

# Meeting Minutes

September 27-28, 2011

Boardman, Oregon

The Oregon Invasive Species Council and Oregon Weed Board jointly met September 27-28, 2011 at the Port of Morrow.

## September 27, 2011

**Oregon Weed Board and OISC members present:** Bill Hansell (Oregon Weed Board Chair), Patty Milne (Marion County Commissioner), Amy Peters (Coos County), Jim Harris (Umatilla County farmer), Dan Hilburn (ODA), Rian Hooff (OISC Council Chair), Vanelle Peterson (Dow Agrosiences LLC), Mark Porter (Wallowa Resources), Vern Holm (Northwest Weed Management Partnership), Rick Boatner (Oregon Department of Fish and Wildlife), Glenn Dolphin (Oregon Marine Board), Doug Daoust (US Forest Service), Mark Sytsma (Portland State University), Sam Chan (Oregon Sea Grant).

**1. Wayne Lei – Portland General Electric — Arundo presentation.** PGE received six truckloads of rhizomes from the Santa Ana river riparian zone in California in early May 2011, and we planted these rhizomes 36 inches apart either whole or cut. We planted on 85 acres. Indiana, Georgia, and Washington State also provided starts (plantlets) to determine if we could have other source material. Root bound is better, and we plant 6-9 inches in depth to protect for winter kill. Water delivery is comparable to corn. We have added no fertilizer to date except for at two locations.

To date: There has been good to excellence emergence. The growth habit is consistent with the Washington State Prosser site. We estimate seeing three flushes of growth, with rhizome growth occurring between growth spurts.

We can't responsibly encourage large-scale torrefaction locally, but we're working with Electric Power Research Institute, Idaho National Laboratory, and Pacific National Laboratory to help determine compatibility with the coal-fired power plant. We're talking about doing an RFP for small-scale torrefaction. We're working on a test-burn at the power plant by 2013, and 2014 for certain.

In terms of swathing and laying it down to dry for the commercial purpose of harvesting, this is the first time it's been done on the planet. We weren't sure this was going to work. We cut 4.5 acres, and are contemplating when to harvest using this approach.

We have developed, with a lot of partners, 16 defenses/procedures for control (we're calling them barriers) (handout) (similar to types of processes we use at nuclear power plants):

- Biological barriers
- Administrative measures

We have talked with NRCS and SOLV about doing riparian zone inspections. Portland State University will work us to validate procedures for eradication and control. Oregon State University will ensure label requirements are adequate for use in this region.

We have posted a \$1 million eradication bond.

Density, nutrient, water, weed control analyses will continue to be conducted – to ensure the product can withstand herbicide application.

Portland State University is also being funded to determine emissions of above average volatile organic compounds from Arundo.

We're looking for 3-5 tons/hour small-scale torrefaction units through 2013. We'll be expanding to a total of 100 acres, which will potentially be our seed fields. We're testing agricultural residues. We'll torrefy everything. We are implementing incremental coal-fired test burns in 2013, six years from when the power plant is scheduled to no longer be powered with coal.

There are 120 jobs at the coal-fired power plant.

- **Questions:**
  - **What kind of biomass are you getting the first year?** We're not giving much credence to first-year growth because of the way the rhizomes were initially treated, and the growth we have is just now drying.
  - **Will you be considering plantings in other areas?** We have always assumed we need to be within a 50-mile radius of the plant. Our notion is we would grow enough of the *Arundo* biomass and put a pile of charred biomass where the coal is right now, and the pile would be sufficient to fire the plant for one year at 50% capacity. For everything we consume in one year, we'll replace in one year. And we're looking at other types of biomass, as well (forest biomass, e.g.) as long as it is economical.
  - **What is done with the residue after the burning?** After torrefying the *Arundo*, ash quantity is about the same as coal, although this has higher silica than coal. We sell our existing ash for cement additive, and are hoping the mineral ash portion we have from *Arundo* will also be used for cement additive. If it can't, we'll have a landfill on site.
  - **Why didn't we use nitrogen fertilizer, and how many times do you have to harvest?** We'll likely have to harvest twice annually. This first year, we just wanted to see if it would establish with current soil conditions.

