SSHCP South Sacramento Habitat Conservation Plan

Habitat Conservation Planning

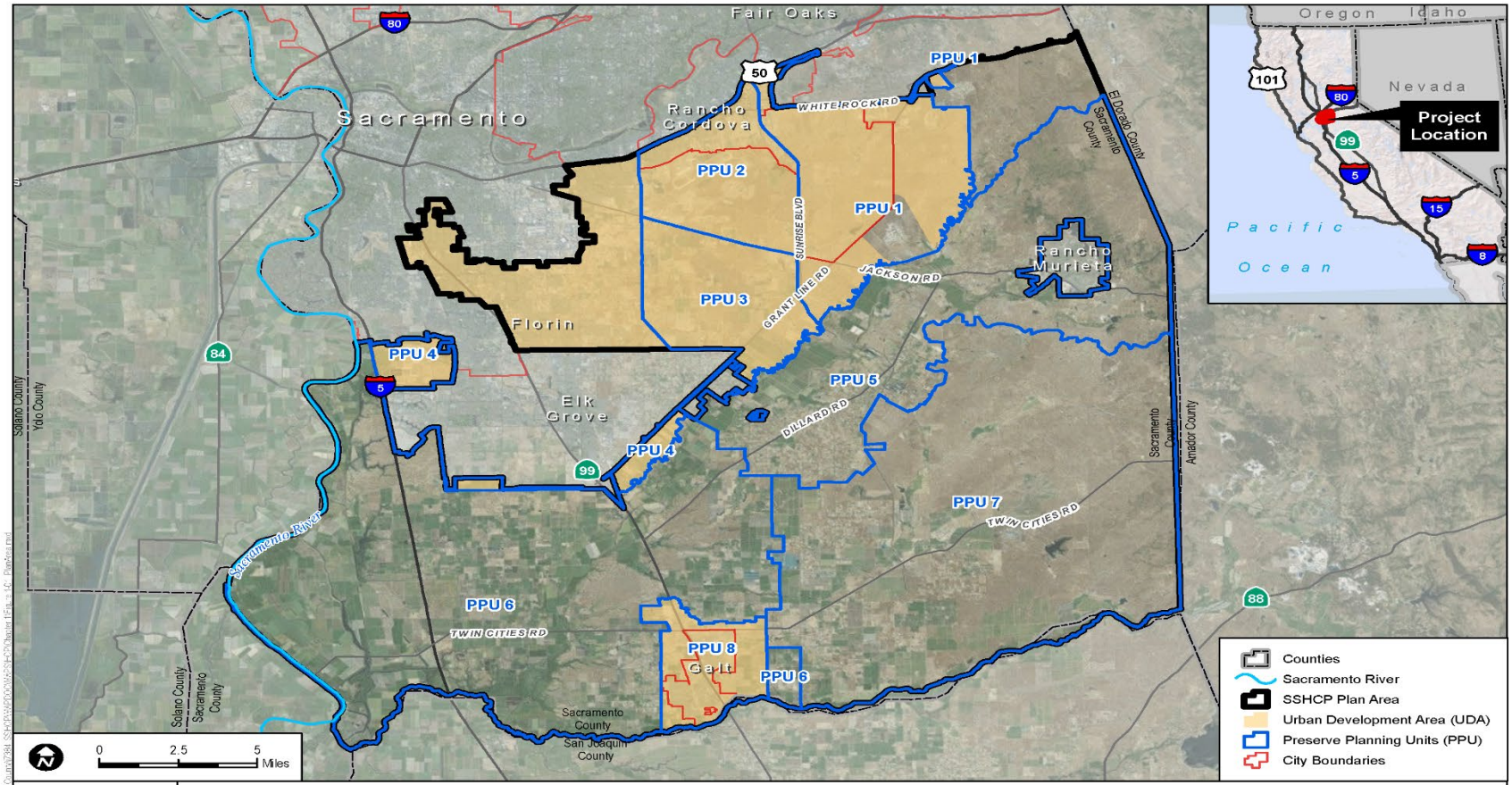
Vernal Pool Ecosystems

October 16, 2019

SSHCP Background

- Plan Preparation – 20 Year Process
- Local Agencies Adopt SSHCP- Fall 2018
- CWA 401 Water Quality Certification- April 2019
- 50 Year ESA Incidental Take Permit- June 2019
- USACE Permit Strategy- July 2019
- CDFW Incidental Take Permit- August 2019

