Meeting Notes

Tuesday, September 24, 2024 1:00 PM
Canton Public Library
786 Washington St.

Attendees:

NepRWA: Ian Cooke, Kerry Snyder, Suzanna Sullivan, Nancy Fyler, Emily Leone, Anna Yie, Karen Groce-Horan, Sean McCanty, Paul Hanbury, Chris Ammann

Canton: Regen Milani, Kristine Meaney, TJ Torres
Dedham: Patrick Hogan, Leo ?
Foxborough: Lance DelPriore
Norwood: Carly Rocklen
Quincy: Paul Costello
Sharon: Kevin Davis, Rory McGregor
Stoughton: Laurence Langlois, James Conlon
Westwood: Karon Catrone
BWSC: Adrianna Cilo
Kleinfelder: Seth Bryant
Neponset River Regional Chamber: Tom O'Rourke

Presentation: Strategies for Co-existing with the Neponset's Resurgent Beavers
Ben Dittbrenner, Director of M.S. Environmental Science & Policy Program, Northeastern University

Life History of the Beaver
Habitat of the Beaver
History of trapping in North America
Species decline from ~400M to ~9M
Agriculture on former beaver wetland -> development
Historical beaver management:
    Army Corp trap to maintain open waterways
    Ag control of USDA, CDA, State Ag
    Nuisance control: APHIS (USDA)
    Fish passage: Many state agencies
Why do beavers dam:
- Eating cambian (bark)
- Build dam with sticks and mud, stone and garbage
    - Protection (fast in water, slow on land)
    - Food storage (sticks stuck in mud, packed with mud for winter)
    - Agriculture (raise water level to flood out trees so they can harvest new growth)

Lifespan: 10-15 years (could be on longer end without strong predation), a colony 2 adults, yearlings, 2-5 kits/year

Benefits of beavers:

- Restore and maintain riparian ecosystems, Create habitat, Develop ecosystems and potentially contribute to climate resilience
    - Ecosystem processes:
      Promote aggradation
      Riparian complexity
      Heterogeneity
      Biogeochemistry
- Biodiversity: fish abundance, mosquito decline, amphibians, deer/elk habitat, otter/mink/weasels/ muskrats, small birds, duck brood numbers, woodpeckers, birds of prey
- Fish passage: high rain allows flow over the dam, fish wait to pass at high flow, fish can wriggle through dam sometimes
  Dewatering pond can cause fish kills
- Hydrologic benefits: buffer peak storm events, hold water in upper watersheds
  22x water retention in western/mountainous reaches
  2.5x groundwater storage
- Temperature effects:
  "Bathtub" systems will heat up from solar input
  In large retention dams, groundwater infiltration cools water flow and lowers temperature

Beaver conflicts

Beaver browsing to remove veg
Plugging culverts (esp. corrugated metal culverts; box culverts can be cleared more easily)
Changing water flow
Property flooding
Beaver dams in narrow channels

Management options
Short term: veg treatment, dam removal (build almost as fast)
Long term: trap and kill, live trapping and relocation, exclosure, beaver deceiver, pond leveler (control dam height)
Pond Leveler is the best long-term option while retaining ecological benefits
Beaver need a certain height water (2 feet) or will go berserk
Significant cost savings with leveler over management without
Beavers are coming regardless, can be a mixed bag

(See recording for more details)

Q&A:
Do beavers have an intention or is it instinct?
A: No one knows

How could relocation be successful?
A: in best case, 50% success in relocation, but more trouble than worth and lethal removal better option (illegal in MA)

How fast do beavers work?

A: build series of dams around main dam, often end up moving after landscape changed

How heavy of a log can they move?
A: back of beavers is built for transport, can move surprisingly large logs

What draws them to culverts?
A: Moving water, trying to plug the one hole in a very effective "dam", corrugated culvert can wedge sticks effectively. Most modern culvert designs are more resistant to plugging

Why are beavers important?
A: at landscape level, they can help offset climate impacts, ecosystem impacts, biodiversity, etc.

How many see beavers as a problem in your town now?
A: Norwood airport, Foxborough urbanization could result in conflict in the future from expansion

Are beavers dangerous to other animals?
A: no

Has anyone thought of beavers as part of their climate planning?
A: no

Comments:
Fear of beavers causing flooding in the future
Resources: Beaver Solutions in Western Mass, do pond levelers, trapping etc.

Any partners seeing Beaver Problems?

- Reports around Norwood airport
- Foxboro: a few complaints, see potential for issues down the line
- Note: Mike Callahan, Beaver Solutions recommended by Ben https://www.beaversolutions.com/

PARTNER UPDATES
Most are preparing their annual reports
Several towns looking to dedicated financing of operations/capital expenses through enterprise fund
Looking for funding to help install green infrastructure, update bylaws/regs

NepRWA updates:

- Proposals to go out the end of this week,
- Planning to set up check in meetings to see how things are going and what else NepRWA can assist with
- Outreach:
    - Pet waste over summer, completed
    - Septic week completed with flyers and social media
    - Fall leaf campaign starting up
- Outreach committee
    - Subcommittee only meets twice a year and looking for members

    - New flyers for septic and sump pump
- Adopt a drain program—grant application submitted for MS4 Muni Asst grant
    - Develop website for adopt a drain and outreach opportunity
    - Sustainability committee in Sharon, high school students could be involved in outreach planning
    - Adrianna (BWSC) has looked into this but has been nixed (may have materials to borrow)