- **Is the pile of torrefied biomass an outdoor pile?** Yes. Once you torrefy it, it will resist water accumulation and bacterial or fungal attacks. We'll densify it, as well, so it's not subject to wind. But it's no longer viable.
- **Where will you torrefy the *Arundo* initially, and how much?** Idaho Falls will torrefy it initially, and then we'll locate a small torrefier on site. We'll torrefy about 8 big bales.
- **What regulations/control areas are in effect?** The Morrow County control area is in effect, and the State of Oregon control area is in effect under a 6-month temporary rule, which will soon end. We're exploring which type of regulation will be in effect in the future.

**2. Don Horneck, Extension Agronomist with Hermiston Agricultural Research & Extension Center - Experience of growing *Arundo* at the Hermiston Experimental Station**—*Arundo* isn't a wet plant species like cattail; it's more of a riparian species (it doesn't like to have wet feet). We put *Arundo* in greenhouses, and stored it a variety of ways (refrigerator, dry soil, wet soil, dry potting mix, wet potting mix, etc.), and we had no plants emerge. We bought *Arundo* seed from the Internet in California, and they're currently in the greenhouse (waiting for emergence). I was in Greece this past summer, and *Arundo* is everywhere (people's back yards)—all over the Mediterranean. It flowers in Greece, but has not yet flowered here.

There was discussion about whether or not the product being grown is *Arundo donax*, or some other variety. We planted some *Arundo* at Prosser, and it didn't flower; in Auburn, Alabama, it did. A study done in Iraq demonstrated sterile seed for decades, then one year, the seeds were not sterile. Work done in California indicated a percentage of the seeds (5% or so) are viable. *Arundo* rhizomes are impressive.

We also planted cuttings grown in the greenhouse (small, not root bound), and they did okay. We planted plugs in the ground, and they're doing well. We're doing an herbicide trial, and planting density trial to analyze performance. We put roots out on the soil, and they promptly desiccated, then we put them in pots, and they have not yet demonstrated viability.

We planted roots, chips, seeds in a variety of different ways—they are slow to get started, and may take a year to get established. How we manage cuttings is a method of control for this plant. Herbicide applications effectively eliminated the *Arundo*, but these are first year plants, and not well established. Weeds were a big issue the first year. We'll do some cutting, fertility, and elimination studies, etc.

Don said he suspects dried plants that become baled will not be capable of emergence, and noted it's not showing invasive characteristics yet. A question was raised about the viability of the plant in a riparian zone, and how robust it is capable of being in a riparian zone. The response was that this can't be tested, because we would have to introduce the plant to an actual riparian zone in Oregon. But it was noted that conclusions about invasiveness fall short if those conclusions are drawn from

agricultural field test trials versus riparian habitat. Don noted it doesn't look very viable in our climate sitting on the surface.

Will PGE be looking at fertility of the seed? Don noted that the plant likely will not flower, but if it does, we'll test viability. At six years at Prosser, it never flowered.

In Prosser, some of the plants were fertilized, and some were not. The question was raised about whether fertilization would change its flowering capabilities.

We continue to look at the best chemical control options for management of this plant.

**3. Terry Tallman, Morrow County Judge**—We developed control documents, sent them to lawyers, the Experiment Station, etc., and received input, and that was the genesis of what was developed by the county. We knew we needed to start right away. Terry's background is agricultural, and noted that he thought this would not be a successful project. Dave is our supervisor.

**4. Phil Hamm, OSU Experiment Station**—Phil talked about the Giant Cane Advisory Committee. Possible ramifications to nearby counties could be significant because of the potential invasiveness of I. Ex-officios are county commissioners, Bill Hansell, Tim Butler, local OSU staff, and PGE staff—they are not voting members, but provide insight to the advisory committee. The committee provides advice to Morrow and Umatilla counties. ODA engaged the committee to provide feedback to ODA relative to *Arundo* statewide rules.

