

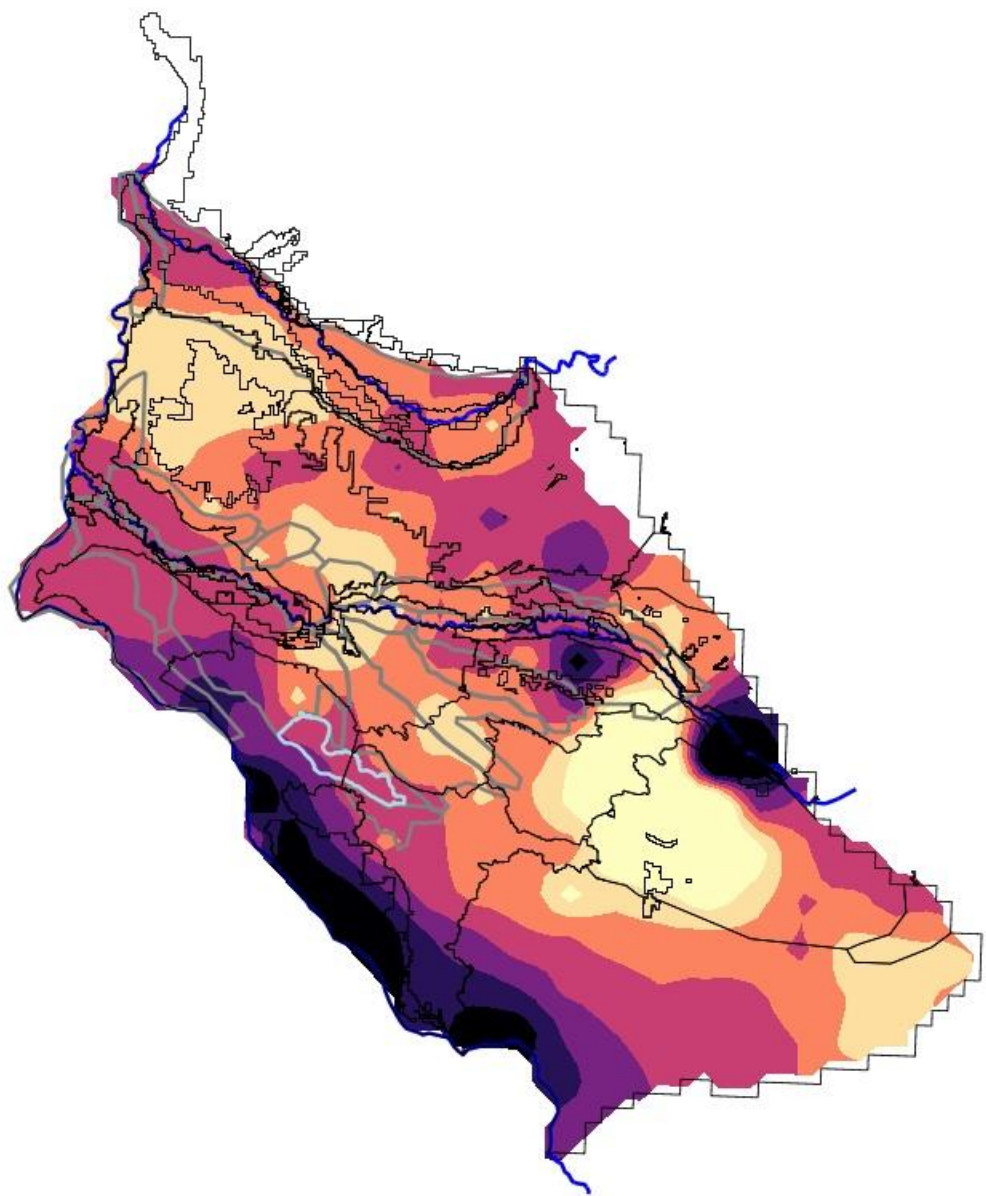
# Model Calibration Update

Stephen Hundt

# Concerns from last time

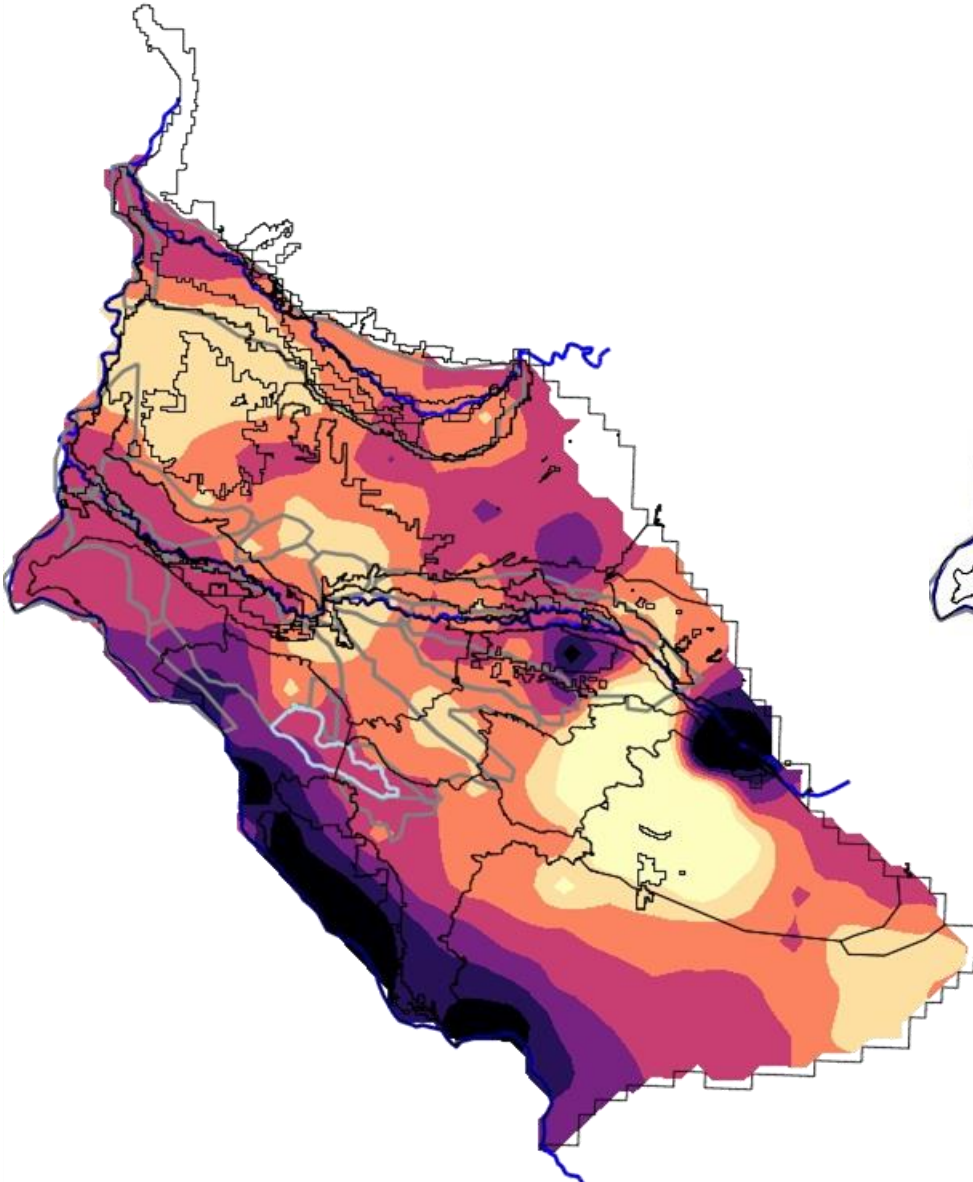
# 'Wall' of low hk around Snake River

Layer 1  
hk

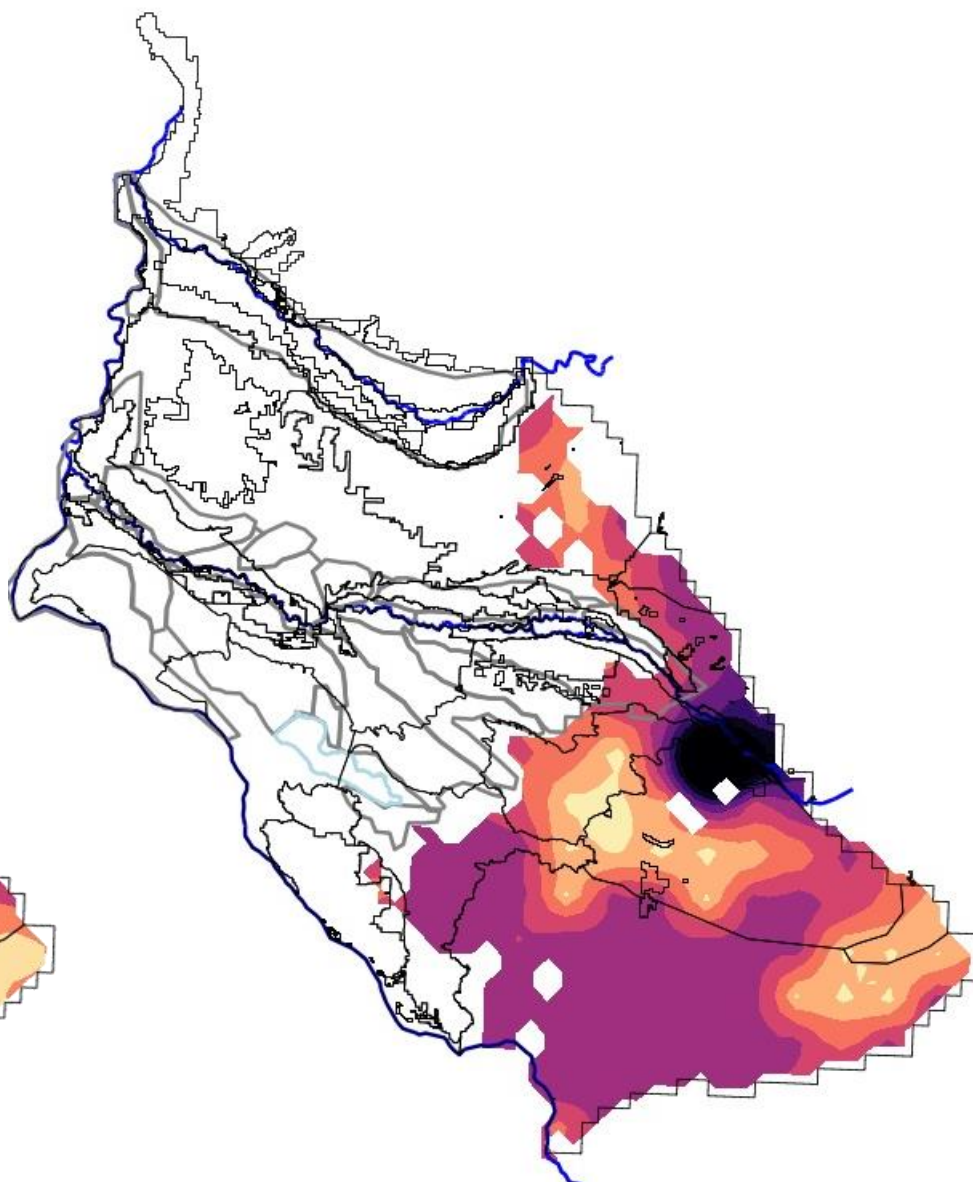


# Extreme parameter values in SE Boise

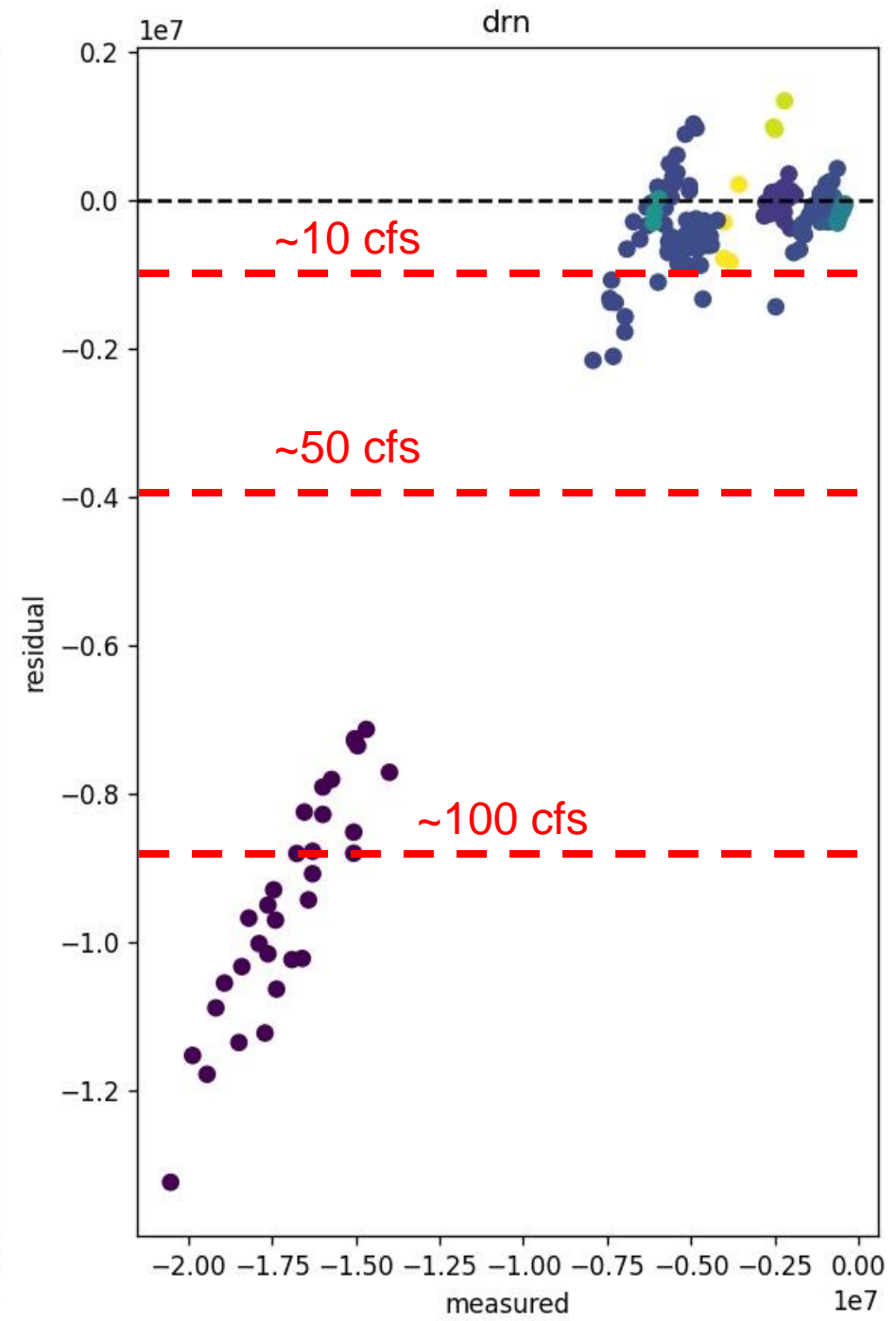
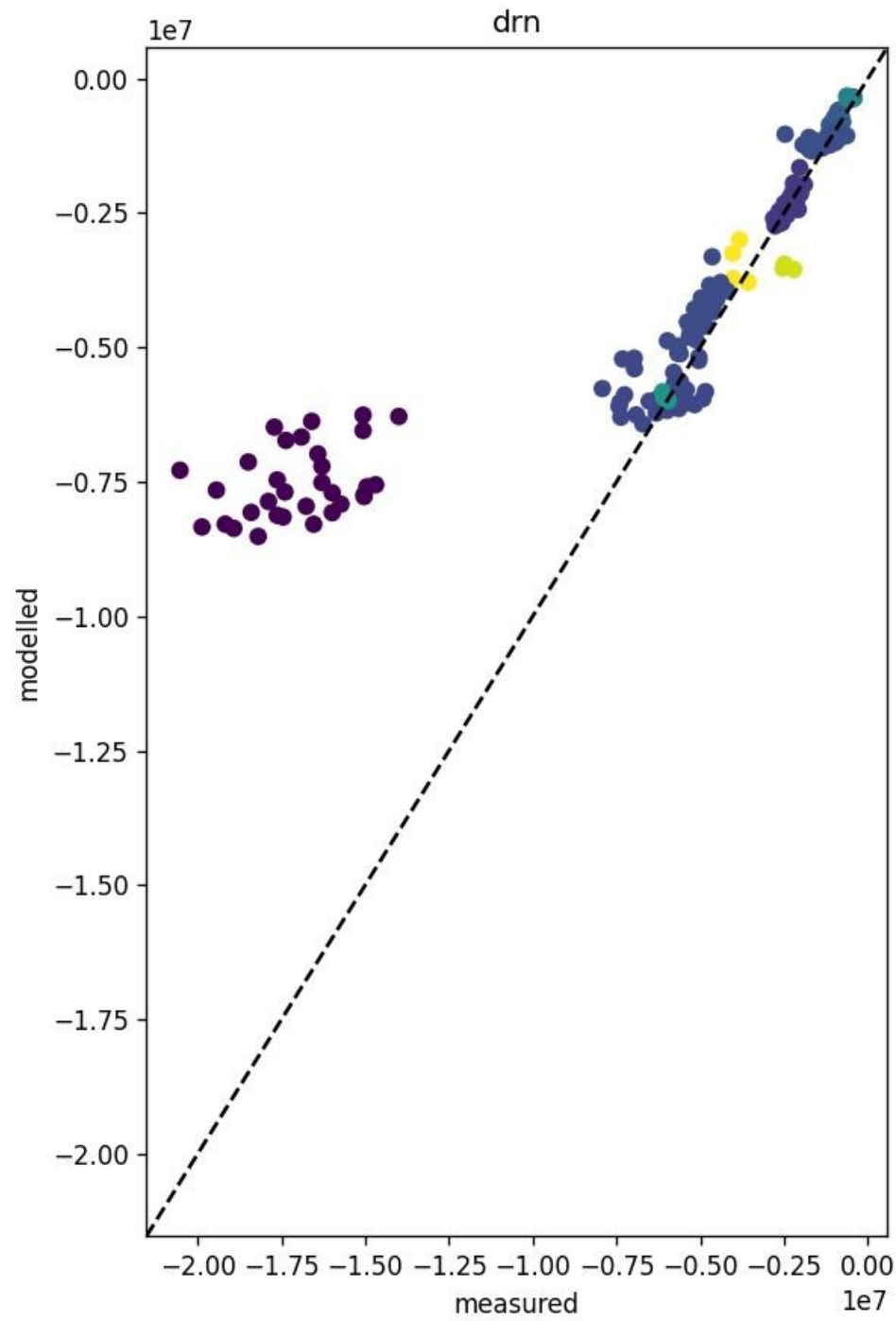
Layer 1  
hk