Plan Area Map



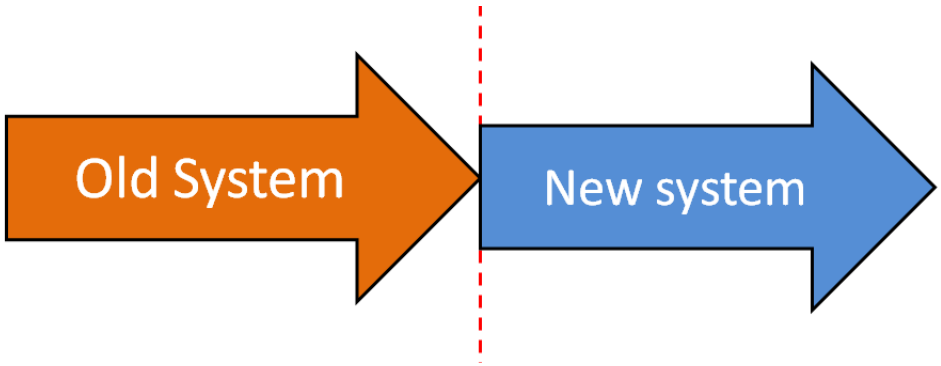
SOURCE: ESRI, County of Sacramento 2014

FIGURE 1-1
SSHCP Plan Area

SOUTH SACRAMENTO HABITAT CONSERVATION PLAN

Precedent Setting

- The Plan is the first in the nation to include Clean Water Act permits issued by the Army Corps of Engineers and Endangered Species Act permits issued by the U.S. Fish and Wildlife Service.



Reliance on Vernal Pool Ecosystem

- Invertebrates
  - Vernal Pool Tadpole Shrimp
  - Vernal Pool Fairy Shrimp
  - Mid-Valley Fairy Shrimp
  - Ricksecker's Water Scavenger Beetle
- Amphibians
  - California Tiger Salamander
  - Western Spadefoot

Reliance on Vernal Pool Ecosystem

- Foraging/Nesting/Wintering
  - Greater Sandhill Crane
  - Tri-Colored Blackbird
  - Western Burrowing Owl
- Foraging
  - Swainsons Hawk
  - Northern Harrier
  - Ferruginous Hawk
  - Loggerhead Shrike
  - White-Tailed Kite

Reliance on Vernal Pool Ecosystem

- Plants
  - Ahart's Dwarf Rush
  - Bogg's Lake Hedge-Hyssop
  - Dwarf Downingia
  - Legenere
  - Pincushion Navarretia
  - Sacramento Orcutt Grass
  - Slender Orcutt Grass
- Mammals
  - American Badger

Conservation Strategy

- Guiding Principles
  - Minimize habitat fragmentation
  - Protect watersheds and their ecosystem function
  - Preserve irreplaceable and threatened resources
  - Minimize edge effects
  - Utilize setbacks
  - Maintain land cover heterogeneity within preserves
  - Maintain or increase population size
  - Maintain species distribution in the plan area

