State of Nevada
Sagebrush Ecosystem Program
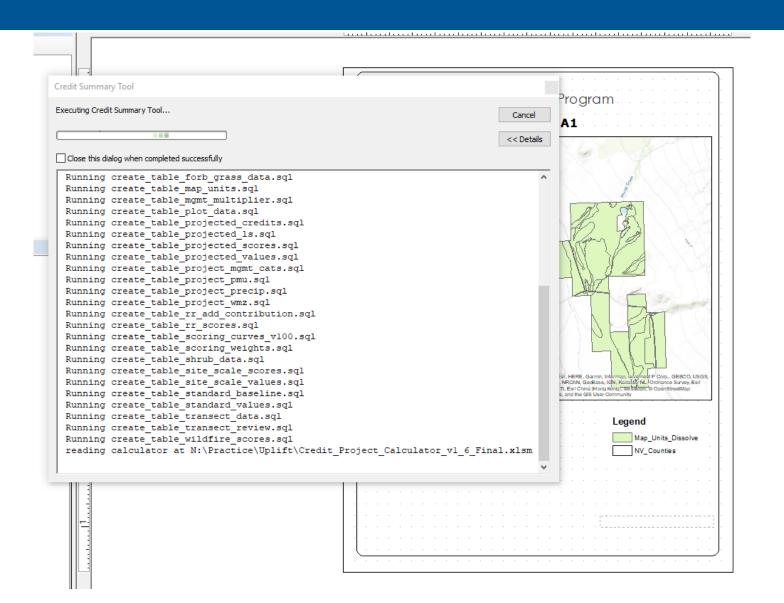
UPLIFT TOOL

August 2020

PURPOSE

- GIS output that informs landowners of the uplift (credit) potential of their CCS Project

- To work with the "Guidance for Creating Conservation Uplift in Meadow and Upland Habitat Package"
  - Inform of the areas and type of uplift that would maximize their credit amount, therefore possibly maximizing habitat potential for sage-grouse
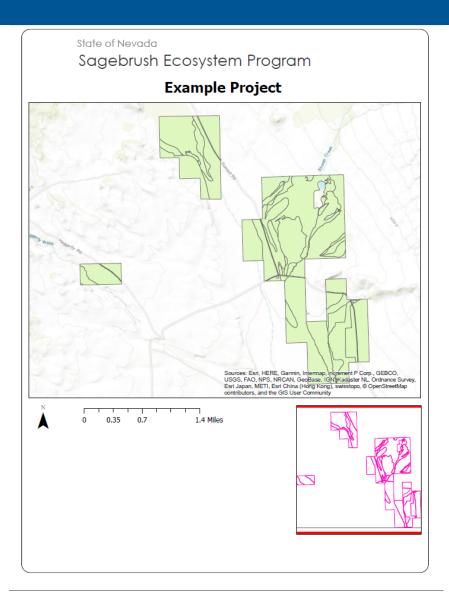
LIMITATIONS

- Does not take into account ecological site potential, states and transition categories, etc.

- Focuses purely on maximizing credit amount, limited on what the calculator looks at
  - Objective numbers

- Does not focus on causes but results
  - Example: Tool states the landowner needs to increase the forbs in the meadow, but it does not recognize that the lack of forbs is caused by a dropping water table due to erosion

RUN BY THE SETT OR BY VERIFIERS

RESULTS

State of Nevada
Sagebrush Ecosystem Program

Example Project

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community

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| 0 | 0.35 | 0.7 | 1.4 Miles |

Guide to Current & Additional Credits Charts

The Credit Summary Report will help you understand where your project is generating credits and how to improve your project to generate additional credits. The intent of this report is to help you maximize the value of your project by identifying new uplift strategies.

Current & Projected Credits

The Current & Projected Credits table, illustrated below, displays the area of each map unit, the number of current credits, and the expected number of projected credits (i.e., credits generated through uplift).

ID	Map Unit Name	Meadow	Map Unit Area (acres)	Current / Projected Credits
1	Map_Unit_Name	No_Meadow	200.0	50.0/10.0

Legend

■ Area (acres)   ■ Current Credits   ■ Projected Credits

Additional Credits

The Additional Credits table, illustrated below, suggests uplift strategies that target different components of the vegetation to increase the projected credits generated by each map unit. If an uplift strategy is not suggested (i.e., the 'Recommendation' column is blank for that map unit), the original plan for the map unit is likely the best strategy.