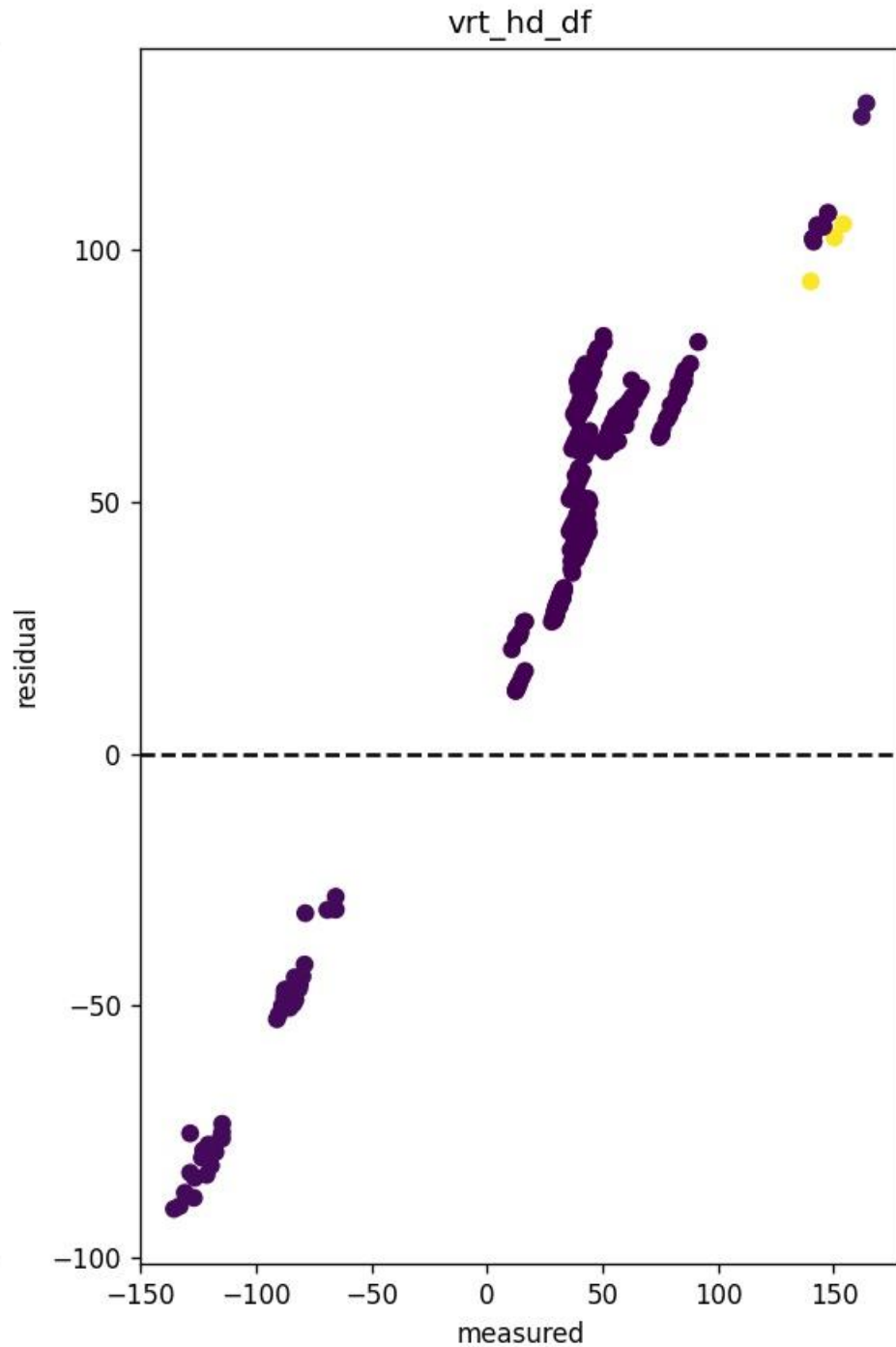
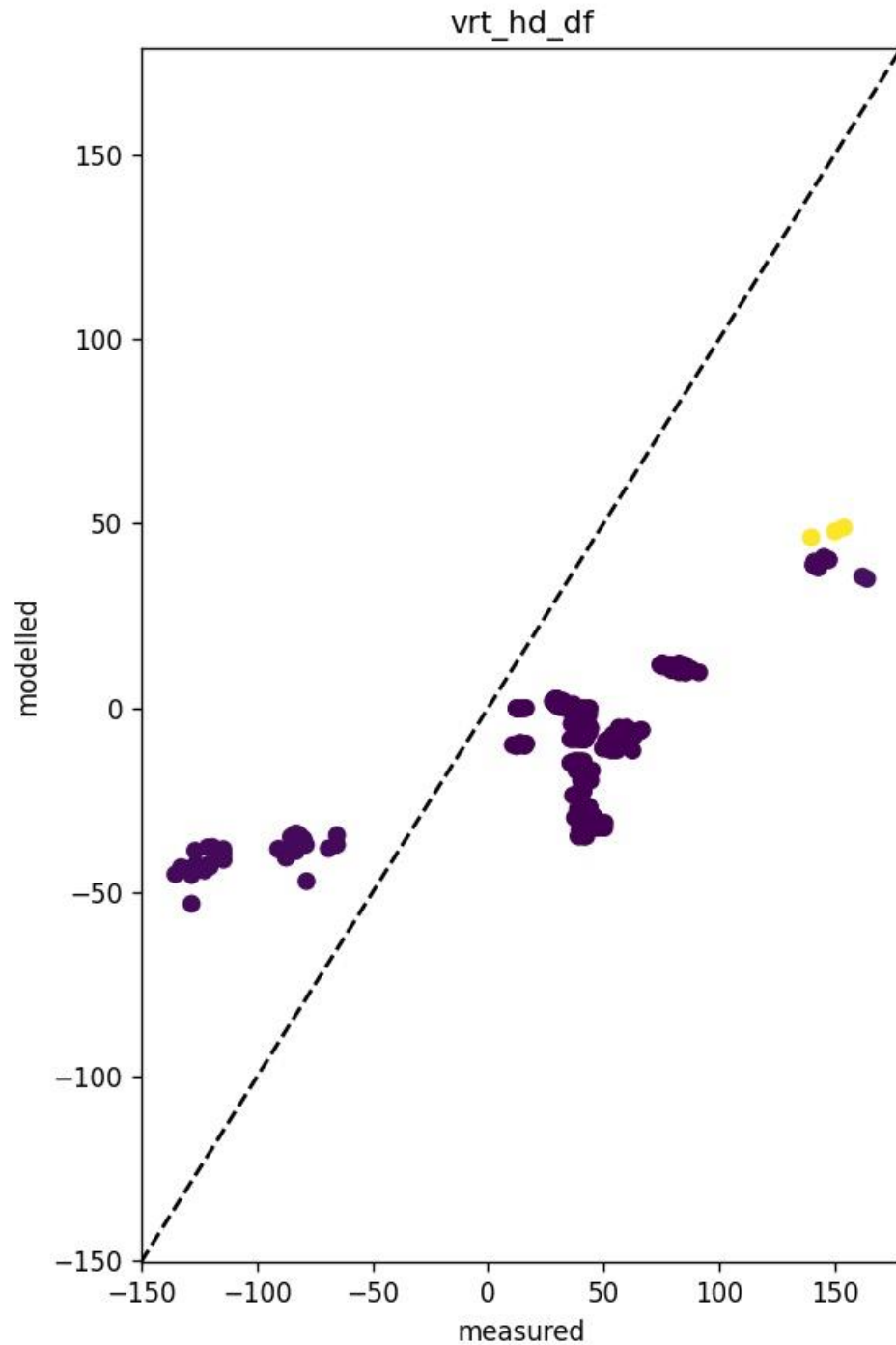
Layer 2  
hk



**Better  
performance  
around Lowell /  
NY Canal / Indian  
Creek**



# Better vertical head diffs



# Changes

# Changes since last time

## **Snake River**

- Boundary changed from CHD to RIV

## **Drains**

- Indian creek weights increased
- Added temporal difference targets
- Split drain areas into two parameter value zones for Indian Creek, Dixie, and Snake River south of Boise River

## **Lake Lowell**

- Added temporal difference targets
- Lowered weights

## **Canal Leakage:**

- (Just) Fixed error in canal leakage distribution for grouped

## **Water level observations**

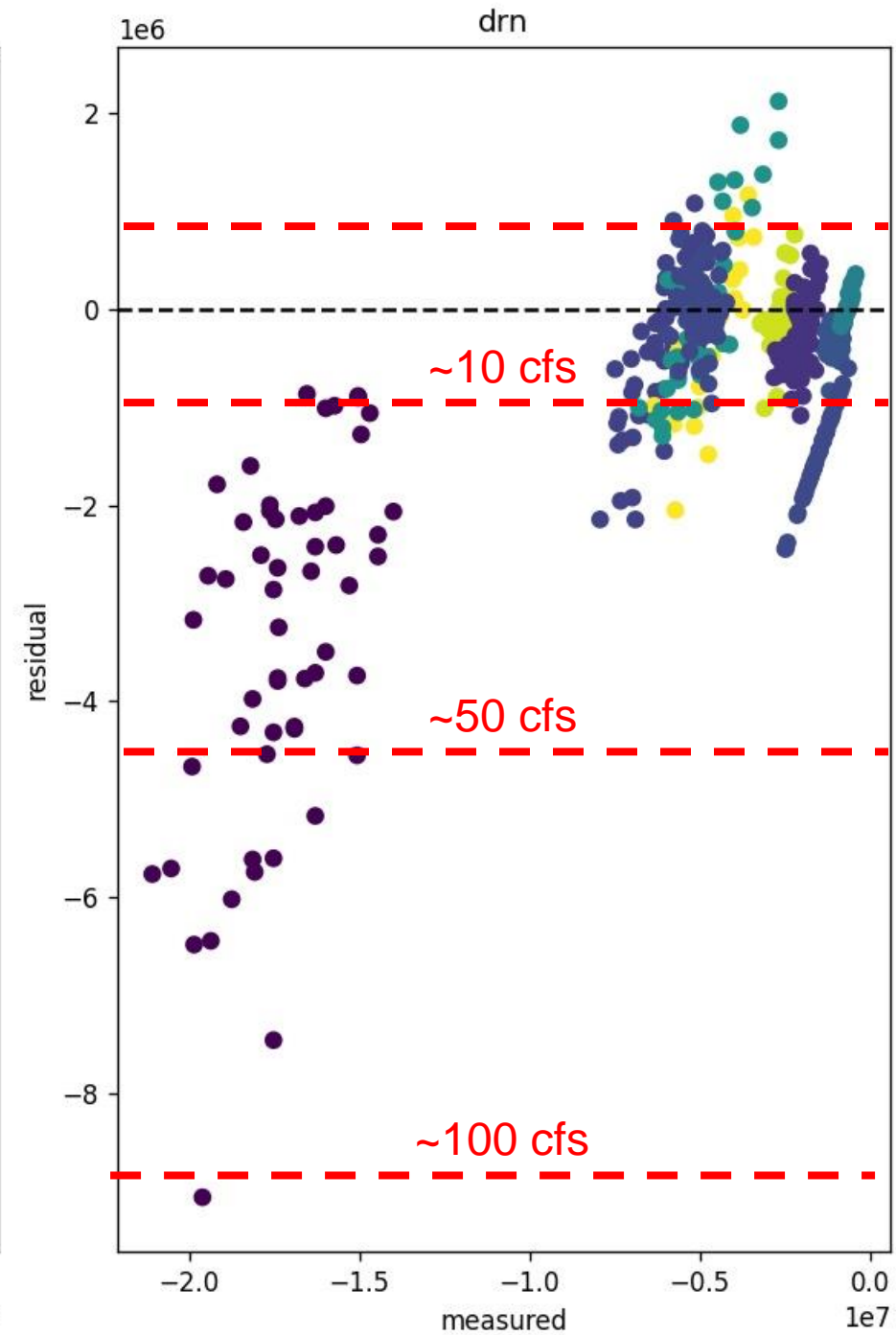
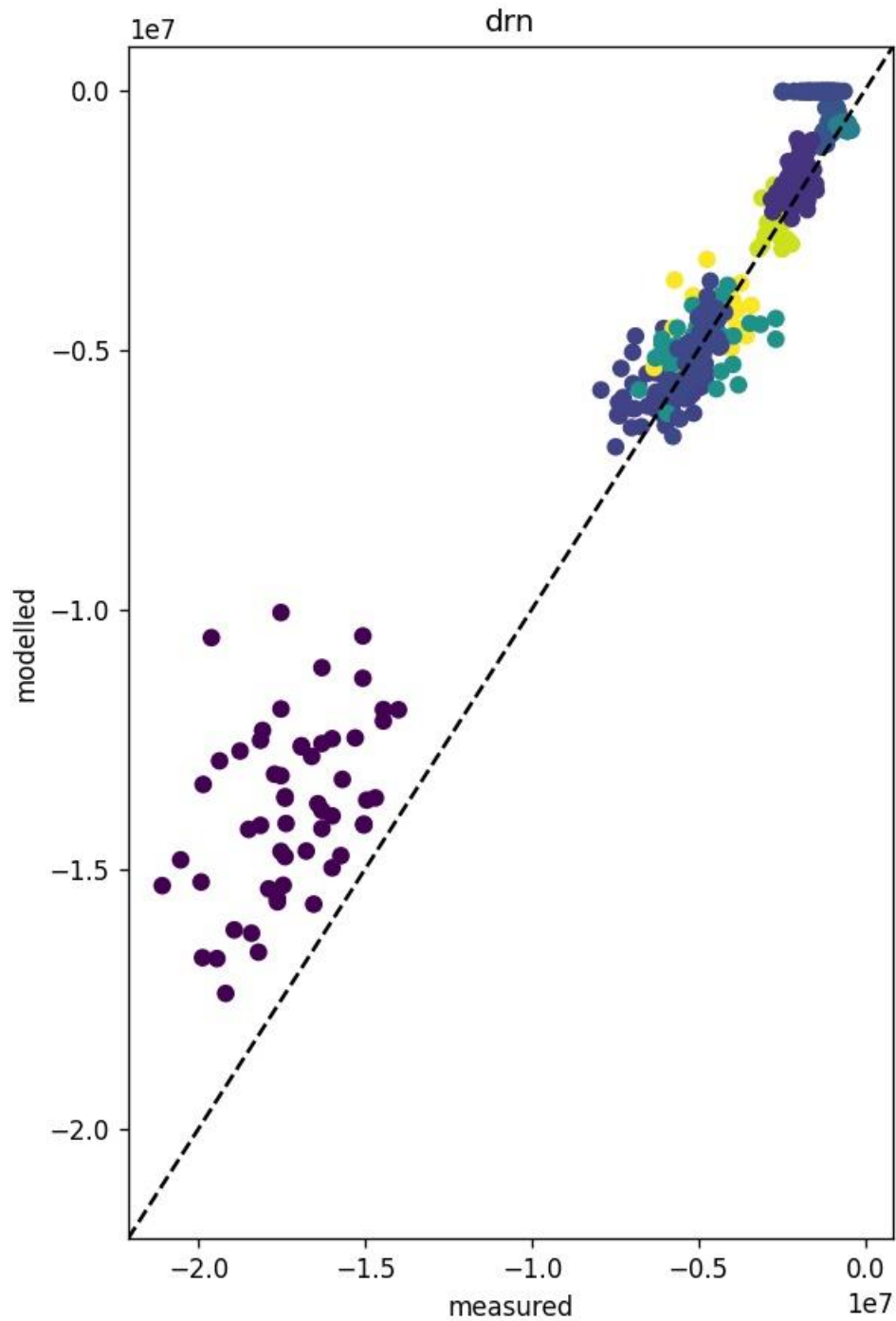
- Zero-weighted a few anomalous wells along Snake River SW of Lowell
- Zero-weighted a few anomalous wells SE Boise