**5. Dan Hilburn, Oregon Department of Agriculture**—ODA will be asking people attending this meeting for feedback to help get regulation of *Arundo* correct. We could go from a range of not regulating this plant to banning it — we need to find the balance. And we need to conduct trials to understand how this plant performs in Oregon. There are 4 key parts to the current regulation:

- The acreage is limited – 400 acres
- You cannot plant within ¼ mile of water (with the exception of trials on the experimental station)
- There's a \$1 million bond
- The fields have to be monitored

Where is the balance in the regulations? Do we need statewide regulations? This plant has been in the nursery forever; you can buy it today at some nurseries. Should we ban this plant from the nursery trade? Should there be bonds required with permits? Should we continue the way we are going now, with existing counties and sideboards on the trial (but wouldn't apply to the rest of the state)? Or should we decide that since the county has regulations, the state could sit back and watch. Dan asked every today to look at the fields this afternoon and provide ODA with their feedback.

**6. All attendees then participated in a field trip to *Arundo* plantings.**

## 7. Post-field trip discussion:

The Council has questions about the invasiveness of the plant and seeks dialogue on this issue after today's field trip.

- Comment—There's only one coal-fired plant in this state, and it's here. This is a special situation that applies to this area, and doesn't apply to other parts of the state.
- Question? What about different alternatives than *Arundo*, and torrefaction of alternates, and then transport to this site? PGE – Yes, if any kind of biomass can be torrefied and used in this plant economically, we will consider using it as fuel (e.g., poplars). Comment – theoretically, it can be grown in Ontario, torrefied, and shipped to Boardman? PGE – Yes, in fact, there are some mobile torrefaction units being considered for conversion of forest biomass.
- Comment—The US Forest Service has said not to count on forest wood for biomass production – it's not reliable.
- Question—How would listing this plant affect its use in Oregon? Hypothetically, if the plant was listed in Oregon, it would not be used in commerce. But the Department can have a Director's exemption for specific purposes.
- Comment—Some of these counties in question are prime agricultural counties. Umatilla County has 2 experimental stations with scientists working on this project answering the questions we have. Combining the agricultural and research base, I think it would be a mistake to adopt policies that would hinder the research base we would need to make informed decisions down the road.
- Question—Are you thinking we don't need a statewide control area? ODA—I don't want ODA to adopt a new regulation every time someone wants to try something. Comment—I think we need statewide controls if there is a possibility of people growing it other places, torrefying it, and transporting the product here. Comment—statewide control would mean keeping it out of the nursery trade.
- Comment—Research on *Arundo* in the Pacific Northwest is really in the infancy stages, and there are lots of unanswered questions. It's important to keep options open relative to energy, and the nursery trade is different.
- Comment—If the Board decided to list *Arundo*, it would allow for regulation across the state. The research end of it could be handled via an exemption. Question—Why would you need to list it if there currently are regulations? Comment—Because it's readily available in the nursery industry.
- Comment—US Forest Service concerns (largest single land management agency in the region) are:

- We are not fundamentally opposed to *Arundo* production in an agricultural environment, but we are concerned about scale in an agricultural setting – effective control measures on 85 acres is a different story than 20,000 acres. The concern we have is that it doesn't stay in agricultural fields – that it enters the Columbia River Gorge and other lands.
- We're pleased with the control measures in existing test plantings.
- What we would like considered is restricting its sale and movement in the nursery trade, which is a huge threat. We have a lot of invasive plants on national forests that originated from ornamental plantings. Exemptions for agricultural production if strict control measures can be contained could be supported. The economic risk potential of this plant is substantial.
- Comment—Echo US Forest Service comments; follow the US Forest Service recommendation to list it. Let's not find out later that it's a plant that should have been listed.
- Comment—In Baker County, we've spent about \$400 million restoring and repairing riparian corridors; we need to understand what this plant could do in riparian corridors.
- Comment—The Bureau of Land Management is very concerned about this plant moving out of agricultural areas. We have an opportunity to be proactive; at the same time, we aren't sure of its invasiveness. Our concerns echo the US Forest Service.
- Question? In the research that was done, do we know how long nurseries have been selling this plant? ODA—at least a decade. It's not a big seller in the nursery trade. We're not aware that it has been released into the wild (except Medford, where it was eradicated; there is a question whether it was a feral population or whether it was planted there). Comment—there is a similar climate in Medford as places in California, where it is invasive.
- Comment from ODA—what if we required the nursery trade to only sell variegated product? Then we would know the source of the plant. Comment—but that wouldn't help us respond to an invasion (funding).
- Question from ODA—are you concerned about finding large amounts of it that have become established, or are you concerned about it moving from one site to an adjacent site? Comment from US Forest Service—we're concerned about both because a lot of people cannot identify it, which makes early detection difficult. We've found large infestations on recreation sites where people have frequented for years—then we can't treat these sites for 5-6 years because of NEPA. By then, we're dealing with a large infestation.
- Comment—the bigger question with this plant is whether or not it will seed and whether this seed is viable.

