the days following the grounding on February 4th, and before the vessel began to leak oil four days later.³⁴ Unfortunately, specialized salvage vessels could not be immediately mobilized and did not arrive on the scene ready to work until February 9th. Federal On Scene Coordinator Captain Mike Hall believes that "adequate and timely salvage capability would have significantly mitigated this 'crisis on the coast.'"³⁵ But, the nearest salvage vessel, the SALVAGE CHIEF, was lying idle hundreds of miles away and was not prepared to immediately answer the call for assistance.

The nature of the salvage business is such that work comes in bits and pieces. Salvors never know when the next job will come along, as most salvage work is triggered

³³ Most coastal tug traffic consists of tugboats towing barges carrying materials such as lumber, grain, or oil. In order for such a tugboat to go to the aid of a disabled ship, the tug would have to either cast the barge adrift (with the intention of retrieving it later), moor the barge to a facility, or transfer the tow to a less capable tug. While dry cargo barges pose minimal environmental threat, it should be noted that few tugboat masters would be willing to cast an oil barge adrift when operating off a lee shore, such as the Oregon coast. A drifting oil barge might pose a greater pollution threat than a disabled cargo ship. Some oil barges that ply our shores have over 5 million gallons of capacity.

³⁴ Captain M. J. Hall, *op. cit.*, Volume II, p. 2.

³⁵ *Ibid.*, Volume I, p. 10.

by vessel accidents. It is also possible for salvors to go a long time between jobs. As marine safety standards improve, fewer and fewer accidents occur. While greatly beneficial to the environment, this positive trend has left salvors with fewer and fewer jobs. When the SALVAGE CHIEF received the Responsible Party's first call to mobilize at 9:30 a.m. on Feb 4th, that vessel hadn't worked a substantial salvage job for three years and had been idle for over one year.

According to Fred Devine Diving and Salvage, in years past their SALVAGE CHIEF averaged 65 working days per year responding to mishaps and accidents in the Pacific Northwest and elsewhere. Today, however, the SALVAGE CHIEF is utilized on average only six days per year. With such low-level utilization, the CHIEF's owners must make every effort to reduce operating costs. Therefore, lower fuel and equipment inventories are maintained, and the vessel is crewed with only three people when idle. Necessary additional crewmembers are hired only when the workload demands. Even so, it costs between \$250,000 - \$300,000 annually to operate the SALVAGE CHIEF.

Under ORS 468B.350 both cargo and tank vessel operators are required to have oil spill contingency plans that identify pre-positioned oil spill equipment and personnel. This means that a retainer guaranteeing resource availability, or a similar arrangement, must be entered into with response organizations. The federal Oil Pollution Act of 1990 has similar requirements for tank vessels. But, both the state and federal laws stop short of requiring vessel operators to demonstrate salvage readiness. This means that salvors, unlike spill response organizations, receive no support from industry to maintain their salvage vessels at a level of readiness. They are not paid at all unless they actually work, and the work is getting sparse.

Private salvage resource availability on the US West Coast is insufficient and continuing to decline. Only two salvage vessels capable of refloating a large grounded vessel remain on the US West Coast.³⁶ Reduced frequency of marine accidents, while good for the environment, is driving private salvors out of business and, at the very least, is making it impossible for them to maintain a constant state of readiness. Every marine salvor laments the fact that marine accidents have declined numerically, and corresponding revenue reductions are making it increasingly difficult to remain solvent. The unavoidable result is reduced salvage vessel readiness. **Continued reliance upon private salvage resources, while appropriate in the past, may no longer be viable. Oregon (and the entire US West Coast) may have reached a time when alternative methods must be devised to fund salvage vessel readiness.**

It may or may not be cost effective to subsidize salvage vessels to remain ready on the Oregon coast; the New Carissa Review Committee recognizes that making such a determination will require specific expertise and detailed study. The frequency of incidents requiring immediately available salvage service are few (and, hopefully, becoming fewer). Contrast this with the high cost of maintaining salvage asset readiness and we may conclude that funding even a portion of salvage vessel readiness is not cost effective. **NOTE: This committee makes no determination on this issue. The State of Oregon should examine the cost effectiveness of maintaining adequate salvage resources for rapid deployment to the scene of stranded vessels threatening to discharge a hazardous substance into Oregon waters.**

³⁶ Ibid.

Different funding mechanisms to maintain salvage asset readiness should be considered. For instance, salvage readiness could be funded all or in part by state government(s), the federal government, industry, or potentially responsible underwriters. It has been recommended that the US Coast Guard "identify and implement a funding system which [sic] would provide rapid salvage vessel response coverage to protect the environmentally rich and sensitive coast of the US."³⁷ There may be an opportunity for the State of Oregon to initiate discussions with the US Coast Guard and Oregon's federal delegation to encourage the implementation of a federally funded national salvage plan. Concurrently, the availability of US Navy salvage vessels should be assessed.

The New Carissa Review Committee notes that salvage vessel readiness is a US West Coast issue, not just an Oregon issue. The State of Oregon should investigate opportunities to partner with neighbor state governments to ensure adequate salvage resources are available on the US West Coast.

³⁷ Ibid.

III.

MARINE SPILLS—PREVENTION AND PREPAREDNESS

Marine spill prevention and preparedness should be a high priority in the State of Oregon. Aside from the direct negative impacts, oil spilled to the marine environment could trigger a series of events that would adversely affect the Oregon economy. Oregon is crisscrossed with waterways that are home to species listed under the federal Endangered Species Act. Most of the waterways that do not have listed species flow into waterways that do. The bottom line: it is likely that any oil spilled to an Oregon waterway could adversely impact species listed as threatened or endangered under the Endangered Species Act. Severe impacts to such species could trigger an uplisting.

Endangered Species Act uplistings can have devastating affects on the Oregon economy. Past uplistings of species to threatened or endangered status under the Endangered Species Act have resulted in the imposition of severe restrictions on Oregon industry³⁸ and recreational use. Oregonians can ill afford further economic and recreational restrictions resulting from the uplisting of species under the Endangered Species Act.

Marine spill prevention should be viewed as the primary method to protect Oregon's waters from oil spills. Nevertheless, Oregonians must be prepared to respond should an accident occur. Response plans and equipment must be in place prior to a spill. Additionally, well-trained personnel must be ready to implement the plans, deploy the equipment, and work together effectively towards the common goal of protecting Oregon's health, welfare, and natural resources.

³⁸ Both the fishing and timber industries have been impacted as the result of measures taken to protect Endangered Species Act listed species in Oregon. Logging on federal land west of the Cascades declined by more than 80% after the federal government listed the northern spotted owl as a threatened species. 1999 federal uplisting of 13 runs of salmon and steelhead in the Northwest's urban core promises to touch nearly everyone, affecting everything from business to car washing. Jonathan Brinckman, "Fish Listing Certain to Jolt Region," The Oregonian, (January 31, 1999).

STATE OIL SPILL PREVENTION FUND

Recommendations:

- ◆ The State of Oregon should recognize that marine spill prevention, preparedness, and response is a state priority and not just a shipping industry issue.
- ◆ The State of Oregon should investigate additional funding sources for the State Oil Spill Prevention Fund established under ORS 468B.410, and advise the findings to the 2001 Legislature.
- ◆ The State of Oregon should evaluate whether the current covered vessel/facility fees are adequate to fund the State Oil Spill Prevention Fund established under ORS 468B.410 and advise the findings to the 2001 Legislature.

The State of Oregon collects fees from covered vessels³⁹ and facilities to recover their costs to review the plans and conduct the inspections, exercises, training and activities required under ORS 468B.345 to ORS 468B.400. ORS 468B.405 requires collection of \$25 from every cargo vessel and \$28 from every tank barge calling in Oregon waters. Additionally, a \$650 fee is collected per tanker call and a \$3,000 fee is collected per year from each facility, with a \$153,600 maximum annual cap on total tanker/facility collections. All collected fees are credited to the Oil Spill Prevention Fund established under ORS 468B.410.⁴⁰

Under this fee system, the burden to provide marine spill preparedness in Oregon is shouldered entirely by covered marine vessels and facilities in state waters.⁴¹ But, marine spills often occur from sources other than covered vessels and facilities. For example, fishing boats, tour boats, tugboats, train cars, tank trucks and pipelines have spilled oil to the marine environment, but these potential spill sources are overlooked by the structure that funds the State Oil Spill Prevention Fund.⁴² The State of Oregon should recognize that marine spill prevention, preparedness and response is a state priority and not just a shipping industry issue. Oregon should investigate additional funding sources for the State Oil Spill Prevention Fund established under ORS 468B.410, then advise findings to the 2001 Legislature.

³⁹ "'Covered vessel' means a tank vessel, cargo vessel or passenger vessel." ORS 468B.300(5).

⁴⁰ The Oil Spill Prevention Fund pays for the State's costs to "(A) Review the contingency plans submitted under ORS 468B.360; (B) Conduct training, response exercises, inspection and tests in order to verify equipment inventories and ability to prevent and respond to oil release emergencies and to undertake other activities intended to verify or establish the preparedness of the State, a municipality or a party required by ORS 468B.345 to 468B.415 to have an approved contingency plan to act in accordance with that plan; and, (C) Verify or establish proof of financial responsibility required by ORS 468B.390." ORS 468B.450(4)(a)(A)-(C)

⁴¹ See ORS 468B.345.