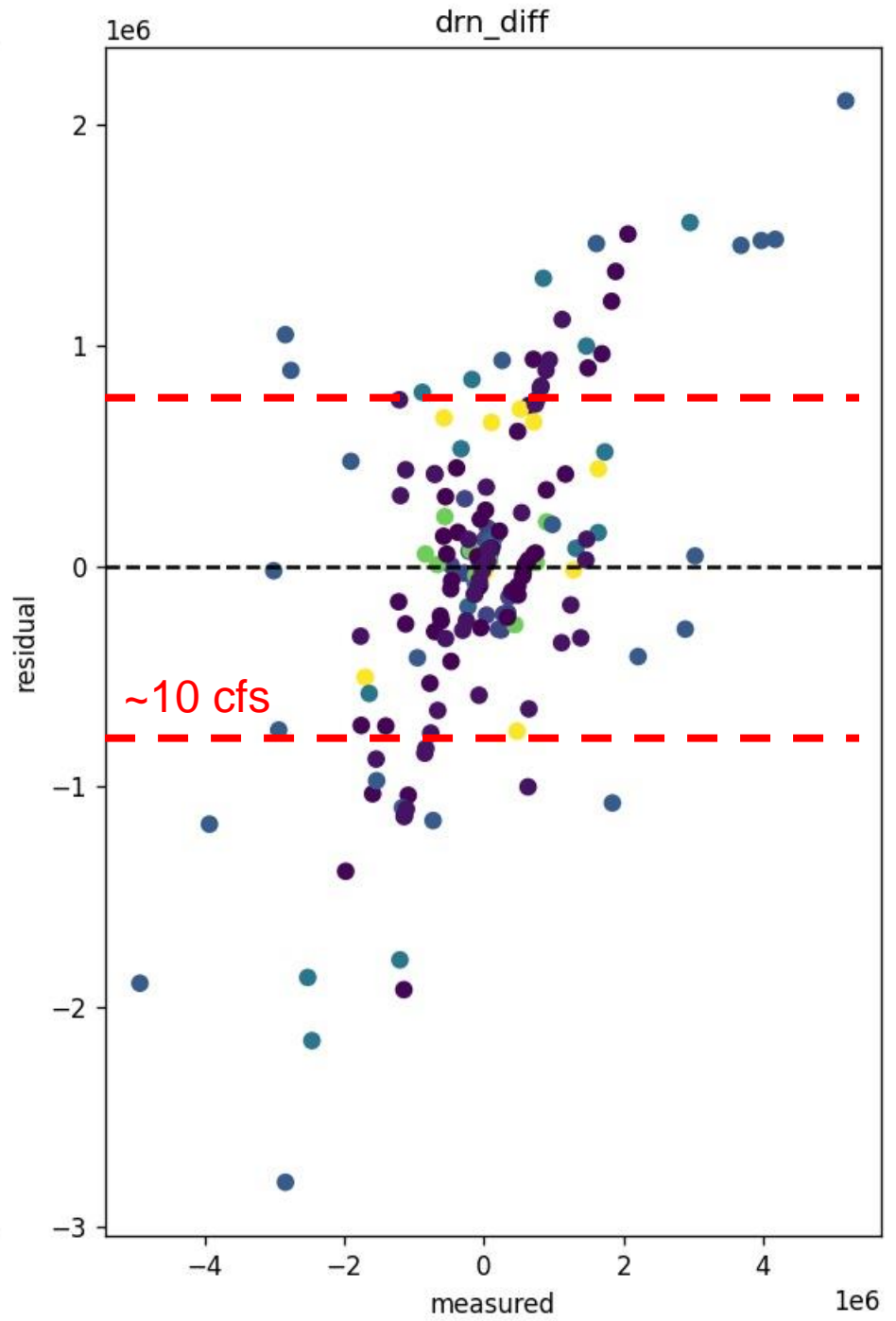
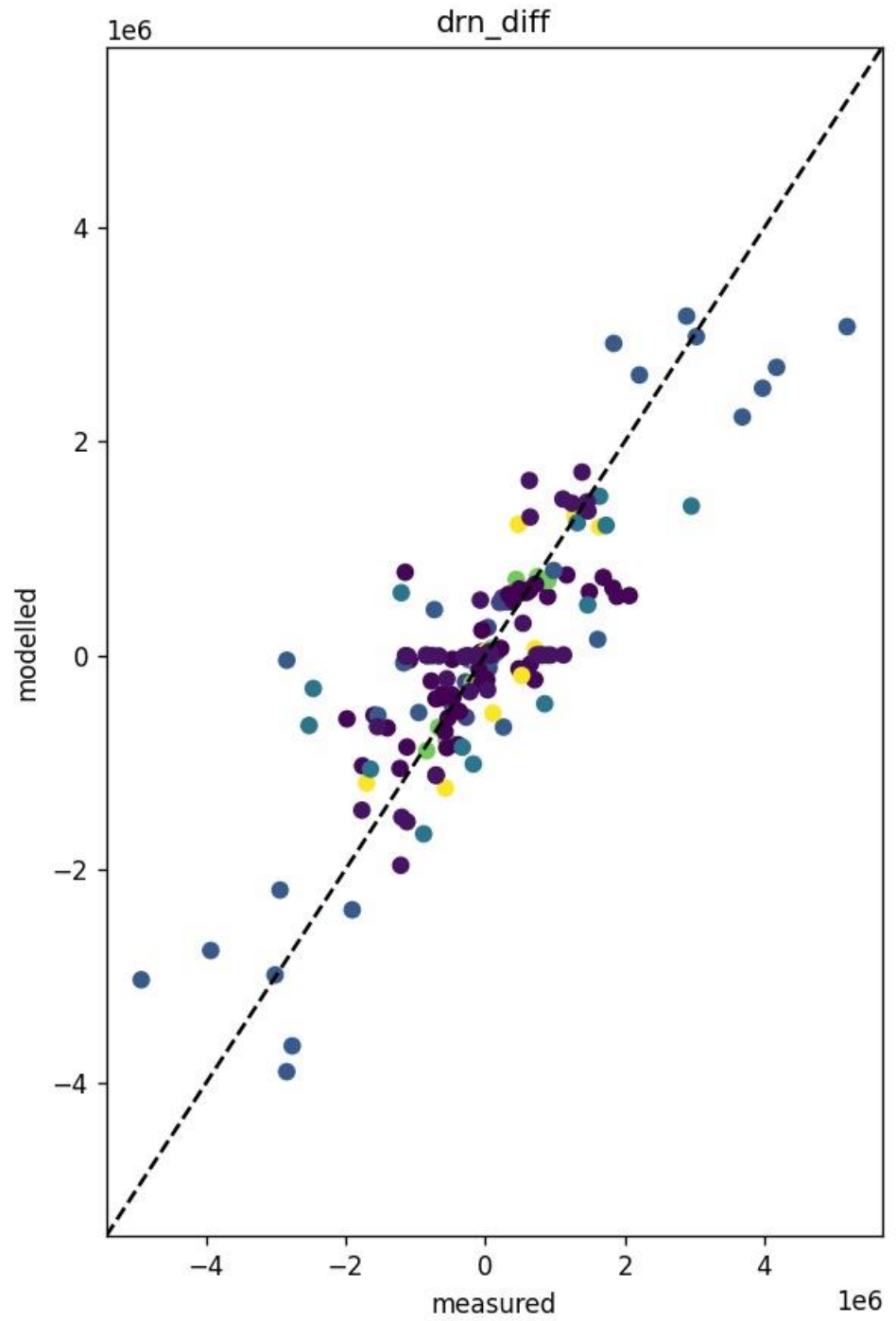
## **ET**

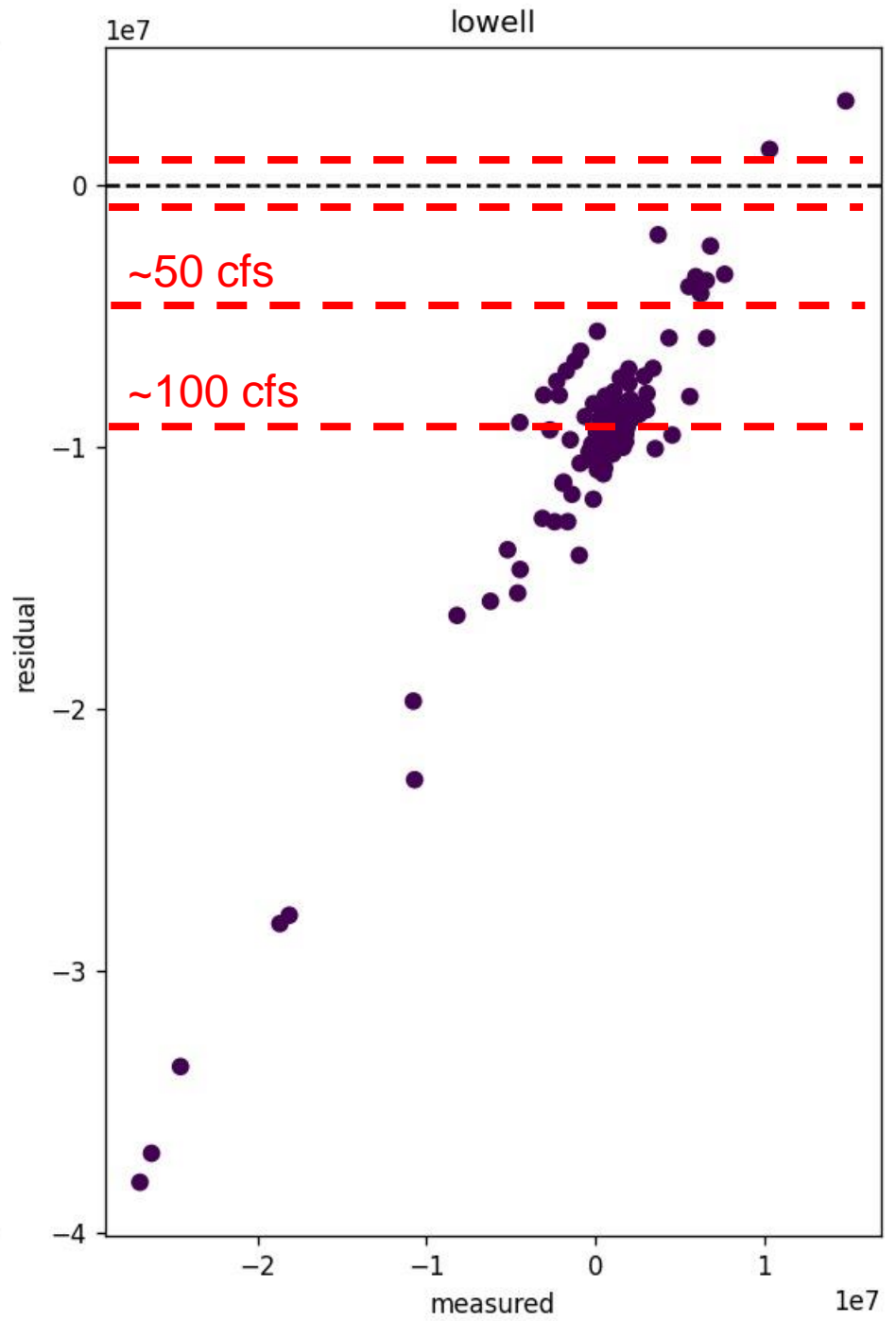
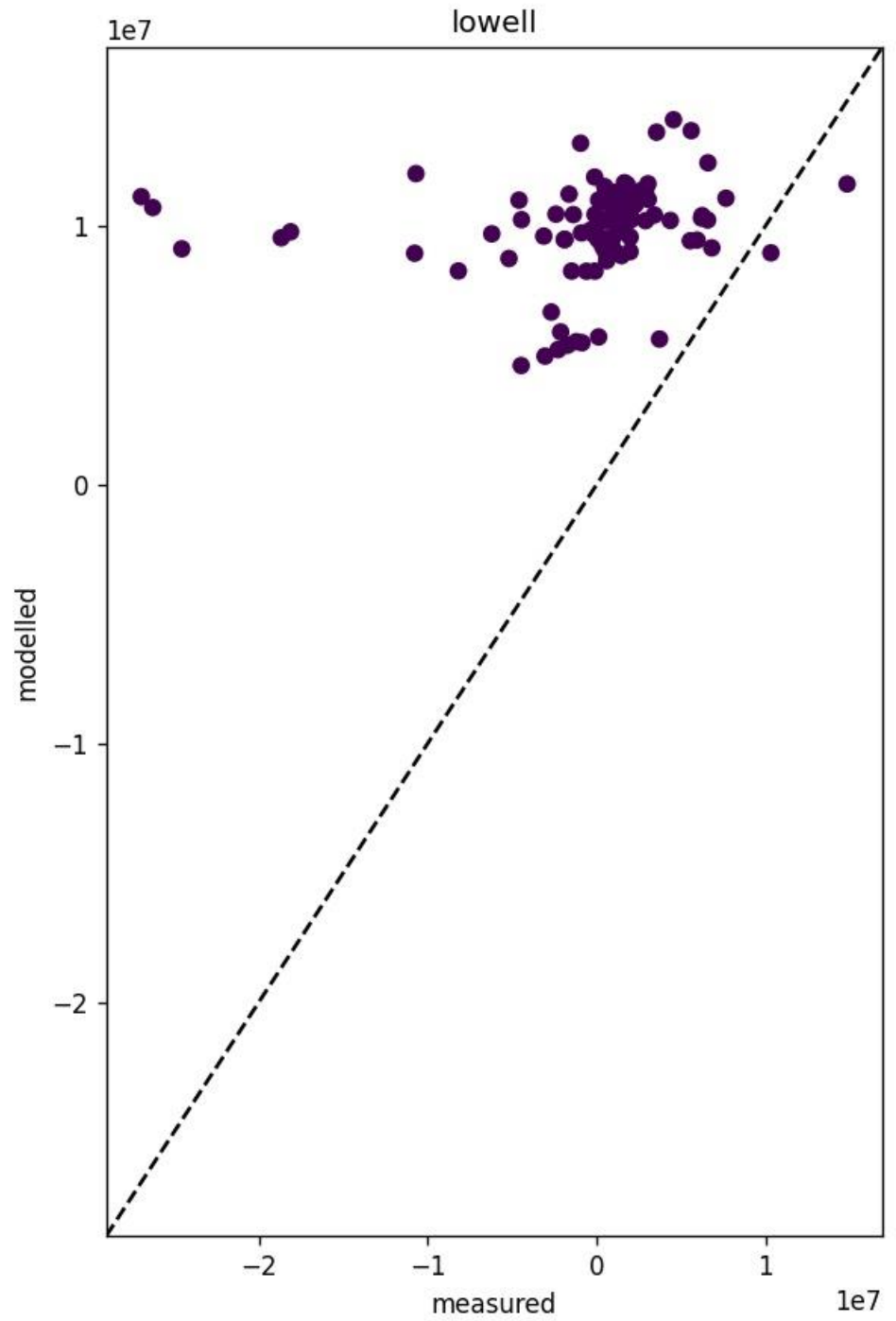
- Added a factor to +/- ET up to 10% in large groundwater-sourced irrigation district SW of Lowell (where Clarence pointed out unusually high values)

