



**Organization:** Pacific Shellfish Institute  
**Project title:** Shellfish Farmers as First Responders to Spills

*Final Report, July 2008*

**Project Results:**

**Objective A)** *Provide spill prevention training/equipment to shellfish growers to enable them to eliminate and respond to their own spills/leaks:*

During the 2006, 2007 and 2008 Sea Grant shellfish grower conferences, 25 oil spill kits were handed out to shellfish growers and scientists. Included in this kit were a small absorbent bilge pad, gloves, a brochure targeting fishermen and boaters, and another brochure detailing preventative measures vessel owners can take to prevent large and small spills. Approximately 30 Free “Spills aren’t Slick” signs were also distributed at these conferences. These signs, informing people of oil spill reporting numbers, were designed to be posted at docks, boat ramps and marinas.

During the 2005 and 2006 Pacific Coast Shellfish grower conferences 225 oil spill kits (all of the remaining kits) were handed out to shellfish growers and scientists. About 40 “Spills aren’t Slick” signs were also distributed at these conferences. A number of Oil Spill Observer forms were distributed at the 2006 meeting. These forms provided a means for shellfish growers to properly describe and report an oil spill.

A grant opportunity through the Washington Department of Ecology (DOE) was broadcast to the shellfish grower community in June, 2006. This opportunity detailed a way for growers to obtain free training and response equipment, inside a moveable equipment trailer, if they applied alongside local agencies such as ports, counties, cities and tribes. To date, one shellfish grower, Michael Adams at Shellfish Farm LLC. applied and received the equipment trailer and training. Other shellfish companies have worked alongside ports to acquire this equipment for their local port with the knowledge the shellfish grower can use the equipment when needed. Additionally, Taylor Shellfish and Chelsea Seafarms have purchased additional equipment such as sausage absorbent boom to better protect localized areas.

**Objective B)** *Provide information sessions/training describing current oil spill response strategies and possible pre-emptive measures:*

PSI staff member, Andy Suhrbier, completed a 24 hour HAZWOPER training in August, 2005. This training consisted of weeklong classroom and hands-on exercises with DOE, EPA, Coast Guard, Navy, and professional cleanup personnel. The practical training and interaction with personnel from these agencies and companies brought North West oil spill cleanup efforts into perspective. With this knowledge Mr. Suhrbier chaired an Oil Spill Session at the Pacific Coast Shellfish Growers (PCSGA) and National Shellfisheries Association Pacific Coast Section (NSA-PCS) conference in Hood River in September, 2005. Eric Olsson of University of Washington Sea Grant, Linda Pilkey-Jarvis of the Washington Department of Ecology, and Mr. Suhrbier presented talks. These talks focused on oil spill prevention and response and how shellfish growers can become more involved in these processes. Washington State's Geographic Response Plan (GRP) was described and provided to growers. The GRP is the set of prevention plans that DOE and the Coast Guard implement during the first 24 hours of a spill. Shellfish growers were encouraged to provide input regarding their shellfish bed locations and possible upland resources, such as docks and ramps that could be used during a spill. An estimated total of 50 shellfish growers and regulators attended this workshop.

Mr. Suhrbier, and University of Washington Sea Grant outreach coordinator, Eric Olsson presented a talk at the 14th annual Sea Grant shellfish growers meeting in 2006. The talk detailed the necessary steps growers need to take to protect themselves from uncompensated losses due to an oil spill. Mr. Suhrbier also detailed information on GRP's and ways shellfish growers could provide input in the GRP updating process. An estimated 75 shellfish growers and regulators attended this portion of the conference. A white paper on this topic was developed and distributed to shellfish growers in via email.

During the PCSGA/NSA-PCS 2006 conference Mr. Suhrbier chaired another Oil spill session. This session featured Greg Dale of Coast Seafood in Humboldt Bay, CA. Mr. Dale outlined his company's oil spill training efforts that stemmed from an oil spill in Humboldt Bay in the 90's. Harry Ota from the U.S. Coast Guard Auxiliary provided an extensive talk on oil spill prevention, reporting, and the physical characteristics of spilled materials. An estimated 45 growers and scientists attended this session. An oil spill identification sheet specifically designed for shellfish growers was produced and distributed at the conference. This sheet was designed so shellfish growers can better describe an oil spill prior to calling into the provided response numbers. A total of 20 copies of this sheet were distributed during the session (Appendix page 1).

Mr. Olsson and Mr. Suhrbier presented a talk on shellfish grower oil spill response at the 2007 Sea Grant shellfish growers meeting. This talk provided details on when and where shellfish growers, depending on past HAZWOPER training, can respond to an oil spill. A question and answer period followed the talk where shellfish growers were provided clarification on a myriad of oil spill topics. An estimated 65 growers and scientists attended this talk.

Mr. Suhrbier attended the 2008 Sea Grant shellfish growers meeting and displayed information and provided handouts for properly inventorying shellfish and how to

approach possible losses to product before, during and after an oil spill. Growers were encouraged to update their emergency contact information and to provide details on their grow-out site boundaries/locations. An estimated 90 growers and scientists attended this meeting.

