May 3, 2010

Questions-and-answers regarding *Spartina* treatments in Grays Harbor

Q: Why does Washington state seek the eradication of *Spartina* in Grays Harbor?
Because invasive *Spartina* -- which is not native to Grays Harbor -- has been extremely destructive in the past throughout the world. Wherever invasive *Spartina* has become established, it 1) destroys shorebird and waterfowl habitat; 2) displaces native species; 3) increases the threat of flooding by raising the level of infested areas; and 4) negatively impacts recreational activities such as fishing, bird hunting, and bird watching along the shoreline.

Q: Does Washington state law require the eradication of Spartina found in Washington?
Yes. Revised Code of Washington (RCW) 17.10 requires the eradication of all Class A noxious weeds. All *Spartina* species in Grays Harbor are on the Class A weed list. Furthermore, the State Legislature, recognizing the environmental disaster represented by invasive *Spartina,* tasked the state Department of Agriculture in RCW 17.26 to lead the effort to eradicate *Spartina* from Washington state.

Q: How serious is the *Spartina* problem in Grays Harbor?
Not serious at this point. However, if left uncontrolled, it could severely impact the harbor. About one half solid acre of *Spartina* was detected last summer (2009). This is not a lot compared to the thousands of acres detected in the past in Willapa Bay. In fact, if all the *Spartina* in Grays Harbor in 2009 were put in one location, the area would only be about 150 feet by 150 feet, or about half a football field.

Q: What species of *Spartina* exist in Grays Harbor?
Two different species of *Spartina* exist in Grays Harbor*: S. alterniflora* and *S. densiflora* Approximately half of the infestation in the harbor is *S. alterniflora,* and approximately half is *S. densiflora*.

Q: How did *Spartina* get to Grays Harbor?
WSDA doesn't know for sure. We believe that *S. alterniflora* was introduced when seeds from Willapa Bay drifted north. The introduction pathway for *S. densiflora* is less certain; however, most theories involve foreign or domestic shipping.

Q: Where is *S. alterniflora* currently found in Grays Harbor?
Most plants are currently found along 1) Copalis River, 2) Grass Creek, 3) Bowerman Basin, 4) Elk River, 5) Johns River, 6) Bottle Beach, 7) Fire Cracker Point in Westport, and 8) the Sink area between Damon Point and Brown Point. Smaller concentrations are located at North Bay, Damon Point, and north of the Johns River.

Q: Where is *S. densiflora* currently found in Grays Harbor?
Most plants are found near the Ocean Shores Airport, and north to North Bay near the Campbell Slough area. A few plants are located on Damon Point.

Q: How much *Spartina* in Grays Harbor was treated in 2009?

The entire infestation was treated. Plants were treated with a combination of two herbicides -- imazapyr and glyphosate. Treatments occurred between June and October. Treatments were applied from backpacks or small hand-held sprayers.

Q: How much actual herbicide was sprayed around Grays Harbor?

A total of 68.4 gallons of tank mix was sprayed around the harbor. The tank mix consisted of 65.4 gallons of water, 1.3 gallons of the herbicide glyphosate, 0.5 gallons of the herbicide imazapyr, 0.7 gallons of an adjuvant enabling the herbicides to stick to plants, and 0.5 gallons of a blue marker dye enabling employees to see what has been treated.

Q: How safe are the herbicides used in Grays Harbor?

Both imazapyr and glyphosate have excellent safety records. Both products are registered by the Environmental Protection Agency for aquatic use, and are applied in accordance with label instructions and all applicable state and federal laws.

Q: When was the first *Spartina* treatment administered in Grays Harbor?

The first *Spartina* treatment in Grays Harbor was administered in 1996 in the Sink area between Damon Point and Brown Point. Two large clones, 15x20-feet in size, were treated with glyphosate. Limited treatments occurred from 1996 through 2004. An aerial survey in 2005 detected approximately 10 solid acres of Spartina, of which 6.5 acres were treated that year. Following are the number of acres treated from 2005 through 2009:

Year	Acres
2005	6.5
2006	4.5
2007	2.5
2008	.5
2009	.5

Q: What agencies are primarily involved in finding and eradicating *Spartina* in Grays Harbor?

The three agencies primarily involved in finding and eradicating *Spartina* in Grays Harbor are 1) U.S. Fish and Wildlife Service, 2) Washington State Department of Agriculture, and 3) Washington Department of Fish and Wildlife

Q: How much of Grays Harbor is surveyed annually looking for new introductions?

The entire harbor is surveyed -- from the mudflats, to the high salt marsh, to the upland vegetation border – a total of approximately 30,000 acres of susceptible lands. Grays Harbor *Spartina* crews also survey 38 miles of the outer coastline of Washington state -- from Cape Shoalwater to Westport, and north to southwest Ocean Shores and the Moclips River.

Q: What kind eradication methods are available to Washington for eradicating *Spartina*?

Four eradication methods are available: 1) Manual, 2) mechanical, 3) herbicide, and 4) biological. The method or methods used at any one time depend on three factors: amount of *Spartina* detected, accessibility to area of infestation, and funding.

Q: How many acres of *Spartina* were located and treated on Damon Point in 2009?

Very little *Spartina* was found on Damon Point in 2009, less than one percent of one acre.