⁴² Additionally, vessels transiting the Oregon coast outside of state waters pose an oil spill risk, but escape the funding mechanism.

The fees collected by the State of Oregon under this system are not adequate to fully recover the State's costs of conducting the activities required under ORS 468B.345 to ORS 468B.400. As a result, many mandated oil spill prevention and preparedness activities cannot be accomplished. For example, there is currently insufficient funding to adequately accomplish the following mandates of ORS 468B.395:

- In cooperation with other natural resource agencies, develop a method of natural resource valuation that fully incorporates non-market and market values in assessing damages resulting from oil discharges;
- Work with other potentially affected states to develop a joint oil discharge prevention education program for operators of fishing vessels, ferries, ports, cruise ships and marinas;
- Review the adequacy of and make recommendations for improvements in equipment, operating procedures and the appropriateness of west coast locations for transfer of oil;
- In cooperation with industry and the US Coast Guard, develop local programs to provide oil discharge response training to fishing boat operators and marinas;
- Coordinate oil spill research with other west coast states and develop a framework for information sharing and combined funding of research projects;
- On the Oregon coast, assist affected local agencies and industry groups to complete an inventory of existing plans and resources and to identify or establish an organization to coordinate oil spill contingency planning as part of the alternative schedule adopted for the Oregon coast described in ORS 468B.355 (1); and,
- Where adequate resources do not exist to prevent, contain, clean up and mitigate potential oil spills, assist local agencies and industry groups to secure necessary funds and equipment.

Covered vessel/facility fees have languished unchanged since instituted by statute in 1991. The State of Oregon should evaluate whether the current covered vessel/facility fees are adequate to fund the State Oil Spill Prevention Fund established under ORS 468B.410, and advise the findings to the 2001 Legislature.

MARINE OIL SPILL PREPAREDNESS—STATEWIDE COORDINATION

Recommendations:

- ◆ The State of Oregon should ensure that appropriate amounts of boom and response equipment are pre-positioned statewide, including remote inland and coastal areas not associated with major seaports.
- ◆ The State of Oregon should research the viability of alternative funding mechanisms that maintain spill containment/response equipment and trained response personnel at adequate levels statewide, and do not create the regional economic disincentives inherent in our present system.

Marine vessels are required to submit and obtain approval of an oil spill prevention and emergency response plan (contingency plan) prior to operating within the navigable waters of the State of Oregon.⁴³ Contingency plan standards are prescribed in ORS 468B.350. In general, those standards require the operator of a covered vessel to describe spill prevention and response measures, arrange for pre-positioned oil spill containment and response equipment at strategic locations, and have access to trained response personnel in the event of a spill. Covered vessels must submit contingency plans, which must be approved prior to entry onto state waters.

The responsibility to submit a contingency plan rests with the owner, operator, or agent of a covered vessel. Alternatively, "[t]he requirements of submitting a contingency plan . . . may be satisfied by a covered vessel by submission of proof of assessment participation by the vessel in a maritime association."⁴⁴ Under "assessment participation" a covered vessel is assessed a per-trip fee by an organization offering enrollment under a pre-approved contingency plan. It is generally more cost effective for an infrequent caller to pay the per-trip fee in return for one-time coverage under a pre-approved plan than it is to prepare a proprietary plan for submission and approval. Pre-approved plans are offered by the Maritime Fire & Safety Association in the Columbia River System and by the Coos Bay Response Cooperative in the Port of Coos Bay.

The fees collected by Maritime Fire & Safety Association and Coos Bay Response Cooperative are used primarily to fund oil spill response resources in the areas where covered vessels trade. As a result, the Willamette and Lower Columbia Rivers are highly prepared to deal with a marine spill because of the many covered facilities located there and because of the high volume of covered vessel traffic. But, other coastal and inland areas, such as Yaquina Bay, have minimal preparedness because few if any covered vessels are bound for those areas.⁴⁵

⁴³ See ORS 468B.345.

⁴⁴ ORS 468B.355(7).

⁴⁵ The spill response co-ops do not maintain response equipment in a state of readiness in isolated coastal areas. The US Coast Guard does maintain small quantities of spill containment boom at various coastal locations, and some private equipment caches exist as well.

Even though there are few, if any, covered vessels bound for much of Oregon's coastal areas, those areas are still exposed to some risk. Any vessel disabled off the Oregon coast is in danger of being driven ashore by environmental conditions similar to those that drove the NEW CARISSA onto the beach at Coos Bay. While it is more likely for a shipwreck to occur in heavily trafficked areas, a disabled ship could be driven ashore anywhere along the Oregon coast. Also, as previously discussed, marine spills can occur in inland areas as well.⁴⁶ The State of Oregon should ensure that appropriate amounts of boom and response equipment are pre-positioned statewide, including remote inland and coastal areas not associated with major shipping activities.

Regions with more covered vessel traffic have a broader funding base to support marine spill prevention and preparedness. On its surface, this seems appropriate because areas with greater traffic have greater risk. Nevertheless, some ports with lower traffic (e.g. Coos Bay and Yaquina Bay) still have risk, but traffic volumes have eroded to the point that higher assessments are necessary to maintain an adequate level of readiness.

At present, in the Columbia River System the per-trip fee assessed for cargo vessels is \$200. However, Coos Bay's declining traffic volumes have driven per-trip fees up to \$925. This fee disparity creates an economic disincentive for vessels to use the port of Coos Bay. The fee disparity problem is particularly acute in Yaquina Bay where vessel traffic levels are so low that it is impossible to maintain an effective response system funded solely with vessel per-trip fees. The State of Oregon should research the viability of alternative funding mechanisms that maintain spill containment/response equipment and trained response personnel at adequate levels statewide, and do not create the regional economic disincentives inherent in our present system. Consideration should be given, but not limited to, uniform statewide per-trip fees and/or partial state financing in areas with a low funding base.

⁴⁶ Tank truck and rail car accidents can result in marine spills in remote inland areas.

SPILL RESPONSE TRAINING

Recommendations:

- ◆ The State of Oregon should ensure that all state and local emergency responders (Oregon Department of Environmental Quality, Oregon Division of State Lands, Oregon Department of Fish and Wildlife, Oregon Parks and Recreation Department, Oregon Department of Agriculture, Oregon Emergency Management, Oregon Department of Transportation, and tribal representatives) who might be called upon to participate in a major response during the course of their employment receive adequate basic spill response training that includes training in the basic elements of the National Interagency Incident Management System model Incident Command System.
- ◆ The State of Oregon should partner with federal and local responders, and industry to plan, arrange, and conduct periodic emergency drills and exercises. Federal, state, local, tribal, and private response resources should participate.
- ◆ The State of Oregon should allocate sufficient resources to allow state emergency responders to take advantage of the training opportunities afforded by the 1993 States/BC Oil Spill Task Force Mutual Aid Agreement allowing member agencies to share expertise and equipment. This agreement allows state spill responders to participate in actual spill events in the other West Coast States and take advantage of the training opportunity afforded by hands-on experience in a real event.

An effective response effort requires trained responder participants. While some key responders require a higher level of training, all responders need to learn the basics of the National Interagency Incident Management System model Incident Command System. All responders need to train in the system, and practice the system in drills and exercises to improve their skills and learn how to work together. The end result should be better coordination, better communication, and better cooperation.

During a major incident, such as the NEW CARISSA grounding and oil spill, many people from many different agencies, organizations, and governments are called upon to participate in the response effort as part of the unified command organization. Before the NEW CARISSA response ended, 58 different agencies and groups, and 700 people participated in the response.⁴⁷ **Many came to this event without the benefit of training in the basic elements of the National Interagency Incident Management System model Incident Command System. Many also lacked basic spill response training and had never participated in a spill drill or exercise.** During this committee process

⁴⁷ Captain M. J. Hall, *op. cit.*, Volume I, Preface.

many agencies and industry groups⁴⁸ have noted the need for increased training, drilling and exercising of state and local emergency responders.

The Committee received testimony citing various degrees of confusion, poor communication, and inadequate coordination during the first few weeks of the NEW CARISSA spill response. But, cooperation, communication, and coordination improved as the response progressed. It is apparent that there was a steep initial learning curve that took time to overcome. Responders had to learn how the response system worked, what their role in the system was, and how to work with co-responders. The initial days of the emergency became the drill for many.

In order for our emergency responders to make good, coordinated decisions during the initial phase of an emergency, they must arrive at an event with adequate training. The State of Oregon should ensure that all state and local emergency responders (Oregon Department of Environmental Quality, Oregon Division of State Lands, Oregon Department of Fish and Wildlife, Oregon Parks and Recreation Department, Oregon Department of Agriculture, Oregon Emergency Management, Oregon Department of Transportation, and tribal representatives) who might be called upon to participate in a major response during the course of their employment receive adequate basic spill response training that includes training in the basic elements of the National Interagency Incident Management System model Incident Command System.⁴⁹ Additionally, the State of Oregon should partner with federal and local responders and industry to plan, arrange, and conduct periodic emergency drills and exercises. Federal, state, local, tribal, and private response resources should participate.

The appropriate level of training and drilling will vary from one agency to another and from one individual to another. The level of training and drilling that a particular person should receive will depend on their anticipated level of involvement in the response organization. Nevertheless, all that might come to such an event should have a basic level of understanding beforehand.

