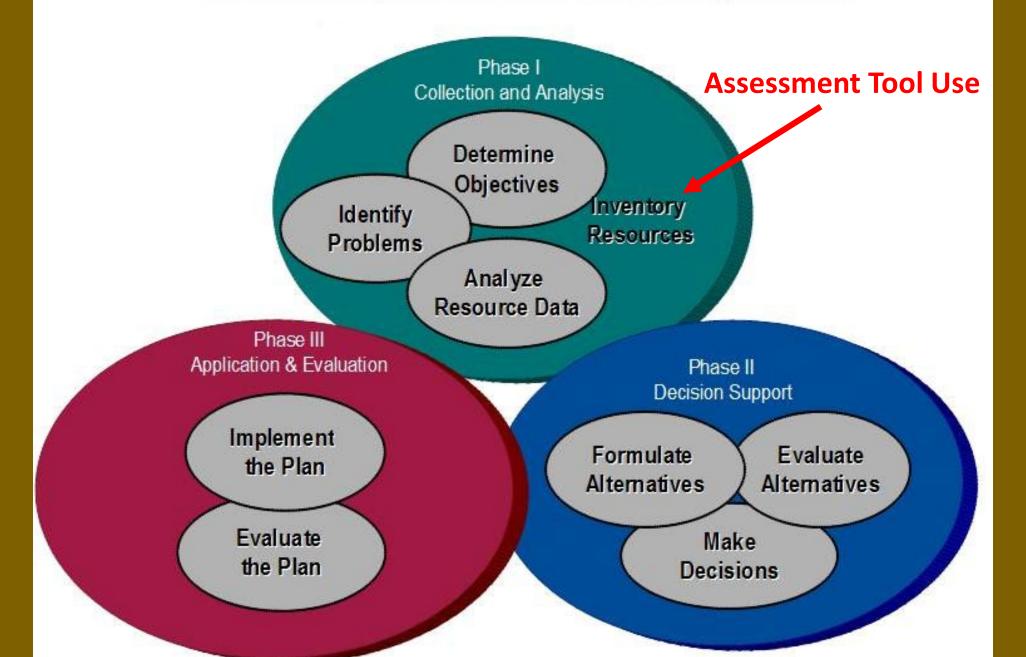
# Assessment Tools and Mitigation Methods for Contaminant Losses to Wetlands – An NRCS Perspective



### The Nine-Step Conservation Planning Process



## NRCS Assessment Tools Offsite Movement of Sediment, Pesticides, and Nutrients

- Conservation Assessment and Ranking Tool (CART)
- Stewardship Tool for Environmental Performance (STEP)
- Web Soil Survey
- Windows Pesticide Screening Tool (WIN-PST)
- Revised Universal Soil Loss Equation (RUSLE2)
- Water Erosion Prediction Program (WEPP)
- Wind Erosion Prediction System (WEPS)

# NRCS Assessment Tools Conservation Assessment and Ranking Tool (CART)



United States Department of Agriculture
Natural Resources Conservation Service

CART Version 2.0 Resource Concern Assessment

October 1, 2020

Document Version 2.1

## NRCS Assessment Tools CART

#### 

#### Assessment Dashboard (archived)

1 Status for survey sections are shown below for each Tract/Land Unit

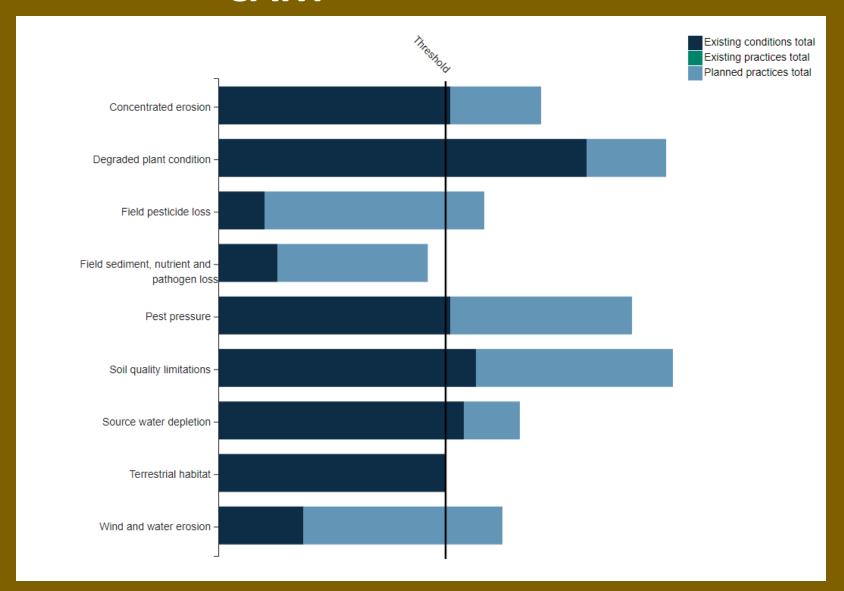
Assessed Tract / Land Unit	Land Use	PLU Modifiers	Acres	Resource Concerns	Resource Inventory	Existing Practices	Planned Practices	Overall Status	Results
Land Unit 1		-	-	Omplete Complete	Ocmplete Complete	Ocmplete Complete	Ocmplete Complete	Ocmplete Complete	Not Met
Land Unit 2	Pasture	Grazed/ Water Feature	73.2	Complete	Ocmplete Complete	Ocmplete Complete	Complete	Complete	Not Met
	Pasture	Grazed/ Water Feature	131.4	Omplete Complete	Omplete	Ocmplete Complete	Omplete Complete	Ocmplete Complete	Not Met
Land Unit 3	Associated Ag Land	-	20.9	Complete	Complete	Ocmplete Complete	Complete	Ocmplete Complete	Not Met
Land Unit 4	Pasture	Grazed/ Water Feature	6.8	Complete	Ocmplete Complete	Ocmplete Complete	Omplete	Omplete Complete	Not Met
Land Unit 5	Pasture	Grazed	3.6	Complete	Ocmplete Complete	✓ Complete	Complete	Ocmplete Complete	Not Met
								И	<b>1</b> → H