- Comment—Agreed, but species moves in ways other than seeds (Japanese knotweed), like flood and disturbance events that move plants downstream (similar to how *Arundo* moves in California in riparian corridors).
- Question—If this plant was listed and there was a set of rules, would PGE still consider growing it? PGE—Yes. We’re complying with all of the regulations right now.
- Question—What are the downsides and potential consequences to listing *Arundo*? ODA—We’re still gathering information and don’t have answers to a lot of questions. We need to collect more information on nursery sales – we have some basic information. About ½ dozen nurseries are producing it. But it’s a minor plant in nurseries.
- Question—Do we know that the *Arundo* grown in nurseries is genetically different than the *Arundo* that has shown invasiveness in other places? I’d like to see some genetic research.
- Question—When is the next decision that needs to be made, based on ODA’s rules expiring, and existing county rules. ODA—PGE isn’t planning on bringing any new product in, so we have some time. PGE—We might try some new tissue cultures.
- Comment—There’s a plot in California where the plant has been emerging for 19 years. Comment—Most of the *Arundo* has been eradicated in Orange County. The standard methodology in southern California is cut and then daub with herbicide. You can also cut it, and when a new flush emerges 1.5 foot tall, spray herbicide, and it will kill it. We did the latter method in Prosser; it’s all eradicated. Comment—the infestation in Angeles National Forest was in intermittent streams; it doesn’t surprise me that it’s easier to kill in a field versus the difficulty of controlling it in a well-established riparian area (which is the situation we’ll be facing as land management agencies managing perennial riparian systems). We can’t equate the ease of controlling it in an agricultural field with a riparian zone.
- Comment—It’s well known that if plants have their roots in the water, the plants tend to be much more difficult to control (compared to plants in highland areas). C
- Comment—We are asking a lot of questions, but nobody here is taking on the task to takes notes, document research needs, and systematically figure out what the resources are to do the research, what the research priorities are, and how the research will be implemented. I would like to see the advisory committee articulate priorities among the gaps we’ve identified. Can we take what was learned at this meeting and identify who is going to take this information to the next step and organize an approach.

**OREGON INVASIVE SPECIES COUNCIL MEETING**  
Port of Morrow Conference Room, Marine Drive  
Boardman, Oregon

**September 28, 2011**

**Attendees**

Rian Hooff, Mark Porter, Vanelle Peterson, Glenn Dolphin, Tania Siemens, Dan Hilburn, Sam Chan, Rick Boatner, Mark Hitchcox, Mark Sytsma

**PNWER**

Mark Sytsma talked about the excellent participation of Canadian provinces and Northwest states at the July Portland meeting. He described the invasive species steering committee that has developed since July and the terms of reference that have been developed. Action items from the July meeting included the development of a terms of reference, a white paper on economic impacts, and an action plan, to name a few. Mark asked for an endorsement from the Council on the terms of reference, acknowledging the scale of PNWER has a unique geographic scope as well as legislative participants – a regional approach that states can help to implement.

Mark also informed OISC members that he could add them to the email distribution list of the PNWER invasive species working group, if they so choose.