An additional training opportunity exists for key Oregon emergency responders. The 1993 States/BC Oil Spill Task Force Mutual Aid Agreement allows member agencies to share expertise and equipment. Under this agreement, Oregon emergency responders could be provided to neighbor states as an additional resource during actual emergencies. This would allow Oregon emergency responders to gain valuable experience responding to actual events in neighboring states and to better prepare for future emergencies. Thus far, state agency staff levels have prevented Oregon from taking advantage of this valuable training opportunity. The State of Oregon should allocate sufficient resources to allow state emergency responders to take advantage of this training opportunity.

NOTE: There was considerable testimony about the significant power held by the Responsible Party On Scene Coordinator and the Federal On Scene Coordinator during the crisis. The lack of power exercised or felt by state agencies in the process may in part be attributable to their lack of training and comfort level with the unified command structure and process.

⁴⁸ Maritime Fire & Safety Association, Oregon Emergency Management, Oregon Department of Fish and Wildlife, Oregon Department of Environmental Quality, Oregon Division of State Lands, and States/British Columbia Oil Spill Task Force.

⁴⁹ Basic spill response training encompasses topics such as HAZMAT, HAZWOPER, emergency response training, oil spill response planing, etc.

AGENCY DEBRIEFING

Recommendation:

- ◆ All state agencies that were involved in the M/V NEW CARISSA oil spill response should conduct interagency debriefings to identify specifically what was done well, what was not done well, and where better interagency coordination is needed. Post-incident interagency debriefings should always be required after a major multi-agency response.

Many interagency coordination issues were raised during the Committee's review of the response. The Committee expressed disappointment at their November 1999 meeting because so many months had elapsed and few, if any, interagency debriefings had taken place. Although a limited response was still ongoing, the majority of the response structure was no longer involved by May 1999.⁵⁰

Post-incident interagency debriefings should always be required after a major multi-agency response. All significantly involved state agencies should participate. All state agencies that were involved in the NEW CARISSA oil spill response should conduct interagency debriefings to identify specifically what was done well, what was not done well, and where better interagency coordination is needed. Involved federal agencies should be invited to participate as well. This should be accomplished as soon as practical. **NOTE: At the writing of this report, it is still not evident that there has been comprehensive interagency debriefing of the primary participants in the NEW CARISSA crisis. This is unfortunate and should be remedied.**

GEOGRAPHIC RESPONSE PLANS

Recommendations:

- ◆ The State of Oregon should work with the NW Area Committee Geographic Response Plan Workgroup to update Geographic Response Plan content more frequently and address Geographic Response Plan coverage gaps.
- ◆ The State of Oregon should work with the NW Area Committee Geographic Response Plan Workgroup to ensure Geographic Response Plans are field verified more frequently.

Geographic Response Plans offer pre-planned spill response strategies. They are intended to guide initial response efforts during the emergent phase of a spill event and

⁵⁰ The Federal On Scene Coordinator determined that the substantial threat of a discharge was mitigated on May 20, 1999. Captain M. J. Hall, *op. cit.*, Volume II, p. 23.

before a unified command can be geared up. Usually this lasts no more than 24 hours. Thereafter, unified command decisions guide the response; however, the Geographic Response Plans can be used as a tool to assist decision-making.

The NW Area Committee Geographic Response Plan Workgroup is tasked with maintaining Geographic Response Plan content. Maintaining Geographic Response Plan content is an ongoing process. Contact information changes constantly as does our knowledge of wildlife populations and locations. Additionally, field verification often reveals inadequacies in response strategies that must then be reviewed and documented.

The New Carissa Review Committee has received input indicating that Geographic Response Plan content needs to be assessed for completeness and consistency, and updated more frequently. "The information in the Geographic Response Plans is somewhat dated and in places is incomplete. The plans should be updated and consideration given to storing the information on computers using emergency management software."⁵¹ Coverage gaps in Oregon's Geographic Response Plan system have also been identified.⁵² The State of Oregon should work with the NW Area Committee Geographic Response Plan Workgroup to update and field verify Geographic Response Plan content more frequently and address Geographic Response Plan coverage gaps.

The New Carissa Review Committee notes that since the New Carissa response, a section identifying commercial aquaculture has been included in Oregon Geographic Response Plans and a revision of the Coos Bay Geographic Response Plan has been undertaken. This revision will incorporate information learned during the New Carissa response into the Coos Bay Geographic Response Plan.

As part of the Geographic Response Plan update system, a mechanism should be created to rapidly integrate biological baseline and mapping information (see "Biological Baseline and Mapping" recommendation immediately following) into the Geographic Response Plan system without having to await the next scheduled Geographic Response Plan revision or update. As biological information is mapped and cataloged, it should be immediately integrated into the Geographic Response Plan system, or at least made easily accessible.

⁵¹ *Ibid.*, p. 32.

⁵² ORS 468B.495 directs DEQ to develop "an integrated, interagency response plan for oil or hazardous material spills in the Columbia River, the Willamette River up to Willamette Falls and the coastal waters and estuaries of the state." The Northwest Area Contingency Plan and its associated Columbia River Geographic Response Plans and five coastal Oregon Geographic Response Plans satisfy the requirement of this statute. There are no "gaps" in the coverage required by the statute. But, the statute does not reach the other inland waters of the State, where the majority of oil and hazardous substance spills in fact occur.

BIOLOGICAL BASELINE AND MAPPING**Recommendations:**

- ◆ The State of Oregon should ensure that a state agency or similar group (e.g., Ocean Policy Advisory Council, Oregon Parks and Recreation Department, Oregon Division of State Lands, Oregon Department of Fish and Wildlife, etc.), or a university coordinates the collection of existing biological data into a central storehouse. Such coordination should include the following: identifying what baseline biological information exists within the various state and federal agencies, making all information centrally accessible, and identifying biological information gaps.
- ◆ The State of Oregon should fund and staff Oregon Department of Fish and Wildlife to conduct thorough surveys of fish, shellfish, wildlife, and other natural resources in areas as necessary to fill in the identified biological gaps. Such funding should be from a source other than license fees.
- ◆ The State of Oregon should ensure that a state agency or similar group (e.g., Ocean Policy Advisory Council, Oregon Parks and Recreation Department, Oregon Division of State Lands, Oregon Department of Fish and Wildlife, etc.) utilizes a Geographic Information System to map important fish and wildlife areas along the Oregon coast in sufficient resolution that the maps could be used by clean-up crews, survey crews, volunteers and the public.

Baseline biological information is necessary in order to make good response decisions and assess natural resource damage after an incident. Accurate knowledge of the existence, location, and population of resources is needed to making good resource-protective response decisions. Knowing where and in what quantity a particular resource resides is equally important. Without this knowledge, it is difficult, if not impossible, to protect wildlife and natural resources. Responders cannot implement measures to protect that which they do not know exists.

Baseline biological information is also necessary to accurately assess the extent of natural resource damage after an incident. Most damage assessments are comparative in nature. Thus, if it is not known what existed prior to an event, then there is no baseline against which to compare post-incident data, and the damage assessment process is less effective.

Biological baseline information is needed prior to a spill. In the case of the NEW CARISSA, biologists had approximately four (4) days from the initial accident prior to the first release of oil in which to collect missing baseline data in potentially affected areas. But, Oregonians cannot always count on such good fortune. Had NEW CARISSA gone ashore on a rocky coastline, release would have been immediate, and there would have been no opportunity to collect missing data. Only by building and maintaining good

baseline biological information can we be certain that we are prepared to assess actual damage resulting from a marine spill event in Oregon.

Oregon does not have an adequate central storehouse of baseline biological data. Some baseline biological information exists; however, it exists in bits and pieces, and it is housed in different locations. Oregon Department of Fish and Wildlife, Oregon Division of State Lands, Oregon Parks and Recreation Department, and other agencies all have ownership of portions of this information. But, no single agency is funded or tasked with gathering all this data into one central database or coordinating collection efforts to prevent duplication. The State of Oregon should ensure that a state agency or similar group (e.g., Ocean Policy Advisory Council, Oregon Parks and Recreation Department, Oregon Division of State Lands, Oregon Department of Fish and Wildlife, etc.), or a university coordinates the collection of existing biological data into a central storehouse. Such coordination should include the following: identifying what baseline biological information exists within the various state and federal agencies, making all information centrally accessible, and identifying biological information gaps.

After determining what biological data is missing, Oregon should conduct surveys to fill in the identified information gaps. The State of Oregon should fund and staff Oregon Department of Fish and Wildlife to conduct thorough surveys of fish, shellfish, wildlife, and other natural resources in areas as necessary to fill in the biological gaps. Such funding should be from a source other than hunter/fisher license fees (See "Oregon Department of Fish and Wildlife Funding Base" recommendation *infra*).

Once collected, this biological information needs to be mapped in a format allowing easy access to information, and utilization at various levels. Oregon presently does not have detailed maps of fish and wildlife resources along the coast. Current maps provide neither sufficient resolution nor adequate coverage. The State of Oregon should ensure that a state agency or a similar group (e.g., Ocean Policy Advisory Council, Oregon Parks and Recreation Department, Oregon Division of State Lands, Oregon Department of Fish and Wildlife, etc.) utilizes a Geographic Information System to map important fish and wildlife areas along the Oregon coast in sufficient resolution that the maps could be used by clean-up crews, survey crews, volunteers and the public. **NOTE: The lack of good scientific data is a problem that crops up in other natural resource issues as well. The collection of baseline data could be useful in other venues as well.**

SPILL RESPONSE EQUIPMENT--STATEWIDE DATABASE**Recommendation:**

- ◆ The State of Oregon should create and maintain a statewide database of spill response equipment inventories and locations that includes all response resources, both public and private.