CLEAR CHANGES SAVE

**◆ACTION** 

## NRCS Assessment Tools CART

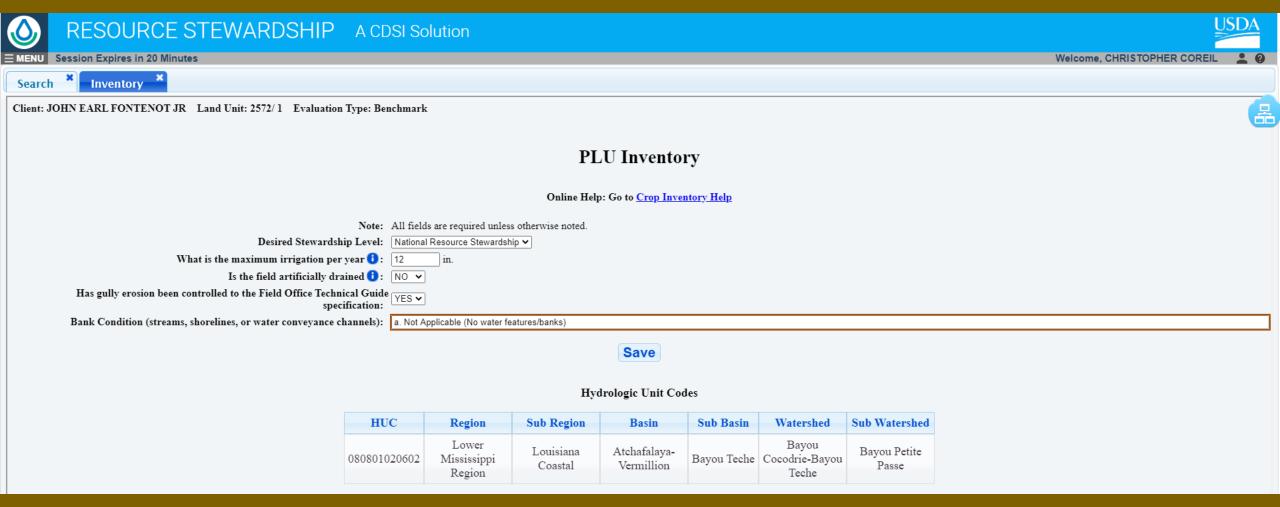
**CART** assists planners to analyze resource data captured in the inventory and compare against the threshold to determine if planning criteria is met. Planner override is allowed.



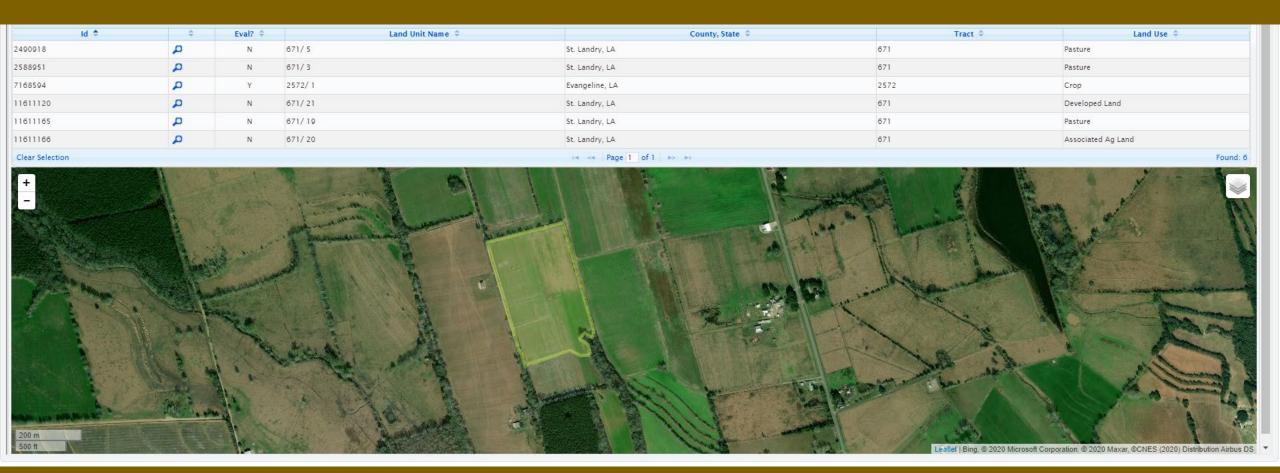
# NRCS Assessment Tools CART

Category	Resource Concerns	Components	Existing Conditions	Existing Practices	Existing Total	Existing Total Override	Planned Practices	Planned Total	Planned Total Override	Threshold	Actions
Concentrated erosion	Bank erosion from streams, shorelines or water conveyance channels	Bank erosion from streams, shorelines or water conveyance channels	0	0	0 🛕		0	0 🛕		50	i
	Classic gully erosion	Classic gully erosion	51	0	51		0	51		50	i
	Ephemeral gully erosion	Ephemeral gully erosion	51	0	51		0	51		50	i
Degraded plant	Plant productivity and health	Plant productivity and health	40	0	40 🛕		0	40 🛕		50	i
condition	Plant structure and composition	Plant structure and composition	102	0	102		0	102		50	i
Field pesticide loss	Pesticides transported to groundwater	Nonpoint pesticide leaching loss	50	0	50 🛕		30	80		60	i
	Pesticides transported to surface water	Nonpoint pesticide drift to surface water	71	0	71		50	121		50	i
	Pesticides transported to surface water	Nonpoint pesticide surface loss	55	0	55		35	90		30	i
	Nutrients transported to groundwater	Nonpoint nitrogen leaching loss	2	0	2 🛕		0	2 🛕		45	i

