

PRIMARY USE: Minimize bank erosion.

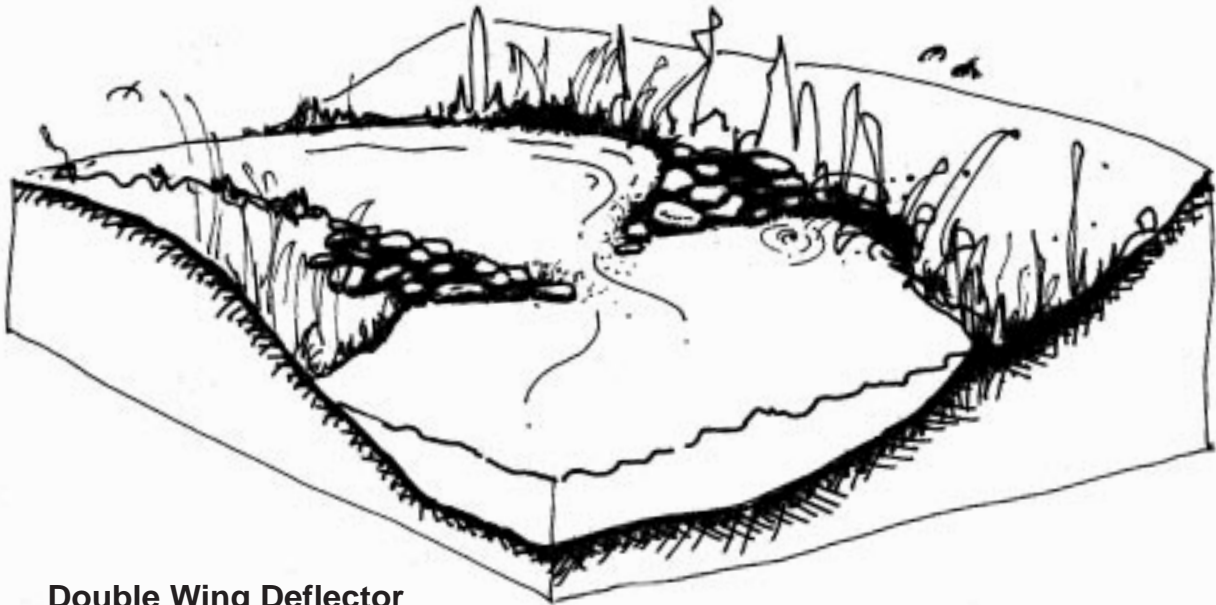
ADDITIONAL USES: Provide desirable scouring and sorting of channel materials, pool formation, added flow and habitat diversity, and redirection of currents through flow constriction.

DOUBLE WING DEFLECTOR

What is it? Two wing deflectors are installed opposite each other in the stream channel to create mid-channel pools in shallow sections of streams.

Purpose

This technique is suitable for shallow sections in streams greater than 30 ft (9.1 m) wide where the gradient may be too steep for single deflectors and where the banks are too low to build a check dam. If installed properly, scour pools equal in quality to those produced by small dams can be created at less cost.



**Double Wing Deflector
Perspective View**

Limitations

Unwanted debris jams may result. Silt may be displaced immediately downstream from deflectors, negating any habitat gains. Double wing deflectors provide only one break in gradient or resting area (the scour pool). In contrast, dams often provide a small flat or resting area above the structure in addition to the plunge pool downstream of it.

Materials

Various combinations of logs at least 14 in (356 mm) in diameter except in the very smallest streams, rocks, boulders, gabions and wire mesh.

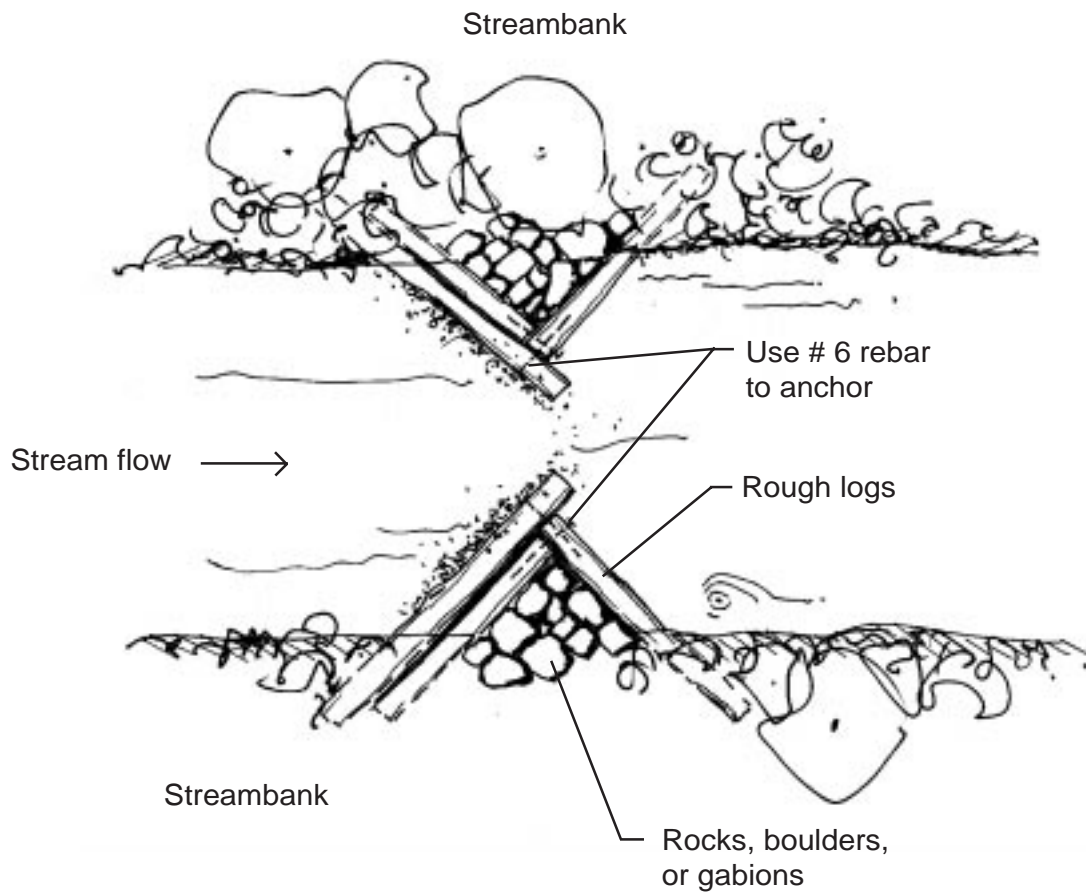
Installation

This device should narrow the stream by approximately 80% at the apex to be effective.

Source: Stream Habitat Improvement Handbook, USFS; The Restoration of Rivers and Streams, Gore, James A.

DOUBLE WING DEFLECTOR

Additional Drawings:



**Double Wing Deflector
Plan View**