Different organizations (spill response cooperatives, private maritime stakeholders, US Coast Guard, etc.) maintain caches of spill response equipment in different locations statewide. Various equipment inventories and equipment databases are maintained, but none are universal. Furthermore, the State of Oregon does not have an accurate accounting or coordinated inventory of the type, quantity, location or ownership of these resources. The State of Oregon should create and maintain a statewide database of spill response equipment inventories and locations that includes all response resources, both public and private. This inventory should be made readily available to emergency responders statewide. As a part of this effort, equipment made available through memorandums of understanding and other agreements should also be identified.

Some spill response corporations provide advance training in HAZMAT and response equipment deployment to fishing vessels. These pre-trained vessels are then available during a spill event as vessels-of-opportunity, and can be folded into the response effort as needed. It might be advisable to identify less obvious resources such as these in Oregon's statewide database.

IV.

INCIDENT RESPONSE MANAGEMENT

The New Carissa Review Committee has heard some testimony critical of the Incident Command System.⁵³ Others thought the system worked well.⁵⁴ While it is clear that many were dissatisfied with how the system functioned, it is difficult to discern exact reasons for that dissatisfaction. Dissatisfaction could be attributed to systemic flaws, the Incident Command System structure itself, misunderstandings of how the Incident Command System functions, and/or actual execution problems that occurred during the crisis. The New Carissa Review Committee has not reached a consensus on the sources or causes of the dissatisfactions that were raised.

It is evident that there is a constant tension between keeping the unified command small enough to take quick and decisive action in an emergency and allowing broader participation in decision-making. As an example, some believe that a Local On Scene Coordinator should automatically be included in the unified command as a matter of right, while others feel that a local incident commander should be brought into the unified command only when the incident demands such inclusion.

The Committee believes that it is important for local government to be represented in the unified command organization. Local officials can and should be integrated into the response organization. Local representatives have a responsibility to participate. But in what capacity should they serve within the response organization? **NOTE: On this point the Committee did not reach consensus.** Some felt that local interests were sufficiently strong during the NEW CARISSA response to require inclusion of a local incident commander as a Local On Scene Coordinator in the unified command. Others felt that efficiency demanded centralization of authority in a smaller group of incident commanders tailored to the incident. There are compelling arguments for each point of view.

Another issue concerns the adequacy of information flow between the response organization and local entities. In particular, concerns were raised about adequate information flow to local officials from a unified command that does not include a Local On Scene Coordinator. A similar concern was raised regarding the flow of information (about available local resources) from locals to the response organization. Many feel that inclusion of a Local On Scene Coordinator within the unified command would do much to resolve these potential problems. The Committee finds that at a minimum there should be a high-level position created within the response organization that would be responsible for representing and elevating local interests. Such a position, while not actually participating in unified command decisions, could facilitate information flows to local officials and coordinate the availability of local resources.

The present Incident Command System might not be the most perfect vehicle in the world; however, it is difficult to identify what, if any, systemic changes should be made.

⁵³ See Appendix K, "Testimony of Oregon Department of Fish and Wildlife before the New Carissa Review Committee"; Appendix N, "Testimony of Cindy Sardina, Umpqua Aquaculture, Inc., Winchester Bay"; and Appendix O, "Testimony of Lilli Clausen, Clausen Oysters, Coos Bay."

⁵⁴ Captain M. J. Hall, *op. cit.*, Volume I, p. 9.

As noted above, some committee members feel that increased training and public education will go a long way toward solving many perceived Incident Command System problems. We are left with two basic choices: we can make the present system work better, or we can change the system. Many have offered a training solution to make the present system work better. Others advocate systemic changes. Regardless of which solution we choose, we will have to train for success, because one thing is certain, no vehicle we devise will function satisfactorily unless we know how to drive it.

The Northwest Area Contingency Plan is the response plan for Washington, Oregon and Idaho, and requires spill incidents to be managed according to the following principles:

- Incident Command System - The signatory agencies^[55] will use the National Interagency Incident Management System model Incident Command System.
- Unified Command - When more than one of the signatory agencies arrive on-scene to participate in managing a response action, the agencies will utilize a unified command structure to jointly manage the spill incident. In the Unified Command, whenever possible, decisions with regard to the response will be made by consensus and documented through a single Incident Action Plan. When a consensus cannot be reached, the Federal On Scene Coordinator has the ultimate decision-making authority.
- Tribal and Local Government On Scene Coordinators - The unified command may incorporate additional tribal or local government on scene coordinators into the command structure as appropriate.
- Responsible Party Command Structure - The person or persons responsible for a spill incident shall utilize an incident command system which is capable of rapidly and readily integrating into the National Interagency Incident Management System based Incident Command System/Unified Command organization utilized by the Northwest Area Contingency Plan signatory agencies.⁵⁶

⁵⁵ US Coast Guard, US Environmental Protection Agency, Washington Department of Ecology, Oregon Department of Environmental Quality, and Idaho Hazardous Materials Bureau.

⁵⁶ Northwest Area Committee, Northwest Area Contingency Plan, Change 4 (November 1998), p. 1-9.

LOCAL AND TRIBAL INVOLVEMENT IN INCIDENT COMMAND SYSTEM**Recommendation:**

- ◆ The State of Oregon should work with the NW Area Committee to establish a Local Government Representative position either within or collateral to the Incident Command System. The Local Government Representative should work closely with the State On Scene Coordinator, the Logistics Section, the Liaison Officer, and Oregon Emergency Management.

The information flow between the Unified Command and local officials, agencies, tribes, etc., during the NEW CARISSA oil spill response, did not meet the expectations of many local officials, particularly during the early days of the event. Local officials noted their inability to respond to community concerns because they lacked accurate, timely information about Unified Command decisions. Many felt they were being excluded from the process. This lack of information and involvement led to confusion, frustration, and anger.

For example, the dissemination of misinformation combined with a lack of timely, accurate information from the Unified Command about their decision to burn the oil remaining on board the NEW CARISSA caused needless anxiety for many in the affected local communities. According to the US Coast Guard, "[t]he dissemination of conflicting information by State and local health agencies caused a certain amount of consternation and confusion in the local community. One local health authority acted independently (without the knowledge of the Unified Command) to notify local schools to close early and advised parents to keep their children indoors."⁵⁷ This warning was contrary to the Unified Command's determination that the health risk to the local community associated with the burn was extremely low.⁵⁸ Not only was the wrong information communicated, the information was apparently communicated through improper channels,⁵⁹ which added to the confusion. While this miscommunication apparently did not originate with the Unified Command, a good flow of accurate information from the Unified Command to community representatives could have done much to quell the confusion.

Local officials and tribal representatives must be informed of response activities and decisions in order for them to carry out their responsibilities to their communities. The local community expects their elected officials to know and understand what decisions are being made by the unified command, particularly when those decisions might affect the community. Local officials, agencies, and tribal representatives from affected areas want to be kept informed. Local officials and tribes not only have a right to participate in the emergency response organization, they have a responsibility to participate. Additionally, accurate, timely, and dependable information

⁵⁷ Captain M. J. Hall, *op. cit.*, Volume II, p. 10.

⁵⁸ *Ibid.*

⁵⁹ Apparently the miscommunication was not made in accordance with the local Emergency Management Plan and was not made through Coos County Emergency Services. Had the local Emergency Services Manager, who knew the correct protocol for school evacuation, been involved, it is likely that confusion could have been minimized and perhaps eliminated.

from those in charge of the response goes a long way towards mitigating the problems associated with miscommunications and rumors, which must be expected during any emergency.

Local officials, agencies, tribes and citizens want to be able to provide input into the unified command. Sometimes large response organizations are staffed predominantly with outsiders who have little knowledge about the local community and the resources available therein. Local community representatives and leaders need to be engaged early on in an incident so that the response organization can benefit from their in-depth knowledge of the skills, abilities, and resources available in the local community.

If locals are not involved, it is possible to overlook valuable local resources that might be utilized by the response organization. For example, the Coos Bay Fire Department, in cooperation with the State Office of the Fire Marshal, operates a HAZMAT team. Some believe that this local resource might have been helpful during the initial phase of the incident, but the team was never activated.⁶⁰ Whether or not this was an oversight or was intentional is not known.

The State of Oregon should work with the NW Area Committee to establish a Local Government Representative position either within or collateral to the Incident Command System. The Local Government Representative should work closely with the State On Scene Coordinator, the Logistics Section, the Liaison Officer, and Oregon Emergency Management. The California model⁶¹ describes the general duties of the Local Government Representative. Local Government Representatives should be trained and should participate in drills. As an alternative, anytime there is not a Local On Scene Coordinator or a Local Government Representative designated within the Incident Command System, the State On Scene Coordinator should be obligated to appoint a Local Government Representative collateral to the Incident Command System.

