

River Channel Habitat Restoration



TECHNIQUES TO BALANCE THE SYSTEM

Urbanization of watersheds results in increased flows which can destroy many beneficial stream habitat features. Additionally, urban streams are often characterized by degraded water quality. This restoration process will attempt to restore many of the features seen here.



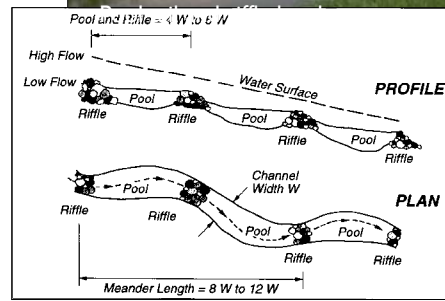
BOULDERS, COBBLES, AND PEBBLES

- Enhance breeding habitat for fish
- Create microhabitats for freshwater invertebrates



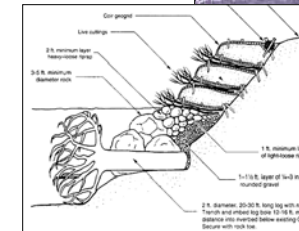
RE-VEGETATED BANKS

- Native plants at the bankfull elevation reduce erosion of bare soil during regular flow events
- Emergent vegetation serves as great hiding spots for smaller fish from larger predators



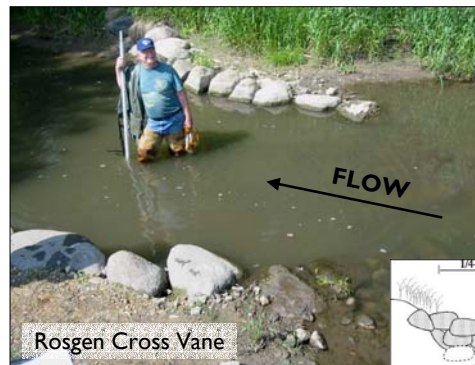
RIFFLES AND POOLS

- Built and maintained at regular intervals to control slope of river along entire reach
- Reduce erosion
- Help improve water quality through aeration



BANK STABILIZATION

- Using root wads, stone, and geotextile fabric "burrito" wraps
- Used in tight meanders that ordinarily receive full force of river velocity during a high flow event



CROSS VANES

- Mimic a tree falling in river in an upstream direction, creating a point of increased flow and scouring a pool at the bottom
- Develop deep/cold water habitat zone for fish
- Temporarily slow velocity downstream,
- Redirect flow toward middle of stream, which reduces erosion from stream edge



All of these features directly restore and increase the habitat available to fish, resulting in a robust fishery, benefiting recreational anglers.

...in a Healthy River Valley