Intertwine Alliance Conservation Forum
Connectivity / Corridors

April 28, 2016
Meeting Notes

Jonathan Soll, Metro:
Intertwine Conservation Forum topics this year include pollinators (January 21, 2016), connectivity (April 27, 2016), and shared metrics/measures of success (fall 2016). In the summer, there will be an information-sharing meeting to talk about near and medium term priorities. An effective partnership will come with aligning our staff assignments and budget.

Today's topic is regarding the challenge of planning and implementing connectivity in urban areas that have smaller patch sizes.

Lori Hennings, Metro, Connectivity 101:
What we have? habitat loss/fragmentation
What do we want? an interconnected system of habitat
How do we get there? patches, corridors, stepping stones

The population of the Metro region is estimated to exceed 3M by 2040, which will impact habitat. For example, South Cooper Mountain Master Plan (Beaverton) identified a change in the Urban Growth Boundary (UGB). There has been corridor loss there due to the conversion of "soft" areas like agriculture.

A brief history of connectivity planning in Metro area…

- Metropolitan Greenspaces Master Plan (1992)- corridors and linkages are only safe passages for animals
- Regional Conservation Strategy (2012) - need to plan for biodiversity corridors ("corridors" mentioned over 200 times in document)
- Wildlife Crossings Guidebook (2008) - providing safe passageways for wildlife across roads
- Wildlife corridors and permeability: a literature review (2010)
- Corridor workshops (2010/11) – over 100 participants mapped corridors

Tommy Albo, Metro, Challenges in defining corridors

- Urban/rural reserve process- Natural features all merged into one polygon. Did not have data behind polygons
- Charettes are good venues for sharing input, but need to capture source of information to determine if still viable over time
- Scale – regional vs patch vs stepping stone
- Updating information is key (e.g. Biodiversity Atlas)
- Collaboration- collection, storing, sharing data
- Definition of patch in Metro area. Based on veg? Other features?

Leslie Bliss-Ketchum, Martin LaFrenz, Catherine de Rivera, PSU, Habitat Connectivity Toolkit
PSU is working with Metro (Lori Hennings) to evaluate linkages between core habitats and develop methods for characterizing habitat quality using GIS and on-the-ground site assessments. They are using a surrogate species approach, specifically targeting species closely associated with a habitat type, neither very rare or common, representing a range of mobility types, and most susceptible to barriers. Selected species include rubber boa, alligator lizard, Swainson's thrush, Douglas squirrel, American beaver, and red-legged frog. General workflow includes identifying an area of interest, using GIS to identify distribution of habitat and landscape-scale features, determining assessment locations, and conducting field assessments. PSU is interested in finding partners to test/apply toolkit.

Ben Protzman, Clean Water Services, Looking at Connectivity in Tualatin Watershed
CWS is striving to increase connectivity at the stream reach level by identifying opportunities to expand partnerships with other stakeholders. Parameters include size of site, proximity to CWS-managed sites, land cover classification obtained from EPA Enviro Atlas, and habitat value from Regional Conservation Strategy.

Curt Mykut, Tualatin National Wildlife Refuge
FWS is measuring conservation targets, and is currently in connectivity phase. FWS not very nimble when acquisition opportunities arise, so are relying on partnerships to address the numerous barriers surrounding the refuge.

Carrie Butler, Port of Portland
Port has approximately 900 acres of mitigation sites including Columbia Slough, Troutdale, and Government Island. Wildlife/turtle undercrossing has been successful.

Mary Bushman, City of Portland, Urban Connectivity in Portland Area
City has mapped where ESA-listed salmonids travel, mapped terrestrial habitat via the Terrestrial Ecology Enhancement Strategy (TEES) effort, conducted citywide planning for density, and used connectivity as a criteria for Johnson Creek Watershed acquisition planning. Specific study areas include the Westside Wildlife Corridor that links Forest Park to Tryon Creek State Natural Area, Crystal Springs subwatershed, and Willamette River oak study.

