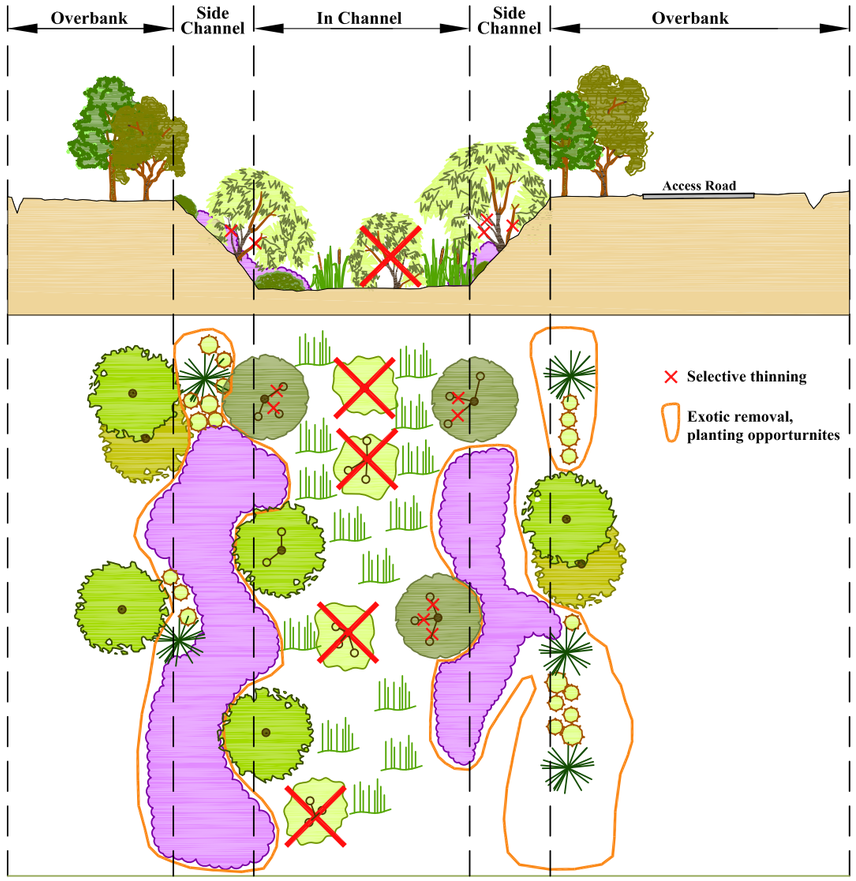
Typical Flood Control Channel Under Existing Conditions



Side Channel Dominants

Multi–trunked willow
Himalaya blackberry
Exotic shrubs
Non–native Grassland

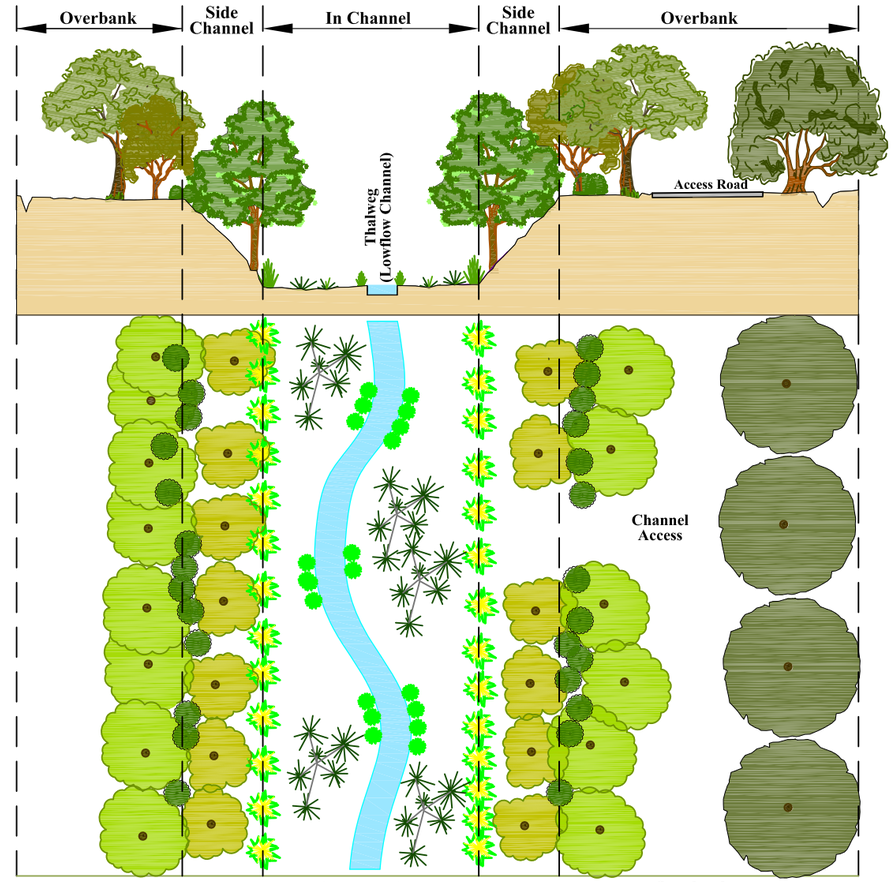
In Channel Dominants

Multi–trunked arroyo & other willow
Cattail
Cocklebar
Ludwigia
Various WIS grasses

Overbank Dominants

Exotic schrubs & trees, vines privet, plum, pyrocantha cotoneaster, Ivy, pampass grass

Enhanced SMP Channel Following Native Planting, Exotic Removal, and Canopy Development



Side Channel Dominants

Single–trunk riparian trees planted in a linear row or existing willows pruned to a single trunk

