Southern Willamette Forest Collaborative **Rigdon Collaboration Committee** Tuesday, Jan. 31^{st} , 12:30 - 3:30Rigdon Collaboration Committee & Interdisciplinary Team workshop

Participants: Rick Z, David C, Chandra L, Sarah D, Guen P, Jean C, Kris E, Laurie P, Lon O, Mike B, Chris Y, Laurie P, Loren H, Jim C, Kris E, Tanya H, James J, Tim B, Leslie D, Kim T, Scarlett O, Susan O Leslie L, Molly J, Jane K, Allen H, Joanne L, Steffan B, Wendy P, McKenzie J, Seguoia J

Facilitator: Sarah A

Facilitated Landscape Design Process

Jane Kertis The Facilitated Landscape Design Process (FLAD) provides way to look at the landscape as an ecosystem. It is a way to see the interactions between living and non-living components and understand relationships to look at whole landscape.

FLAD design process created in 1992 by Diaz (ecologist) and Apostle (landscape architect). The goal of this work is to create or maintain resilient landscapes, which can be defined as the ability of an ecosystem to maintain its elements, flows and functions in the face of disturbance.

There are 8 steps to the FLAD process with two logical stopping points where the District interdisciplinary team (IDT) and Rigdon collaboration committee (RCC) will join together: 1) discuss the landscape elements and flows (today's discussion), 2) discuss landscape objectives or target landscapes.

Landscape Assessment Design slides see Landscape Assessment Process PPT

- 1. Describing the elements of the landscape. (components you can see, touch or feel)
 - a. Three categories
 - i. 1) Fabric or matrix background fabric of matrix
 - 1. dominant or most connected element on the landscape a. Ouilt example – the matrix is the background
 - 2. Usually vegetation dominant textural element usually same structure and composition.
 - 3. Occupies more than half of landscape
 - ii. 2) Patches if you draw a shape around something, inside the shape is similar and distinct from outside.
 - a. Quilt example similar to guilt patches
 - 2. They can be living, such as a vegetation seral stage or vegetation type (meadow)
 - 3. They can be abiotic
 - a. Water
 - b. Rock outcrops
 - 4. They can be human caused patches as well developed areas

- iii. 3) Flows connections or "hallway" between similar patches on the landscape or movements through a landscape.
 - 1. Step 1: Corridors
 - a. Can be nonliving
 - i. Trails, roads, streams
 - b. Living: riparian areas
 - 2. Step 2: Flows movement of a phenomena within the landscape
 - a. Can be living: wildlife aquatic and terrestrial
 - i. Vegetation flows (weeds)
 - ii. Human recreational
 - b. Nonliving water, sediment, wood, wood products
 - i. What is the direction of the flow in, out, around in the landscape
- iv. What are the relationships between the elements?
 - 1. Are there places where the elements and flows are being blocked and creating issues.
 - a. Describe the flow what is the direction or timing of the flow (i.e. is it seasonal?)
 - i. Condition of the flow flowing freely or inhibited
 - ii. What flows to we want? How can we design and implement projects that will achieve these goals?
- 2. Remaining steps of the landscape assessment: see PPT diagram
 - a. Role of natural processes types, landscape elements and the patterns and flow, how they operated historically and today
 - b. How does our landscape link to other larger landscapes
 - c. Bring in information from WIF forest plan, NWFP and other directives
 - d. Describe target landscape goals and objectives
 - a. Use all previous steps to come up with target landscape objectives
 - i. What are the key elements on the landscape?
 - ii. What are key patches?
 - iii. What are key patterns?
 - iv. What types of functions to they produce?
 - v. These goals will help to design a resilient landscape plan and generate projects that meet the goals and objectives.

This process will help identify where target patterns belong on the landscape based on the current landscape and its capacity. Understanding existing landscape patterns and desired targets helps inform the types of projects that are needed to create a resilient landscape.

Rigdon Landscape

At this point, the project area has been narrowed to four 6th field watersheds: Staley Creek, Cole Creek, Buck Creek and Swift Creek. The project area will continue to be narrowed through the design process and identifying target landscapes.