***A motion was made and seconded to support the terms of reference, which was approved unanimously.***

**Housekeeping Items**

**a. Minutes from July meeting:**

- Minutes from the July meeting – Omit under third bullet (legislation) should be removed; from the semicolon on, that whole sentence should be removed. Add a bullet for House Bill 3399, and amend everything after the semicolon that was under the third bullet. And it's ODA to Marine Board, not ODFW to Marine Board.
- House Bill 3121 lowered the fine, however, the \$142 to \$50 (motorized) and \$30 (non-motorized)
- Item #5 has incorrect acronym
- Under 5, last sentence (Executive director) – doesn't belong there – take that sentence out. Lisa will review recording from that meeting and correct his piece.

***A motion was made to approve the minutes with recommended changes.***

***ACTION ITEM: Glenn will send Lisa amended language to fix these two bullets.***

## **b. Status of Council funds:**

Funding is available for OISC coordinator support for this biennium, and we'll be scheduling a meeting with OWEB in the near future once we have finalized support on two pending feral swine grants.

## **c. Strategic Plan**

It was emphasized that the committee (Steve Buttrick, Vern Holm, Robyn Draheim, Rick Boatner, Rian Hooff) wants the Council's input on the draft action plan that has been developed. Rian asked for approval from the Council to move forward with the type of structure in the document, and then walked the Council through the goals and objectives. The outcomes from the summit and statewide assessment were incorporated into the goals and objectives presented in the draft. It was suggested that measurable performance measures could be added. Rian led the Council through the draft strategic plan. Overall recommendation to have responsible party and partners, cost to implement, timeline, and potential sources of funding for each action. It was also noted that each Council member be responsible for implementing all of the action items.

### **Goal 1:**

- Additional action item relative to WRP.
- Remove the XXX of feral swine . . . too specific.
- Action 2 is important (Natural Resources Policy Advisor cabinet meetings) to the Council.
- Be more specific in Action 1 – we don't need to develop a message for Health and Social Services – say “for each Natural Resource state agency” – talk about connecting with all of these other groups and action items – if we call out engaging with NISC, that specificity will be good, which would change the goal to “in Oregon, neighboring states, the region, and national organizations.”
- Action item 1 – statement needs to be about working with those agencies and not developing messaging for state agencies; part of the problem is representation level on the Council (staff versus division level) – take out “for each state agency”
- It was suggested that perhaps the NR policy cabinet is the place to get the agency representation on the Council. Invasive species needs to be a higher priority for agency leads.
- Goal #1 – call out the educational link “educational institutions”
- Add an action that the Council will continue to provide a hotline and website for the Council to continue connecting to the public. “Maintain and support the functions of the website and hotline.”

### **Goal 2:**

- Include the Invasive Species Control Account in this goal.
- State agencies are not able to lobby for their own programs, and the Council should consider showing up at agency budget hearings to support pieces of agency budgets that are important to invasive species. “Maintain the funding for state agency invasive species programs important to the Council by tracking agency budget hearings and testify at their hearings.” It was suggested that the seed industry and others could send their representatives when we make our contacts. Work on an outline the legislative process, and

where the Council could interject to assist – we could set up a network going into each session.

- We want to grow the emergency fund as a specific action.
- A summit outcome was to encourage additional funding for counties that don't have a noxious weed component – consider an action item here.

**ACTION ITEM: Lisa needs to add the program budget updates to the bill updates during the legislative session. Put this information on Acrobat.com instead of sending weekly emails.**

#### d. Council member seats

- Vanelle Peterson, Doug Daoust, Mark Porter, and Nancy Willmes' terms are set to expire; in addition, Mark Hitchcox, who is filling in for the remainder of Mitch Nelson's term, has a term that is expiring.

**ACTION ITEM: Council members need to notify Rian and/or Lisa if you have an interest in serving a second term.**

A question was asked if a K-12 teacher would be considered as a Council member. It was recommended a teacher participate first in an advisory committee.

#### Report Card

The draft report card was discussed.

Under outreach and education – Add Council coordinated education and survey activities relative to tunicates in Coos Bay.

We have had detections of weeds on our 100 Worst List, but they haven't gotten away from us.

