Basic Steps for Habitat Gardening with California Native Plants

Step	To Do	Comments	Key Resources
1. SITE EVALUATION	Inventory existing plants and non-living natural features on your property. Inventory existing and future planting areas; note characteristics of *each* area. Your garden may be a good host for only one plant community or multiple communities. Inventory *your* needs.	*Check local regulatory entities, HOAs, other as needed for any restrictions.* a) Soil (sandy, clay, loam) b) Exposure, aka aspect (N, S, E, W; wind, salt) c) Microclimate (seasonal temps, precip, hardiness) d) Sun/shade e) Arid/humid f) Slope/level Erosion control, firescaping, allergies…	See page 3 for sample checklist to help inventory your property's habitat features.
2. OBSERVE	Observe your property over time and seasons. Visit state and county parks to see which plants grow together in different locations. Identify plant groupings in locations that most closely match: a) Climate and natural vegetation in your neighborhood. b) Physical characteristics and microclimates of your property.	Start with the prevailing vegetation – forest, woodland, shrubland (scrub, chaparral), herbaceous. Then work your way down to plant community(ies) or their alliances and associations.	*CNPS Manual of California Vegetation* (online) (MCV) Remember: MCV lists only the *main* plant species that characterize each plant community, alliance or association. Additional species are often part of these groups.
3. DESIGN FOR WILDLIFE	Multiple vertical levels (layers, "stories") of vegetation. Multiple bloom times throughout the year; plant species that shelter different insects throughout the year. *At mature size*, outer edges of shrubs and perennials should just touch *other* shrubs and perennials. Plan ahead – *make sure spacing is suitable for plants' mature sizes* to avoid frequent pruning, which can disturb wildlife. *Groupings of plants* – Intersperse different species among one another instead of grouping by species. Check for hazards to wildlife.	Mimic "architecture" and density/openness of your chosen plant community(ies). Aim for a variety of food sources for each season to sync with seasonal changes in wildlife diets. Many wildlife species prefer to maintain some cover, protection from predators while visiting. Many wildlife species also like to browse – offer some variety within a few hops or "wing's reach." You do not need to plant a huge number of different species. Veg garden netting, windows…	Audubon Society; CNPS *Bringing Nature Home…, Updated and Expanded.* Douglas W. Tallamy. Chapter 14, p. 274 has a great example.

Basic Steps for Habitat Gardening with California Native Plants *(continued)*

Step	To Do	Comments	Key Resources
4. COMPILE PLANT LIST	Begin with plant species that attract pollinators and beneficial insects.	Insects are the foundation of a wildlife-friendly garden.	"Attracting Beneficial Insects to the Garden with Beneficial Flowers," Richard Merrill.
	Some plants are "habitat-generators" throughout the year, with many species suited to different communities. Be sure to include these!	a) Buckwheats b) Phacelias c) Salvias d) Ceanothus e) Oak trees	
	Do not plant a problem!	If you hear any plant is invasive, *always ask for specifics* about where. "Coastal scrub" "North slopes" are too general.	California Invasive Plant Council (Cal-IPC)
		Present science recommends to *not* plant native cultivars if you live in the WUI.	CNPS Genetics Symposium 2020 (online, CNPS-YouTube)
5. SITE PREP	Remove weeds.	*Mechanical removal is best.* For *some* sites, herbicides *may* be a preferred method.	Las Pilitas; Cal-IPC
	Do not till or fertilize soils.	Tilling harms soil structure and soil micro-organisms.	Las Pilitas
	Before you plant, make sure ALL chemical residues have cleared from soil and plants:	*With any chemical, always follow the manufacturer's label*.	Xerces Society; UC IPM
	Herbicides can linger in the soil – use water to leach before planting.	Chemicals harm soil micro-organisms *and* can be taken up by the root system and distributed to plant parts that can harm pollinators, beneficials and other wildlife when ingested – leaves, flowers, nectar, other.	
	Pesticides, rodenticides, etc. – be sure plants and other application areas are free of harmful residues.		
	Do not purchase plants treated with pesticides.		
6. MAINTENANCE	Plant litter – leave in place on top of soil.	*Balance with fire prevention.*	Fire Safe Council for Monterey County; Cal-Fire
	Do not deadhead flowers.	Wildlife rely on seeds, fruit.	
	Pruning – time accordingly. Do not disturb wildlife activities (nesting, feeding, larvae/pupae).	Some insects spend their larval stage on leaves or stems.	
	Irrigation – it usually takes 1 year to establish perennials and shrubs; 2 or longer for trees. Many natives need some summer water until established.	*Some natives should NOT have summer water, even during establishment.*	CNPS; CCUH; local nurseries
		Always check summer watering recommendations for during and after establishment.	

