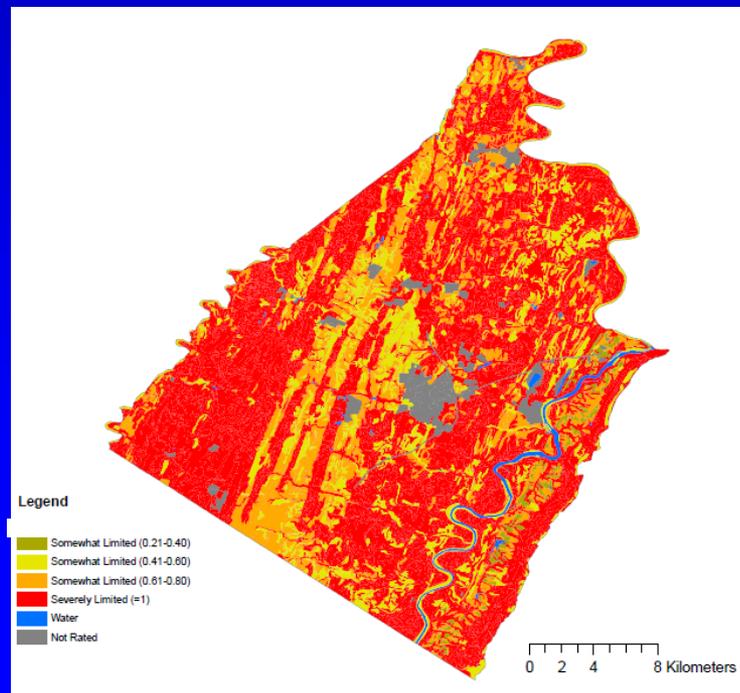




Soil Rating for Storm Water Management Practices

Amir Hass

Agricultural & Environmental Research Station, Gus R. Douglass Institute, West Virginia State University



Soil Rating for Storm Water Management Practices

~~“CATCH AND RELEASE”~~



Lake Hallett Association

Soil Rating for Storm Water Management Practices

~~ON-SITE MANAGEMENT~~



Lake Hallett Association

Soil Rating for Storm Water Management Practices

ON SITE MANAGEMENT

Low Impact Development

Reduce stormwater (runoff):

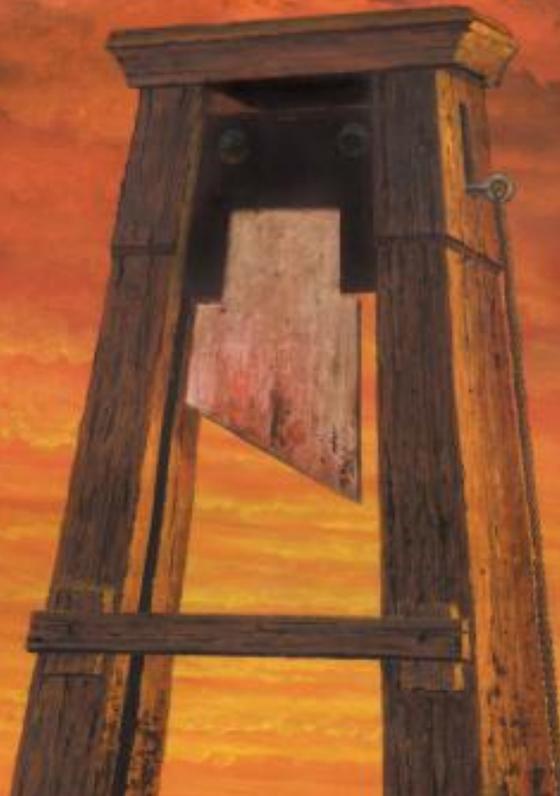
- **Volume**
- **Peak flow**
- **Composition**

Rain Gardens (bio-infiltration)



CHARLES DICKENS

*A Tale of
Two Cities*





**WVDEP parking lot
South Kanawha, WV**



**Exhibition coal mine
Beckley, WV**

Exhibition Coal Mine, Beckley, WV





Exhibition Coal Mine, Beckley, WV



Exhibition Coal Mine, Beckley, WV









WVDEP, South Kanawha, WV

WV DEP endorsed practices

- **Infiltration planters or planter boxes**
- **Rain Gardens (bio-infiltration)**
- **Pervious pavement**
- **Vegetated or grassed swales**
- **Intermittent wetlands or pocket wetlands**

Soil Interpretation

- **Lined retention system (retention basin / intermittent wet-land)**
- **Unlined retention system**
- **Shallow infiltration system (pervious pavements/swales)**
- **Deep infiltration system (bio-infiltration)**

Criteria

- **Ksat**
- **Unstable fill**
- **Hard bedrock**
- **Water table**
- **Slope (w/o LEP)**
- **Flooding**
- **Large surface fragments**
- **Limestone bedrock – collapse risk**
- **Limestone bedrock – groundwater contamination**

Soil Survey Map

Legend

Map navigation toolbar including icons for zoom, pan, and information, with a scale dropdown menu set to "(not to scale)".