Sudden Oak Death – we're out of eradication mode, so that should be added as a species that got away (that takes us down a whole grade) – give it a C. Lack of secure funding is the reason for this.

Meadow Hawkweed – moved from eradication to containment in eastern Oregon and orange hawkweed in Deschutes County.

We don't capture rapid response anywhere in the report card – give a definition of "exclusion" which includes prevention, early detection, and response.

Council members voted 5-4 to change category 5 language from "exclusion" to "success at preventing the establishment of invasive species."

**ACTION ITEM: A total of five Council members voted to change category 5 to "success at preventing the establishment of invasive species" instead of "excluding."**

**ACTION ITEM: Council members voted to give a B- to the fifth category; include Sudden Oak Death and hawkweeds. Clarify the success and the failures, including the funding.**

## Award Nominations

**ACTION ITEM: Council members will send award nominations to Lisa by December 15.**

There was a discussion about the award ceremony:

- change it to a dinner associated with our two-day meeting in February during invasive species awareness week
- have a good keynote speaker
- encourage lobbyists to attend
- extend an invitation to the Governor, and select a date and location

## 100 Worst List

10 major news items for 2011 –

**ACTION ITEM: Each Council member will send Lisa at least one key story from 2011 for the 100 Worst List.**

## EDRR Summit

Tania Siemens provided an update on the proposed December 7 at the Chemeketa Eola Viticulture Center. The summit planning committee met this morning and decided to hold a series of town hall meetings across the state and invite people to get their input and feedback on organizing county-scale EDRR programs. The group will send a questionnaire to individuals throughout the state prior to the town hall meetings (and it was mentioned that there is interest in the results being published in a peer review publication, which could delay the process significantly to get an Institutional Review Board to approve).

There was some question about the time commitment it would take to host the meetings, travel, synthesize and bring that back to stakeholders, which could be as much as a 1.5 month commitment. It was noted that Doug Daoust should be contacted to confirm use of the funds he committed for the summit to use for this town hall concept. It was noted that some of the funds should be used to hire a facilitator for the process. It was also stated that the OVMA annual meeting would be a great place to convene people, but was also noted that EDRR needs to happen on a variety of scales, and all of the stakeholders associated with those scales do not participate at OVMA (watershed councils, etc.).

**ACTION ITEM: Doug Daoust will be contacted to confirm use of the \$10,000 he committed for the EDRR summit for a town hall meeting approach to EDRR.**

**ACTION ITEM: Tania will run the survey by the Council to obtain input, members will comment about whether or not it's worth delaying the process to consider review by an IRB for peer review publishing, and we may obtain feedback from Idaho and Washington on the survey instrument.**

## 100 Worst List

**ACTION ITEM: Send an email to the Council to make amendments to the 100 Worst List by December 15, 2011.**

### Legislative Plan for 2012

- Introduce legislation that provides authority for officials to effect a quarantine for a water body infested with zebra or quagga mussels.
- Consideration of changing OISC's fiscal agent.
- County weed funding.
- Feral swine ear tags – ODA rule making. Get Terry Witt's group together for the entire session so no one gets surprised.

**ACTION ITEM – The legislative committee will convene and put together a game plan for the upcoming legislative session.**

### Roundtables

**Consistent messaging about Arundo** – the Council reviews its draft key messages:

- Ask for ODA to pursue regulatory authority relative to Arundo
- advocate the State Weed Board List it as a weed
- ODA phasing it out of the nursery trade
- pending research outcomes – allow it to only be allowed to be used for biofuels/industrial use by special permit only

Can there be a bond for escapement and an annual fee for Morrow County and ODA for survey and monitoring to focus the potential and probably outcome of an escape? You could potentially require an annual survey report, but PGE doesn't have access to private property and other property they don't own, so funding ODA to survey and monitor would be efficient. Council members also discussed PGE paying a fee for production (per acre, etc.), and some of the funds would go into the emergency fund.

We should decide what we need to survey and what it would cost, and then have industry talk with us about how to structure the fee-based system; it is based on what they produce.