Notes from Corridors and Connectivity Table Discussions

04-27-2016

Thank you to our table moderators:

1. Fran Warren, "Citizen Fran"
2. Laura Guderyahn, City of Portland
3. Natalie Rogers, PSU Graduate Student
4. Martin LaFrenz, PSU
5. Elaine Stewart, Metro
6. Mary Bushman, City of Portland
7. Ben Protzman, Clean Water Services

KEY EMERGING ISSUES/TOPICS FROM MEETING

- Coordination and collaboration
    - Need region-wide coordinator; lots going on but efforts are scattered.
    - Need a common vision to identify priorities (will also help with funding).
    - Organizations' departments don't always talk; sometimes conflicting priorities.
- Research and information
    - PSU toolkit was a popular concept.
    - Different organizations have data/info; how can we compile and update?
    - Partner with PSU, Cascadia Wild, etc. for on-the-ground data. Community science?
- Needs
    - Maps.
    - Network of organizations doing this work.
    - Information collection, sharing – spatial, empirical, collective data tools.
    - Time and money (especially time).
    - Advocacy; governmental agencies can't do that.
- Getting the work done
    - Partnerships and collaboration.
    - Funding ideas ranged from crowd-sourcing to grants to collaborative pots of $$; partnerships and grants emphasized.
    - Incorporate connectivity into other work, such as mitigation and trails.
    - Inform and engage the public.
    - Contractors – hire by corridor for cost effectiveness?

NOTES FROM MEETING

1. **Are you currently considering/working on connectivity?**
   - World Forestry Center: Wastelands -> urban forests using carbon credits. Rehabilitating Malaysian forest for hornbills and to create connectivity for genetic diversity. Working here on this.
   - THPRD: Connecting parks & natural areas – acquiring lands. Looking at partnerships to connect disparate properties. Stepping stones, etc. Using habitat assessment tool; aspire to connect more of the habitats and comprehend the feasibility; better understanding of stumbling blocks.
   - Metro: Trail development with sight avoidance and patches spaced to provide linkages for pollinators and small mammals
   - Clean Water Services: Lots of opportunities to work along watersheds. Using tools.
   - CWS (Brian): Reach out to other departments within CWS to piece together easements and other CWS-owned pieces of land to enhance corridors – mostly riparian areas but not exclusively. Identify "easy opportunities."
   - Portland Parks: Looks at adjacency for acquisition. Also within sites, removing barriers & maintaining habitat linkages, manage recreation. Use vegetation as a surrogate for connectivity. Trying to integrate habitat into developed parks – developing an internal handbook.
   - Natalie Rogers – PSU Masters' student, using toolkit to analyze north Portland connectivity.
   - Marion Dresner – Backyard habitats & greenspace connections. Arthropod and bird data collection, citizen science.
   - Cat deRivera, PSU – Invasive species; helped develop toolkit. Road ecology and wildlife movement.
   - Leslie Bliss Ketchum: Helped develop toolkit; road ecology.
   - The Wetlands Conservancy – acquisitions / eye toward fragmentation.
   - ODOT – want to do more in this region.
   - Cascadia Wild – ground-truthing; volunteers on Mt. Hood. Tracking & camera traps. (Lori's note: want to get more involved in PDX area.)
   - Michele/Tanner Springs – wants to advocate for more native plants/habitat quality, amenities.
   - Port of Portland – Looking via design of mitigation sites to plan/implement connectivity through ongoing maintenance, provide key habitat features. PSU grad student ground-truthing @ Rivergate.
   - WMSWCD – GPCII work
   - USFWS – Refuge work.
   - EMSWCD – Erik – buffers around high value conservation areas in urban region; cost share
   - SOLVE (Karen): Happy Valley – Rock Creek, work with CRBC & FOT, Trillium Creek – Hillsdale – Robert Gray.
   - Janelle, Portland Parks – Westside wildlife corridor – urban connectivity; citizen/neighborhood engagement – solicit pledges (groups leading the charge) / listening, getting people connected & knowledgeable.
   - Christian, CWS: public lands are scattered – need more resources & political will to do the "connectivity work." Looking to work with partners – SOLVE, etc. – with more with CPO / neighborhood associations. SWCD CLT requires a lot of partner building.

- Kristen, SOLVE – Slow progress, sudden growth through churches & schools. Neighborhood blitz approach now more cost-effective. Get people involved with dirty boots. Need GOOD maps, layers.
- Nicole, Clackamas SWCD – don't have enough staff to meet demands of our urban use. Connectivity information will help prioritize.
- Carol – listening project seems like it would help; collect comments from non-public landowners.
- How to use this tool strategically in the case of connectivity – filling in on private land gaps.