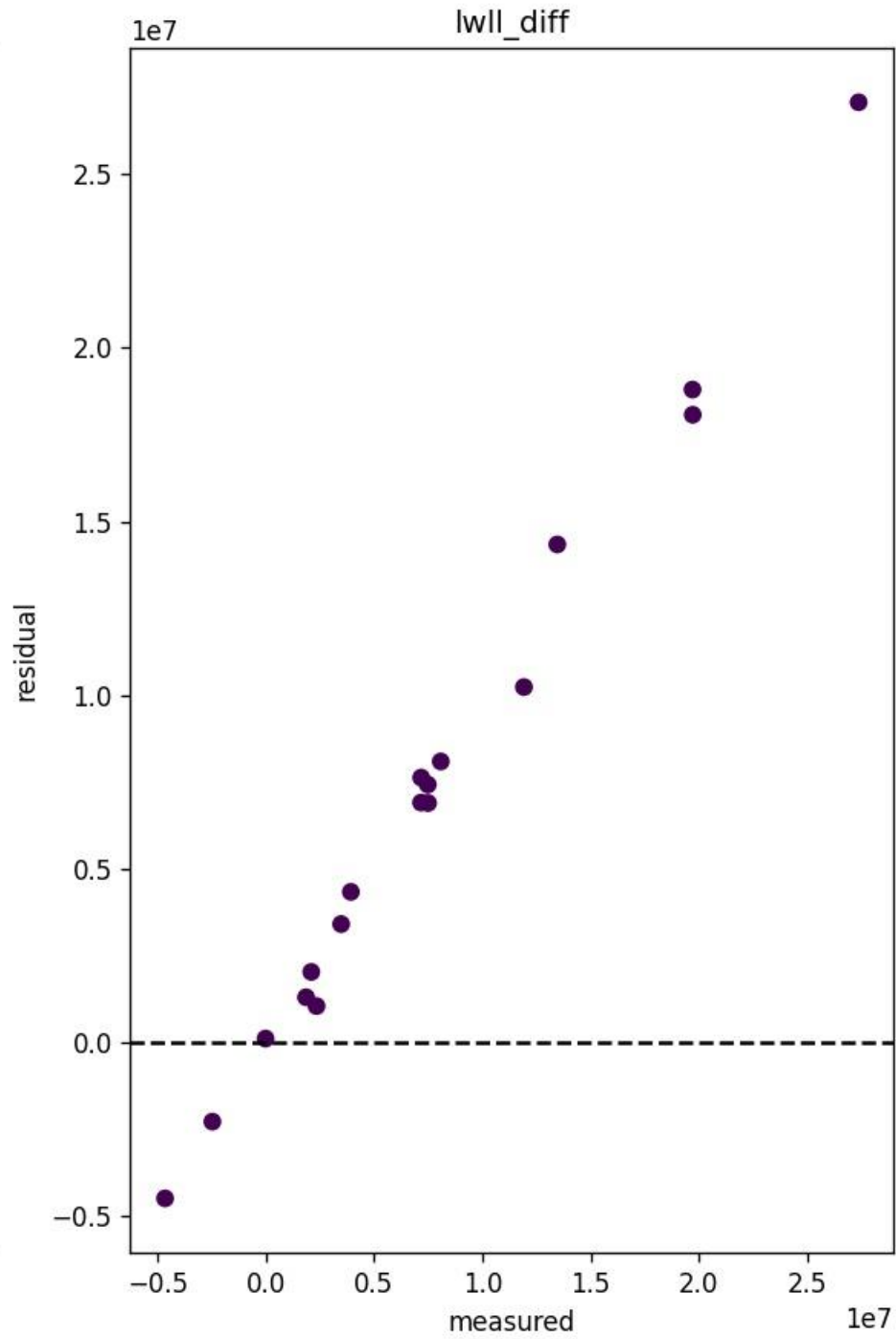
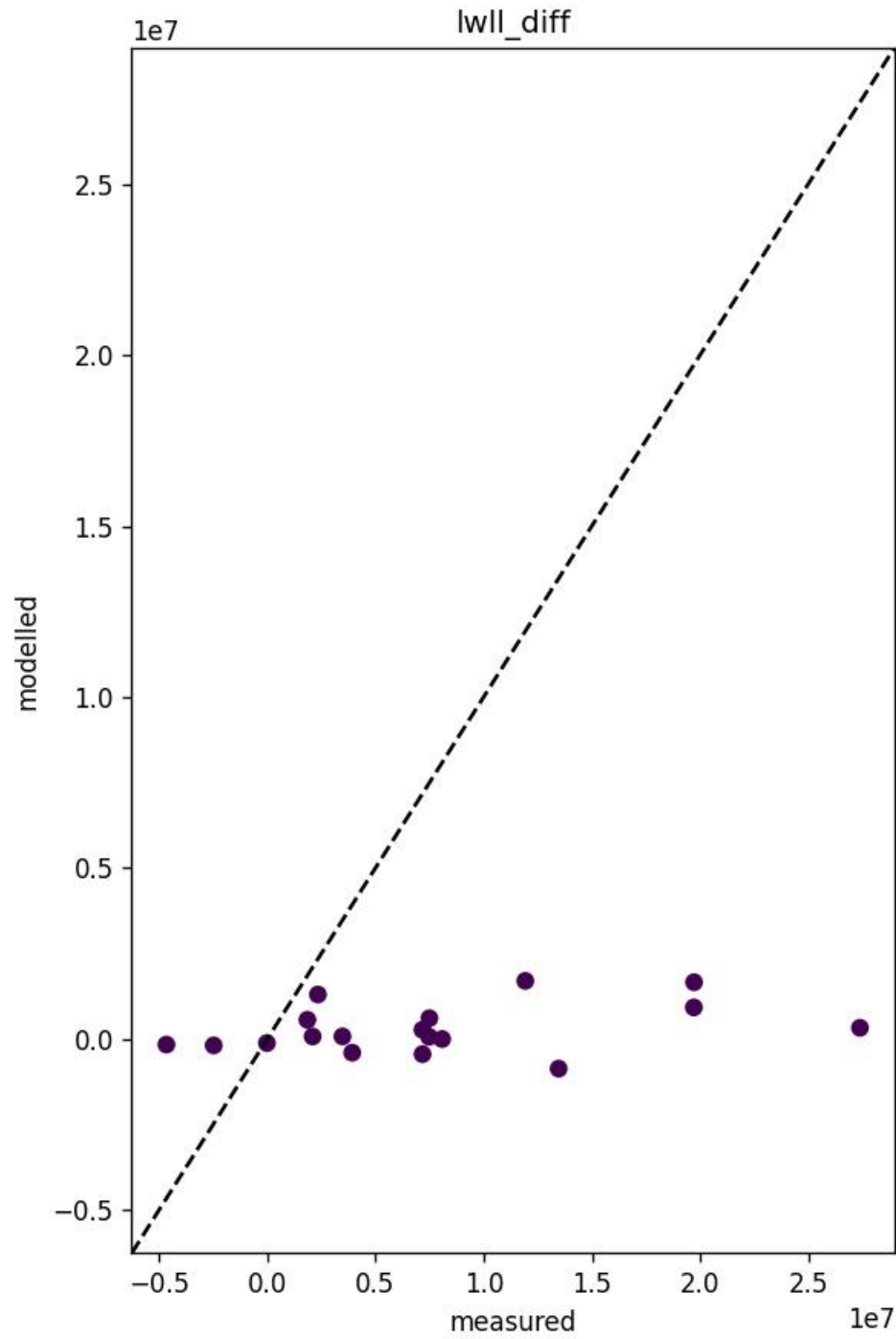


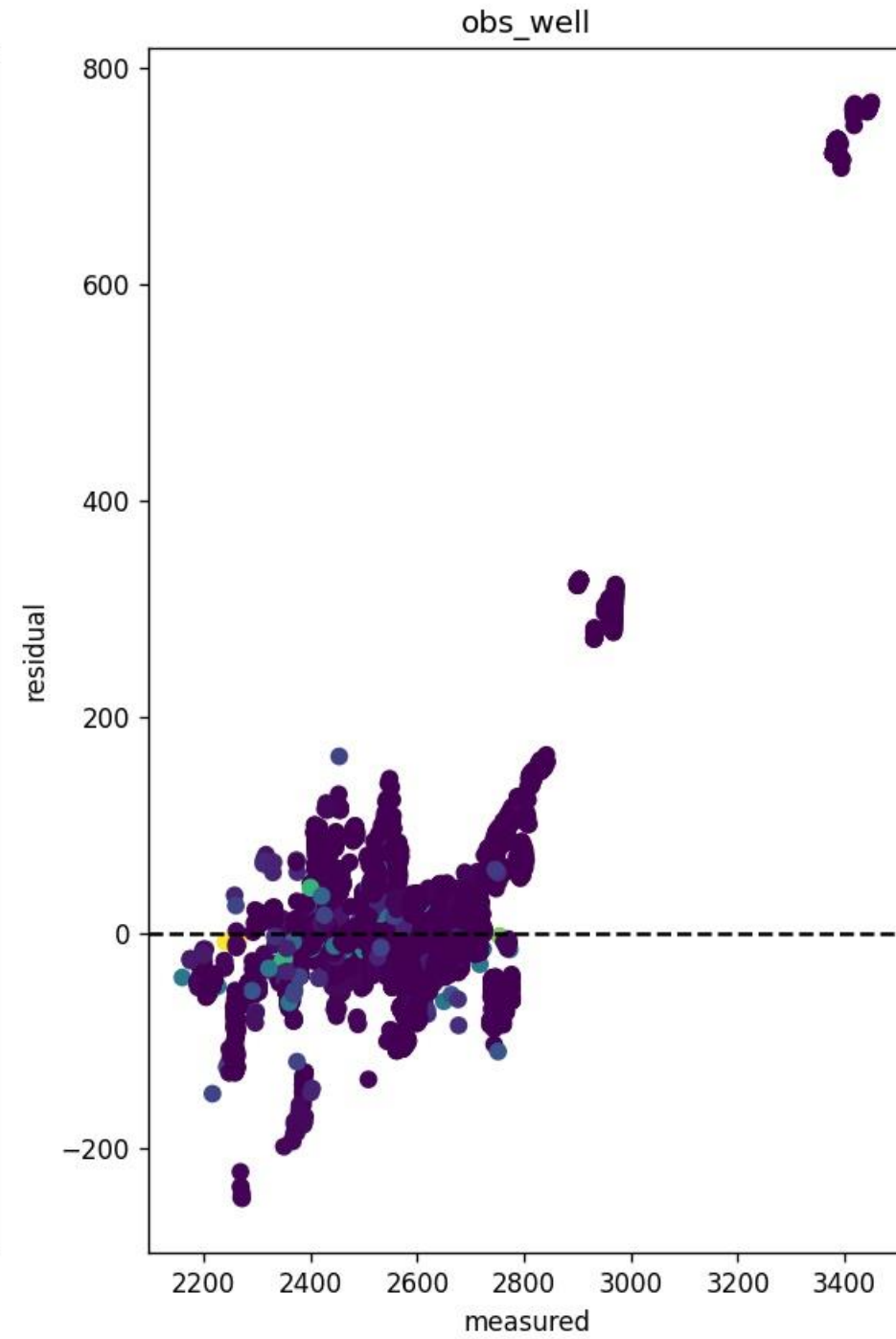
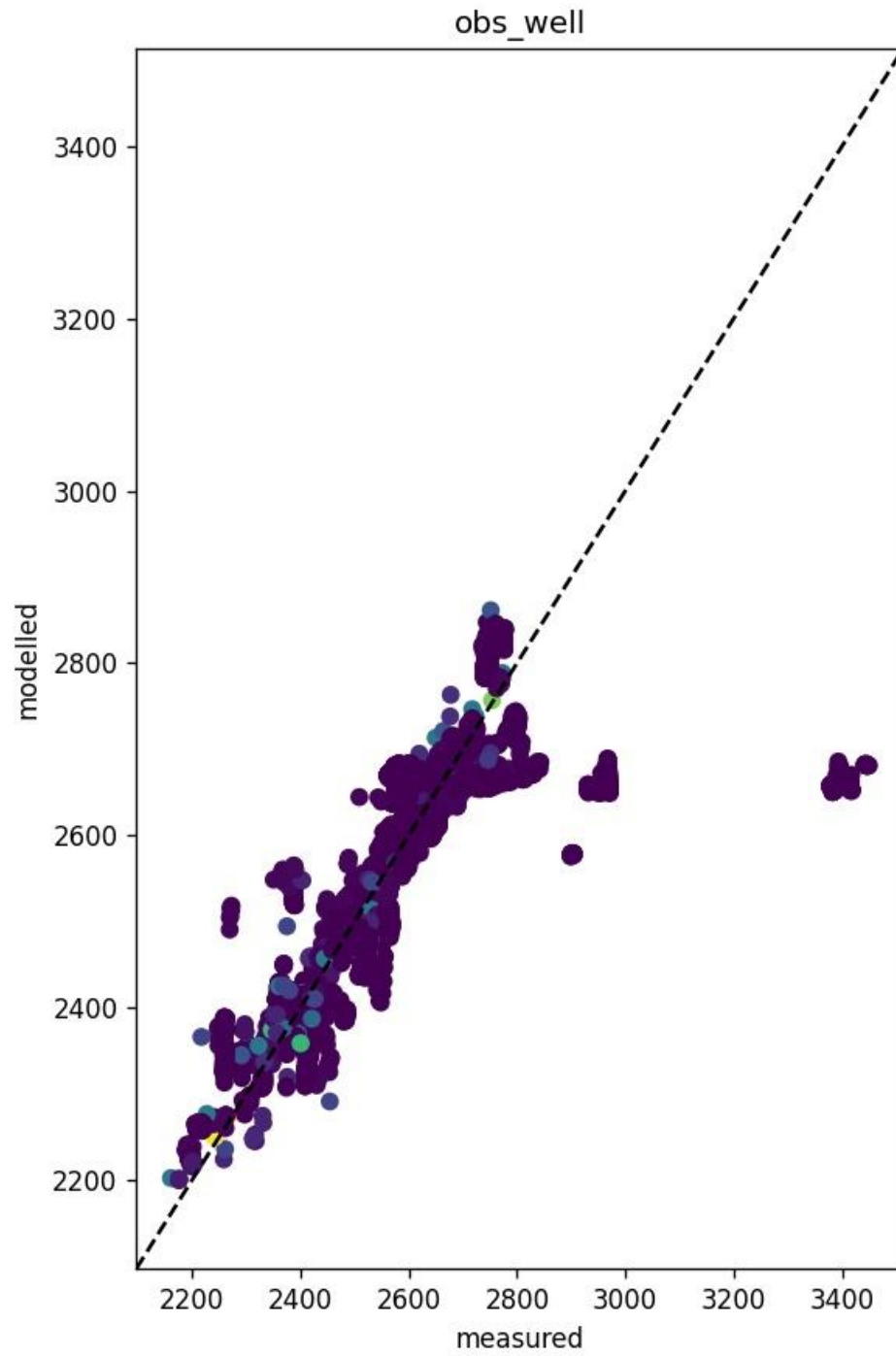
# Status

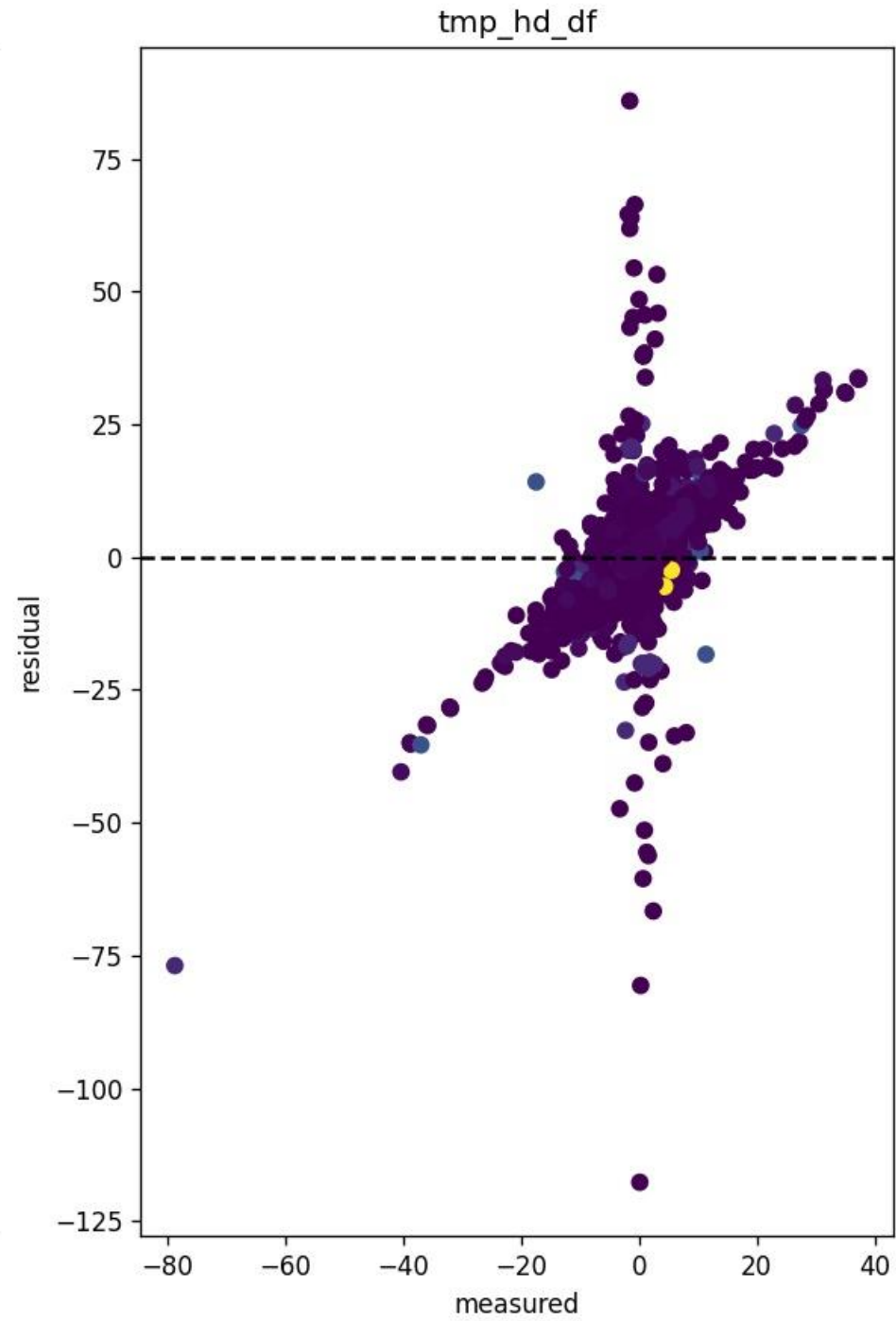
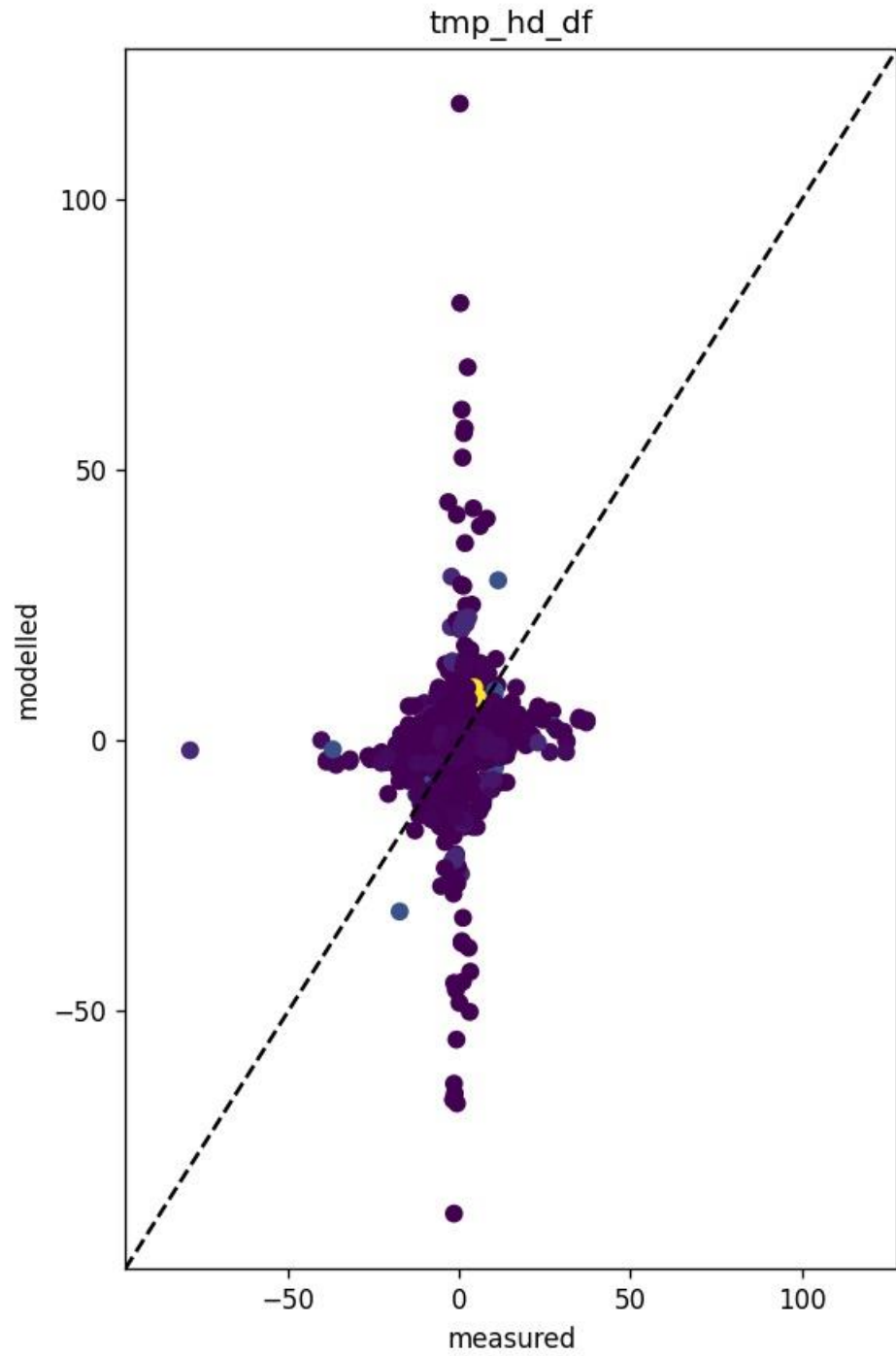