The *matrix* or *fabric* of the Rigdon landscape is a closed canopy forest that is largely in the late serial stage. *See slides*

In October, the collaborative committee brainstormed current and future desired conditions – based on four themes on the landscape: vegetation, wildlife, and aquatics, human use. The IDT has grouped the Rigdon landscape patches and corridors by the themes.

Committee members split into small groups to discuss the patches, corridors and flows identified under each theme. The following notes are a sampling of breakout discussions of the IDT's findings and comments added by collaborative members.

The purpose of this step in the process is to identify the patches, corridors and flows that exist on the landscape and identify additional information needed about these elements.

See <u>Rigdon Elements & Flows PPT</u> for additional info

Aquatics

Wendy Peterman, Leslie Elliott

Important to remember patches can be seasonal.

- Patches
 - Aquatic habitat
 - Bull trout and Chinook habitat
 - there are other fish and aquatic species that exist in patches but improving bull trout and Chinook habitat will benefit other species
 - Wet non-forest meadows, wetlands, seeps, springs, mesic meadows (dryer but not dry)
 - o lakes, ponds
 - Unconstrained valley middle fork
 - glacier melting created big U shaped valley
 - o dissected mountain landscape created by water
 - Wasting/ landslide = uneven/ open water show locations
 - Flatter valleys = flood plains where gravel deposited
 - can create beneficial fish habitat
 - potential places where work can be done to access floodplains that have been cut off due to human activity.
 - Snow dominated patches
 - Critical habitat = minimum aren't habitat will endager
 - Current organisms
 - Critical vs actual vs potential

• Corridors

- river and streams channels
 - there are far more small streams than mapped, LIDAR will help and ground truthing will finalize
- o riparian corridors on each side of stream

- forest plan defines 1 tree length to each side
- represent two freq. might access
- Loss of diversity, near waterways, has an effect
- Especially time, less meadows w/ fire suppression
- Flows
- Water quality
 - o temp, turbidity, nutrients, quantity
 - o generally one direction flow from upstream to downstream
- Aquatic populations
 - o Bull trout, Chinook, lamprey, macro invertebrates
 - flow up and downstream
 - seasonality and age may effect flow direction
 - o Lamprey flow through main line up into smaller streams
 - local population do not travel to ocean
 - survey's just starting, gene study needed
 - macro invertebrates follow same flow but not to the distance that fish flow
- Overland sediment flow
 - Ridgetop to valley bottom sediment flow depends on the landform and is weather/ event dependent
 - o landslide prone areas create consistent source of sediment
- Sediment nutrient flows
 - o Lots of sediment flows into little streams and eventually to river
 - keeps landscape dynamic
 - "Chaotic good" Not always positive, but never bad
- Woody material flows like sediments, pulse due to events, very much like sediments
 - Contribute to nutrient flow; carbon/ nitrogen
 - o creates dams and small pools
 - o large events flush out wood to downstream areas where redeposit

Wildlife/Vegetation

The patches – occur in a forested landscape – matrix of late seral, closed canopy. Identifying the patches that exist and will need to look for more of some types.

Vegetation

Jane Kertis, Sequoia Gjerde

- Patches
 - Seral stages
 - Most mid-seral, managed stands
 - Don't see mid-seral stands that are natural, most natural stands are late seral
 - Small amounts of early seral, with fire disturbance such as the Tumblebug fire
 - RA32 areas natural stands with old growth characteristics that are identified as high quality wildlife areas. Highest value habitat for spotted owls.
 - Exist along water corridors

- Jim's creek project area oak pine savannah
 - Expect there is more of this habitat type and plan do more surveys and LIDAR to find these areas
- Special habitats of dry & wet non forested habitats includes many categories
 - Dry meadows
 - wet meadows
 - Scree slopes
 - Will eventually have LIDAR and survey data to identify more accurately
- $\circ \quad \text{Sensitive plant species} \\$
 - Example Knob cone pine
 - Have existing data and will have a fuller picture of these patches after surveying
 - Don't know status of every patch and will further study after targets and project areas are identified
- Mixed conifer patch have general area identified but needs to be further
- Oak groves plan to use LIDAR and on the ground surveys to help define them better
 - Difficult to map but plan to identify distinct groves