Preferred In Channel Dominants

Native Sedges and Rushes planted to help stabilize lowflow channel

Overbank Dominants

Redwoods or oaks

Stream Maintenance Program Plant Palette

Common Name	Scientific Name	Planting Area	Planting Source
Trees			
Big leaf maple	*Acer macrophyllum*	Mid to Upper Bank	Container
Box elder	*Acer negundo*	Mid to Upper Bank	Container
California buckeye	*Aesculus californica*	Upper Bank	Container
White alder	*Alnus rhombifolia*	Toe to Mid Bank	Container
Oregon ash	*Fraxinus latifolia*	Toe to Mid Bank	Container
N. California black walnut	*Juglans californica*	Mid to Upper Bank	Seed (fresh) or Container
Fremont cottonwood	*Populus fremontii fremontii*	Toe to Mid Bank	Cutting or Container
Coast live oak	*Quercus agrifolia*	Upper Bank	Container
Valley oak	*Quercus lobata*	Upper Bank	Container
Sandbar willow ***	*Salix exigua*	Toe	Container
Red willow	*Salix laevigata*	Toe to Mid Bank	Sprigs
Arroyo willow ***	*Salix lasiolepis*	Toe to Mid Bank	Cutting
Shining willow	*Salix lucida lasiandra*	Toe to Mid Bank	Cutting
Coast redwood	*Sequoia sempervirens*	Mid to Upper Bank	Container
California bay laurel	*Umbellularia californica*	Upper Bank	Container
Vines			
Clematis	*Clematis lasiantha, C. ligusticifolia*	Toe to Mid Bank	Seed or Container
Honeysuckle	*Lonciera hispidula vacillans*	Toe to Mid Bank	Seed or Container
California blackberry	*Rubus ursinus*	Toe to Mid Bank	Seed or Container

Common Name	Scientific Name	Planting Area	Planting Source
Herbs/Grasses			
Spike bent	*Agrostis exharta*	Toe to Mid Bank	Seed
Sloughgrass	*Beckmannia syzgachne*	Toe to Mid Bank	Seed
Santa Barbara sedge**	*Carex barbarae, C. obnupta, C. bolanderi*	Toe	Seed or Cutting
Dense sedge	*Carex densa*	Toe	Seed or Cutting
Torrent sedge	*Carex nudata*	Toe	Seed or Cutting
Pale spikerush	*Eleocharis macrostachya*	Toe	Seed or Cutting
Blue wild rye	*Elymus glaucus*	Mid to Upper Bank	Seed
California fescue	*Festuca californica*	Mid to Upper Bank	Seed or Container
Red fescue	*Festuca rubra*	Toe	Seed
Meadow barley	*Hordeum brachyantherum*	Toe to Mid Bank	Seed or Container
Wire rush	*Juncus balticus*	Toe	Cutting or Container
Pacific rush	*Juncus effusus*	Toe	Cutting or Container
Common rush	*Juncus patens*	Toe	Cutting or Container
Brown–headed rush	*Juncus phaeocephalus*	Toe	Seed, Cutting, or Container
Iris leaved rush	*Juncus xiphioides*	Toe to Mid Bank	Seed, Cutting, or Container
Creeping wild rye	*Leymus triticoides*	Toe	Seed
Knot grass	*Paspalum distichum*	Toe to Mid Bank	Seed or Container
Bulrush, Tule	*Scirpus acutus occidentalis, S. californicus*	Toe to Mid Bank	Cutting or Container
Small fruited bulrush	*Scirpus microcarpus*	Toe to Mid Bank	Cutting or Container

Common Name	Scientific Name	Planting Area	Planting Source
Schrubs			
Marsh baccharis	*Baccharis douglasii*	Toe to Mid Bank	Container
Mulefat	*Baccharis salicifolia*	Toe to Mid Bank	Container
Western spicebush	*Calycanthus occidentalis*	Toe to Upper Bank	Seed
Stream dogwood	*Cornus sericea*	Toe to Mid Bank	Container
California hazelnut	*Corylus cornuta californica*	Mid to Upper Bank	Container
Toyon	*Heteromeles arbutifolia*	Upper Bank	Container
Coffeeberry	*Rhamnus californica*	Upper Bank	Container
California wild rose	*Rosa californica*	Toe to Upper Bank	Seed or Container
Blue elderberry	*Sambucus mexicana*	Upper Bank	Container
Snowberry	*Symphoricarpos albus laevigatus*	Mid to Upper Bank	Container
Ferns/Other			
Horsetail	*Equisetum arvense, E. hyemale affinae, E. telmatieia braunii*	Toe	Cutting or Container
Sword fern	*Polystichum californicum*	Toe	Container
Western chain fern*	*Woodwardia fimbriata*	Toe	Container

* In forested locations.
** Or equivelent.
*** Not preferred but can be used on case by case basis.

Notes

1. Species for each project should be chosen based on native flora (current and historic) of project area.
2. Seeds, cuttings, seedlings and saplings used for revegetation should be obtained from local (Russian River Watershed or North Coast Floristic Province as defined in Jepson 1993) stock (local native plant nurseries should be used, or plants can be collected using appropriate collection techniques from adjacent sites – willow sprigs should be collected from adjacent sites and planted on the same day as collection).
3. Timing of planting should be appropriate for species and source (e.g. broadcast seeding of herbs and grasses in fall before first rains, cuttings planted when soil moist to at least 10 inches from rainfall, etc.).

FLOOD CONTROL\STREAM MAINT\CHANNEL MAINTENANCE PROGRAM\CONCEPTUAL PLANTING DIAGRAM.dwg APRIL 28, 2008

SONOMA COUNTY WATER AGENCY

Sonoma County Water Agency
Stream Maintenance Program
Conceptual Planting Diagram