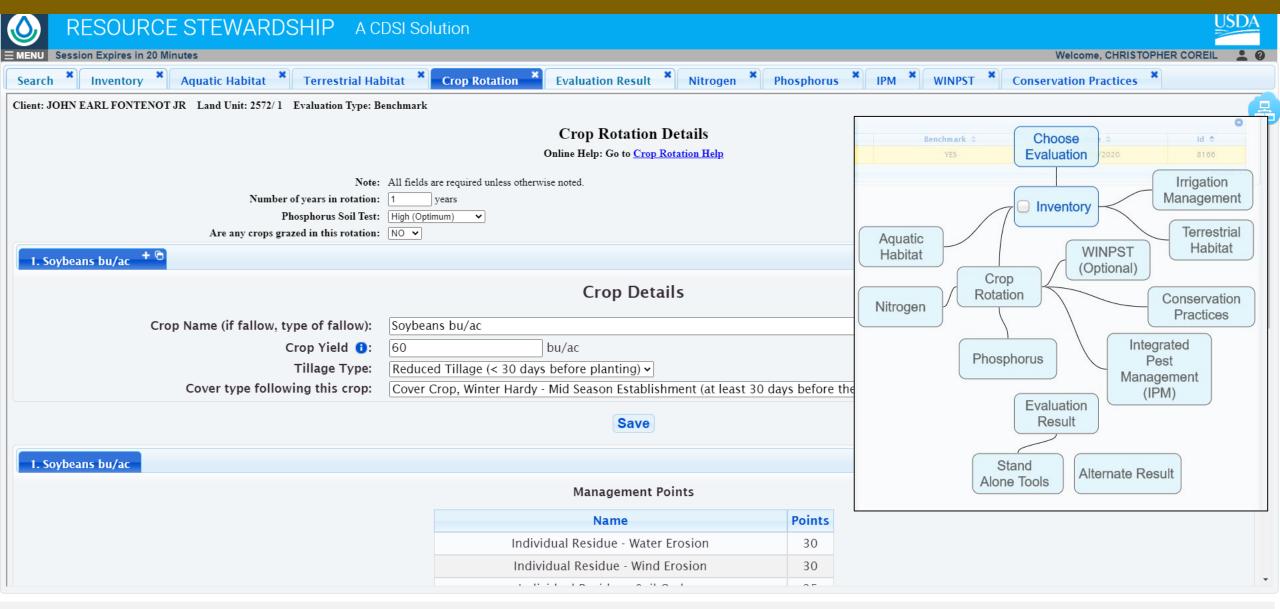
# NRCS Assessment Tools Stewardship Tool for Environmental Performance (STEP)



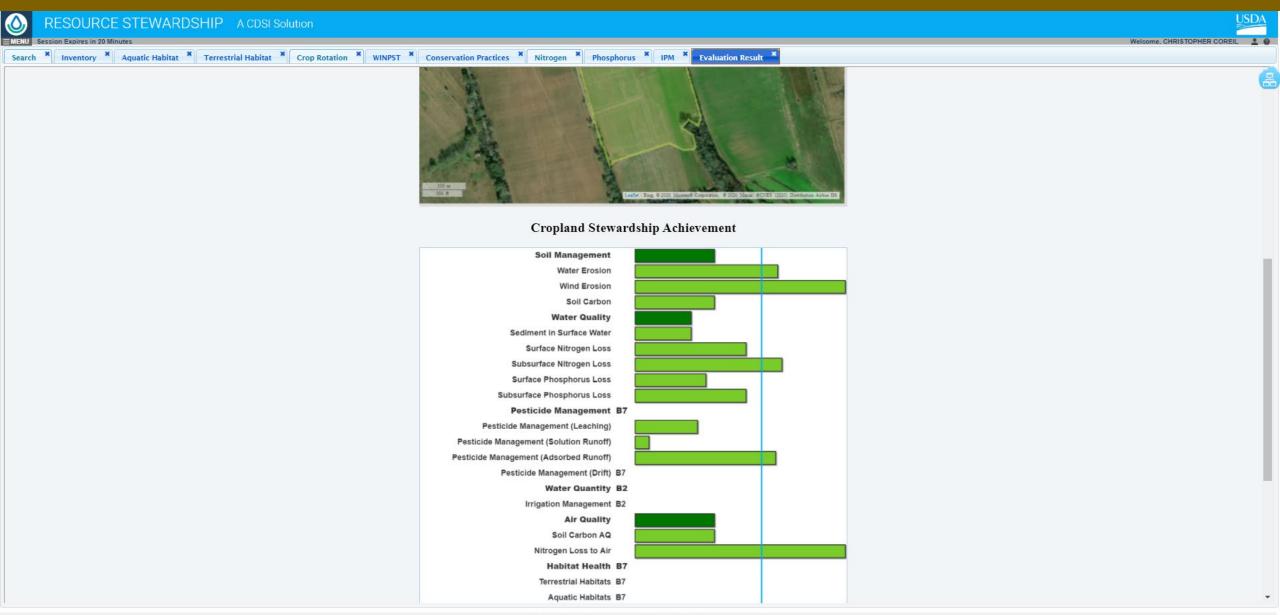
# NRCS Assessment Tools Stewardship Tool for Environmental Performance (STEP)



### **NRCS Assessment Tools - STEP**



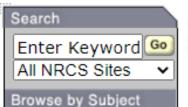
### **NRCS** Assessment Tools - STEP



### **NRCS Assessment Tools - Web Soil Survey**



You are here: Web Soil Survey Home



Soils Home

National Cooperative Soil Survey (NCSS)

Archived Soil Surveys

Status Maps

Official Soil Series Descriptions (OSD)

Series Extent Explorer The simple yet powerful way to access and use soil data.