### Roundtables

- **ODA** - has no gypsy moths in its traps (3<sup>rd</sup> year in a row without an eradication project) – may be attributable to lower populations back east and perhaps fewer movers to the West because of the economy. But there are 32 Japanese beetles found this year, the Troutdale FedEx terminal, Cave Junction, and PDX and the associated golf course. Ribbon grass on the Metolius is an emerging issue.
- **ODFW**

- Boat inspection stations – conducted 3,500 inspections, stopped 5 boats with zebra mussels (decontaminated four of the boats and sent one to Washington) – 2 from Lake Michigan, one from Lake Mead, one from Lake Havasu, and a sailboat from the East Coast. It was noted that decontamination impedes the interstate commerce law. A total of 27 individuals bypassed Oregon’s boat inspection stations on one day – most common excuses were, “I didn’t see the sign,” “I didn’t think it applied to me – I thought it only applied to Californians,” and a unique one - “I didn’t realize I had a canoe on top of my truck.” No citations were issued – all warnings. Next year, all check stations will be moved to Oregon’s southern and eastern borders. ODFW needs two more teams to cover all border stations, but funding doesn’t exist to add two more stations.
- Feral swine – trying to work with landowners to obtain cooperation. Have trapped 60 pigs this year (have taken a total of 100 pigs out of central Oregon this year). We need more landowner cooperation.
- Non-native turtles – we did a news release and collected 24 non-native turtles.
- **Oregon Sea Grant –**
  - **Clean Vessel Act Education Program** - Tania will be coordinating the Clean Vessel Act Education Program. Tania will also remain involved with regional research efforts to take a multi-state effort toward common invasive species issues, e.g., to create an aquatic invasive species education toolkit, and host teacher workshops (with accompanying stewardship projects) in Oregon, Washington, and California.
  - **Tunicates** – divers will be going through their second round of surveys this October. The tunicates don’t seem to have expanded, and growth has been less over the year, likely because of freshwater influxes. There are more observed tunicates within the oyster grower’s facility on mooring lines and stringers. The water used to wash the exterior of the oysters at Umpqua Triangle Shellfish in Winchester Bays seems to be discharged back into the bay. The main concern is vectoring the tunicates on boat hulls. Oregon Institute of Marine Biology instituted treatments over a three-week period; they wrapped the entire dock as well as towed the dock into freshwater – after the first week, both treatments showed almost complete mortality, except for a mussel. After the 2<sup>nd</sup> week, everything was dead.
  - **Sea Grant Law Project** – This project is examining the legal authorities and barriers from law enforcement stopping moving vehicles, and surveys of AIS program leads in the West.
- **Glenn Dolphin** – AIS boat permit sales are increasing. Law enforcement is more active this year than last year with the \$30 citation versus \$142. Total 800 warnings.
- **USDA-APHIS** – 2012 CAPS work plans have been submitted. One of the problems USDA-APHIS is facing is funding for species we have routinely had for surveys of species like gypsy moths, which forces us to set up multi-year strategies (e.g., survey every other year in a region). We won’t be surveying for emerald ash borer in 2012. We found banded bark beetle (native to

Europe) in the Deschutes Recreation Area, and it was likely brought in via firewood.

- **Vern Holm** – is working with western counties on helping to create weed districts, and is helping to create CWMA's.
- **Vanelle Peterson** – Western Society of Weed Science publishes Weeds of the West, and it is being reprinted, and we're ensuring common scientific names are aligned with WSWS. Vanelle is launching a committee to take next steps for a new iteration of the publication, and is considering an electronic version. If anyone has suggestions for how people might use an electronic version (formatting, etc.), please send those to Vanelle.
- **Rian Hooff** – The position to board and inspect vessels was reclassified as a 2 (it should have been a 3), so filling the position may be delayed until funding can be secured to hire it at a 3 level. To date, only warnings have been issued for ballast water discharge violations. Rian is applying for use of an expedited enforcement option (an onsite ticketing program), which will allow for an official means of issuing a citation (allows a vessel to accept the citation and pay it in a short period of time versus the existing process, which can take months).