The local county emergency managers could serve effectively as the local representative during an emergency. As Local Government Representative, they would be the first point of contact between the response organization and local officials, work closely with the Liaison Officer, and facilitate access to local resources through coordination with the Logistics Section. Additionally, the Local Government Representative could coordinate with Oregon Emergency Management to ensure state and local response efforts are aligned. **NOTE: The Committee felt that it is incumbent upon the State On Scene Coordinator to establish a Local Government Representative anytime there is not a Local On Scene Coordinator included in the unified command. This is primarily due to the feeling that the Federal On Scene**

⁶⁰ See Appendix T, "Coos Bay Fire and Rescue Department letter to the Mayor and City Manager of Coos Bay (September 10, 1999)."

⁶¹ See the Area Contingency Plan for the California North and Central Coast at Internet site: <http://www.uscg.mil/d11/msosf/dprtmnts/plan/acp+.htm>. The California model uses a Local Government Representative. The Local Government Representative is not a member of the unified command, but works closely with the State On Scene Coordinator. The Local Government Representative's major responsibilities include; representing the local government, obtaining briefings from the Liaison Officer or the State On Scene Coordinator, assisting the Liaison Officer with notifications to other local agency representatives and key local personnel, providing the Liaison Officer with pertinent information on the availability of local resources, and working closely with the State On Scene Coordinator in an advisory role while attending meetings.

Coordinator and Responsible Party On Scene Coordinator are less than supportive of local input.

A Tribal Government Representative with similar duties and responsibilities should be established whenever a spill might affect tribal resources unless a Tribal On Scene Coordinator is included in the unified command. This will ensure that the interests of sovereign tribal governments are fully represented during the response process.

VOLUNTEER ORGANIZATION AND MANAGEMENT

Recommendations:

- ◆ The State of Oregon should determine what roles are appropriate for volunteers, how to incorporate volunteers into the Incident Command System, and how to manage volunteers during a response.
- ◆ The State of Oregon should determine the feasibility of allocating funds to maintain an organization tasked with identifying, organizing, and pre-training potential emergency volunteers statewide, and then managing that organization during a spill.

Oregon is not prepared to utilize volunteers as a spill response resource because inadequate preparations have been made to seamlessly integrate volunteers into a large-scale response. There is no volunteer program in place. Volunteers are not pre-trained. No call-out mechanism exists. No roster of potential volunteers is maintained.

The Committee recognizes Oregonians, 1) are very volunteer oriented, 2) have a strong sense of community, and, 3) will want to help during any emergency. However, Oregon is not prepared to, 1) utilize volunteers as a spill response resource, 2) manage volunteers during a spill response, or 3) deal effectively with volunteers in those cases where volunteer involvement is not appropriate.

There are many uses for volunteers during a response. Volunteers can manage administrative functions. Additionally, volunteers can pre-clean at-risk beaches by removing wood and debris before oil arrives. This facilitates subsequent oil removal by professional responders. Volunteers can also do low-impact oil spill remediation after the oil is no longer considered toxic. These response activities are examples of the many activities appropriate for volunteer involvement, as they do not expose volunteers to toxic substances.

Oregon should also recognize that some tasks are not appropriate for volunteers and should be undertaken only by professional spill responders. Some spill response tasks would place untrained volunteers at risk and, therefore, are only appropriate for professional responders. This needs to be considered when designing any volunteer program. Additionally, the professional spill responders should be utilized even when many volunteers are available. Otherwise, the professional responders might not be available in the future.

It may not be appropriate to force a Responsible Party to use volunteers. A Responsible Party that is acting responsibly and paying for response resources should retain their right to decide who will actually perform response tasks. A Responsible Party might prefer to pay for professional responders, and not assume the potential liabilities associated with using volunteers. Determination of appropriate volunteer involvement should be limited to determination of how volunteers should be used if the unified command decides they are needed and wanted.

Any system of volunteer management must anticipate the need to manage volunteers when volunteer involvement in the response is not appropriate and/or not desired. There are serious potential problems associated with unmanaged "on-scene" volunteers. First, there are personal safety issues. Logs in the surf zone, high waves, or exposure to spilled toxic substances can injure unmanaged volunteers who engage in beach clean-up. Also, there are problems associated with turning volunteers away from an event when volunteers are either not needed or not wanted. Negative public relations is the likely result when volunteers are turned away. Such situations must be managed correctly. The public has a legitimate need to feel engaged when an incident occurs in their backyard. Whenever volunteers are turned away, it is crucial to explain "why."

The State of Oregon should assess volunteer utilization in incident response to include preparation, planning, pre-training, and utilization during emergency. The State of Oregon should determine what roles are appropriate for volunteers, how to incorporate volunteers into the Incident Command System, and how to manage volunteers during a response. All aspects of volunteer involvement during emergencies should be examined, including:

- Preparation for volunteer involvement;
- Pre-planning volunteer involvement;
- Pre-training potential volunteers;
- Managing volunteers during an incident;
- Creating a mechanism to address liability issues;
- Dealing with volunteers when none are needed; and,
- Funding mechanisms to ensure Oregon is continuously prepared to get the most out of volunteers.

In the past Oregon had an organization that organized, trained, and managed volunteers,⁶² however, it was discontinued in 1997 due to funding shortfalls. The State of Oregon should determine the feasibility of allocating funds to maintain an organization tasked with identifying, organizing, and pre-training potential emergency volunteers statewide, and then managing that organization during a spill. If Oregon establishes a volunteer program in the future, then Oregon should provide a stable and dedicated fund base to assure program continuance. **NOTE: During this incident the need for volunteers was limited. However, had this spill developed more quickly or escalated in size, the need for volunteers may have increased.**

⁶² The SOLV-SOS volunteer training program educated Oregonians about the risks from spills, trained potential volunteers in proper spill response techniques and the Incident Command System, and managed an emergency volunteer call-up system.

RESPONSIBLE PARTY ON SCENE COORDINATOR—AUTHORITY IN UNIFIED COMMAND

Recommendations:

- ◆ The State of Oregon should ensure that the State On Scene Coordinator is empowered and encouraged to retain outside expertise if; 1) it becomes apparent that such expertise is necessary for the State On Scene Coordinator to function as an equal partner with the Responsible Party On Scene Coordinator, and 2) the State On Scene Coordinator believes reliance on the federal partner may not adequately protect the State's interest.
- ◆ The State of Oregon should create and maintain a contact list of experienced contractors and experts who might be needed by the State during a major spill event.

The Committee is concerned about the level of influence the Responsible Party On Scene Coordinator is able to exert over the other incident commanders in the Unified Command. Oftentimes, the Responsible Party On Scene Coordinator comes to a major event with greater resources than does the State of Oregon, particularly in areas such as salvage and marine operations. During a major maritime event, it is normal for the Responsible Party On Scene Coordinator to hire myriad experts in various disciplines to assist the unified command decision-making process. Since the Responsible Party employs this expertise, it is possible for the Responsible Party to use that expertise to advantage.

The unified command is a consensus building group assembled to manage the response to an emergency such as an oil spill. The individual incident commanders that make up a unified command oftentimes represent disparate interests. These incident commanders collaborate to reach unified decisions acceptable to all. However, the federal government retains ultimate authority to trump unified command decisions in that the Federal On Scene Coordinator (from either the US Coast Guard or the US Environmental Protection Agency) always retains the authority to federalize a response, or a portion of a response, and prescribe response action.

The Unified Command assembled to manage the NEW CARISSA response consisted of the Federal On Scene Coordinator from the US Coast Guard, the State On Scene Coordinator from Oregon Department of Environmental Quality and the Responsible Party On Scene Coordinator. These three individuals managed the response by making unified decisions that oftentimes constituted compromise between disparate interests.

Responsible Party involvement in unified command decision-making has advantages. Foremost among these is a clear understanding of who will pay for expenses associated with unified decisions. An available, involved Responsible Party usually means quick decision-making without worrying about who will pay. When the unified command agrees on a course of action, then the Responsible Party is agreeing to pay for the expense associated with that action. Agreement up front ensures that response

contractors are paid and minimizes post-incident legal contests. If a Responsible Party is excluded from the decision-making process, either due to their exclusion from the unified command or because a response is federalized, they might contest the reasonableness of the response action, and decline payment of associated costs. A legal contest is likely.

Another advantage of Responsible Party involvement in unified command decision-making is the Responsible Party's ability to bring tremendous resources to the table. But, this is a two edged sword, and a major concern is the Responsible Party's potential ability to influence the decision-making process as a result of their ability to control information through their hired experts. Knowledge is indeed power. Vastly greater expertise in the Responsible Party On Scene Coordinator's camp can affect the balance of power in the unified command and be used to justify decision-making that favors the Responsible Party.

There is a degree of discomfort with allowing the Responsible Party On Scene Coordinator to participate in the unified command decision-making process. Moreover, to many it appears the Responsible Party On Scene Coordinator is making unilateral decisions, unfettered by unified command oversight. In theory, however, all unified decisions are made by the unified command and the Responsible Party has only one vote. A unified decision has, at the very least, the tacit agreement of the Federal On Scene Coordinator and the State On Scene Coordinator.

In an extraordinary event, such as the NEW CARISSA oil spill response, the State of Oregon will likely be dealing with a Responsible Party who has access to superior expertise. The State of Oregon cannot adequately address the issues surrounding some of the more technical unified command decisions unless the State retains outside expertise. This puts the State in the uncomfortable position of having to engage in a costly "Battle of the Experts" with the Responsible Party, or rely on the expertise of the federal partner to adequately monitor the Responsible Party.