• Corridors

- Weeds & Invasive plants follow along disturbance roads and trails
 Blackberry, scotch broom, knapweed
- $\circ~$ Grazing would have kept places more open, last sheep grazing in 80's but it was low
- Flows
 - Genetic flow of plants long observational time period
 - Weeds flow along corridors
 - weeds flow from roads
 - private to federal lands
 - o Invasives may flow along riparian corridors and rivers
 - Weeds flow along early seral patches close to roads, create ex tumblebug fire
 - o individual species flow, unique plant associations "gene flow"
 - ponderosa pine, sugar pine, OR white oak, knob cone pine
 - Hard to map but would like to because of desire to increase certain species
 - \circ flow between meadows dry and wet right now not a lot of flow
 - Fire Seasonal flow
 - Ignition source flow
 - Human ignition sources are along road corridors and campgrounds
 - humans can affect the seasonal flow of fire
 - hard to map lightning flow not really a pattern
 - Fire behavior flow
 - Patch distribution will impact fire behavior flow
 - the more homogeneous an area or patch the more a fire flow is able to happen

- $\circ~$ extreme fire weather allows for an unencumbered flow through the matrix landscape
- more variability horizontally across landscape the lower the flow potential
- East winds (dry air from eastern Oregon)? less of a map-able pattern than would expect

Molly Juillerat, Joanne Lowden

- Patches
- Identified habitat types that the wildlife depend on
 - High emphasis areas from the forest plan actively managing
 - Winter range and summer range for deer and elk identified by ODFW
- Corridors

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- Wildlife is more of a flow that follows vegetation patches
- Flows
 - o Difficult to identify for some wildlife species, some migrate and others don't
 - Some animals flow to patches, gives a more meaningful picture
 - Eagles, elk, wolverines
 - Late seral obligators many varying flows
 - Survey spotted owls then designate areas
 - Pollinators
 - Red tree voles don't migrate
 - Bears, cougars, bats well distributed
 - Turtles 1-2 mi of seasonal movement
 - Gene flow survey? Working w/ University?
 - need funding and student interest before doing certain projects

Human Use

Allen Hambrick, McKenzie Jensen, Steffan Bolin

- Patches in the landscape due to human use
 - \circ Private land
 - Admin sites recreation
 - Rock Quarries
 - Within Rigdon less than 5% are actively used and could be closed
 - Admin sites structures
 - Structures found mostly along corridors
 - cell phone towers
 - Culturally protected areas are undeveloped but the trails associated also aren't mapped
- Corridors
 - o Roads
 - There is a difference between closed roads, stored roads, administratively closed roads, etc. Just because roads are on the map doesn't mean they are passable.
 - roads include bridges
 - o Trails
 - Historic roads

Wildlife

• Flows

- Recreation (all seasons)
 - Horseback riding
 - Not a lot in the area pass through to higher areas
 - Parking w/ trailers is a challenge
 - Bad roads may inhibit human use
 - Dispersed camping there's some along rivers
 - Recreation on creeks and rivers not a lot of people fishing or boating
 - Hunting numbers have gone down
- \circ Timber flow
 - Follow along main roads
- Forest products flow = timber, mushrooms, Christmas trees
 - Everything flows out of main roads

Wrap up:

The IDT is working on a spreadsheet with all the elements and the interactions with flows, which will be available soon.

Next steps:

The collaborative committee will continue to hold learning sessions throughout the spring and summer.

The next joint IDT/ collaboration committee meeting will be at FLAD step 7, probably next fall.

FLAD step 7 - Landscape Pattern Objectives: Develop statements that describe the "target" landscape pattern (kinds, shapes, sizes, arrangement of landscape structures) in different parts of the planning area, using information from the analysis steps and local resource objectives specific to the analysis area.