### Welcome to Web Soil Survey (WSS)



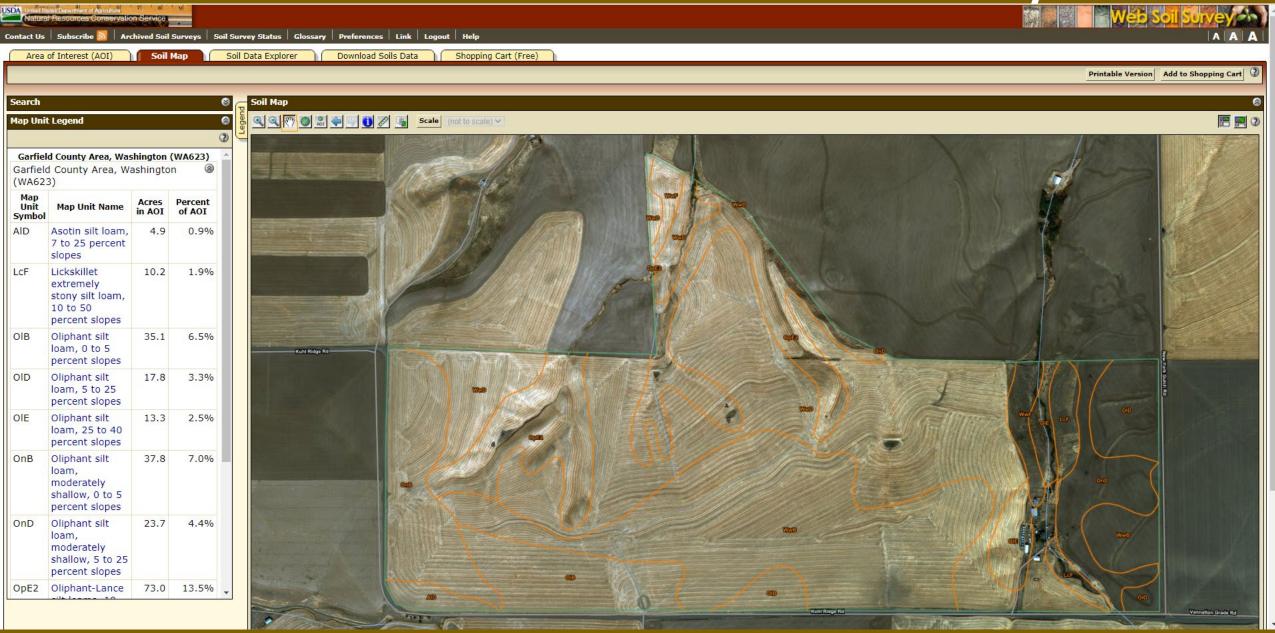
Web Soil Survey (WSS) provides soil data and information produced by the National Cooperative Soil Survey. It is operated by the USDA Natural Resources Conservation Service

(NRCS) and provides access to the largest natural resource information system in the world. NRCS has soil maps and data available online for more than 95 percent of the nation's counties and anticipates having 100 percent in the near future. The site is updated and maintained online as the single authoritative source of soil survey information.

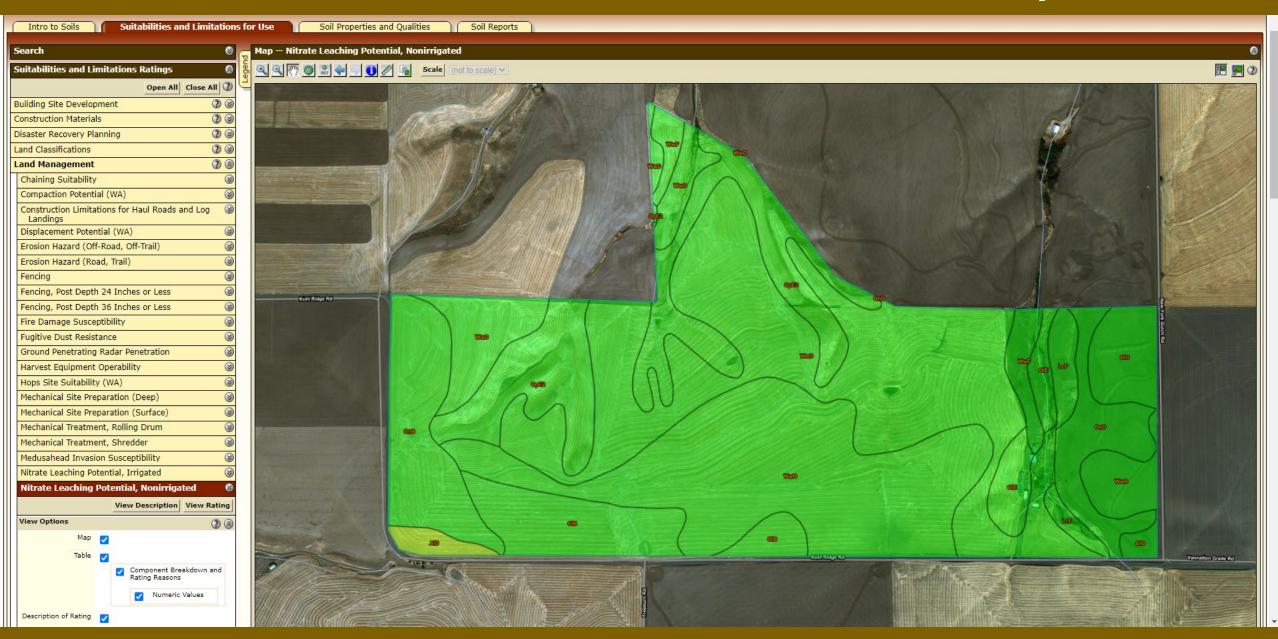
#### I Want To...

