



Washington
State Department of
Agriculture

Washington Climate Smart Estimator (WaCSE)

Using ArcGIS Dashboards and Experience Builder

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Introduction



TACOMA WATER



Presentation Overview

Sustainable Farms & Fields Grant Program (SFF)

Spatial Datasets

Live Demo WaCSE

Workflow and Insights



SFF: Overview

Voluntary grant program to make it easier and more affordable to implement climate-smart practices

Free services such as on-farm consultations, climate-smart farm plans, technical expertise, and financial assistance

Mission: *Incentivize farmers and ranchers to adopt sustainable practices to sequester carbon, reduce greenhouse gas emissions, and enhance soil health*



WASHINGTON STATE
UNIVERSITY



United States
Department of
Agriculture

Natural Resources Conservation Service

SFF: Eligible applicants and practices

Conservation districts
and other public
entities may apply



Purchasing seeds
(*Crimson clover*
cover crop, King CD)



Technical assistance
(*Potato Field Day, WSU*)



Purchasing shared-
use equipment
(*Direct seeder, Foster Creek CD*)



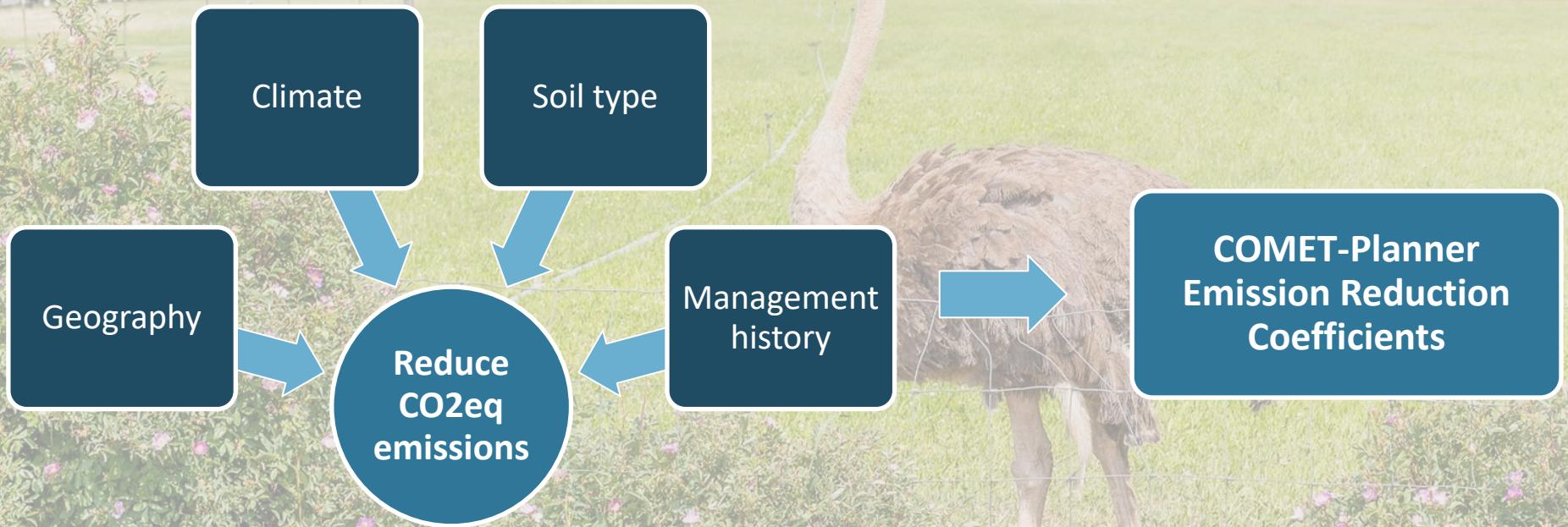
Cost sharing
(*Riparian planting,*
Palouse CD)