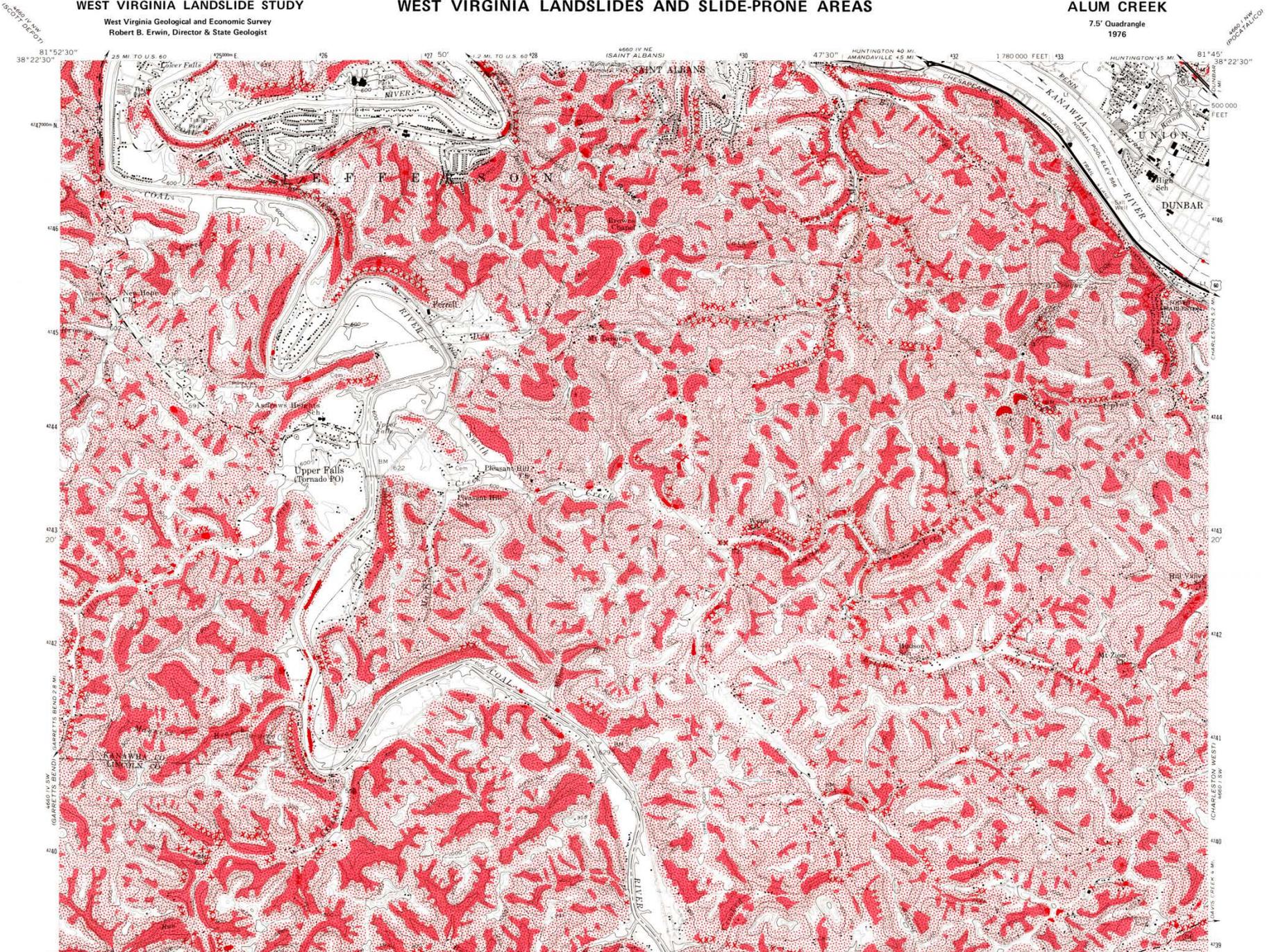
WEST VIRGINIA LANDSLIDE STUDY

West Virginia Geological and Economic Survey
Robert B. Erwin, Director & State Geologist

WEST VIRGINIA LANDSLIDES AND SLIDE-PRONE AREAS

ALUM CREEK

7.5' Quadrangle
1976



Constrains and Limitations

- **Mapping scale / (site) specificity**
inclusions / ‘urban soil complex’
Extending below 2m



- **Use of common language**
(engineers – soil scientists)



- **Geologic material /formation**
(limestone / karst)