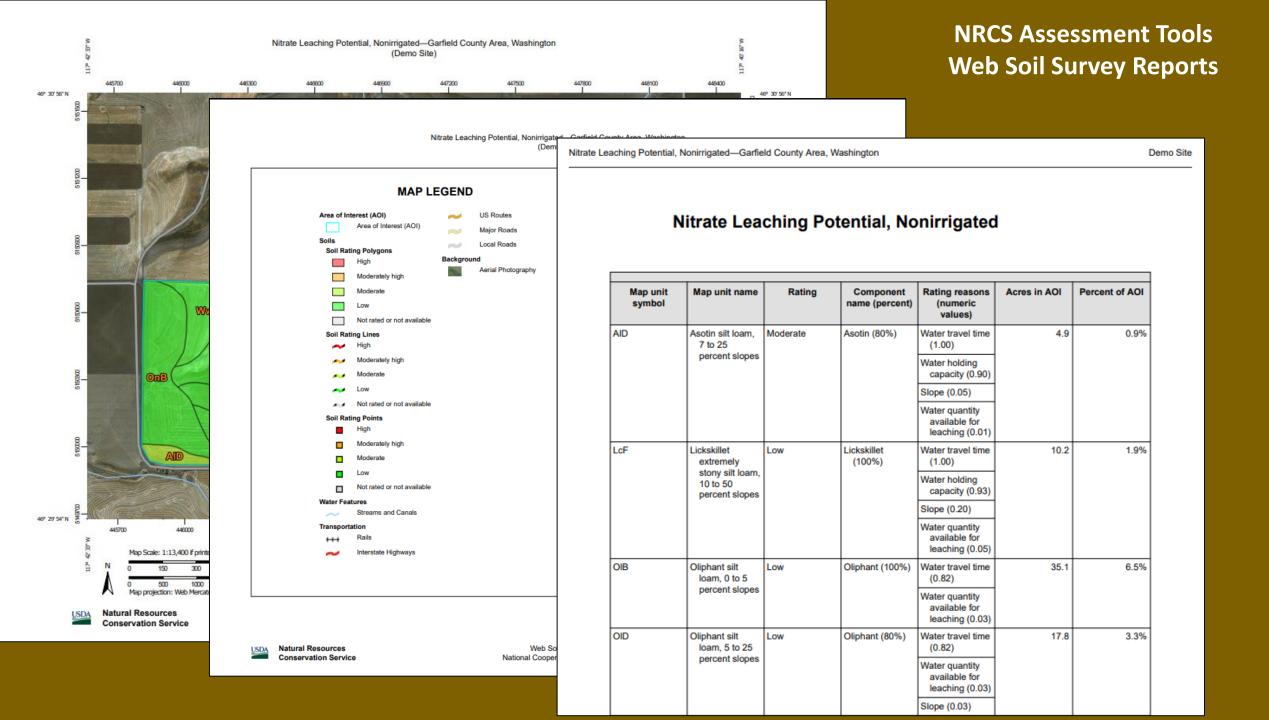
- Start Web Soil Survey (WSS)
- Know Web Soil Survey
   Requirements
- Know Web Soil Survey operation hours
- Find what areas of the U.S. have soil data
- Find information by topic
- Know how to hyperlink from other documents to Web Soil Survey
- Know the SSURGO data structure

NRCS Assessment Tools - Web Soil Survey

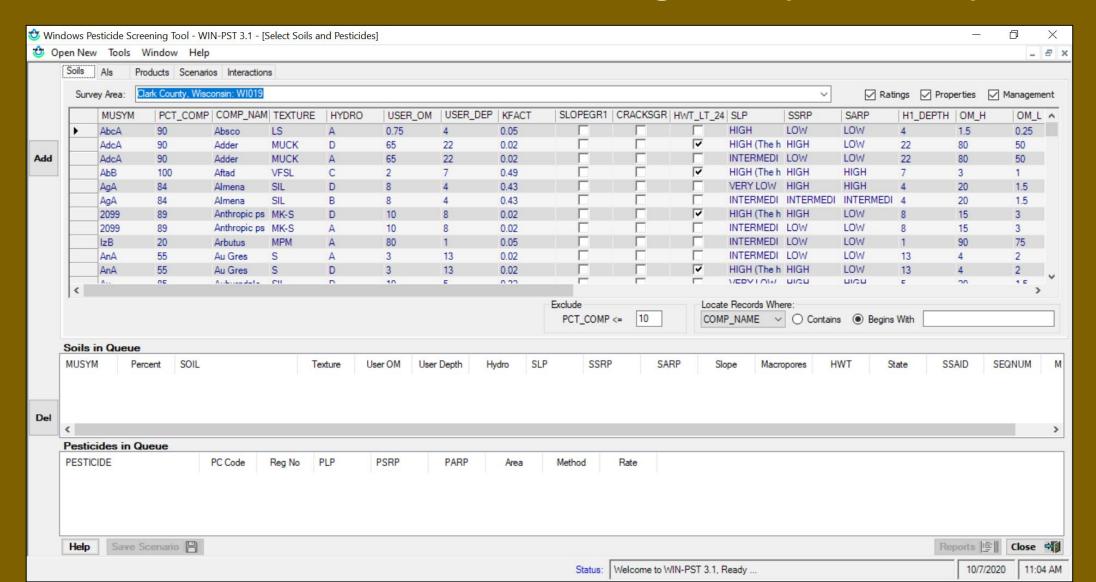


## NRCS Assessment Tools – Web Soil Survey





# NRCS Assessment Tools Windows Pesticide Screening Tool (WIN-PST)



# NRCS Assessment Tools WIN-PST

<b>6</b>		atural Reso onservation		TRACT 1 10/7/2020	11:05AM	LD Page 1 of 2						
Soil / Pesticide Interaction Loss Potential and Hazard Rating Report												
BIB Bilson EIB Elevasil												
	100% SL Clark County, Wisc	Hydro: <b>B</b> consin: WI019		100% SL	Hydro: B Wisconsin: WI019							
	OM% <b>1.5</b> H1	Depth: 8		OM% 2	H1 Depth: 8							
F9114	EC INSECTICIDE								<del></del>			
	Reg No: 279-3426											
3.	9.15% Zeta-Cypermethrin											
		Human Fish		Loss	Human Fish	7						
	Potential I	Hazard Hazard		Potential	Hazard Hazard	1						
Leaching:	L	I H		V	L I							
Solution:	L	I H		L.	I H							
Adsorbed:	1	L		1	L	┙╽						
GF-3						$\neg \uparrow$						
	Reg No: 62719-718 6.87% Halauxifen-methyl											
0.	or 70 Haladxiicii-iii	icarji										
Loss Human Fish				Loss	Human Fish	] [						
	Potential I	Hazard Hazard		Potential	Hazard Hazard	1						
Leaching:	1	V H		L	V							
Solution:	H	L H		H	L H							
Adsorbed:	Н	L		Н	L	┙╽						