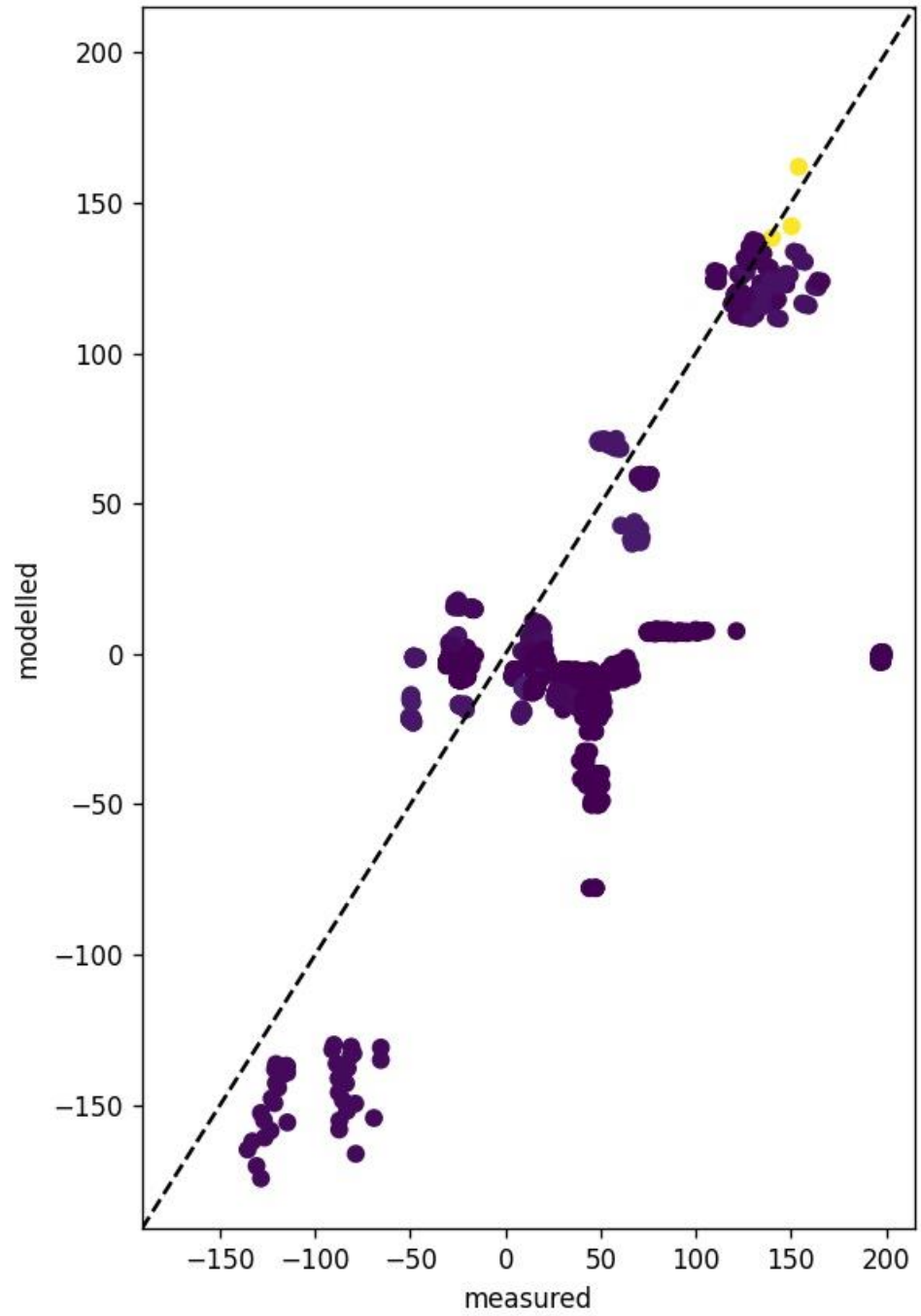




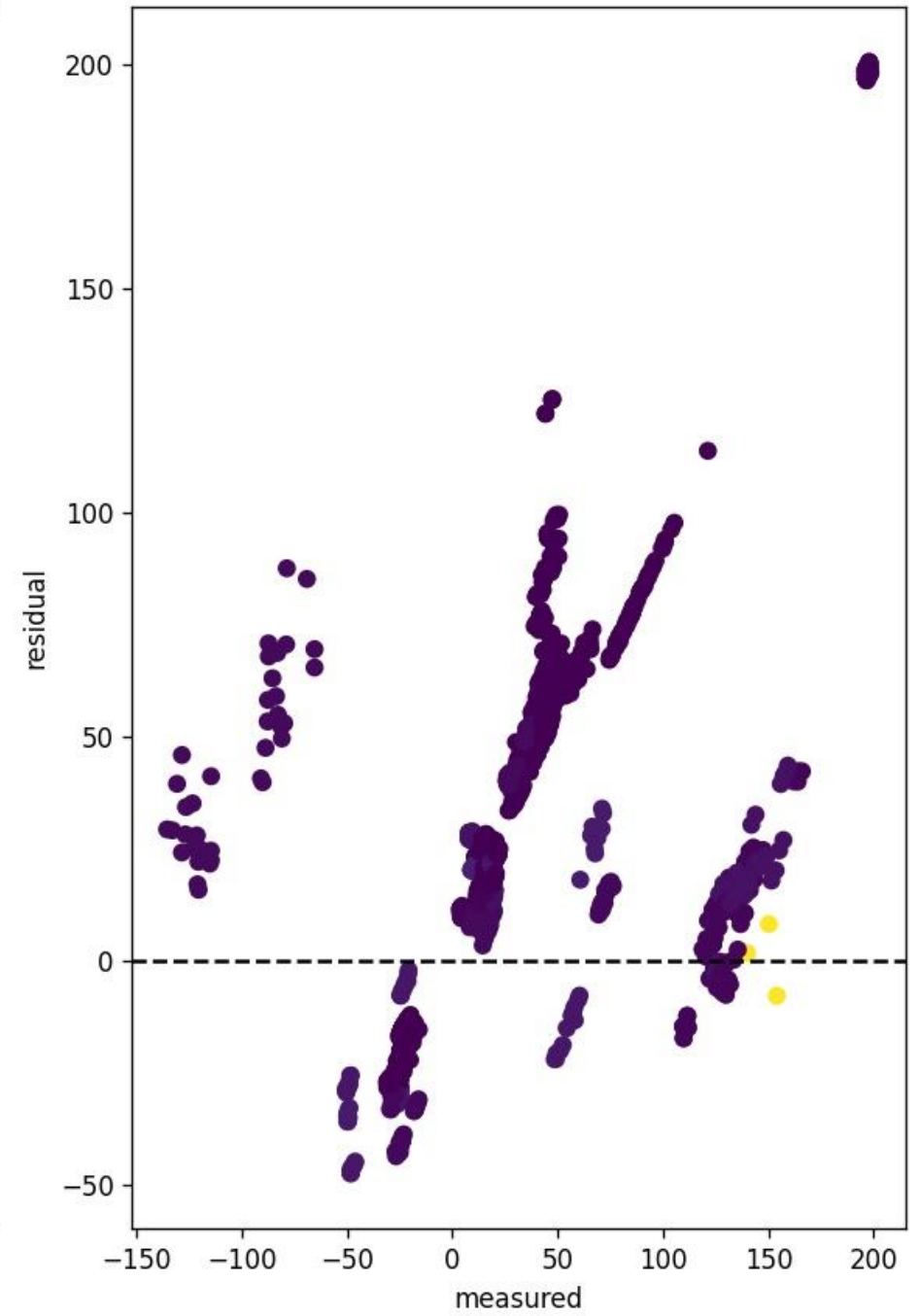




vrt\_hd\_df

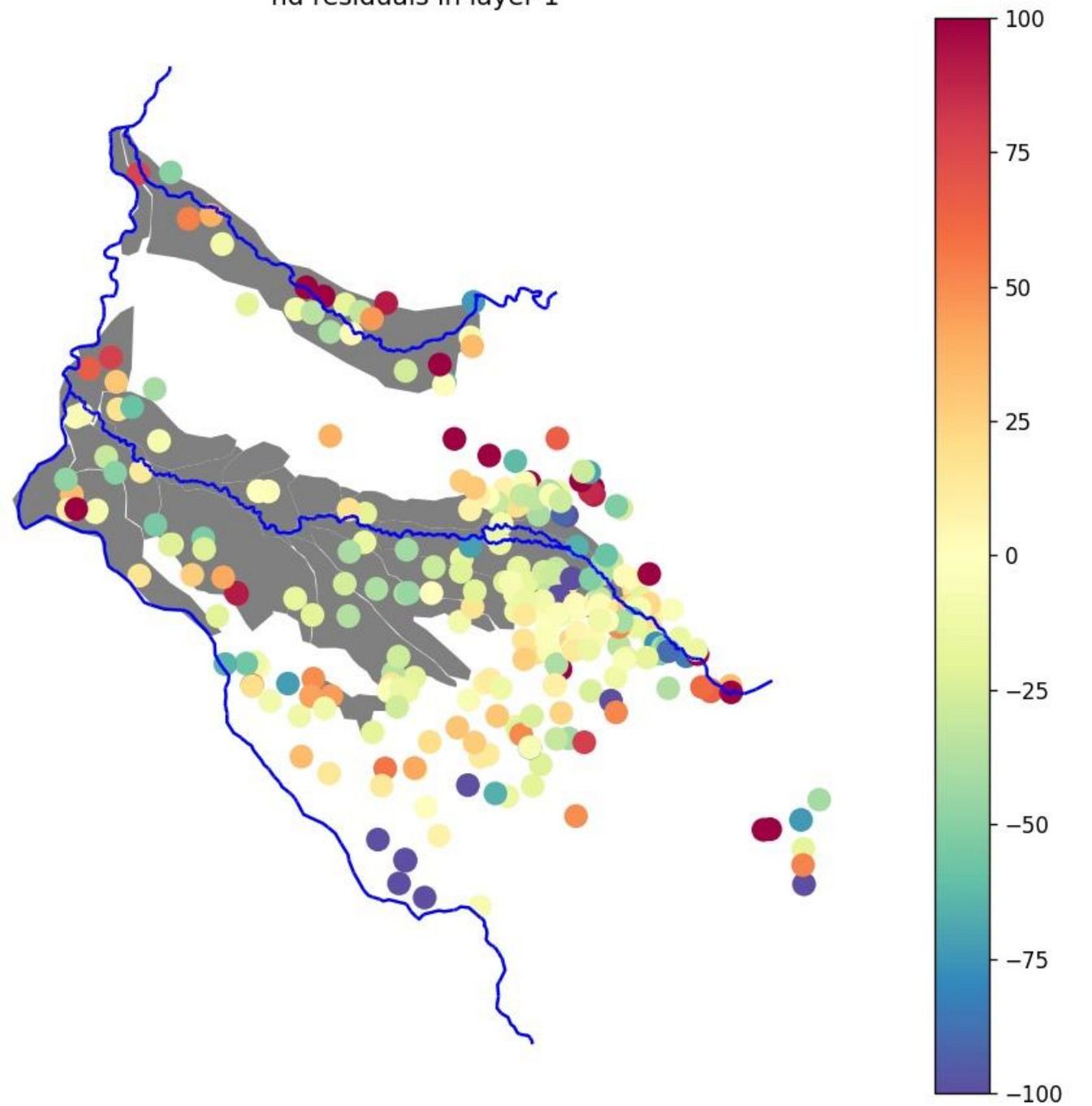


vrt\_hd\_df

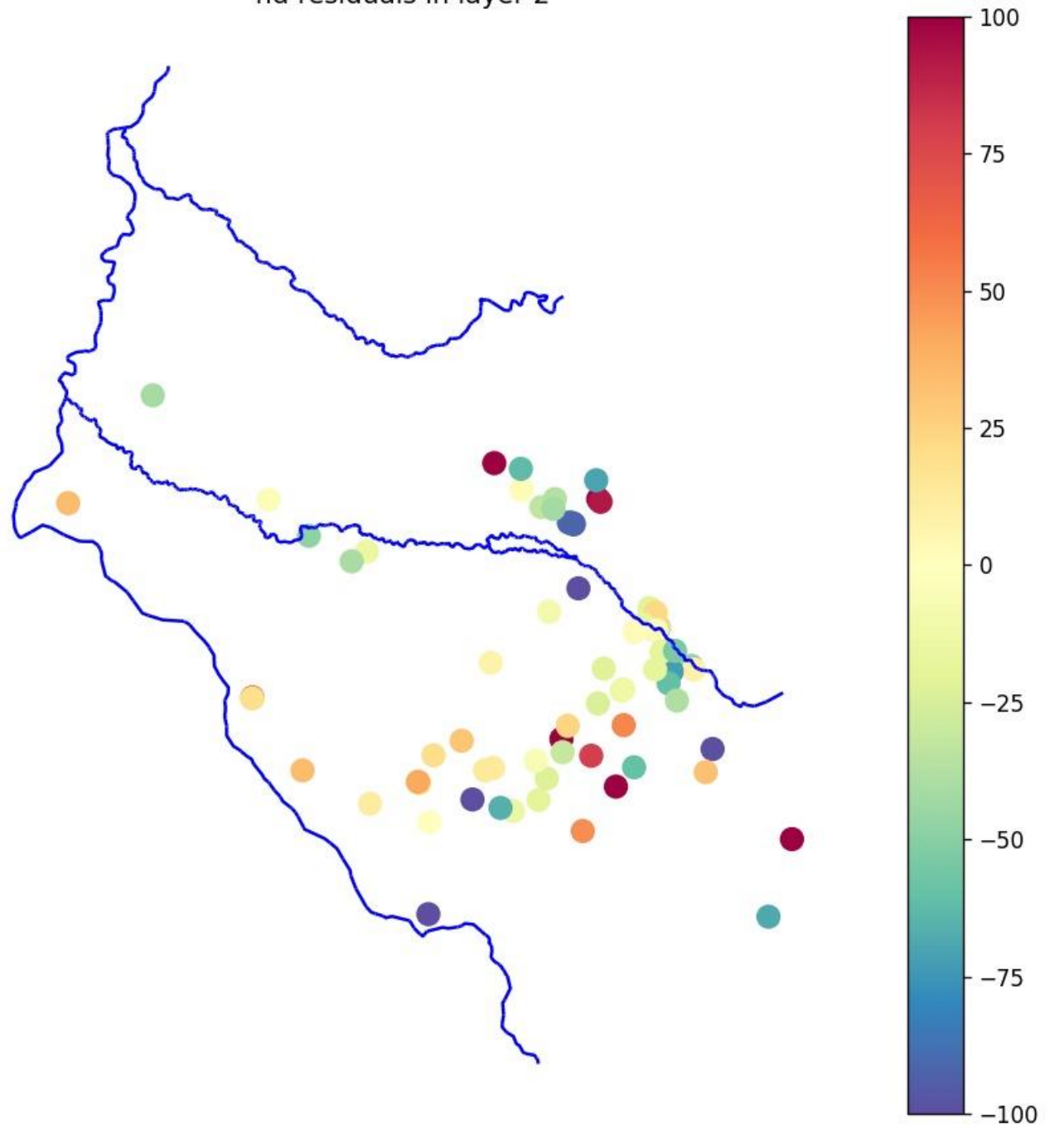




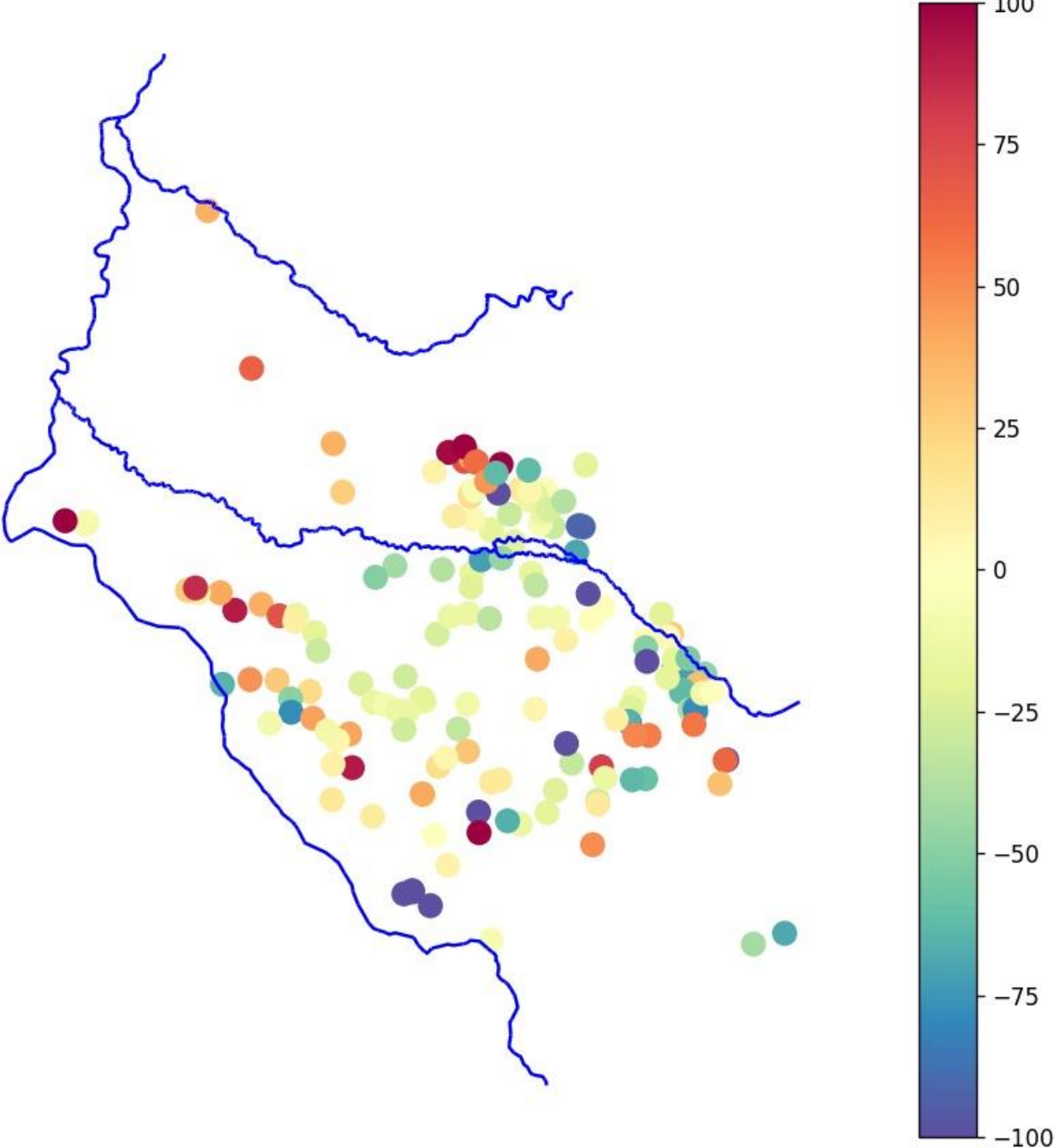
hd residuals in layer 1



