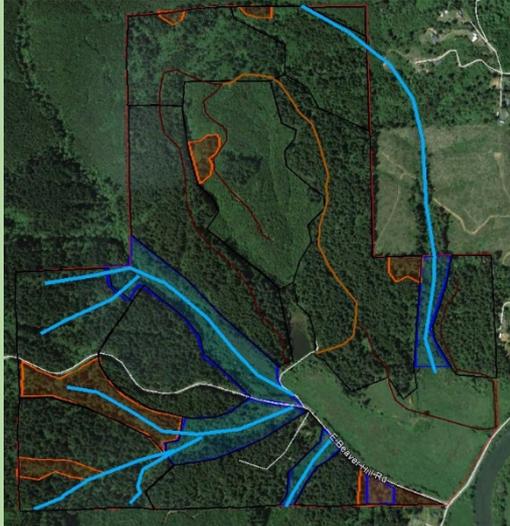


Forested Wetland Restoration

Jake Robinson
Yankee Creek Forestry





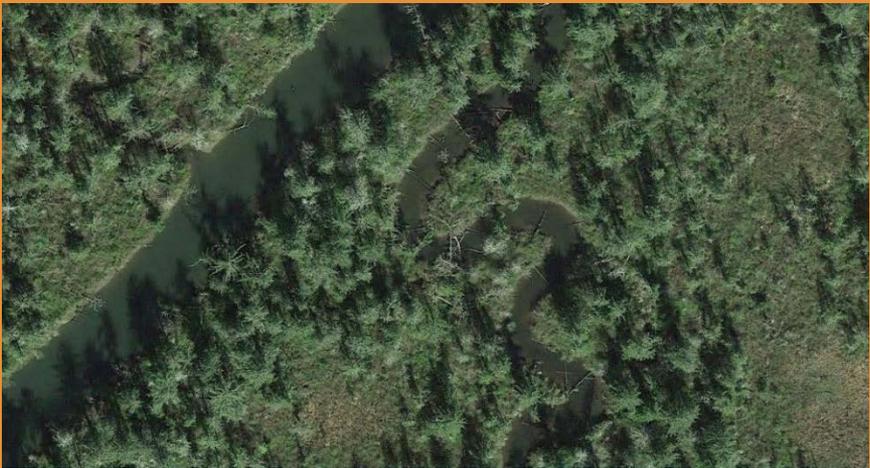
South Slough National
Estuarine Research Reserve