### **Firewood Rulemaking**

Lisa and Dan are working on the draft of the firewood rule with a number of stakeholders. The sticking points are on how much paperwork and documentation is required for dealers and sellers of wood sourced from the Pacific Northwest.

### **Citizen Science Inventory**

USDA-APHIS would like an inventory done of citizen science groups/individuals for recruitment and placement of volunteers on specific projects as well as to network with groups, etc. Mark would like to know if there is council support to conduct such an inventory, and if so, how it might be designed. VolunteerOregon.org is an example of a website (SOLV is another) – perhaps the Council could simply link to that website. Perhaps we could start with the OISC advisory committee providing an initial list to populate a table.

**ACTION ITEM: Mark Hitchcox will work with Lisa to send a request to the advisory committee to provide name of the organization, contact, type of work they do, webpage. We could use SurveyMonkey as the instrument.**

### **Other Business**

The next meeting (February 2012) should be scheduled the week before National Invasive Species Awareness Week in Salem, Oregon. Lisa will look for other options for the dinner.

The next chair is Rick Boatner, and the next Vice-Chair is Dan Hilburn.

# **Agricultural Production of *Arundo donax* (Giant Cane) Addressing Invasiveness**

## **Background**

Giant Cane has a reputation for invasiveness in natural habitats especially in riparian zones that have access to abundant water. Even though its seeds are considered sterile, Giant Cane propagules (stem nodes, rhizomes) can be physically dislodged and transported by flowing water. Dispersal and re-establishment by vegetative means coupled with the plant's high productivity allows Giant Cane to displace native vegetation. In the U. S examples of this are evident in Texas, southern California and other locations generally south of the 38<sup>th</sup> parallel.

## **Barriers to Invasiveness**

PGE, its partners and regulatory agencies are building a compliance structure to prevent or otherwise mitigate Giant Cane invasiveness. The approach is governed by a "defense in depth" concept that is predicated on the weed control philosophy of "early detection; rapid response". This defense in depth at present includes:

### **Biological Barriers and Viability in Eastern Oregon**

- 1<sup>st</sup> barrier: Contained "clumping grass" growth habit (e.g. no dispersal by runners)
- 2<sup>nd</sup> barrier: No observed flowering – but in the event; seeds are sterile
- 3<sup>rd</sup> barrier: Demonstrated susceptibility of Giant Cane stems and rhizomes to desiccation
- 4<sup>th</sup> barrier: Demonstrated tensile strength of Giant Cane stems against wind breakage
- 5<sup>th</sup> barrier: Demonstrated non-dispersion from Prosser, WA and Milton-Freewater, OR sites

### **Administrative Barriers**

- 6<sup>th</sup> barrier: Morrow County Growing Conditions (active)
- 7<sup>th</sup> barrier: State of Oregon Control Area Plan Requirements – (in draft)
- 8<sup>th</sup> barrier: PGE compliance (with the above two) and inspection procedures (active)
- 9<sup>th</sup> barrier: Morrow County Stakeholder Advisory Committee Review (active)

### **Physical Monitoring and Removal Barriers**

- 10<sup>th</sup> barrier: PGE and regulatory oversight of planting material receipt and handling - periodic
- 11<sup>th</sup> barrier: PGE documented inspection of planted fields at edge and beyond - weekly
- 12<sup>th</sup> barrier: Morrow County Weed Control inspection procedures and documentation at field edge – periodic and annual
- 13<sup>th</sup> barrier: Morrow County Weed Control inspection procedures and documentation beyond the field edge for feral plants - annual
- 14<sup>th</sup> barrier: PGE, NRCS, SOLV cooperatively sponsored riparian zone monitoring as part of SOLV's "Adopt-A-River" program – annual – (in planning)

### **Scientific Validation and Assessment Barriers**

- 15<sup>th</sup> barrier: Validated eradication and control procedures for feral Giant Cane together with a public education component; anticipated partners, PSU, NRCS – (in planning)
- 16<sup>th</sup> barrier: OSU Weed Science Group validation of herbicide efficacy for Giant Cane control in specific eastern Oregon environs – (active)