Mr. Suhrbier was requested by the Interstate Shellfish Sanitation Committee (ISSC) board to present at the ISSC Pac-Rim meeting in San Diego, CA in April 2008. Mr. Suhrbier presented past and current efforts of preparing shellfish growers for oil spills. This talk described the educational and training aspects along with the linking of shellfish growers into DOE's response plans. An estimated 45 shellfish scientists and health regulators representing the western United States attended this meeting.

Web pages at the Pacific Shellfish Institute website, [www.pacshell.org](http://www.pacshell.org), have been added to further inform others of the project. The web pages focus on three areas: 1) Project Details, 2) Oil Spill Response Measures: "What do to, who to call" and 3) Oil Spill Proactive Measures.

**Objective C)** *Complete Geographic Information System (GIS) layer of shellfish beds, assist growers in adding current data for post spill claims, and assess risk:*

PSI staff contacted personnel at Washington Department of Health (DOH) and DOE to access the GIS data necessary to map out shellfish growing areas in Washington State. Data from DOH was slow to become available, but PSI staff pursued this option and finally obtained data on two occasions. The first round of data came from a general DOH shellfish growing area shapefile with an accompanying printed out list of shellfish growers and their contact information. PSI staff linked shellfish grower/harvester contact information to the DOH growing area GIS shapefile layer as an attribute table. This enabled PSI and DOE staff to access grower/harvester contact information by growing area via GIS.

More recently, DOH released data pinpointing growers to specific harvest sites. Although this data contained many errors it has been linked to growers and supplied to DOE with the caveat that the data is not completely accurate and that the previously supplied growing area layer should be used when contacting growers.

PSI and DOE GIS staff have and will be building a finer scale shellfish grower farm layer in order to accurately describe the geographic extent of each farm. This layer has the potential to provide greater value to the Oil Spill program than what DOH's broad coverages and sometimes erroneous data can provide. (Example on Appendix page 2) While a few larger growers have supplied the necessary information to build these coverages most have not. Repeated attempts to educate and offer mapping services via email, conference talks, conference booths and mailings has only slightly increased participation in this endeavor. After TRFF funding ends PSI and DOE staff will continue to provide basic services to shellfish growers who want to update or add growing areas to this GIS layer.

During the 2008 Sea Grant conference Mr. Suhrbier displayed information on how to approach possible losses to product before, during and after an oil spill. Handouts were also provided describing how to properly inventory shellfish beds to document these losses (Appendix pages 3-5). Growers were encouraged to update their emergency contact information and to provide details on their grow-out site boundaries/locations. Mr. Suhrbier gave details of the GRP's function and provided ways to provide input to the GRP document during the 2005 PCSGA/NSA-PCS and 2006 Sea Grant conferences.

Throughout the project period Mr. Suhrbier acted as a liaison between shellfish growers and DOE. As the primary commercial shellfish contact for DOE, Mr. Suhrbier participated in table top oil spill drills via phone. In November, 2006 a small oil spill in Hood Canal was reported to DOE who then called PSI staff via cellular phone. PSI staff then notified shellfish growers in the area of the potential contamination.

**Objective D)** *Offer HAZWOPER spill response training and provide spill drills for growers to enhance their spill response skills and ensure their safety:*

PSI promoted and set up 4 HAZWOPER training sessions (Appendix pages 6-12). The first event provided 8 hour HAZWOPER certification for 2 outreach coordinators and 18 shellfish growers in March 2006. The second event provided 24 hour HAZWOPER certification for 16 shellfish growers in July of 2006. The third event, in July 2007, provided 8 or 24 hour HAZWOPER recertification or 8 hour certification for 20 shellfish growers. During this event, 22 growers were also field trained in containment boom handling, strategies, anchoring, deployment and retrieval as well as decontamination and personal protection equipment techniques (Appendix pages 13-15). The fourth and final event in March 2008 mirrored the third training event as it provided both field exercises (18 growers participated) and HAZWOPER certification (10 growers participated). This final event focused on training shellfish growers in coastal estuaries such as Willapa Bay and Grays Harbor.

### **Outcomes of the Project—Its Impact:**

Shellfish growers are now more aware of the oil spill process and are better connected to DOE and their spill response system. Shellfish growers are part of the 24 hour notification system and there is an increased awareness of shellfish growing areas in spill response efforts. Shellfish growing areas will be considered during DOE's oil spill response activities via the GIS provided layers.

Shellfish growers are more aware of the potential hazards of oil spills and know how to prepare and protect their growing areas from oil spills. A few shellfish companies have developed their own internal spill teams and plan on keeping HAZWOPER certifications current by setting up HAZWOPER classes each year. Overall, grower participation was beyond anticipated numbers during trainings and workshops. A majority of attending growers now have access to small spill preventions kits and a subset of these growers

have expanded their oil spill response capabilities by purchasing or requesting additional equipment.

Collaboration between PSI and DOE has increased due to this project. It has been established that there is common interest to ensure shellfish growers are part of the oil spill response system. Specifically, PSI and DOE mapping staff have formed a collaboration as they have and will be building a finer scale shellfish grower farm layer in order to accurately describe the geographic extent of each farm. This layer has the potential to provide greater value to the Oil Spill program than what DOH's broad coverages and sometimes erroneous data can provide. After TRFF funding ends PSI and DOE staff will continue to provide basic services to shellfish growers who want to update or add growing areas to this GIS layer.