NOAA/DSL

Charleston, OR

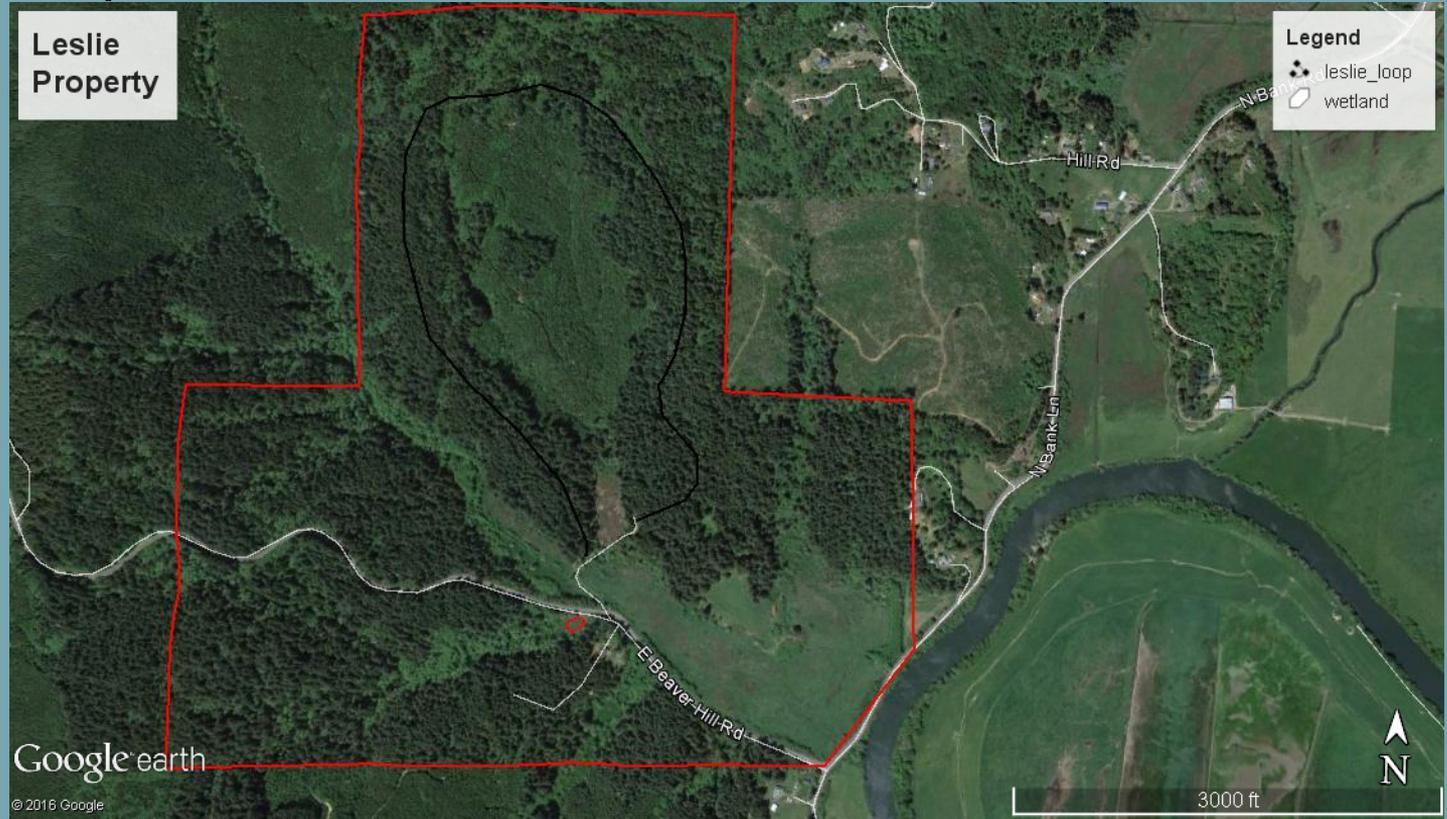








2 acre wetland, S side of Beaver Hill Rd. Connected to main wetland via 24" culvert. Main wetland in NRCS CREP, no tide gate to Coquille



Project was designed to enhance wetland habitat and test method of developing nurse logs from smaller wood

OWEB Small Grant

Used non-merchantable material, small logs @ \$23/ton for chip. By-product from non-commercial thinning of nearby uplands. Improved this habitat as well.

Partnered with Coquille Watershed, ODFW, Landowner, Bandon High School native plant nursery and TU

New technique; test design and implementation. No large equipment.

Spruce/shrub swamp habitat restoration

Project area

99% reed canary grass, limited natives, only skunk cabbage

Narrow stream bed, 200' wide flat wetland. Stays wet throughout summer

Tidally influenced during very high events

Private property, willing landowner

Limiting factors for total passive restoration

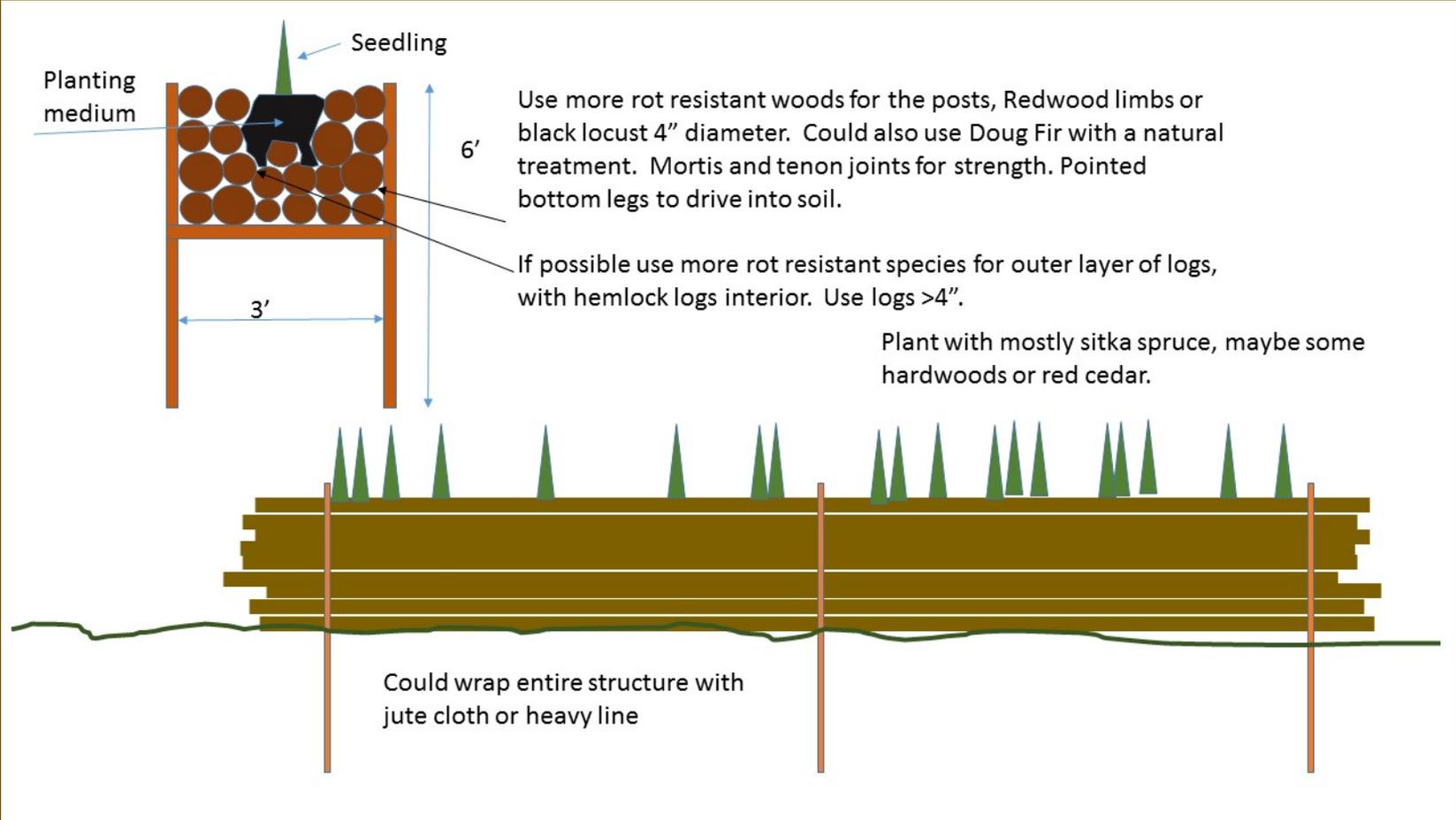
Limited adjacent large trees for wood recruitment, some small/old alder snags