SFF: Prioritization

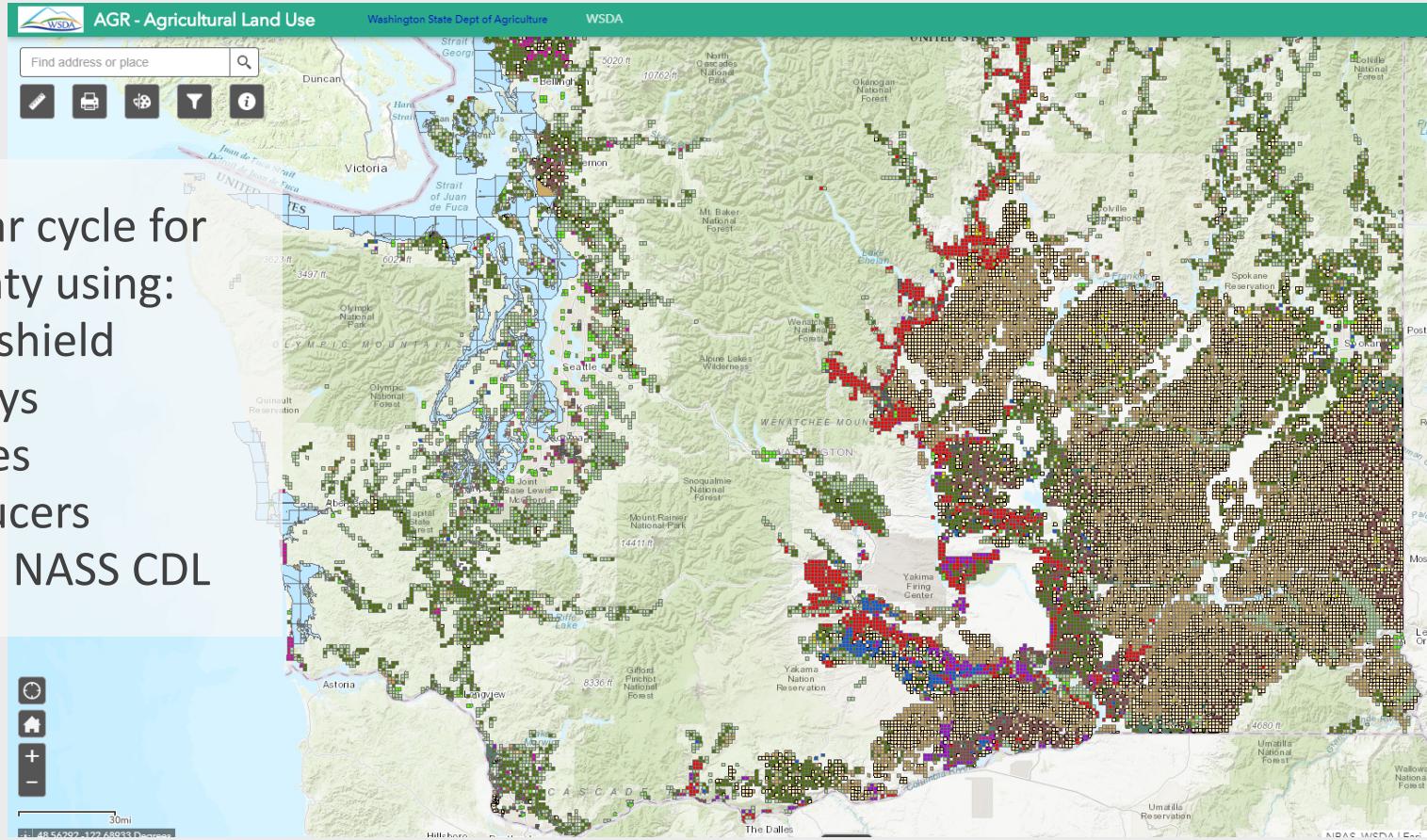


- 39 counties
- 725 named soil series
- 27 conservation practices
- 92 practice implementations

Spatial datasets: NRCS COMET



Spatial datasets: WSDA agricultural land use



- 2-to-3-year cycle for each county using:
 - Windshield surveys
 - Images
 - Producers
 - USDA NASS CDL



Live Demo



Workflow and Benefits



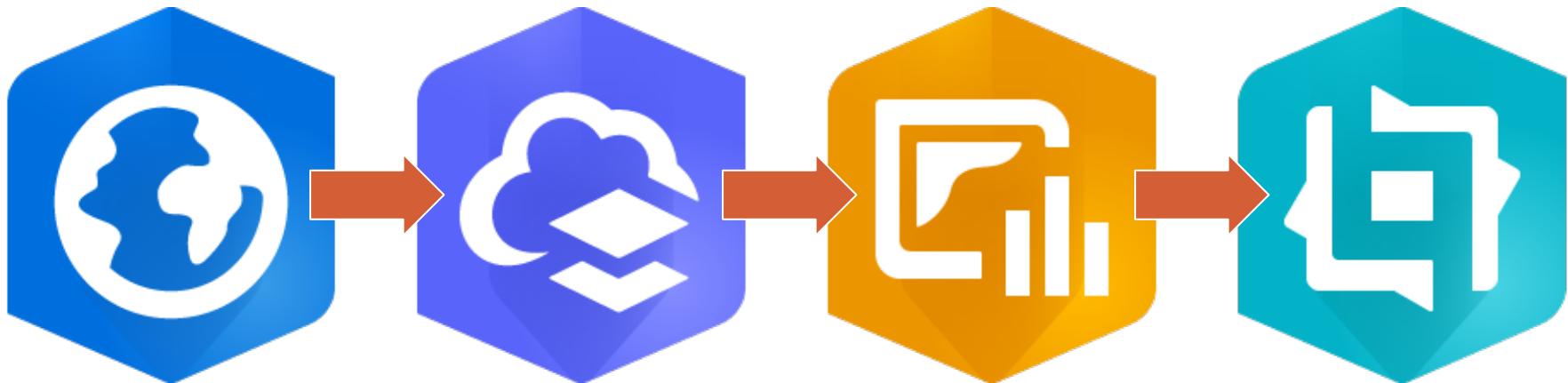
COMET
Planner



United States Department of Agriculture
Natural Resources Conservation Service



**AGRICULTURAL
LAND USE**



Benefits: intuitive UIs, very little code, quick to build, easy to deploy

Limitations and Future Work

- Required features:
 - Numeric input for calculations
 - Export reports
 - Error bars
 - Conditional filters
 - Full customization
 - Modularization

R

Spatial R packages:

{sp}, {rgdal},
{leaflet}, {leaflet.esri},
{arcgisbinding}

R Studio®





Contact & Links

- jryan@agr.wa.gov
- WaCSE: <https://experience.arcgis.com/experience/1982f8e8d9fb4be196b83502f9e6bc28/>
- WSDA Ag Land Use:
<https://agr.wa.gov/departments/land-and-water/natural-resources/agricultural-land-use>
- NRCS COMET-Planner: <http://comet-planner.com/>

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