Oftentimes the federal partner, either the US Coast Guard or the US Environmental Protection Agency, can be relied upon to provide sufficient expertise to appropriately address the more technical questions that arise during the unified command decision-making process. Additionally, if the Responsible Party fails to respond appropriately, the Federal On Scene Coordinator can always take unilateral action by federalizing the response. But, state dependence upon their federal partner cannot be relied upon should federal interests diverge from state interests.⁶³ **NOTE: There is a feeling, real or perceived, that the State is the least powerful member of the unified command. The financial power of the Responsible Party combined with the legal power (and military command style) of the Federal On Scene Coordinator leaves the State, to a large part, in a reactionary role.**

The New Carissa Review Committee is concerned about the Responsible Party On Scene Coordinator's potential to influence unified command decision-making. The Committee, however, recognizes the value of maintaining Responsible Party involvement in the unified command decision-making process and cannot recommend that the Responsible Party be excluded from that process.⁶⁴ It is believed that sufficient checks

⁶³ For example, the State of Oregon and the US Coast Guard had divergent views on proper levels of beach monitoring and the existence of a substantial threat.

⁶⁴ Many questions arise when limiting the Responsible Party On Scene Coordinator's involvement in the unified command decision-making process. If Responsible Party On Scene Coordinators have more

exist in the system to allow state and federal oversight of the Responsible Party during the unified command decision-making process. Nevertheless, the State of Oregon should ensure that the State On Scene Coordinator is empowered and encouraged to retain outside expertise if; 1) it becomes apparent that such expertise is necessary for the State On Scene Coordinator to function as an equal partner with the Responsible Party On Scene Coordinator, and 2) the State On Scene Coordinator believes reliance on the federal partner may not adequately protect the State's interest.

Since the role of the State On Scene Coordinator encompasses decision-making on behalf of the other state agencies, the State On Scene Coordinator must have agency contacts for consultation and to provide needed input. Those contacts need to be able to commit resources, and the State On Scene Coordinator needs to give agencies as much lead-time as possible when issues are raised and decision-making is anticipated. The State On Scene Coordinator will be most empowered when agencies can anticipate and coordinate in advance as key decisions are reached so that the State On Scene Coordinator can speak with confidence and authority.

Because the State of Oregon may need to act rapidly in an emergency, the State should create and maintain a contact list of experienced contractors and experts who might be needed by the State during a major spill event. Additionally, the State should educate both the US Coast Guard and potential Responsible Party's that this is in fact how we must operate in Oregon. Since it is unlikely that Oregon could justify maintaining certain types of in-house expertise, which may only be needed rarely if at all, Oregon must reserve the right to hire such expertise in the event of a spill or other emergency.

expertise, do we want to limit their involvement? Don't we want focus as much expertise as possible upon the problem? How can the Responsible Party On Scene Coordinator's influence be checked without compromising unified command effectiveness? Is stronger monitoring from the federal representative needed? From the state representative? Should the federal or state responding agency hire more expertise during an incident?

NATURAL RESOURCE INPUT TO UNIFIED COMMAND

Recommendations:

- ◆ The State of Oregon should charge the State On Scene Coordinator with insuring that issues raised by State resource agencies are given appropriate consideration by the unified command.
- ◆ The State of Oregon should work with the NW Area Committee to ensure that the Environmental Unit Chief is someone from a natural resource agency (the NW Area Contingency Plan already contains this policy⁶⁵), and that daily briefings take place between the Environmental Unit Chief, the Planning Section Chief, and the unified command to enable adequate input of natural resource concerns.
- ◆ The Oregon Department of Fish and Wildlife should ensure that someone within that agency is adequately prepared and trained to participate within the Incident Command System in a lead position during a major response (See "Oregon Department of Fish and Wildlife Staffing" recommendation *infra*).

Natural resource agencies expressed concern that wildlife and natural resource issues were not adequately addressed during the NEW CARISSA oil spill response.⁶⁶ Many worry that if wildlife concerns are not elevated to a high enough level, needless damage to Endangered Species Act listed species could result in dire economic consequences for the State of Oregon. **The New Carissa Review Committee recognizes that appropriate consideration of wildlife issues during oil spill response is crucial.**

The State of Oregon should charge the State On Scene Coordinator with insuring that issues raised by resource agencies are given appropriate consideration by the unified command. The unified command must recognize the importance of natural resource agency input. This recommendation stops short of requiring a certain type of unified command decision. It merely requires that the resource agencies be clearly and consistently heard, and that unified command decision-making respects and prioritizes these concerns in keeping with the high importance that Oregon places on wildlife protection.

The State of Oregon should work with the NW Area Committee to ensure that the Environmental Unit Chief is someone from a natural resource agency and that daily briefings take place between the Environmental Unit Chief, the Planning Section Chief, and the unified command to enable adequate input of natural resource concerns. Additionally, the Oregon Department of Fish and Wildlife should ensure that someone within that agency is adequately prepared and trained to participate within the Incident

⁶⁵ ". . . it is the policy of the Northwest Area Committee that the Environmental Unit be led by a representative of a government natural resource trustee or environmental agency, if available." Northwest Area Committee, *op. cit.*, §4270.

⁶⁶ See Appendix K, "Testimony of Oregon Department of Fish and Wildlife before the New Carissa Review Committee."

Command System in a lead position during a major response (See "Oregon Department of Fish and Wildlife Staffing" recommendation infra). By requiring that the Environmental Unit Chief be someone from a natural resource agency, proper emphasis will be placed on natural resource and wildlife concerns within the Environmental Unit. The daily briefings between the Environmental Unit Chief, the Planning Section Chief, and the unified command should facilitate information flows and ensure that wildlife and natural resource concerns are elevated from the Environmental Unit to the unified command.

The various agencies must recognize the importance of working within the national spill response system and be thoroughly familiar with the contents of the NW Area Contingency Plan. All must be trained in Incident Command System so that they understand how to work effectively as part of the response team. This will also help facilitate communication and action.

It was apparent during the NEW CARISSA response that philosophical differences regarding appropriate response actions existed between various agencies. Some felt their concerns weren't being heard and became frustrated when their recommendations weren't followed. It is possible that their recommendations were heard, but, after consideration, different action was taken. It is not possible for this committee to assess the merits of the various viewpoints. The Review Committee does note, however, that the resulting friction could be symptomatic of a much larger problem, which is now being addressed at the national level.

Under the Oil Pollution Act of 1990 the US Coast Guard and the US Environmental Protection Agency are mandated to take the necessary steps to clean up oil spills. Under the federal Endangered Species Act the various natural resource agencies are mandated to take the necessary steps to protect threatened and endangered species. Oftentimes, these disparate mandates create competing demands; separate agendas can evolve, with each proponent believing theirs to be the most important. All must exercise care to ensure their needs and goals are balanced with those of other responders. Additionally, the various agencies must recognize that during any response, limited resources are necessarily allocated between competing demands.

VI.

COMMUNICATION

LOCAL PUBLIC INFORMATION OFFICER

Recommendations:

- ◆ The State of Oregon should ensure that whenever an incident draws significant national media attention, the response plan command structure appoints a separate and distinct Public Information Officer within the Joint Information Center dedicated solely to local issues. The objective of this recommendation is to improve communications at the local level through task separation while preserving information consistency and accuracy.
- ◆ The State of Oregon should always employ the Public Information Officer tasked with overseeing the Joint Information Center. The Public Information Officer tasked with overseeing the Joint Information Center should never be the responsible party's Public Information Officer.

When an emergency the magnitude of the NEW CARISSA oil spill occurs information needs to be quickly provided to the local public. The best way to accomplish this during a dynamic emergency response operation is oftentimes through the local media. The need for access to local media, however, competes with the voracious appetite of national media during an event of national significance. The end result can be detrimental to the local community: the information needs of the local media and the community take a back seat to the task of feeding the national media machine.

As an example, during the NEW CARISSA response, information about beach closures, local traffic problems, and local access needed to be conveyed to the affected local communities in a timely manner. Access to the local media through the Joint Information Center⁶⁷ would have been invaluable to accomplish this. But, because the Joint Information Center resources were completely consumed with the national media, the Joint Information Center could not be utilized to disseminate local-interest-only news.

The information flow from the Joint Information Center to affected locals did not meet expectations throughout the incident and especially during the initial days in both Coos Bay and Waldport. Affected locals felt like they were not getting sufficient information, and what information they did get was "sanitized" prior to release.

⁶⁷ "In the event of major spill incidents, a Joint Information Center will be established. A Joint Information Center involves the co-location of all involved public affairs representatives in conjunction with the Unified Command to better coordinate public information activities." "Northwest Area Committee, *op. cit.*, §9610, p. 7.

The unified command should report impacts accurately, both actual and potential. Affected locals must be kept informed.

In order to ensure that news significant at the local level only is not eclipsed by the perceived need to satisfy nation media demands, a separate function within the Joint Information Center should be tasked solely with addressing local issues. The State of Oregon should ensure that whenever an incident draws significant national media attention, the response plan command structure appoints a separate and distinct Public Information Officer⁶⁸ within the Joint Information Center dedicated solely to local issues. This Local Public Information Officer⁶⁹ should be a person familiar with local issues and concerns. A non-local might not recognize what information is needed at the local level. The Local Public Information Officer should possess sufficient authority and autonomy to act independently and speak with authority to response issues. The objective of this recommendation is to improve communications at the local level through task separation while preserving information consistency and accuracy.