Flat; no micro-topography. Too wet for conifers

Dense mat of grass, very tough to get woody plants established(willow)



Original Concept, This is what I brought in to odfw



Permitting, Funding, Etc

OWEB Small Grant, <\$10k. Application and project run through CWA. ODFW helped significantly with turning the concept and rough budget into successful grant. Match with ODFW, Landowner, TU

ODFW did Coos County floodway work application. Smooth sailing, \$100.

ODF Notice of Operations; since it was involved with forest work (PCT) they ran all permitting through FERNS, follow OFPA. Stay 20' off stream.

PCT in uplands, 18 year old stand. @500+tpa







Google earth

100 ft





Early Troubles

Very slow going.

ATV with arch, though cool, took @40 minutes per turn. ATV was also not running well, fire restrictions. No truck access

Capstan winch was also too slow per turn, 10-12 minutes per turn. Left folks standing around.

Poor first 2 days, then 2 solutions







Dec 13, 2015. Coquille goes up to 25'



Water flows over Beaver Hill Rd
and North
Bank Ln

2 Structures disintegrate, logs stay
on site

Others take varying damage, some
none.

Those that were better bundled
with rope
fared the best. Acted just like LWD
with
large limbs.

One day of repair once water went
down.

Planted Feb 2016

Sitka Spruce, Red Cedar, Bigleaf Maple, Malus, Twinberry, Willow

Used fewer numbers of larger stock (1&2 gallon). Better chances of survival with larger root mass. Bandon Highschool nursery.

Had to add chips that washed away.

Willow stakes along outsides of structures, will add stability once rooted. Also foot for beaver

Structure were labeled with aluminum tags

Zipline used to get seedlings out into wetland.





Big Thanks to OWEB, CWA and ODFW

Lessons;

- Get a real truck to haul in materials if possible
- Proper bundling technique
- Better/deliberate zipline system
- Never enough willow
- Use large plant stock
- Test against flow
- 5 year monitoring (3/yr)

Idea is probably not suited for some projects;

if there is already equipment on site, use it.

If there is free big wood, use it.

In some projects where either access, material

or finances are limited this should work.

Combining Forestry with Wetland and Riparian Restoration

Our research documents the disproportionate use of upper reaches of the estuary compared with lower reaches, and highlights the importance of the stream/estuary ecotone as rearing habitat, Miller/Sadro 2003

Better restoration by blurring the distinct lines (both physical and perceived) between forest and wetland areas. Bring the forest into the wet areas. Healthier upland help maintain healthy lowlands

Source of materials and match, both in additional grant funding sources (NRCS, ODF) as well as timber value and LO contribution.

Best to combine forces early in the planning process, ODF has funding for pvt

A photograph of a forest with stacks of cut logs and a red tractor with a log loader attachment. The scene is set in a wooded area with many tall, thin trees. The ground is covered with fallen leaves and branches. The text is overlaid on the image in a bright green color.

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