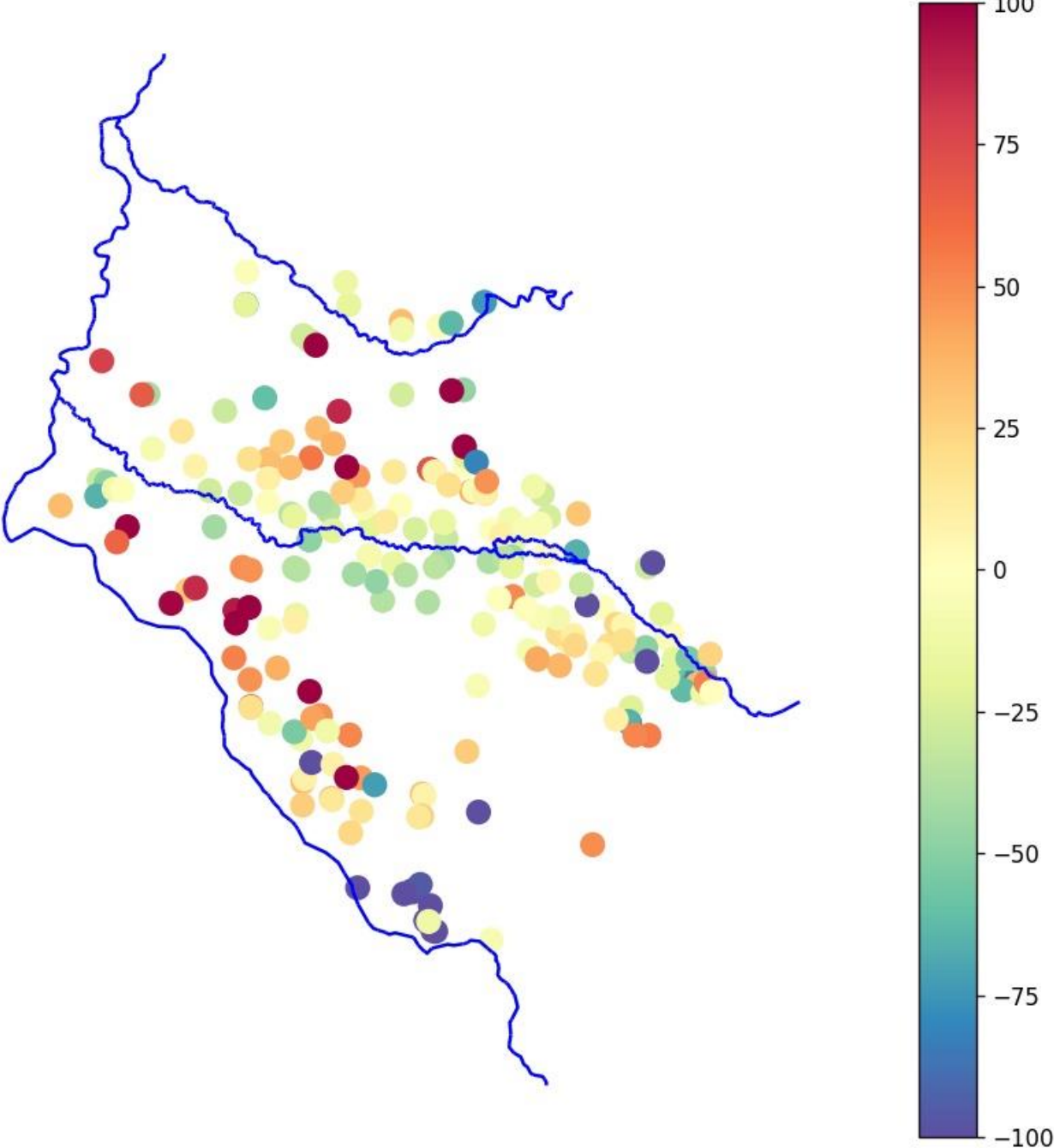
hd residuals in layer 2



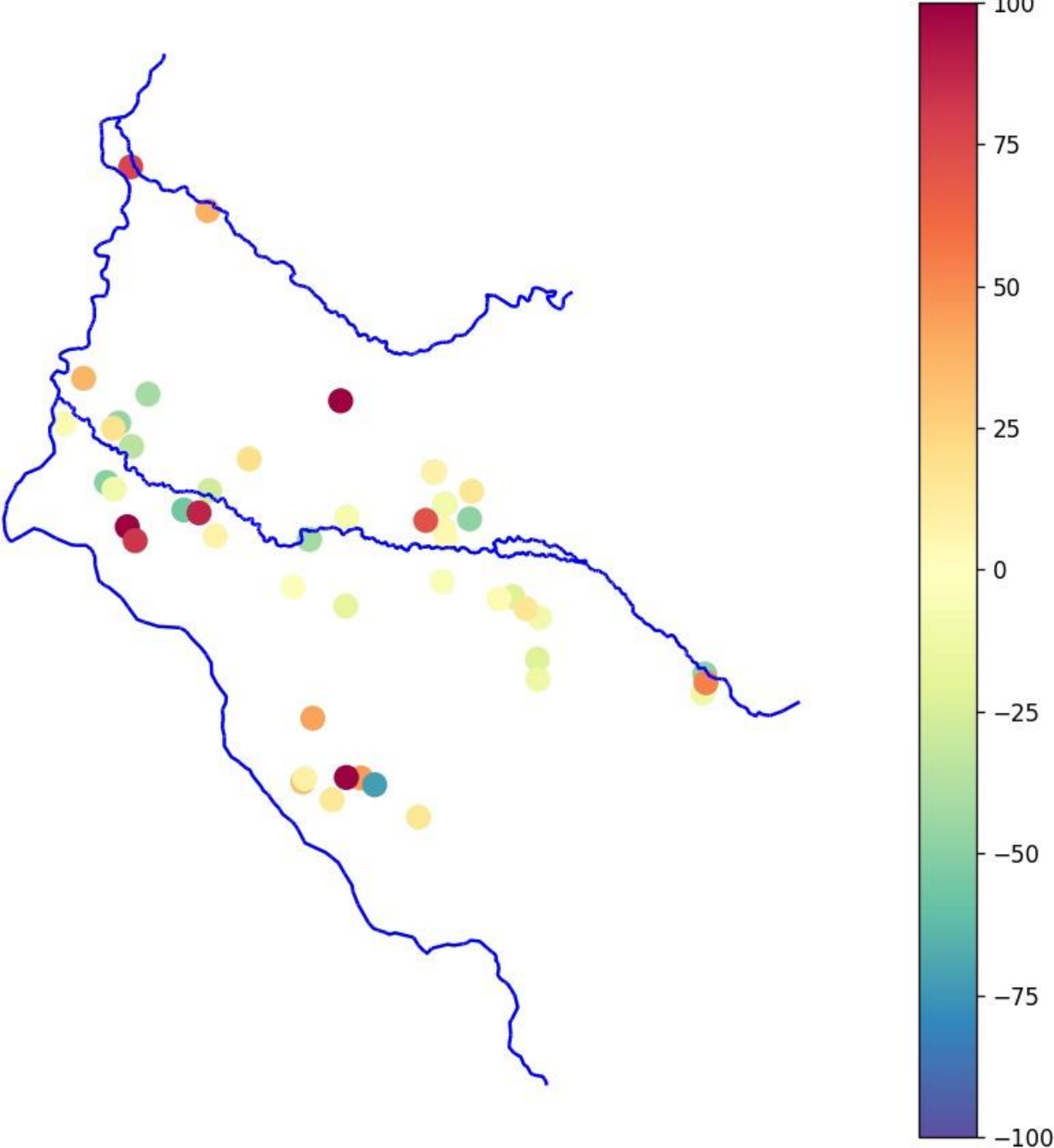
hd residuals in layer 3



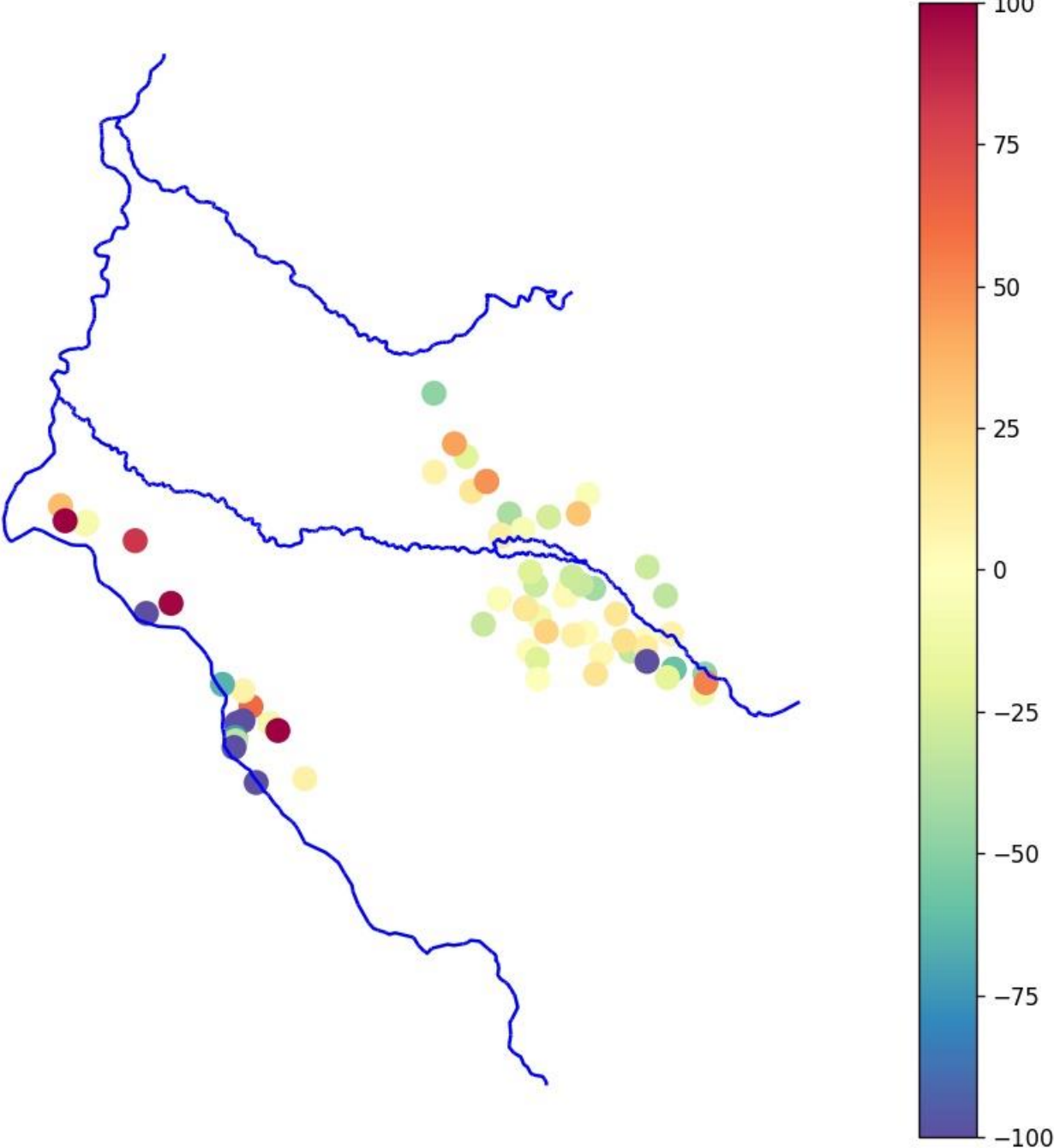
hd residuals in layer 4



hd residuals in layer 5

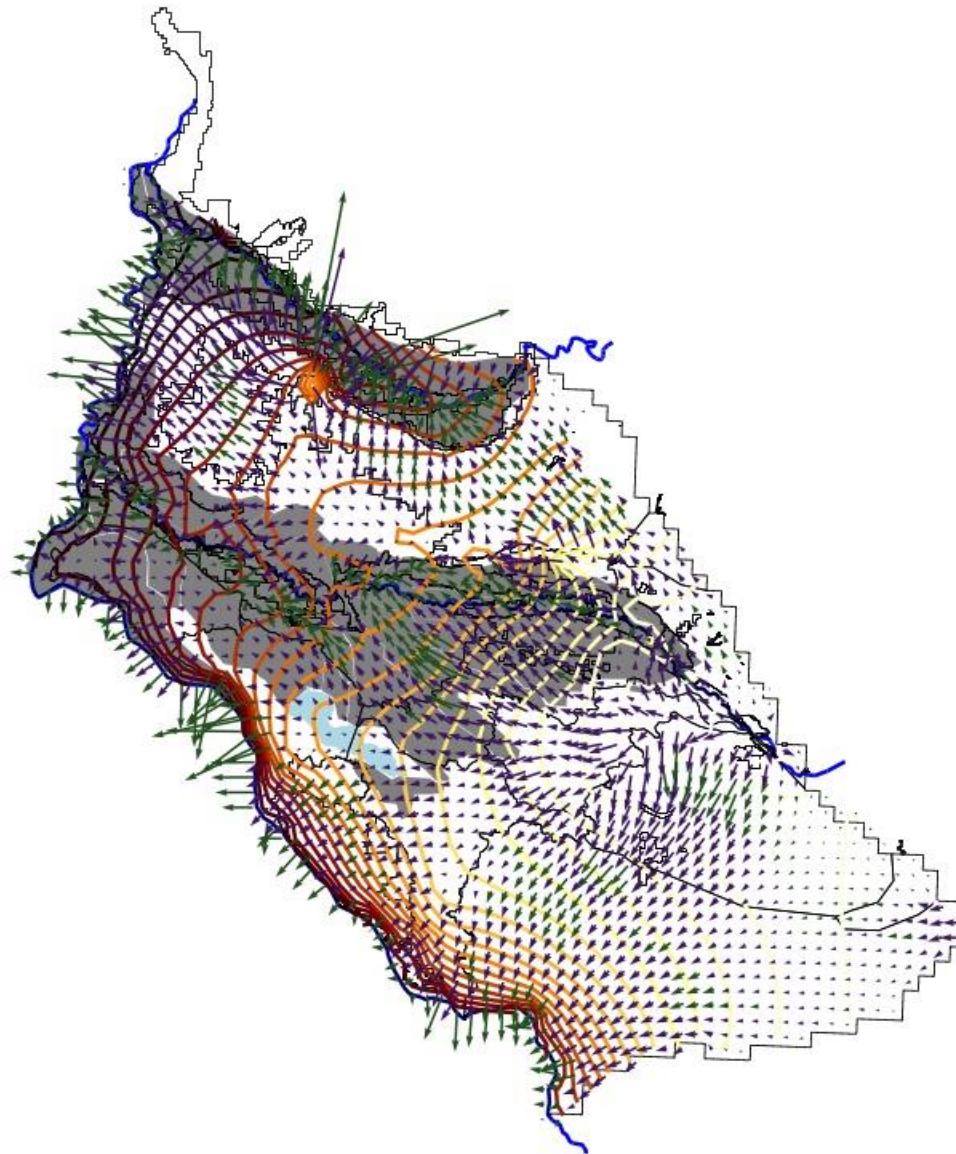


hd residuals in layer 6