## NRCS Assessment Tools WIN-PST



COOPERATOR TestFarmer TRACT FIELD

10/7/2020

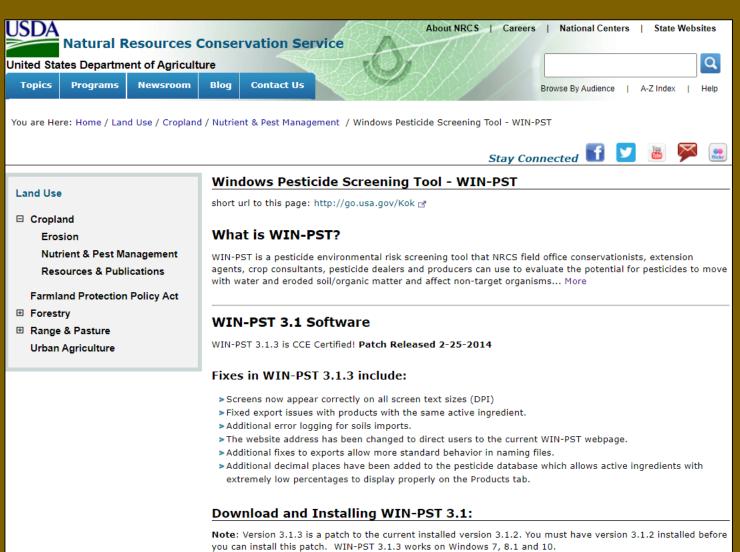
11:05AM

Page 2 of 2

### Soil / Pesticide Interaction Loss Potential and Hazard Rating Report

#### LEGEND X — eXtra high H -- High -- Intermediate L -- Low V -- Very low Conditions that affect ratings: -- Broadcast application (default); applied to more than 1/2 the field (none) -- Banded application; applied to 1/2 the field or less -- Spot application: applied to 1/10th of the field or less -- Surface applied (default); applied to the soil surface (none) -- Soil incorporated; with light tillage or irrigation -- Foliar application, directed spray at nearly full crop/weed canopy -- Standard application rate (default); greater than 1/4 lb/acre (none) -- Low rate of application; 1/10 to 1/4 lb/acre -- Ultra Low rate of application; 1/10 lb/acre or less <l -- There are surface connected macropores (cracks) that go at least 24 inches deep. -- The high water table comes within 24" of the surface during the growing season. -- The field slope is greater than 15%. -- Default condition for all climates that have rainfall/irrigation after pesticide application <none> -- Exception for arid climates that have a low probability of rainfall and no irrigation afer pesticide application SPISP II I-Ratings: -- Soil / Pesticide Interaction Leaching Potential Leaching Solution -- Soil / Pesticide Interaction Solution Runoff Potential Adsorbed -- Soil / Pesticide Interaction Adsorbed Runoff Potential

