

# **Dr. Joseph Wheaton – presentation for Nature’s Firefighters: The Role of Beavers in Wildfire Mitigation and Recovery**

Presented by the Natural Areas Association, April 22<sup>nd</sup>, 2021, 12:00pm EST – 2:00pm EST

**Title:** Beaver & Low-Tech Processed Based Restoration: Leveraging the Labor and Ingenuity of a Rodent as a Talented Ecosystem Engineer

**Presentation Description:** For better or worse, one of the things I have become known as is one of the 'beaver guys' for my research and work in leveraging the labor and ingenuity of a rodent and talented ecosystem engineer to help us more efficiently restore riverscapes. A big focus for me has been on developing appropriate expectation management about where such a strategy makes sense, versus where it may be inappropriate. The more general concept we have tried to push, is a scalable restoration ethos, of trying to extend limited restoration dollars as far as they can go to achieve the greatest impacts. This is a 'low-tech' version of Process Based Restoration. Low-tech Process-Based Restoration refers to simple, cost-effective, solutions that help repair degraded streams. Rather than using big construction equipment to force a stream into place, the goal is to kickstart ecological processes that allow the stream to repair itself. Practitioners like Bill Zeedyk sum it up as: “let the water do the work,” or in the case of beaver-assisted restoration, “let the rodent do the work” referring to beaver-assisted processed-based restoration (see last Chapter of Goldfarb's Eager). In essence, instead of tackling restoration with expensive, reconstructive surgery done with heavy equipment and grading to make the channel look like we want it to, we try to encourage and allow the river to shape itself through improving its diet and exercise. We think of our treatments as meals to the river (typically providing more structure like wood and beaver dams) and designed to kick off the process of recovery.