
WEPA - Water Erosion Prediction Application

— Team 6 —

Team Members

Team:

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System Overview

- WEPA application consists of a form that the user uses to generate simplified output from the Water Erosion Prediction Project (WEPP) model with aid from a water erosion database.
- The application will be web based and users will be able to use it from their mobile devices as well.
- The queries and inputs will be made in a streamlined fashion allowing for more general users to make use of the application to detect the possibility of soil erosion.

Users

- Primarily those interested in the erosion of hillslope soil
- Forest Services
 - Aftermath of forest fires

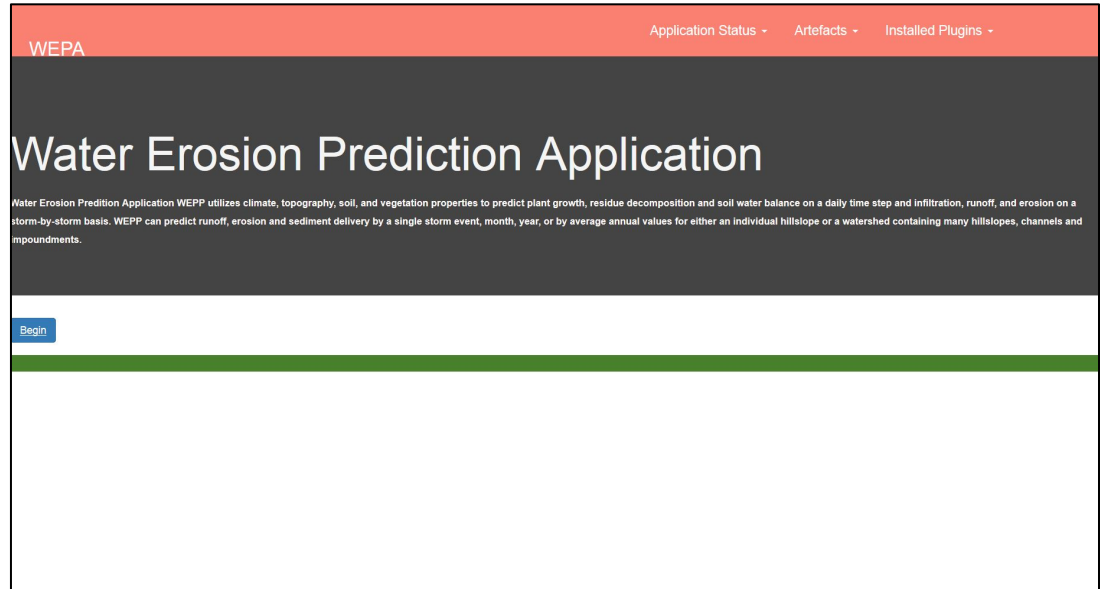
Application

WEPA

NASA BAER Query

Home view

- Overview of the app
- Instructions on how to use the app
- A button leading to the inputs page



Inputs View

- Map implementation for selection of latitude and longitude
- Querying of BAER water erosion database

NASA BAER Erosion Database Query

Latitude

Longitude

[Query](#)



Water Erosion Model Query

Soil Texture

Rock Content (%)

Slope Length (ft)

Gradient (%)

Cover (%)

Climate

Years to run

Vegetation

[Submit](#)

[Home](#)

Results view

- Pull information from the WEPP model query

Return Period	Precipitation (in.)	Runoff (in.)	Erosion (t ac ⁻¹)	Sediment (t ac ⁻¹)
0 year	34	23	43	23
1 year	34	23	43	23
2 year	34	23	43	23
3 year	34	23	43	23
4 year	34	23	43	23
Average	34	23	43	23

Average annual sediment leaving profile: 0.042 t/ha (assuming contributions from 0.305 ha)

[Return](#)

Potential Usability Concerns

- Inputs page double submission
 - One submission for soil texture, rock content, and slope length
 - Another for the results of the WEPP model
- Instructions separate from the inputs
 - Instructions are on the homepage, not the inputs page

Our Progress Thus Far

- Completed
 - Querying of NASA BAER erosion database
- In Progress
 - Homepage
 - Inputs page
- TODO
 - Navigation between pages
 - Instruction on homepage
 - Results page

Questions?