Package: WaCSE (via r-universe)

March 13, 2025

Title Washington Climate Smart Estimator

Version 0.9.2

Description The Washington Climate Smart Estimator (WaCSE) is a shiny application to explore greenhouse gas mitigation potential from different agricultural conservation practices across Washington's diverse counties.

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URL https://github.com/WA-Department-of-Agriculture/WaCSE

BugReports https://github.com/WA-Department-of-Agriculture/WaCSE/issues

Depends R (>= 3.5)

Imports config (>= 0.3.1), dplyr, DT, ggiraph, ggplot2, golem (>= 0.3.2), markdown, pkgload, rmarkdown, shiny (>= 1.7.1), shinydashboard, systemfonts

Suggests bslib, bsplus, gfonts, glue, htmltools, janitor, kableExtra, knitr, scales, shadowtext, shinycssloaders, shinydisconnect, shinyFeedback, shinyjs, shinyWidgets, stringr, tidyr, waiter, testthat (>= 3.0.0)

Config/testthat/edition 3

Encoding UTF-8

LazyData true

RoxygenNote 7.3.2

Config/pak/sysreqs libfontconfig1-dev libfreetype6-dev make libpng-dev zlib1g-dev

Repository https://wa-department-of-agriculture.r-universe.dev

RemoteUrl https://github.com/WA-Department-of-Agriculture/WaCSE

RemoteRef HEAD

RemoteSha 10b0b5419f8e4e6e9f4cde71c378c55e5815e098

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`comet_tags` *comet_wa tags*

Description

Tags for filtering conservation practice implementations from the comet_wa dataset

Usage

```
comet_tags
```

Format

A data frame with 122 rows and 7 variables:

class Broad class of conservation practice

practice USDA-NRCS Conservation Practice Standard name

implementation The implementation scenario modeled for each conservation practice standard; implementation scenarios are described in more detail in the one-page summaries associated with each practice

abbr Abbreviated implementation for plots.

current_land_use Value extracted from planner_implementation to use as filtering tag.

irrigation Value extracted from planner_implementation to use as filtering tag.

nutrient_practice Value extracted from planner_implementation to use as filtering tag.

`comet_wa` *Greenhouse gas emission reduction coefficients*

Description

A subset of the NRCS COMET-Planner dataset (Version 3.1, Build 2, Released Dec 10 2024) containing the coefficients of greenhouse gas emissions and soil carbon for Washington State.

Usage

```
comet_wa
```

Format

A data frame with 17584 rows and 14 variables:

county County name

mlra USDA Major Land Resource Area rectified to county boundaries

class Broad class of conservation practice

practice USDA-NRCS Conservation Practice Standard name

implementation The implementation scenario modeled for each conservation practice standard; implementation scenarios are described in more detail in the one-page summaries associated with each practice

abbr Abbreviated implementation for plots.

current_land_use Value extracted from planner_implementation to use as filtering tag.

irrigation Value extracted from planner_implementation to use as filtering tag.

nutrient_practice Value extracted from planner_implementation to use as filtering tag.

ghg_type The Emission Reduction Coefficient (ERC) type: co2, n2o, ch4, or total_ghg_co2

mean Mean emission reductions in metric tonnes CO2 equivalent per acre per year (MT CO2e/ac/yr)

sterr Standard error of the mean of emission reductions in metric tonnes CO2 equivalent per acre per year (MT CO2e/ac/yr)

lower Mean ERC - sterr

upper Mean ERC + sterr

The below descriptions are directly from the source metadata.

co2_meanMean total carbon dioxide (CO2) emission reductions (sum of all CO2 sources) in metric tonnes CO2 equivalent per acre per year (MT CO2e/ac/yr) co2_sterrStandard error of the mean of total carbon dioxide (CO2) emission reductions (sum of all CO2 sources) in metric tonnes CO2 equivalent per acre per year (MT CO2e/ac/yr) n2o_meanMean total nitrous oxide (N2O) emission reductions (sum of all N2O emission sources) in metric tonnes CO2 equivalent per acre per year (MT CO2e/ac/yr) n2o_sterrStandard error of the mean for total nitrous oxide (N2O) emission reductions (sum of all N2O emission sources) in metric tonnes CO2 equivalent per acre per year (MT CO2e/ac/yr) ch4_meanMean total methane (CH4) emission reductions (sum of all CH4 emission sources) in metric tonnes CO2 equivalent per acre per year (MT CO2e/ac/yr) ch4_sterrStandard error of the mean for total methane (CH4) emission reductions (sum of all CH4 emission sources) in metric tonnes CO2 equivalent per acre per year (MT CO2e/ac/yr) total_ghg_co2Mean of total greenhouse gas emission reductions in metric tonnes CO2 equivalent per acre per year (MT CO2e/ac/yr) total_ghg_co2_sterrStandard error of the mean for total greenhouse gas emission reductions in metric tonnes CO2 equivalent per acre per year (MT CO2e/ac/yr) ...

Details

COMET-Farm metamodeling utilized COMET-Farm Version 4.0

Source

http://www.comet-planner.com/

run_app *Run the Shiny Application*

Description

Run the Shiny Application

Usage

```
run_app(
  onStart = NULL,
  options = list(),
  enableBookmarking = NULL,
  uiPattern = "/",
  ...
)
```

Arguments

onStart	A function that will be called before the app is actually run. This is only needed for shinyAppObj, since in the shinyAppDir case, a global.R file can be used for this purpose.
options	Named options that should be passed to the runApp call (these can be any of the following: "port", "launch.browser", "host", "quiet", "display.mode" and "test.mode"). You can also specify width and height parameters which provide a hint to the embedding environment about the ideal height/width for the app.
enableBookmarking	Can be one of "url", "server", or "disable". The default value, NULL, will respect the setting from any previous calls to enableBookmarking(). See enableBookmarking() for more information on bookmarking your app.
uiPattern	A regular expression that will be applied to each GET request to determine whether the ui should be used to handle the request. Note that the entire request path must match the regular expression in order for the match to be considered successful.
...	arguments to pass to golem_opts. See '?golem::get_golem_options' for more details.

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