ID	Map Unit Name	Recommendation	Conifer Credits	Additional Credits
1	Map_Unit_Name	shrub_high	20.0	+ 50 credits

Legend

■ Credits resulting from conifer removal   ■ Current + Projected Credits   ■ Additional credits resulting from recommended uplift strategy (color may vary, see below)

Uplift Strategies

The Additional Credits table evaluates three uplift strategies for each map unit at varying levels of effort to determine an uplift strategy likely to increase the credits generated from the map unit. Low, medium and high effort scenarios are evaluated for each strategy. Each strategy is defined below.
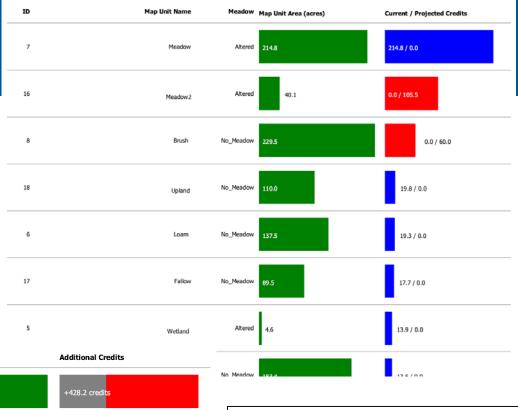
■ **Enhance forbs and grasses (forb_grass):** increase forb cover and grass cover by 10% (low), 25% (medium), or 50% (high); increase forb richness by double (medium) or triple (high) current richness.
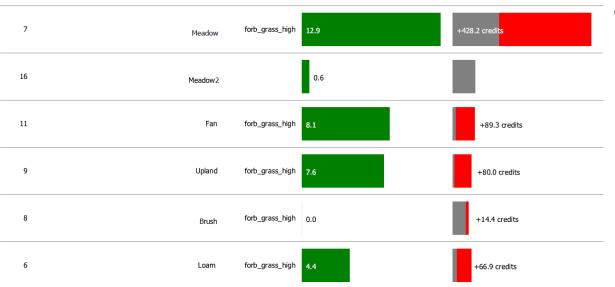■ **Enhance shrubs (shrub):** increase sagebrush and other shrub cover by 10% (low), 20% (medium), or 30% (high).
■ **Control cheatgrass (brotec):** decrease cheatgrass cover by 50% (high), 75% (medium), or 90% (high).

Current & Projected Credits

The Current & Projected Credits table, illustrated below, displays the area of each map unit, the number of current credits, and the expected number of projected credits (i.e., credits generated through uplift).

ID	Map Unit Name	Meadow	Map Unit Area (acres)	Current / Projected Credits
1	Map_Unit_Name	No_Meadow	200.0	50.0/10.0

Legend
Area (acres)   Current Credits   Projected Credits

ID	Map Unit Name	Meadow	Map Unit Area (acres)	Current / Projected Credits
7	Meadow	Altered	214.8	214.8 / 0.0
16	Meadow2	Altered	40.1	0.0 / 105.5
8	Brush	No_Meadow	229.5	0.0 / 60.0
18	Upland	No_Meadow	110.0	19.8 / 0.0
6	Loam	No_Meadow	137.5	19.3 / 0.0
17	Fallow	No_Meadow	89.5	17.7 / 0.0
5	Wetland	Altered	4.6	13.9 / 0.0
		No_Meadow	183.4	13.6 / 0.0

ID	Map Unit Name	Recommendation	Conifer Credits	Additional Credits
7	Meadow	forb_grass_high	12.9	+428.2 credits
16	Meadow2		0.6	
11	Fan	forb_grass_high	8.1	+89.3 credits
9	Upland	forb_grass_high	7.6	+80.0 credits
8	Brush	forb_grass_high	0.0	+14.4 credits
6	Loam	forb_grass_high	4.4	+66.9 credits

Additional Credits

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1	Map_Unit_Name	shrub_high	20.0	+ 50 credits

Legend
Credits resulting from conifer removal   Current + Projected Credits   Additional credits resulting from recommended uplift strategy (color may vary, see below)

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- Comments, Questions, Suggestions?