Habitat Features Checklist

Adapted from "Introduction and Scope" section of the California Wildlife-Habitat Relationships System and "CWHR Habitat Element Checklist."

Overview of Your Area		**Dead Vegetation Elements** *(snags are upright, > 10' high)*		**Aquatic Elements**	
Neighborhood is predominantly:				**Vernal pool, pond** (seasonal)	
FOREST WOODLAND		**Snag > 30" diam**: SOUND ROTTEN		**Pond** (permanent)	
SHRUBLAND (scrub or chaparral)		**Snag 15"-30" diam**: SOUND ROTTEN		**Stream** (intermittent)	
HERBACEOUS (ex., grassland)		**Snag < 15" diam**: SOUND ROTTEN		**Stream** (permanent)	
Plant community that most closely matches (more than one may apply!)				**Mud flats** (tidal)	
		Vegetation Residues *(dead and decaying vegetation; stumps are upright, < 10' high)*		**Spring, seep** (freshwater)	
YOUR NEIGHBORHOOD:				**Bog** (low-lying, poorly drained)	
1.					
2.		**Duff** (non-structured)		**Habitat – Vegetative Resources**	
3.		**Litter** (< 1" diam.)		**Lower Plants**:	
YOUR PROPERTY:		**Slash 1"-3" diam.**		FUNGI LICHENS MOSS FERNS ALGAE	
1.		**Slash 3"-10" diam**: SOUND ROTTEN		**Higher Plants**:	
2.		HOLLOW		GRASSES FORBS SHRUBS	
3.		**Log 10"-20" diam**: SOUND ROTTEN		TREE LEAVES SAP ROOTS	
Habitat edge interfaces, if present *(transition zones between habitats)*		HOLLOW		**Fruits**:	
		Log > 20" diam: SOUND ROTTEN		SEEDS ACORNS BERRIES FRUITS	
PRIMARY INTERFACE		HOLLOW		NUTS CONES FLOWERS NECTAR	
FOREST FOREST		**Stump**: SOUND ROTTEN			
WOODLAND WOODLAND				**Habitat – Animal Resources**	
SHRUBLAND example SHRUBLAND		**Physical Elements - Soils**		**Invertebrates**:	
HERBACEOUS HERBACEOUS		**Soil texture**: SANDY CLAY LOAM		Insects – TERRESTRIAL FLYING	
WATER WATER		**Soil structure**:		Spiders	
AGRICULTURE AGRICULTURE		Friable		Aquatic	
GOLF COURSE GOLF COURSE		Organic		**Vertebrates**:	
OTHER OTHER		Gravely		FISH AMPHIBIANS REPTILES	
		Well-draining and aerated		Birds – SMALL MEDIUM LARGE	
Live Vegetation Elements (layers)		Saline or Alkaline		Mammals – SMALL MEDIUM LARGE	
# NATIVE NON-NATIVE				Eggs – BIRD REPTILE	
Trees LG		**Physical Elements - Geologic**			
MED		**Barren** (devoid of vegetation)		**Human Elements & Hazards**	
SM		**Bank**		**Impacts On Habitat (good or bad):**	
Shrubs LG		**Sand Dune**		BUILDINGS FENCE DOCK WINDOWS (birds)	
MED		**Burrow** (animal-made)		NOISE PETS NETTING (veg beds)	
SM		**Cave**		OUTDOOR LIGHTING AT NIGHT	
Perennials		**Cliff**		**Wildlife Structures**:	
Groundcovers		**Lithic** (scatter of rocks < 10" diam.)		NEST BOX FEEDER WATER	
Vines		**Rock** (outcrop, rocks > 10" diam.)			
Grasses		**Talus** (slope formed by rock debris)		**Other Considerations**	
Sedges					
Rushes					