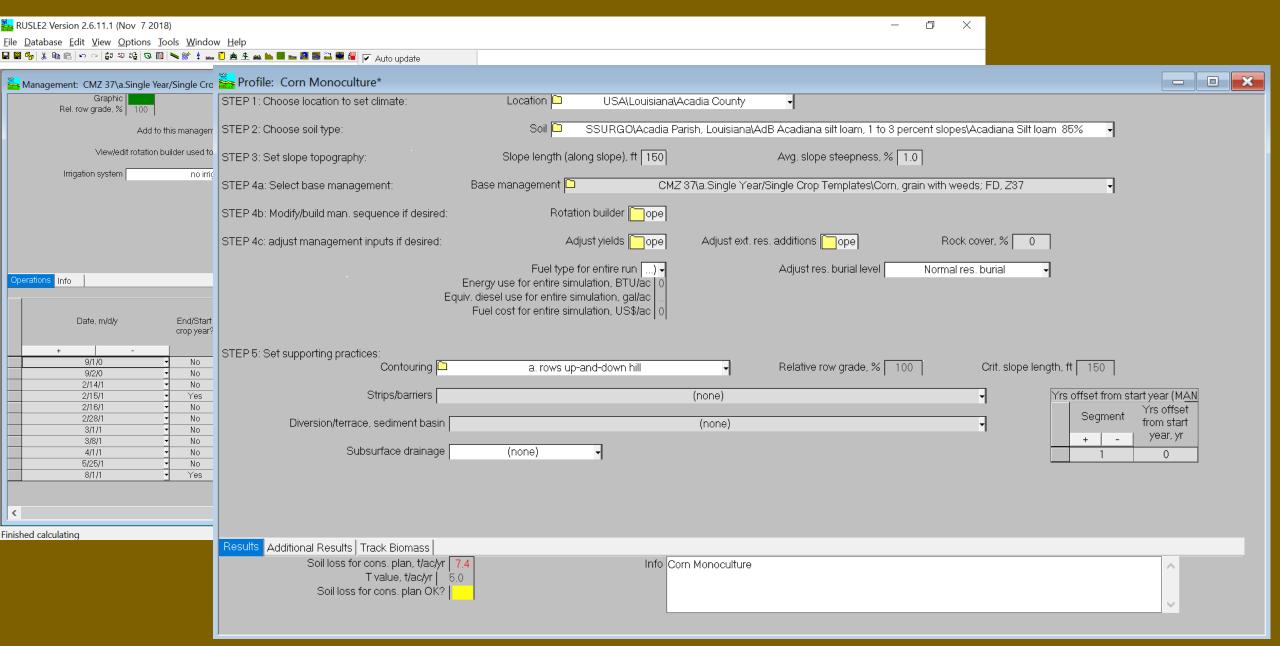
### **NRCS** Assessment Tools - WIN-PST



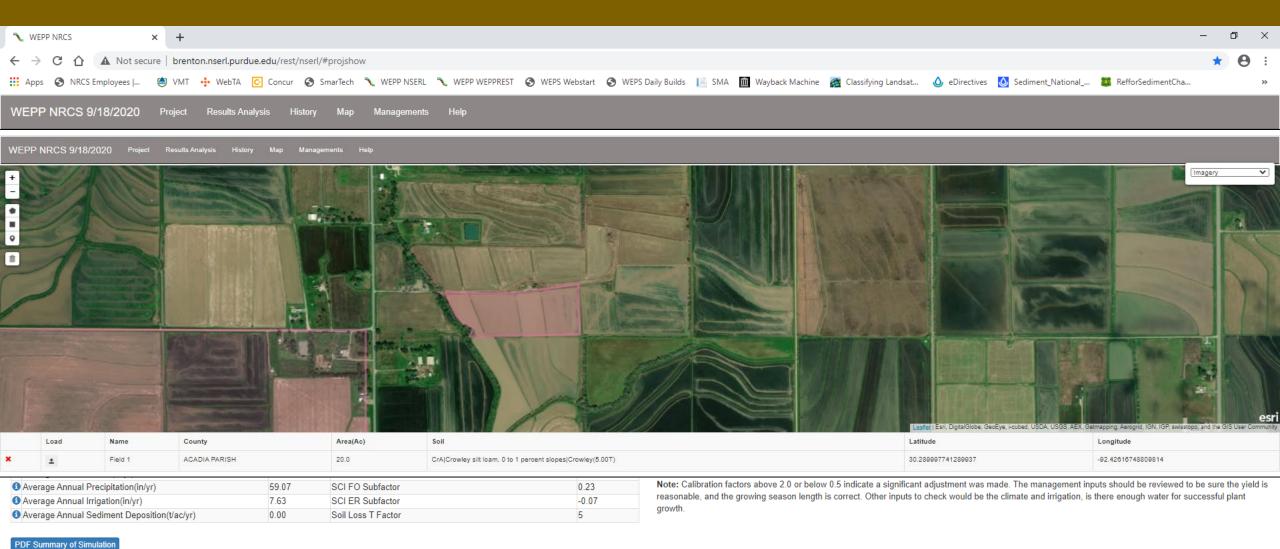
#### Inside NRCS:

For NRCS users that already have version 3.1.2, as of 2-25-14, WIN-PST will automatically updated to version 3.1.3. Submit a Remedy Help Desk Ticket to request WIN-PST 3.1.3 installation if it is not already installed.