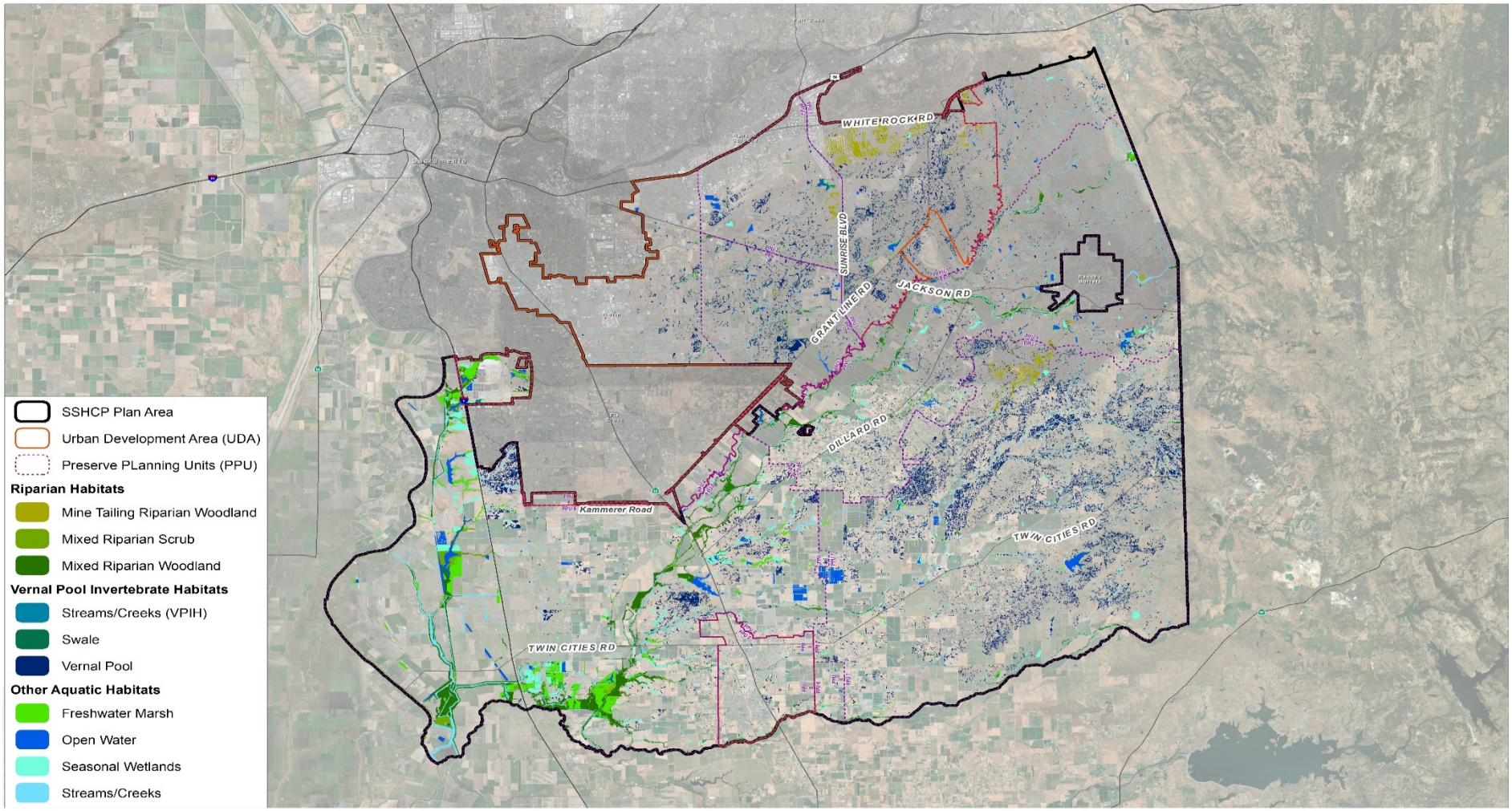
Preserve Categories

- Landscape Preserves (10,500 acres – Outside UDA)
- Core Preserves (800 acres – Mostly Inside UDA)
- Minor Preserves (250-800 acres – Mostly Inside UDA)
- Satellite Preserves (< 250 acres – Mostly Inside UDA)
- Linkage Preserves (Linear – Minimum Width 600 ft)
- Wildlife Movement Corridor (2 Minimum)
  - Laguna Creek Corridor (Inside UDA)
  - Cosumnes River/Deer Creek Corridor (Mostly Outside UDA)
- Cropland Preserve (Mostly PPU 6)

Preserve System

- Interconnected preserve system of over 36,000 acres – roughly 1.2 times the total size of San Francisco

