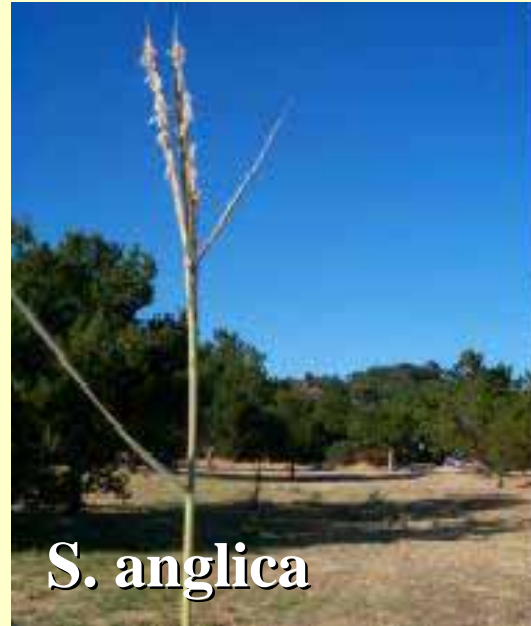


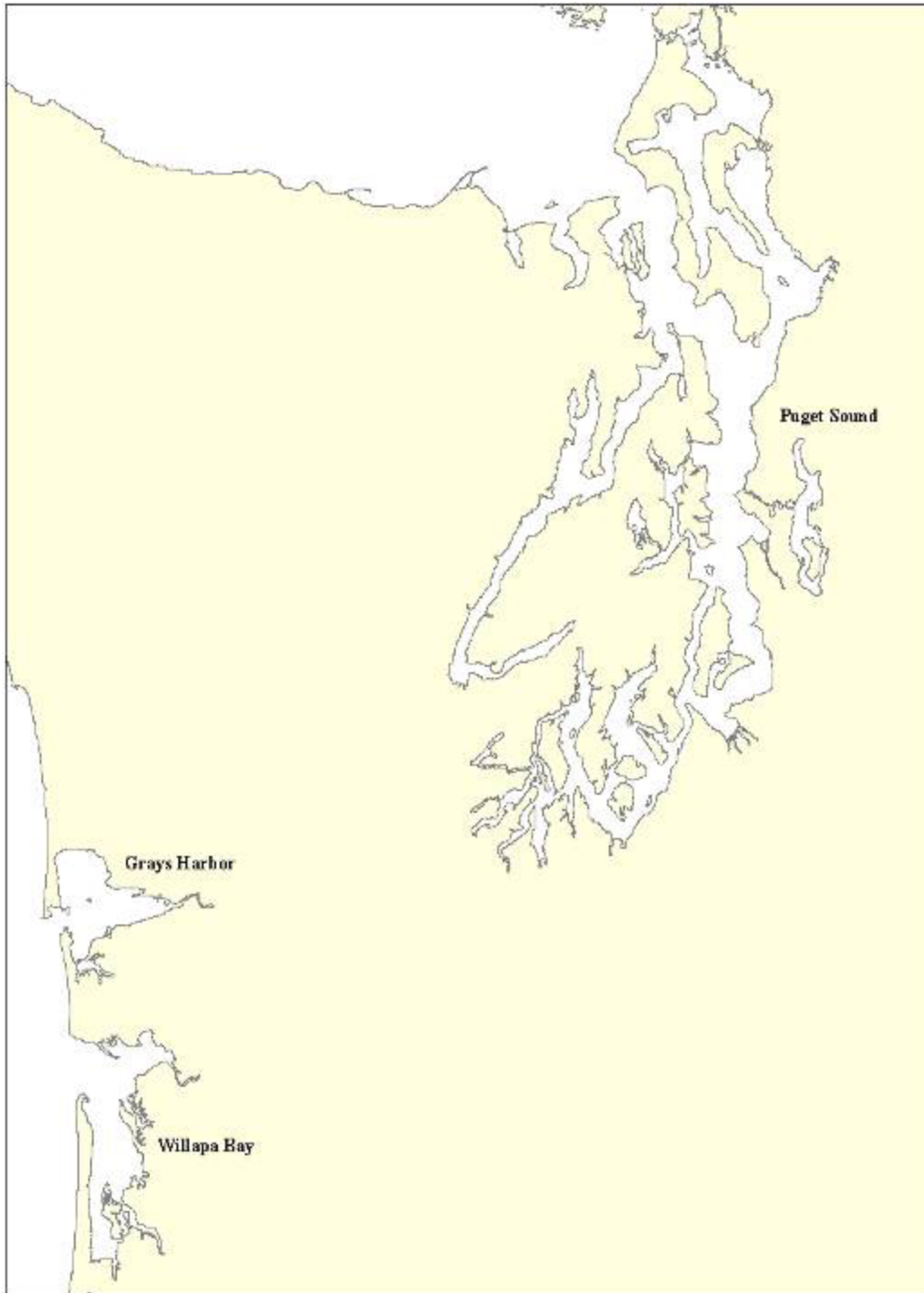


Willapa Bay Spartina Control Program – Current Status and Lessons Learned

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Washington Department of Natural Resources