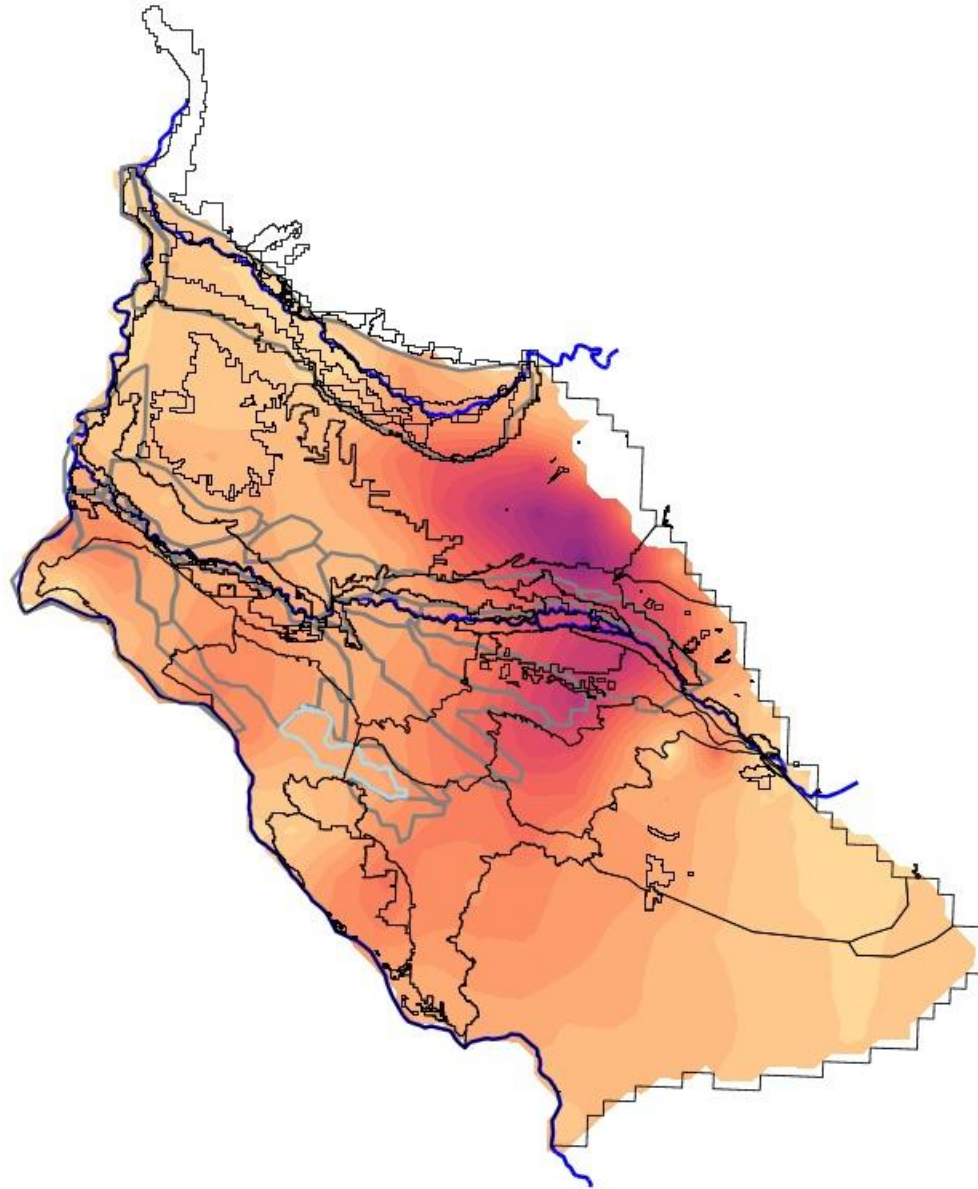




Layer 1  
green: upward component  
purple: downward component

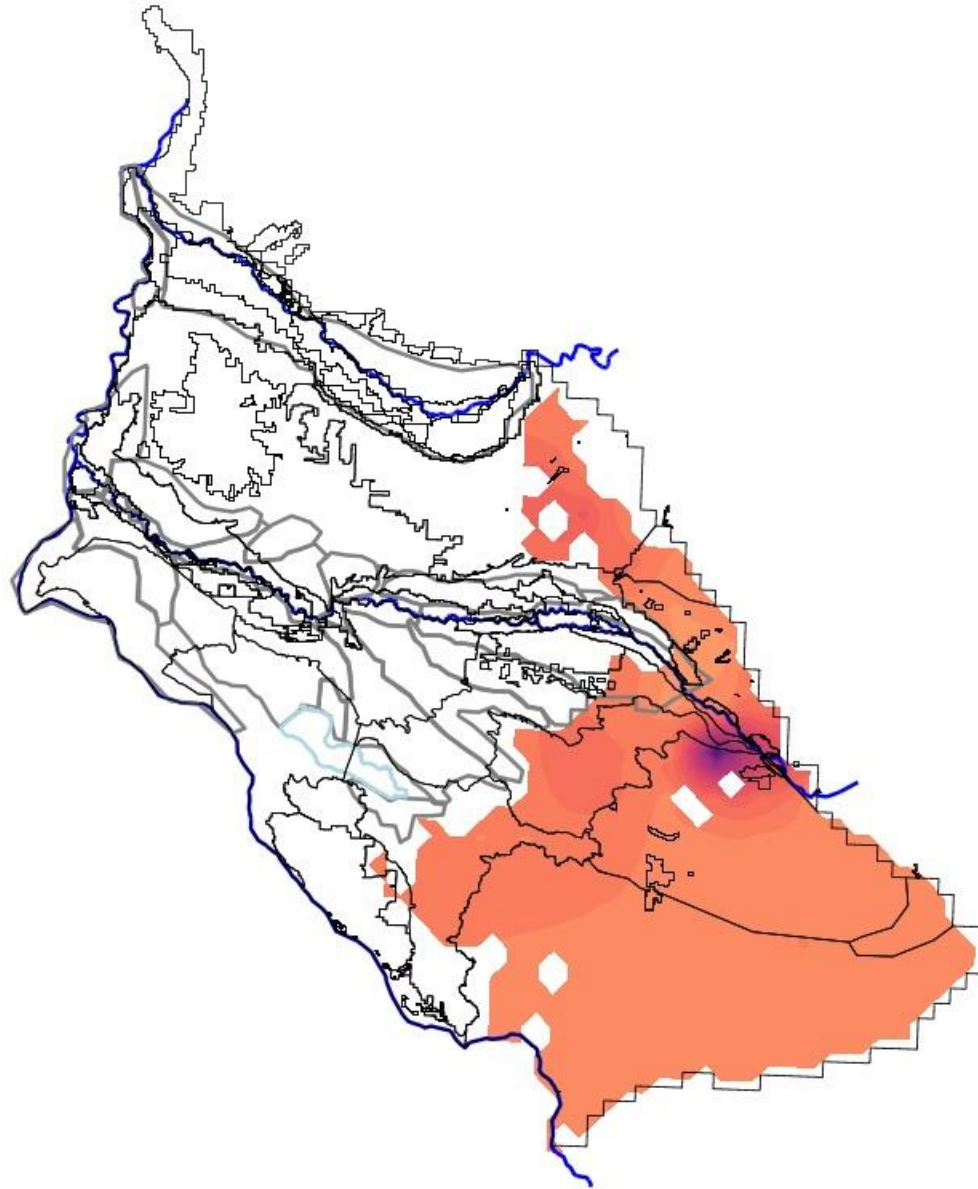


Layer 1  
hk

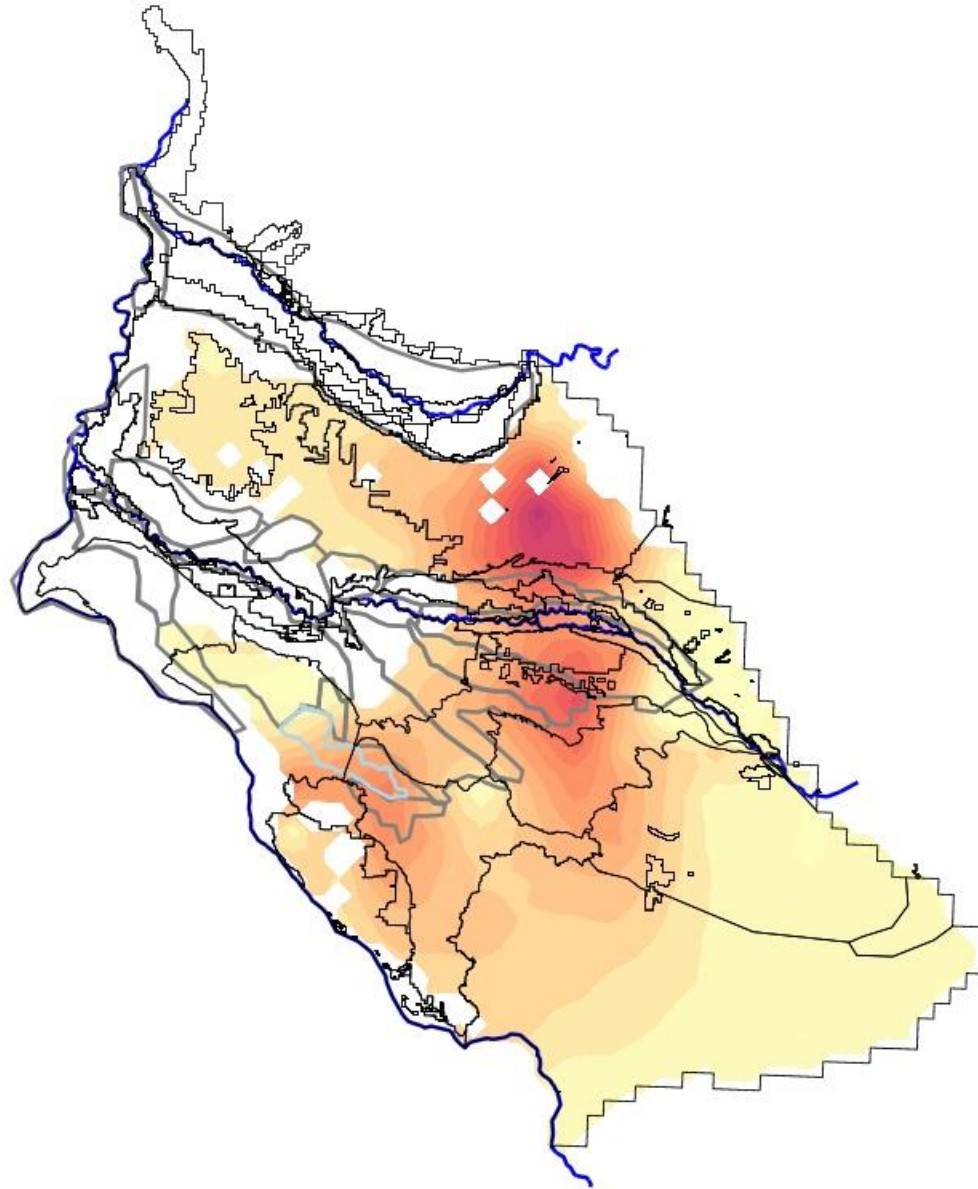




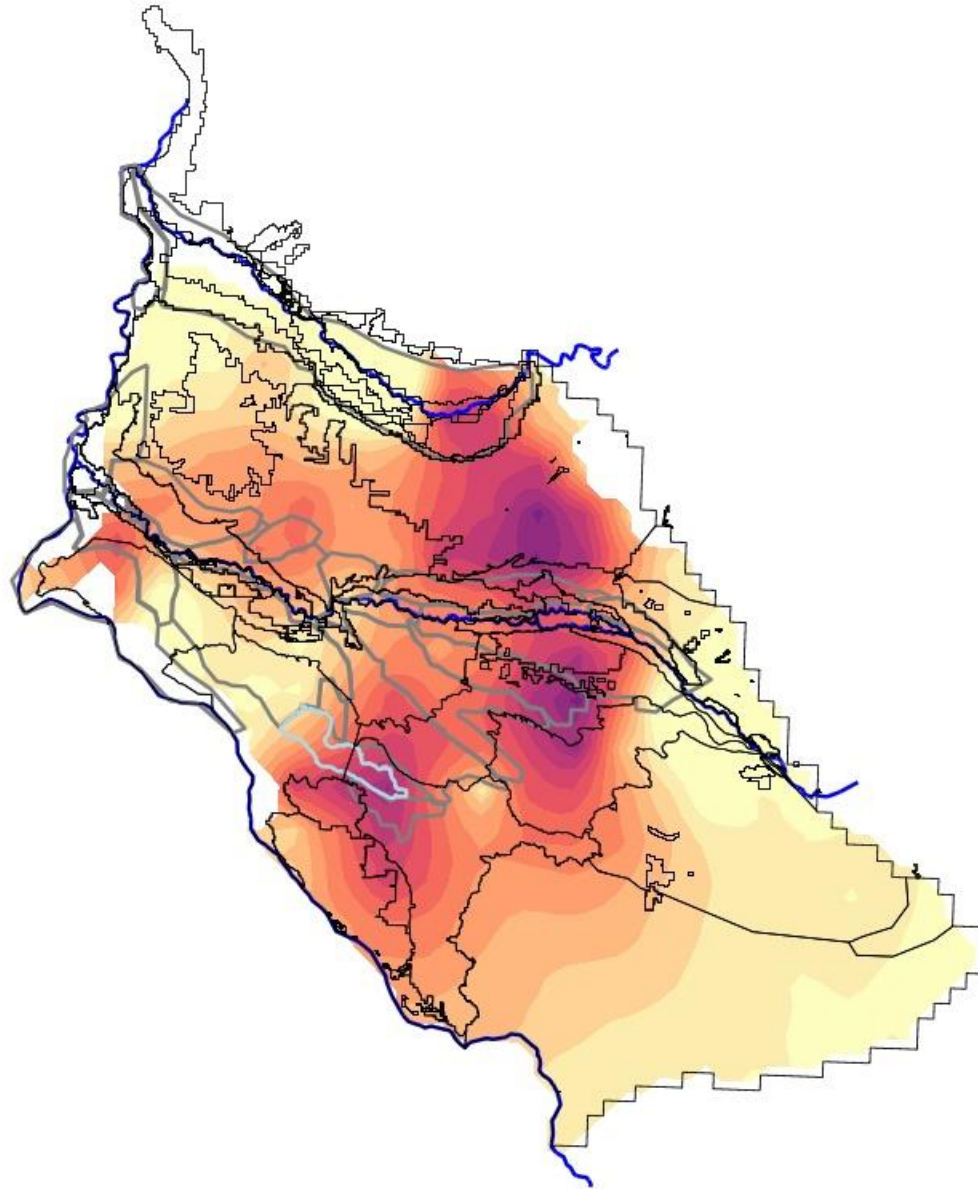
Layer 2  
hk