Aquatic Resources Map



SOURCE: Bing 2019

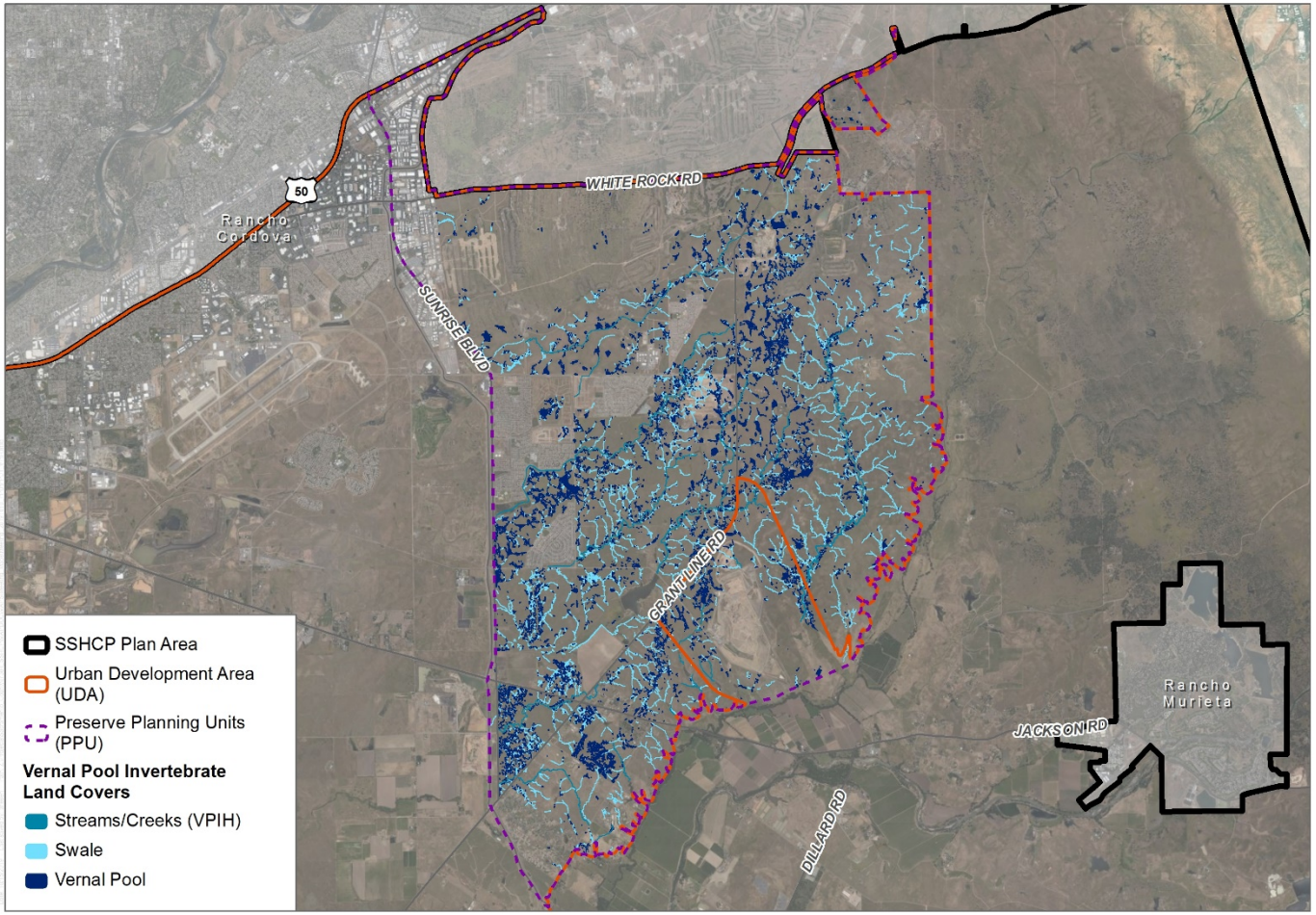
DUDEK 0 1.5 3 Miles

Aquatic and Riparian Land Covers

South Sacramento Habitat Conservation Plan (SSHCP)

Planning Preserve Unit 1 Inside the UDA

SSHCP Preserves Acres	
LAND COVER TYPE	
Freshwater Marsh	10
Seasonal Wetland	0
Swale	49
Vernal Pool	133
Open Water	51
Stream/Creek	10
Stream/Creek (VPIH)	17
TOTAL Aquatic	270