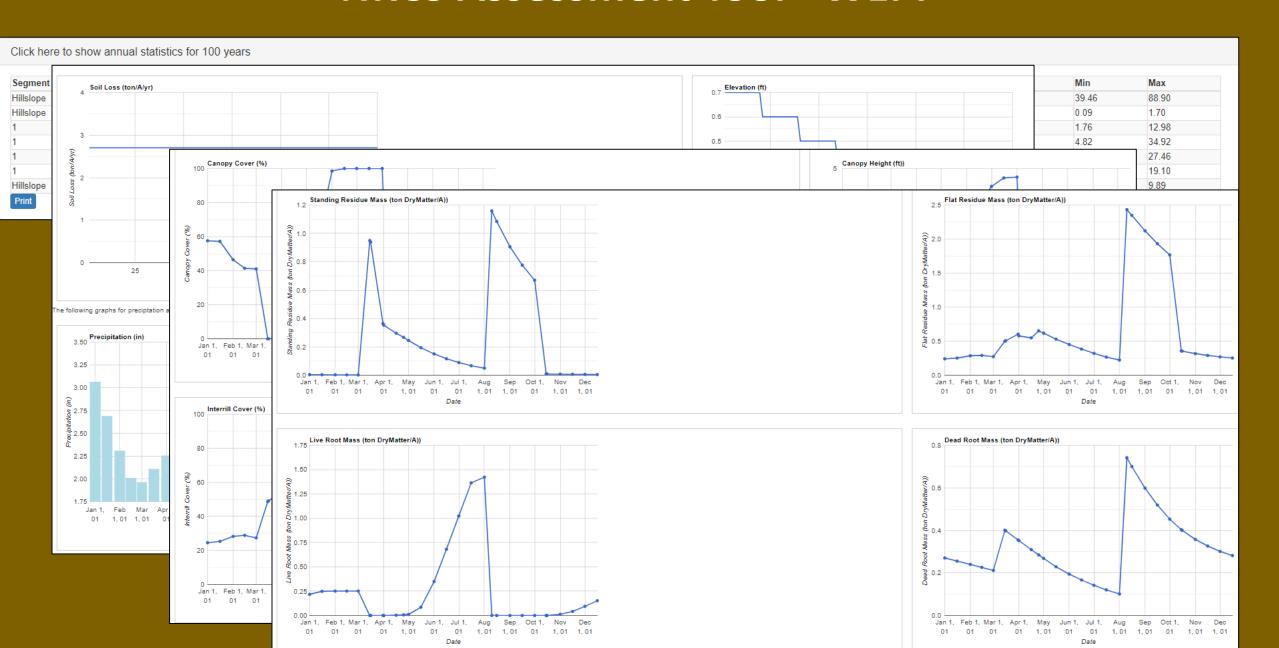
### NRCS Assessment Tools – RUSLE2



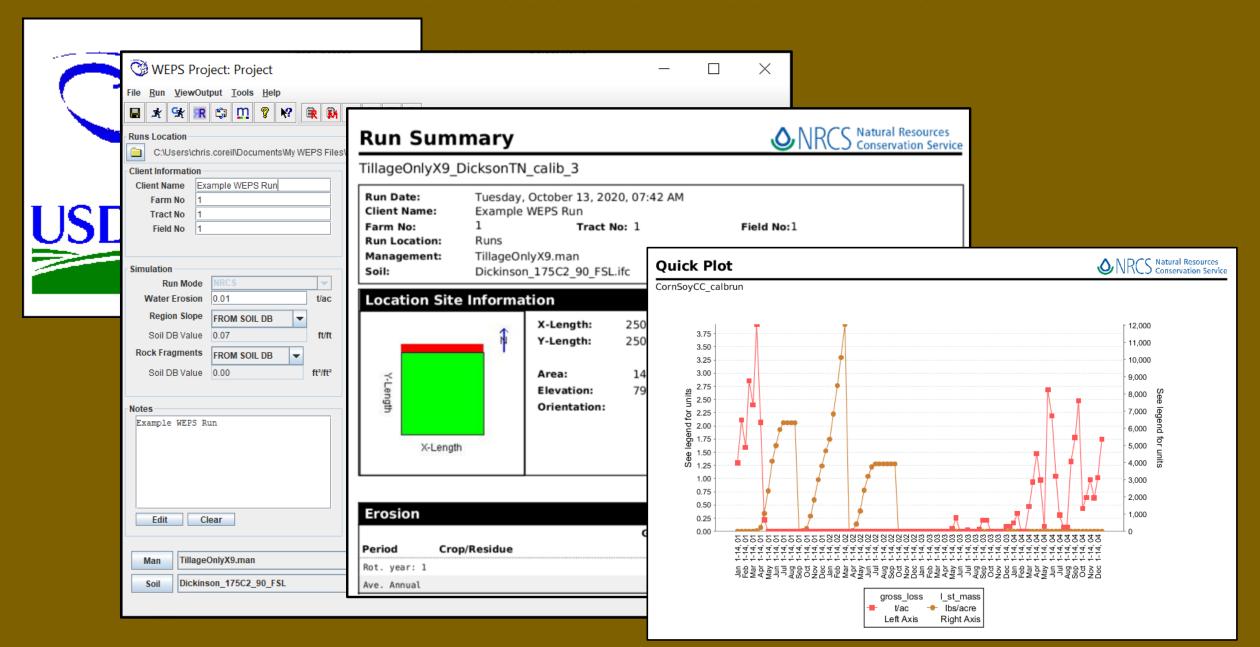
# NRCS Assessment Tools Water Erosion Prediction Project (WEPP)



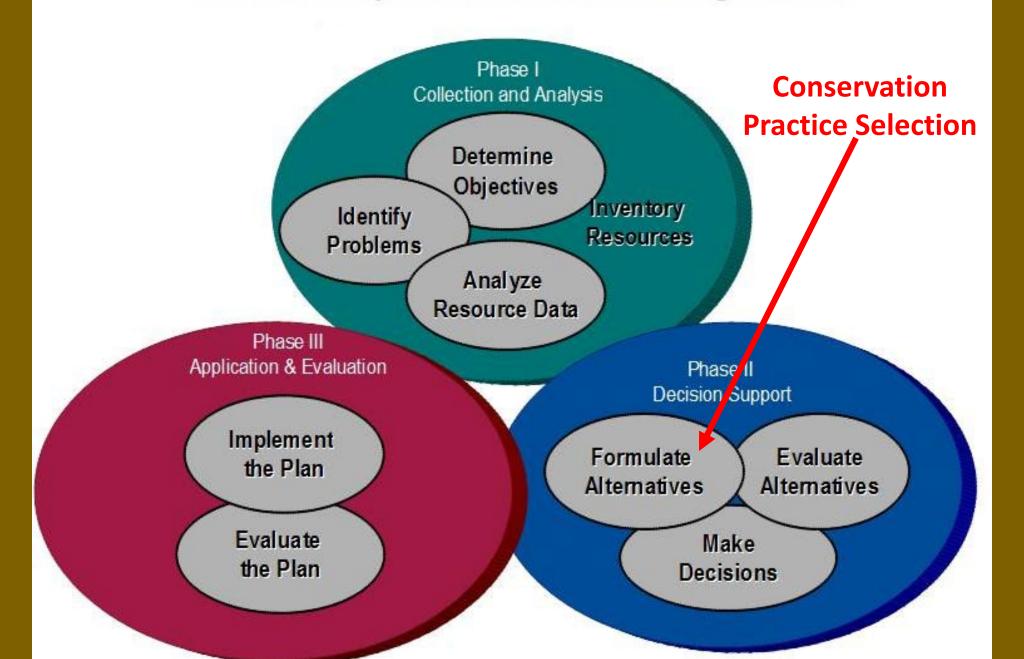
### **NRCS Assessment Tool - WEPP**



### **NRCS Assessment Tool - WEPS**



### The Nine-Step Conservation Planning Process



### **Conservation Practice Selection**

- CART internal logic, and NRCS Planning Criteria, guide conservation planners in deciding whether a resource concern exists.
- If there is a potential resource concern involving <u>sediment</u>, <u>pesticides</u>, <u>or nutrient runoff</u> to <u>surface or groundwater</u> resources, conservation measure(s) are suggested.
- Conservation practice selection choice lists are presented in CART. Also, all conservation planners are trained to recognize applicable conservation measures for each resource concern.
- Further guidance for conservation practice selection is provided in the individual conservation practice standards, specifications, and other guidance documents.

























































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