2. Do you want to do more? If so, what is holding you back?

- CWS: Lot of work to do; priorities; funding. What can we do in the interim?
- Identifying opportunities where "easy" connections between patches can be made.
- Working with other public agencies to holistically restore larger tracts of land and any easements that might connect them.
- Public use and dogs are a complication.
- Public and staff expectations on aesthetics in park.
- Connectivity not yet a score in value matrix.
- Lack of survey data.
- Funding
- Communication between agencies
- Time; some people may be over-booked
- Need for Intertwine-wide/level coordinator to facilitation conversations and collaboration
- Use backyard habitats to increase habitat toolkit survey
- Looking at cities in "softer sense," not ecological dead zones
- Kim Brown – habitat patches and forestry implications. How much do we need to conserve? Are we creating a sink? Where do we put our efforts? Increase communication.
- Lack of habitat within which to do something.
- Lack of site-specific details.
- Development codes and policies – e.g., city foresters' prohibition on planting street trees in narrower planting spaces removes 25% of available spaces from the inventory. Significant impacts to our ability to bridge the right-of-way!
- TWC: Always want to do more – but a lot going on already.
- Bruce B.: Yes – looking for the right model.
- ODOT: yes - $$, and looking beyond rights-of-way.
- Cascadia – yes.
- Michele – people need to know more and understand the issue. Education needed that residents can do things – whether on their property or helping otherwise. Connect people to the issue.
- Port of Portland – different parts of organizations have different priorities – how to get more support?
- SOLVE – wants to do more. Need involvement of property owners; better public understanding of restoration.
- Grant funds (CWS, USFWS)
- Joe - Urban to rural jump – Portland has $$; resources spread very thin in rural areas.

- TNC – have several plans; think about corridors during acquisition process. Thinks urban area "model" sounds good, doesn't know how to bring urban & rural together.
- Janelle – who are the property owners, "link pins." Corridor connections often difficult to manage because they are edge habitats.
- Rural – few people own more property.
- Christian, CWS – prioritization is a big push for them right now. Connectivity planning is helping CWS reduce costs & get better contracts/contractors likely to work "through" an area. Coordinating w/THPRD to put packages together; contractors don't like little pieces of work. Prioritizing helps get grants, too.
- Prioritization
- Time – small private landowners demand tons of time to negotiate and educate. Worth it?
- Money – more funding in rural areas; more partners, easier to fund with grants.
- Contractors – efficiency to operate down a corridor.
- Partner cooperation in overlying jurisdictions.
- Road crossing barriers – how to move these priorities through the systems. Do they have inventories? Data gap.
- Variation in species' needs – what if the wildlife is not riparian? Oak savanna is a whole different beast.

3. What would help you the most to incorporate connectivity into your planning and work?

- Toolkits; PSU especially.
- Connections / networking with others; information sharing/partnering.
- Citizen science and empirical data.
- Coordination between agencies and bureaus/departments within each agency.
- CWS – if corridors were known, they could incorporate them into their prioritization.
- Interagency permitting (site access).
- Unified (across agency/stakeholders) data needs along with clear communication of these needs.
- Consultant has to justify project during mitigation.
- Trying to address barriers & make connectivity part of the agenda.
- Advocacy for different habitat types.
- Is there an easy to install type of habitat?
- Map of Portland 2100 vision.
- Be opportunistic.
- Jason O'Brien, PSU – Master naturalists class – ready made volunteer scientists!
- Intertwine – advocacy. Agency folks can't do that.
- Network of organizations doing this work.
- Increase information and partnerships.
- Data – everybody has some; need to share.
- What about hotspots? ODFW real-time app for road kills – use for wildlife sightings?
- Funds and partners.
- Need to know: What are the critical habitat patch sizes?
- Data gap on how to prioritize connective areas. What do corridors look like for different species?

4. **How do we pay for further work?**
    - Probably easier to get funding if we can prioritize the work and demonstrate common vision of multiple groups working on regional collaboration for common goals and results.
    - Quantifiable impact analyses and economic study demonstrating the value of preservation of biodiversity.
    - Crowd-funding.
    - Funding for grad students.
    - Small contributions from all stakeholders = large pool of funds to do the work
    - Reducing redundancy in efforts – e.g. with a coordinator/facilitator & network analysis.
    - Grand funding (connect with disease research?).
    - Coalition of funders.
    - Private philanthropic
    - Need organization connectivity
    - Visionary governor
    - Incentives for new development to keep habitat connectivity in mind.
    - Partnerships.
    - Find a way to link mitigation $$ to improving habitat.
    - Federal $$ can be used for wildlife passage; find a way to weave it into funding process, which often goes through local interest groups (e.g., counties and cities).
    - Partnerships and grants.
    - USFWS / private partners / ODFW tax deferral for habitat is dysfunctional.
    - Unified strategies across organizations.
    - Contractors hired by corridor for cost-effectiveness.