REMEANDEERING STREAMS

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CONSTRUCTION DOCUMENTS
DESIGN CALCULATIONS
SURVEY TECHNIQUES
EROSION CONTROL
PERMITTING
PLANTING

SELECTING CREEK SHAPE
INSTALLING WOOD
CONSTRUCTION
REFERENCE REACH APPROACH

- discharge and velocity
- bankfull width
- mean and maximum depth
- bankfull cross-section area
- width of flood prone area
- entrenchment ratio
- off-channel habitat features
- channel bed grain size
- water surface and valley shapes
- channel sinuosity
- woody material
- pool/riffle/run spacing and size
- vegetation species and % cover
- channel stability

EXTREME LOW  ORDINARY HIGH
EXTREME HIGH   BANK FULL
SELECTING CREEK SHAPE
“THE NAVY GOES WEED-WHACKING”

Headline from

The Bremerton Sun
FIGURE 8. FLOODPLAIN CONCEPTUAL DESIGN.

The intent is to not increase the water surface elevation for flows with a recurrence interval of 5-years or greater, but to increase the water surface elevation and floodplain area for smaller flows. This approach would allow sediment to accumulate on the floodplain at a greater rate than now occurs. This would reduce phosphorus loading to lake salmonid, and is consistent with other ecological and economic objectives, including improvements to salmon spawning and rearing habitats and overall riparian ecosystem health.
BURY TREES DEEPLY

BURY TREES DEEPLY
CONSTRUCTION SEQUENCE

1. ROUGH IN THE CHANNEL
2. INSTALL WOOD

3. ADD GRAVEL AND PLANT THE WET AREAS
4. ADD WATER
5. CLEANUP. ADD SEED AND STRAW.

6. PLANT DURING THE WET SEASON
thank you

Smyda Environmental Associates, Inc.