The Northwest Area Contingency Plan describes the organization and structure of the Joint Information Center. Under the prescribed structure, the Public Information Officers from the federal, state and local agencies and, when applicable, the Responsible Party oversee the operation of the Joint Information Center and provide the Joint Information Center Supervisor guidance on media and community relations issues relating to the incident.⁷⁰ The Joint Information Center is staffed 24 hours a day, seven days a week during an extended incident such as the NEW CARISSA response. Normally, the task of overseeing the operation of the Joint Information Center is shared among the Public Information Officers from the various entities, including the Public Information Officer hired by the Responsible Party.

The fact that the Responsible Party's Public Information Officer was at times overseeing the Joint Information Center made many uncomfortable. Officials, dignitaries, and others who had official contact with the Joint Information Center were often under the mistaken impression that they were dealing with a supervising Public

⁶⁸ The Public Information Officer positions are held by the senior public affairs representatives for the: US Coast Guard or US Environmental Protection Agency as appropriate, the WA Department of Ecology (WA spills), the OR Department of Environmental Quality (OR spills), the Responsible Party, and Local Emergency Management agency (or other local agency). The Public Information Officers report to the unified command and provide public relations advice and guidance to on-scene coordinators. They are also responsible for establishing and overseeing the Joint Information Center. The Public Information Officers will: 1) ensure that a Joint Information Center is established and fully functioning including adequate staffing and equipment, 2) Establish public information goals and objectives for the spill incident that ensures accurate and timely information to the news media, citizens, governmental officials, elected officials, tribal representatives and other interested parties, 3) Speak to policy issues regarding their respective agencies or company, 4) provide direction on handling controversial and sensitive spill response issues including use of dispersants, in situ burning, drug testing, enforcement investigations, news media access, etc., 5) Receive input on issues from the Joint Information Center Supervisor, 6) Establish a schedule for news conferences, briefings and public informational meetings, 7) Assist with logistics for VIP tours/visits, 8) Assess need for dispatching public information staff to remote locations, and 9) Resolve disputes that may arise regarding public affairs issues between agencies and responsible parties. *Ibid.*, §9610, pp. 20-21.

⁶⁹ The Public Information Officer provided from the Local Emergency Management agency (or other local agency) might be well suited to fill this role and is already provided for in the Northwest Area Contingency Plan. *Ibid.*

⁷⁰ *Ibid.*, p. 17.

Information Officer from one of the agencies. Some were uncomfortable when they later learned that they were in fact dealing with a public relations person hired by the Responsible Party. The State of Oregon should always employ the Public Information Officer tasked with overseeing the Joint Information Center. The Public Information Officer tasked with overseeing the Joint Information Center should never be the Responsible Party's Public Information Officer.

Lastly, it should be noted that many felt the level of information control, or "sanitizing," by the Joint Information Center was beyond that necessary to ensure the timely and coordinated release of accurate information to the news media.

Involved officials and dignitaries felt the level of advice they received from the Joint Information Center about what they should or should not say to the media was stronger than necessary. While the appearance of unity and consistent reporting is desirable, such concerns should never outweigh the need to be forthright with the public. Accurate reporting should be the primary goal. The public should hear the bad news along with the good.

COMMUNICATION BETWEEN UNIFIED COMMAND AND POTENTIALLY AFFECTED INDUSTRIES

Recommendation:

- ◆ The State of Oregon should ensure that a single coordinator is tasked to communicate with potentially affected industries during a large-scale spill response.

Affected industries felt there was a gap in communication during the NEW CARISSA oil spill response. Fishermen and oyster growers needed accurate, timely information to make day-to-day operating decisions. Some groups, such as commercial fishermen, are almost always affected by larger marine spills; however, they are a disparate group, which makes communication difficult.

If information, such as trajectory predictions and amounts of spilled oil, is provided to potentially affected industries, better operating decisions can be made. Armed with adequate information, potentially affected industries can alter or adjust operations to optimize continued production. Also, better decisions can be made as to when operations must cease in the face of advancing oil. Equipment can be protected and the quality of a harvest or catch can be maintained. Additionally, appropriate protective measures can be taken that will benefit both the industry and the Responsible Party.

The State of Oregon should ensure that a single coordinator is tasked to communicate with potentially affected industries during a large-scale spill response. This will ensure that proper attention will be given to the informational needs of affected local businesses and industries. This coordinator must be familiar with the scope and nature of local business operations. The local sea grant marine extension agent could serve as such initial point of contact when spills threaten fisheries.

VII.

WRECK REMOVAL AND FINANCIAL ASSURANCE

STATE WRECK REMOVAL STATUTE

Recommendation:

- ◆ The State of Oregon, in consultation with Oregon Department of Justice, should enact a state Wreck Removal Act creating vessel owner liability for removal of abandoned or wrecked vessels.

Presently, the State of Oregon has limited authority to require shipowners to remove their wrecked vessels. A Wreck Removal Act is a statutory mechanism that could be enacted to help ensure that resources will be available the next time an accident such as the NEW CARISSA occurs by placing the liability for clean-up and removal of a wrecked vessel on the owner. The Oregon Department of Justice has studied this issue and their recommendation follows.

California, Washington and Alaska all have statutes that require removal of abandoned vessels. "Essentially, all three state statutes provide a method for removing an abandoned vessel. California and Washington also make the vessel's owner liable for removal costs; however, California creates an exception when a ship must be abandoned out of concern for the immediate safety of those aboard. (Cal. [Harbors and Navigation] Code 525)."⁷¹ After analysis of these statutes, the Oregon Department of Justice recommends that Oregon enact a wreck removal statute modeled after the Washington statute.

"Washington's Wreck Removal Act . . . is clear and comprehensive. It clearly creates owner liability, and specifically allows the Washington State Parks and Recreation Commission to bring an action to recover clean-up costs along with reasonable attorney's fees. (RCW 88.27.020(2) and 88.27.040. The Washington statute also provides a procedure to protect against the taking of property without due process. (RCW 88.27.020(3)-(6)). The only caveat is that Washington's removal act is only effective on land belonging to the Washington Parks and Recreation Commission. Oregon should consider whether it wants to limit its enforcement in such a manner. Overall, the Washington statute is the best pattern for Oregon legislation."⁷² The State of Oregon, in consultation with Oregon Department of Justice, should enact a state Wreck Removal Act creating vessel owner liability for removal of abandoned or wrecked vessels.

⁷¹ See Appendix E, Frederick M. Boss, AIC, "M/V NEW CARISSA: Wreck Removal Act and Financial Responsibility" (paper read at New Carissa Review Committee Meeting, September 29, 1999).

⁷² Ibid.

EVIDENCE TO THE STATE OF FINANCIAL ASSURANCE FOR SHIPS

Recommendations:

- ◆ The State of Oregon should increase the amount of financial assurance required for marine vessels in Oregon waters by amending ORS 468B.480 so that requirement is more in line with the requirements of other US West Coast states.
- ◆ The State of Oregon should extend application of ORS 468B.480 to self-propelled non-tank vessels over 300 gross tons.
- ◆ The State of Oregon should amend ORS 468B.480(2) to include "wreck removal" and "any other expenses incurred by the State of Oregon for actions taken pursuant to state or federal law."

Under the Oil Pollution Act of 1990, a Responsible Party for a vessel from which oil is discharged is liable for certain resulting damages and removal costs⁷³ as specified in the Act. 33 USC 2702. Additionally, the Oil Pollution Act of 1990 limits a Responsible Party's liability for resulting damages and removal costs to a dollar amount per vessel gross ton. Tank vessel liability is limited to \$1,200 per gross ton and non-tank vessels liability is limited to \$600 per gross ton. This scheme recognizes that larger vessels carrying greater amounts of oil could potentially cause costlier spills. Additionally, the scheme recognizes that vessels carrying oil cargoes (tank vessels) could potentially cause costlier spills than those caused by non-tank vessels (spills from non-tank vessels are limited to fuel oil).

"The purpose of a financial responsibility statute is to ensure that financial resources will be available in the case of an accident. Under federal law, a vessel must maintain 'evidence of financial responsibility sufficient to meet the maximum amount of liability to which the responsible party could be subjected * * *.' 33 USC 2716 (b) * * *. As the M/V NEW CARISSA has shown, this amount, however, may be insufficient to cover the clean up [and wreck removal] costs.^[74] Consequently, Congress specifically granted the states the authority to regulate a vessel's financial responsibility and to exceed the federal limitation. 33 USC 2718 * * *."⁷⁵

"Oregon has two statutes which address vessel financial responsibility. ORS 468B.390 requires vessel compliance with OPA 90 and ORS 468B.475 through

⁷³ "Removal cost" means the cost to remove or clean up oil. The direct cost of wreck removal is not a cost specified under the Act.

⁷⁴ The federal Oil Pollution Act of 1990 required \$21 million of financial responsibility for the M/V NEW CARISSA. The federal levels of marine vessel financial responsibility required under the Oil Pollution Act of 1990 have not been raised since enactment in 1990. With portions of the wrecked vessel still not completely removed from the beach, combined clean-up and wreck removal expenses are estimated to exceed \$35 million.

⁷⁵ Frederick M. Boss, *op. cit.*

468B.500, which requires evidence of a modest \$150 per ton financial responsibility^[76] for vessels carrying oil or hazardous material."⁷⁷ The Oregon Statute does not reach non-tank vessels, as does the Oil Pollution Act of 1990.