SOURCE: Bing 2019, Sacramento County 2019

DUDEK

0 4,200 8,400 Feet

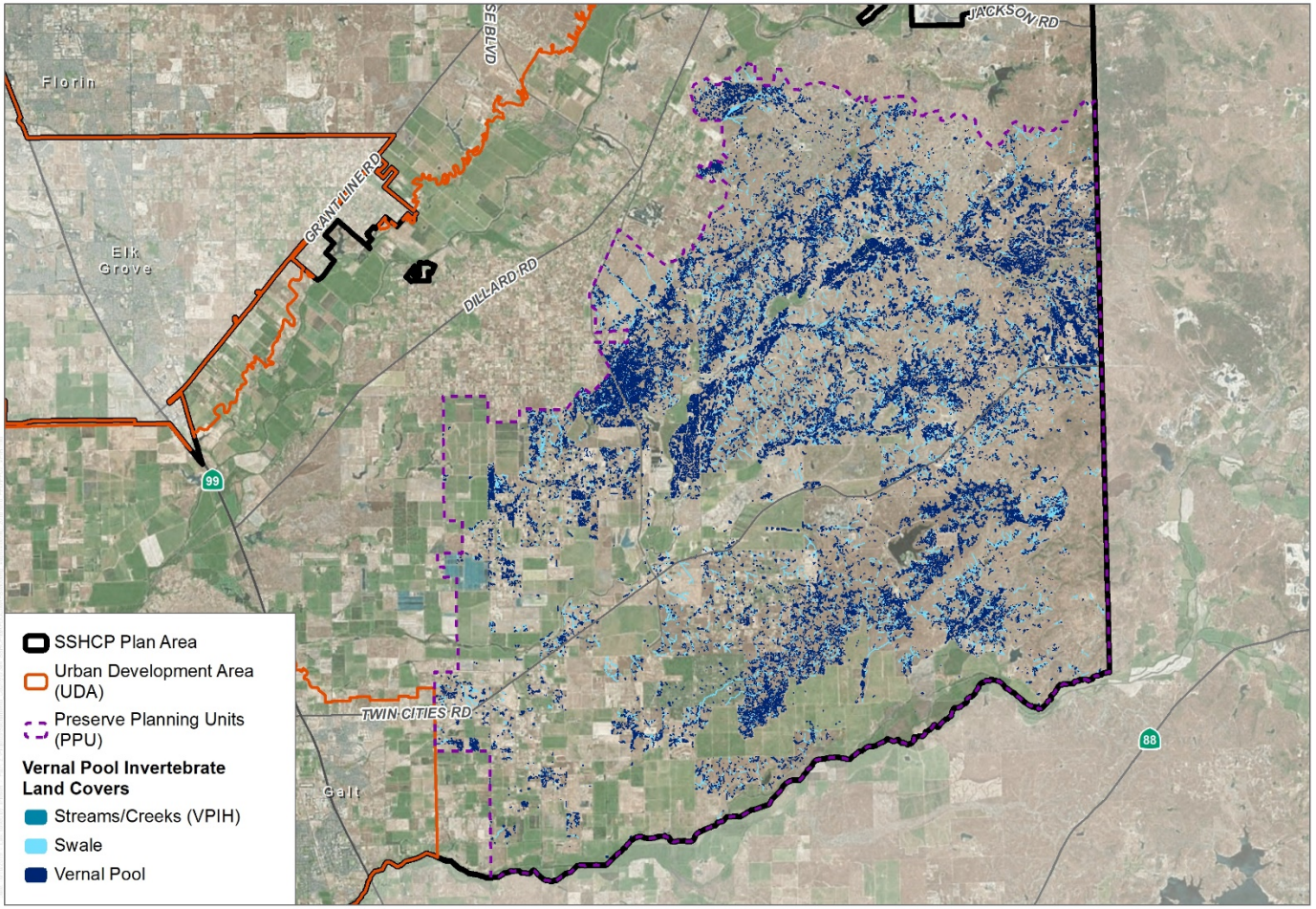
PRESERVE PLANNING UNIT 1

Vernal Pool Land Covers

South Sacramento Habitat Conservation Plan (SSHCP)

Planning Preserve Unit 7 Outside the UDA

SSHCP PRESERVES Acres	
LAND COVER TYPE	
Freshwater Marsh	15
Seasonal Wetland	32
Swale	162
Vernal Pool	681
Open Water	33
Stream/Creek	14
Stream/Creek (VPIH)	0
TOTAL Aquatic	937



SOURCE: Bing 2019, Sacramento County 2019

DUDEK

0 6,500 13,000 Feet

PRESERVE PLANNING UNIT 7

Vernal Pool Land Covers

South Sacramento Habitat Conservation Plan (SSHCP)

Aquatic Terminology

"Work in Progress"

Original JD Classification	SSHCP Classification	In-Lieu Fee Instrument
Vernal Pool/Seasonal Wetland	Vernal Pool	Vernal Pool
Stock Pond	Seasonal Wetland, Open Water and/or Freshwater Marsh	Seasonal Wetland, Open Water and/or Freshwater Marsh
Seasonal Impoundment	Vernal Pool or Open Water	Seasonal Wetland (non-vernal pool)
Swale	Swale	Vernal Pool
Riverine Seasonal Wetland	Swale	Seasonal Wetland (non-vernal pool)
Seep	Seasonal Wetland	Seasonal Wetland (non-vernal pool)
Stream/Creek/Ditch Drainage	Streams/Creeks (outside UDA), Streams/Creeks (VPIH) (inside UDA)	Stream/Creek
Marsh	Freshwater Marsh	Freshwater Marsh

Issues and Challenges

- First to Integrate Water and Species Permits
  - Terminology
- Habitat vs Species Approach
- Prioritizing Acquisitions