Invasive *Spartina* in Washington





Puget Sound

- 1000 acres in late 90's.
- Currently <200 acres.
- All 4 species.

Grays Harbor

- 10 acres.
- *S. alterniflora*, *S. densiflora*.

Willapa Bay

- 8,500 acres in 2003.
- Currently 1500 acres.
- *S. alterniflora*.



Control Effort

- Began in early 1990's.
- RCW 17.26 in 1994 – dedicated funding, WSDA as lead.
- Coordinated effort among DNR, WSDA, WDFW, USFWS, WSU, U of WA, TNC, local shellfish growers.
- IPM – Chemical, mechanical, biological control.
- Monitoring – transects and aerial photography.

Spartina alterniflora in Willapa Bay, mid-90's







How to kill Spartina . . . what we've learned.

- The right vehicle for the job.
- Rate wasn't effective, changed label.
- Glyphosate not very effective, sought approval of imazapyr.
- Changed scale of operations (broadcast spraying), turned the corner.

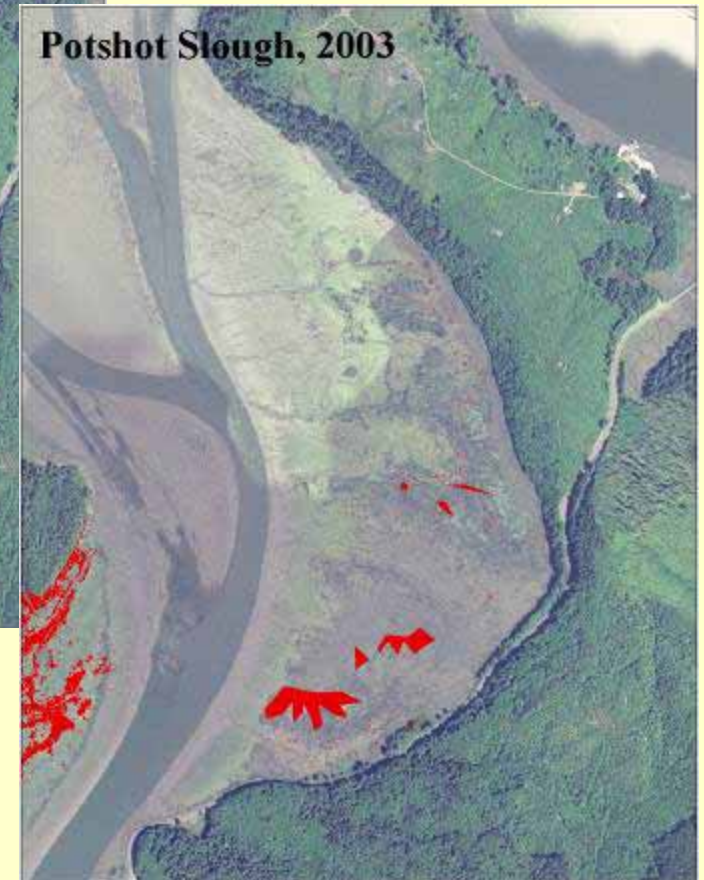
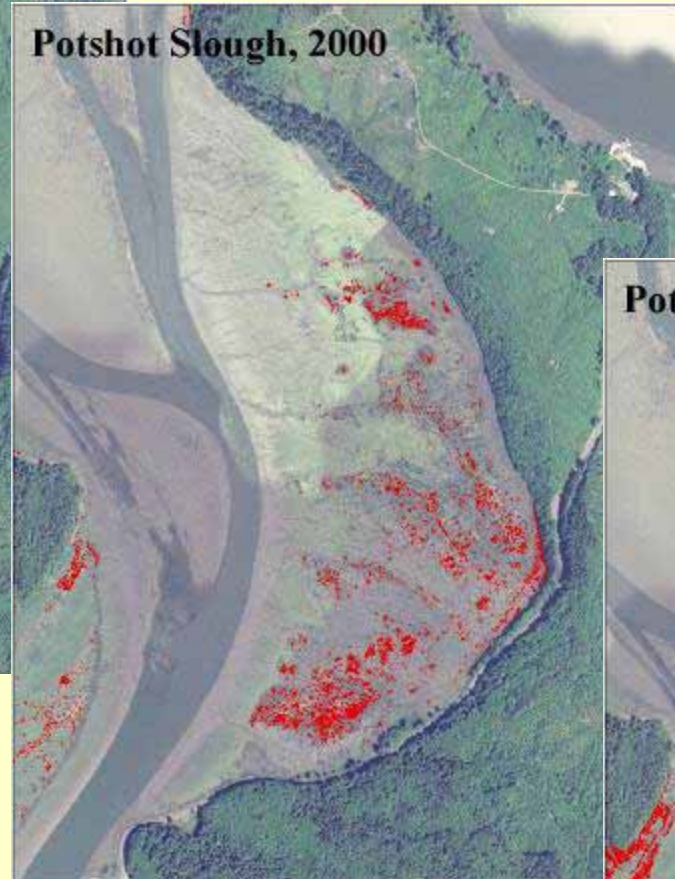
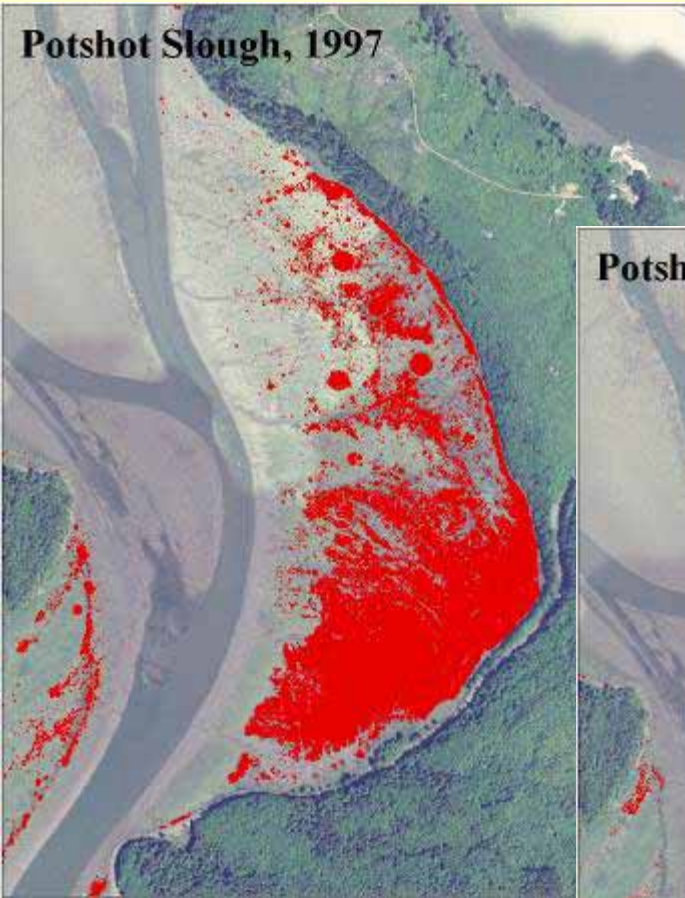


How to kill Spartina . . . what we've learned.

- The right vehicle for the job.
- Rates weren't effective, changed labeled rates.
- Glyphosate not very effective, sought approval of imazapyr.
- Changed scale of operations (broadcast spraying), turned the corner.
- Mechanical treatment has its place – extends control season, enhances chemical treatment, options.
- Follow-up treatments require same or greater effort.



Spartina in Potshot Slough, 1997-2003







Elements of a successful program

- Political support.
 - Ensured program of adequate funding.
 - On-going communication, field tours for Legislators and County officials.
- Community buy-in.
 - Private landowners, local industry, environmental groups.
 - Involved in planning meetings (participation = ownership in process).
 - Provided resources; they shared in control effort.

Elements of a successful program

- Interagency cooperation and planning.
 - Plans developed by larger group.
 - Don't always agree on specifics, but goal is the same.
 - Innovation in control methods, unified message.
- Persistent, complete control.
 - Treat entire infestation until it is eradicated.
- Be adaptive.
 - Adjust treatment based on monitoring data.
 - Continue looking for better tools.
- Think big!

Next steps

- Continued treatment of infestation.
- Continued monitoring and tracking using aerial photography (2006 and 2009).
- Restoration
 - Mechanical treatments on 500 acres.
 - Monitoring vegetation, sediment, birds.
 - Project likely to begin in 2007.