"California, Washington and Alaska have established large financial responsibility requirements. California currently requires evidence of \$750,000,000 in financial resources for tankers and \$300,000,000 for non-tankers.^[78] (Cal. [Government] Code Sections 8670.37.53 and 8670.32). The \$750,000,000 requirement will increase to one billion in the year 2000. Washington requires \$500,000,000, but gives discretion to the regulating state agency to change the requirements in a few circumstances. (RCW 88.40.020). Finally, Alaska's requirement is \$300 per barrel or \$100,000,000, whichever is greater. (Alaska Stat. 46.04.040)."⁷⁹ The State of Oregon should increase the amount of financial assurance required for marine vessels in Oregon waters by amending ORS 468B.480 so that requirement is more in line with the requirements of other US West Coast states.

As noted above, California requires evidence of financial responsibility for non-tank vessels, but neither Alaska's, Washington's, nor Oregon's financial assurance statutes reach non-tank vessels. As Oregonians have learned first hand, the threat of a costly spill from a non-tank vessel such as the NEW CARISSA is very real and Oregon needs to take steps to ensure that such vessels have sufficient financial resources available in case an accident occurs. Oregon should follow California in this matter and include self-propelled non-tank vessels as "ships that must establish evidence of financial assurance under ORS 468B.480."⁸⁰ The State of Oregon should extend application of ORS 468B.480 to self-propelled non-tank vessels over 300 gross tons. It is important, however, not to capture non-tank vessels that are not self-propelled (cargo barges) in this regulatory net. Such vessels carry neither oil cargo nor fuel oil for propulsion; they pose a negligible pollution threat.

The evidence of financial assurance required by ORS 468B.480(1) "shall meet the liability to the State of Oregon for: (a) Actual costs for removal of spills of oil; (b) Civil penalties and fines imposed in connection with the spill of oil; and (c) Natural resource damages." ORS 468B.480(2). The statute does not require financial assurance to the State of Oregon for wreck removal costs. In addition to making shipowners liable to remove their shipwrecks, Oregon needs to take steps to insure that such vessel owners have sufficient financial resources available to pay for the cost of wreck removal and for costs incurred by the State of Oregon for actions taken pursuant to state or federal law. The State of Oregon should amend ORS 468B.480(2) to include "wreck removal" and

⁷⁶ The M/V NEW CARISSA was not captured under ORS 468B.475 through 468B.500, because the M/V NEW CARISSA was not a tank vessel. A tank vessel the same size as M/V NEW CARISSA (36,571 Gross Tons) would have been required to establish only \$5,485,650 of financial assurance under current Oregon law.

⁷⁷ Frederick M. Boss, *op. cit.*

⁷⁸ Compare with the Oregon requirement: \$5.5 million for a tanker the same size as NEW CARISSA, and no requirement for a the NEW CARISSA, a non-tanker.

⁷⁹ Frederick M. Boss, *op. cit.*

⁸⁰ *Ibid.*

"any other expenses incurred by the State of Oregon for actions taken pursuant to state or federal law."

VII.

**OREGON DEPARTMENT OF FISH & WILDLIFE
FUNDING AND STAFFING**

OREGON DEPARTMENT OF FISH AND WILDLIFE FUNDING BASE

Recommendation:

- ◆ The State of Oregon should expand the Oregon Department of Fish and Wildlife's funding base to reach sources other than hunter-fisher licenses and permit fees. Sufficient other-source funding should be provided to maintain the position recommended immediately below under "Oregon Department of Fish and Wildlife Staffing."

At present the Oregon Department of Fish and Wildlife is funded solely by hunter-fisher license and permit fees. However, much of the Department's mandate requires that expenditures and resources be deployed in areas unrelated to hunter and fisher activities, e.g., biological mapping and wildlife recovery during an oil spill. Additionally, the public expects the Department to address issues unrelated to hunter and fisher activities. Nevertheless, the Oregon Department of Fish and Wildlife's funding constituency expects the Department's activities to be restricted to hunter and fisher related issues. **If the Oregon Department of Fish and Wildlife is to remain the lead state agency for non-hunter/fisher related activities, such as wildlife recovery during oil spill response, then the State of Oregon should expand the Oregon Department of Fish and Wildlife's funding base to reach sources other than hunter-fisher licenses and permit fees.**⁸¹ Sufficient other-source funding should be provided to maintain on an ongoing basis the position recommended immediately below under "Oregon Department of Fish and Wildlife Staffing."

⁸¹ Other possible funding sources are the outer continental shelf oil leasing funds (CARA) or a port tax on commercial shippers.

OREGON DEPARTMENT OF FISH AND WILDLIFE STAFFING

Recommendation:

- ◆ The State of Oregon should establish a dedicated, trained spill preparedness and response position within Oregon Department of Fish and Wildlife. This position should be responsible for educating Oregon Department of Fish and Wildlife staff on response issues, and coordinating response and training activities with other agencies.

The Oregon Department of Fish and Wildlife currently has no staff dedicated to spill preparedness. The Department has tremendous expertise in the areas of biological assessment, endangered species, and specific fish and wildlife issues, but it has no in-house spill response expertise. **During an oil spill Oregon Department of Fish and Wildlife staff are expected to participate in the Incident Command System, but they have no training in how that system works.** Thus, they are disadvantaged when called upon to function efficiently within a large response organization. At one time a General Fund supported position was allocated to the Oregon Department of Fish and Wildlife for this purpose. Unfortunately, that funding has been eliminated.⁸²

This disadvantage is not unique to the Oregon Department of Fish and Wildlife. In reality, many state agencies that are called upon to participate in large scale responses are not trained in National Interagency Incident Management System model Incident Command System and agency personnel experience difficulty integrating into a response organization. **It is felt that meaningful Oregon Department of Fish and Wildlife participation in the spill response organization is crucial, particularly when an event threatens listed species.**

The State of Oregon should establish a dedicated, trained spill preparedness and response position within the Oregon Department of Fish and Wildlife. This position should be responsible for educating Department staff on response issues, and coordinating response and training activities with other agencies. The NEW CARISSA spill reinforced the Oregon Department of Fish and Wildlife's and the Oregon Department of Environmental Quality's concerns that no position is currently allocated within the Oregon Department of Fish and Wildlife to coordinate spill events. Such a position would provide needed coordination, help develop criteria for "how clean is clean?", assure adequate Incident Command System and spill response training for Oregon Department of Fish and Wildlife staff (hazardous materials handling, spill response, evidence, chain of custody procedures, and communication), coordinate response and training activities with other agencies, and develop Oregon Department of Fish and Wildlife procedures for staff management during long-term events. Some key benefits of this position would be the added value of developing ongoing working relationships between the Oregon Department of Fish and Wildlife and the other state and

⁸² Oregon Department of Fish and Wildlife had a position dedicated to spill response until 1991.

federal agencies, and building the experience and trust necessary for working under the unified command structure.

THE FUTURE

In 1998 approximately 2000 ships called at ports in the Columbia River System and moved approximately 26.5 million tons of cargo. Bulk export shipments of wheat, soda ash, and corn comprised the vast majority of this cargo. Almost one-third of all shipments on the River was cargo bound for Japan. Coos Bay, the largest seaport between the Columbia River and San Francisco, has about 100 ship calls per year and moves approximately 3 million tons of cargo annually.

The majority of the vessels carrying all these cargoes to and from Oregon seaports are similar to the NEW CARISSA in that they are small to midsize bulk cargo ships registered abroad and crewed with citizens from other countries. They come and go in a steady stream, quietly, at all hours of the day and night, and largely unnoticed—until something goes wrong.

On February 4th 1999, something went wrong. Oregon wound up with a broken ship on its beach and a serious oil spill. Eventually, 70,000 gallons would spill to the environment and Oregonians had to scramble in response. Now, a year later, the foremost question on everyone's mind is, "When will it happen again?"

Ships don't wash up on our beaches every day. In fact it is a rare event. It may not happen again for 10 years—it may not happen for 20 years. But, it could happen tomorrow. One thing is certain; we will be faced with marine oil spill emergencies in the future.

But, it might not be a ship-related incident next time. Our next major marine oil spill could originate with a ruptured pipeline, a train wreck, a tank truck accident, or from a facility. Regardless, Oregonians will be called upon to respond to marine spills in the future. We need to be prepared.

After it's independent review of the incident, the New Carissa Review Committee finds that overall the system worked reasonably well given the complexities of the crisis. Improvements could be made in some areas. Coordination and communication shortfalls during the response have been identified. There are also opportunities to improve training and preparedness.

It is unreasonable to expect that a large scale, extraordinary event such as the NEW CARISSA oil spill response could be managed with absolutely no execution problems. Individual decision-making during such an exigency is constrained by time, fatigue, dynamic information flows, and competing interests. The Committee had the benefit of hindsight and the luxury of a warm, dry hearing room during their review of those decisions. The Committee has remained mindful of this during their review and encourages all that read this report or engage in the public debate do the same.

If any good can come out of a crisis such as the NEW CARISSA accident it has to be the opportunity to learn from our mistakes. The New Carissa Review Committee has taken a look at the oil spill response and has come up with this set of recommendations intended to help Oregon better prevent marine spills from occurring, and be better prepared to respond when they do occur. The Committee acknowledges the vast input and assistance received from local, state and federal agencies and officials, the interested public, and industry during this committee process, and thanks all who participated for working together towards the common goal of protecting and preserving Oregon's environment.