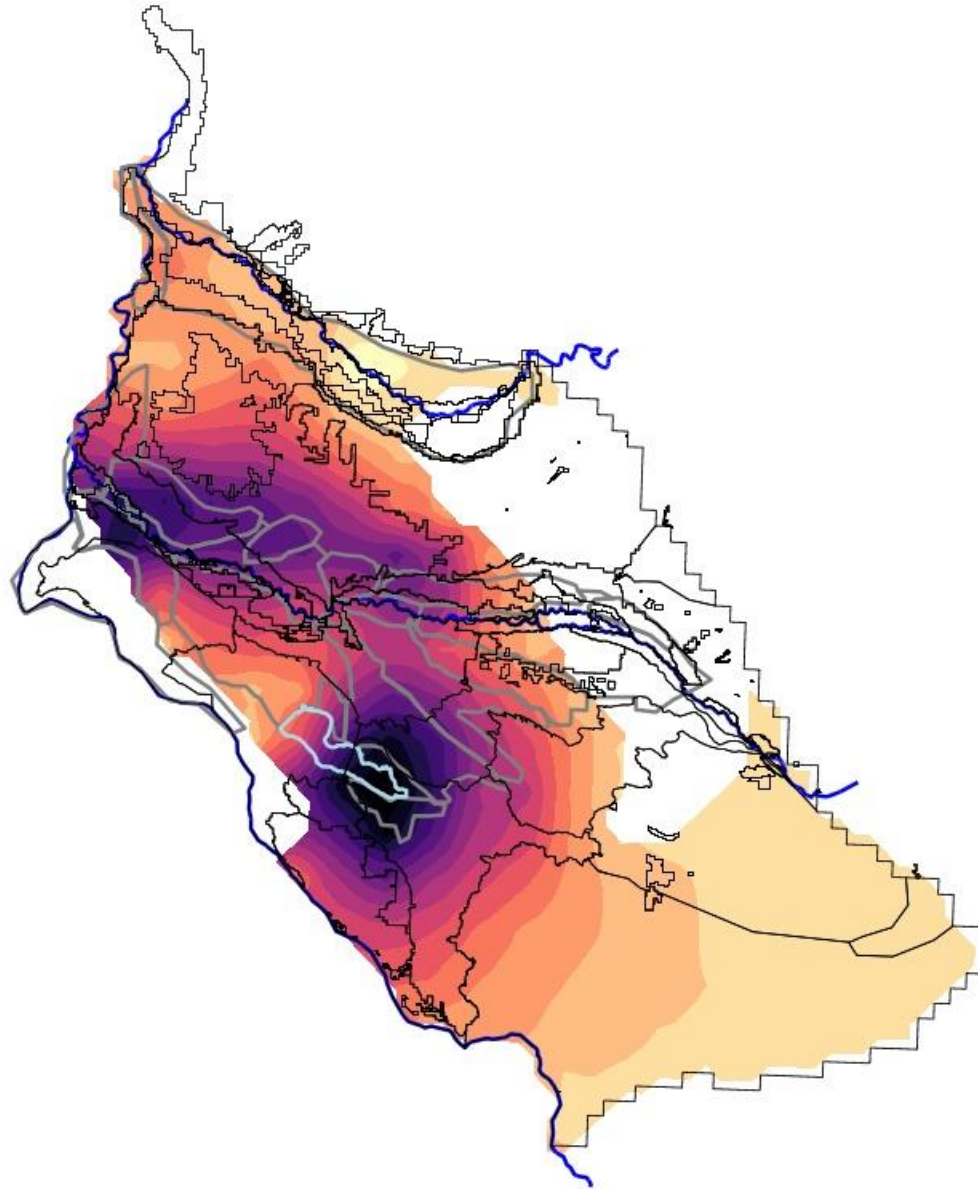
Layer 3  
hk



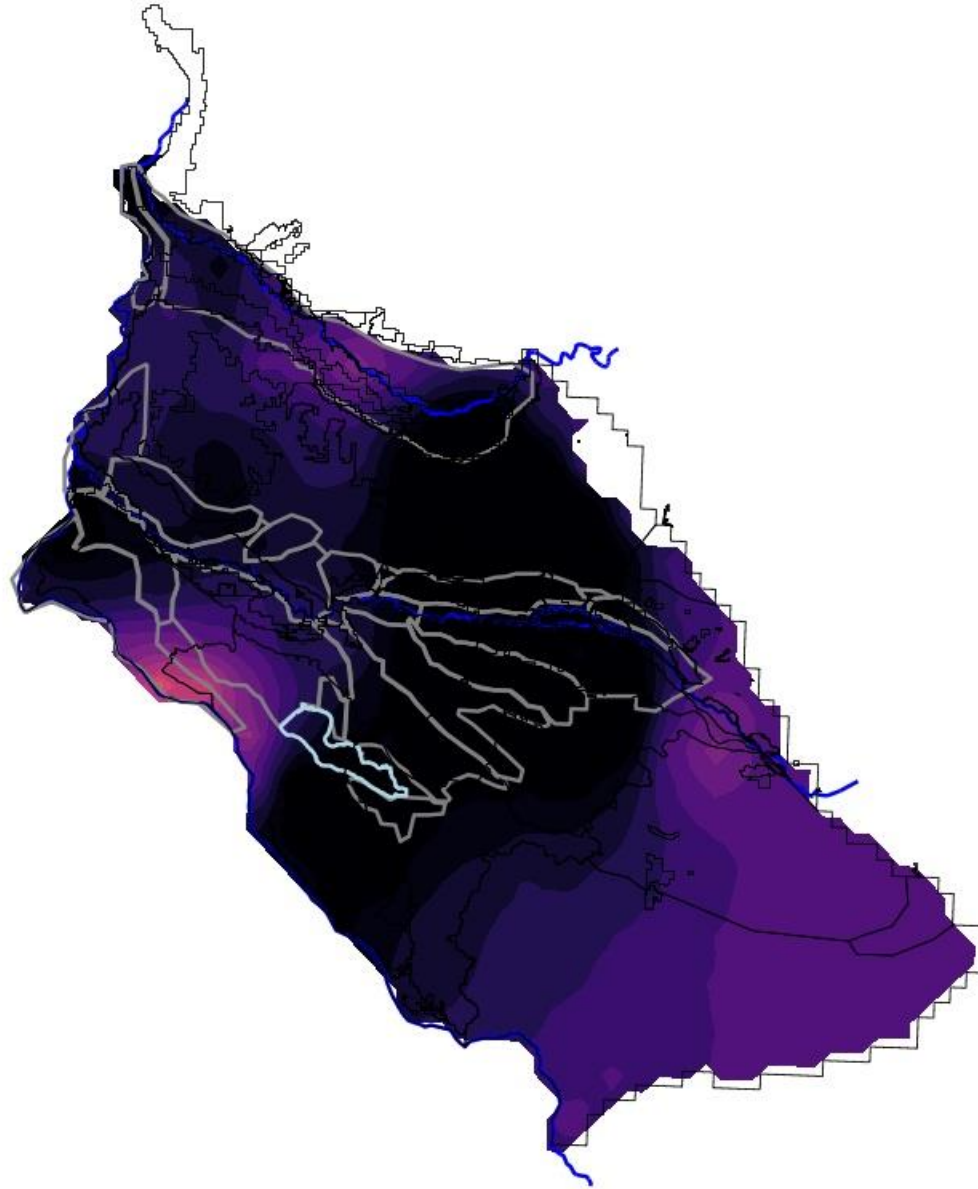
Layer 4  
hk



Layer 5  
hk

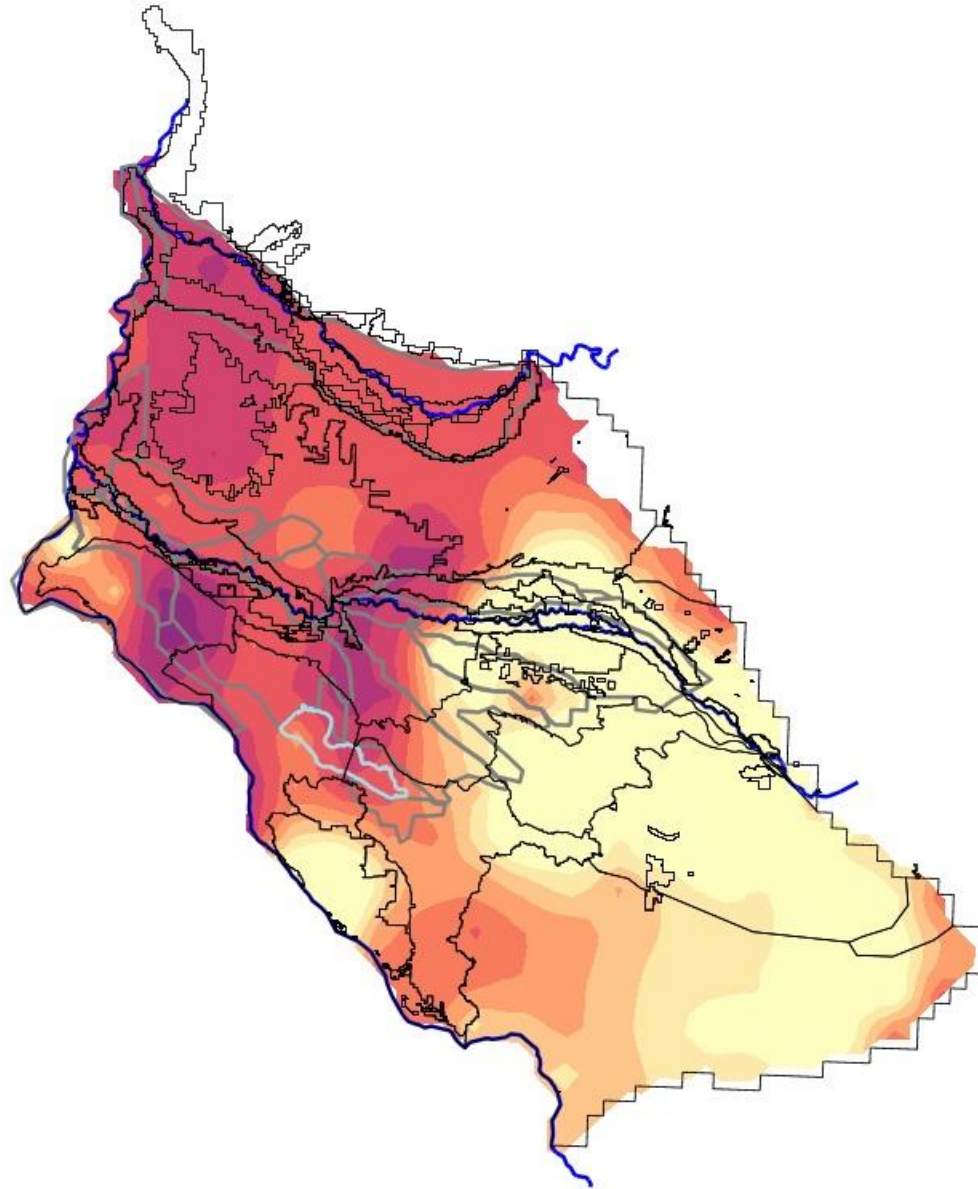


Layer 6  
hk

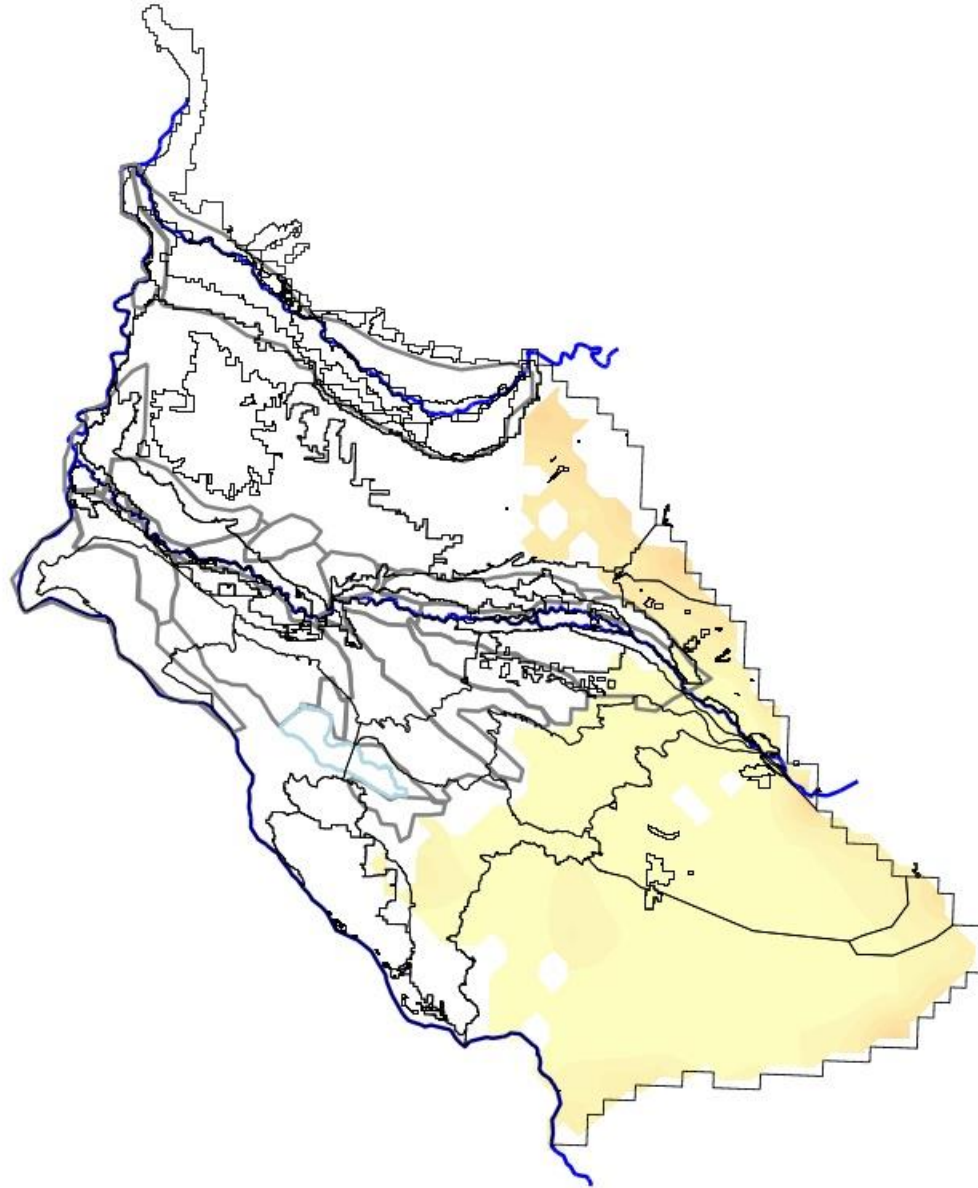




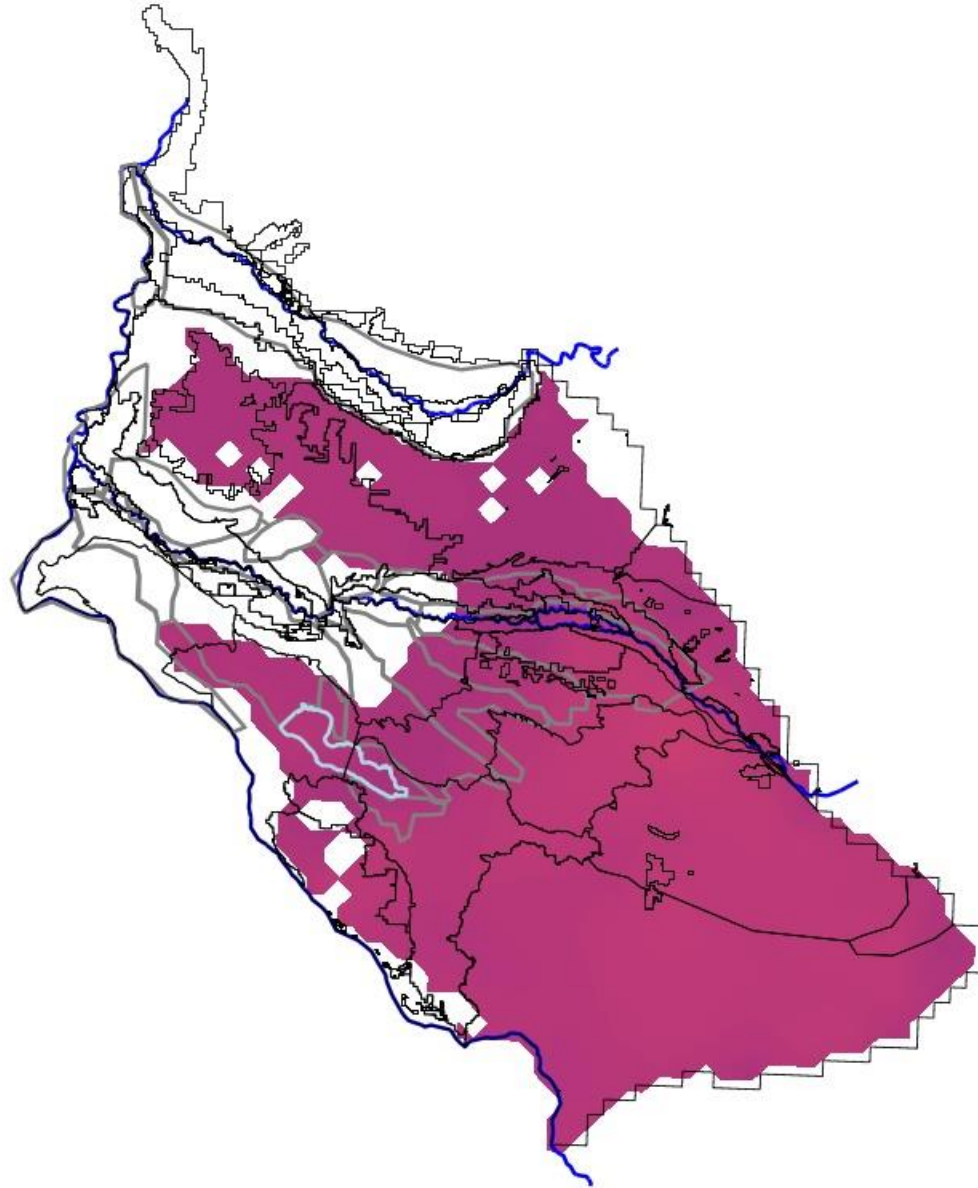
Layer 1  
SS



Layer 2  
SS

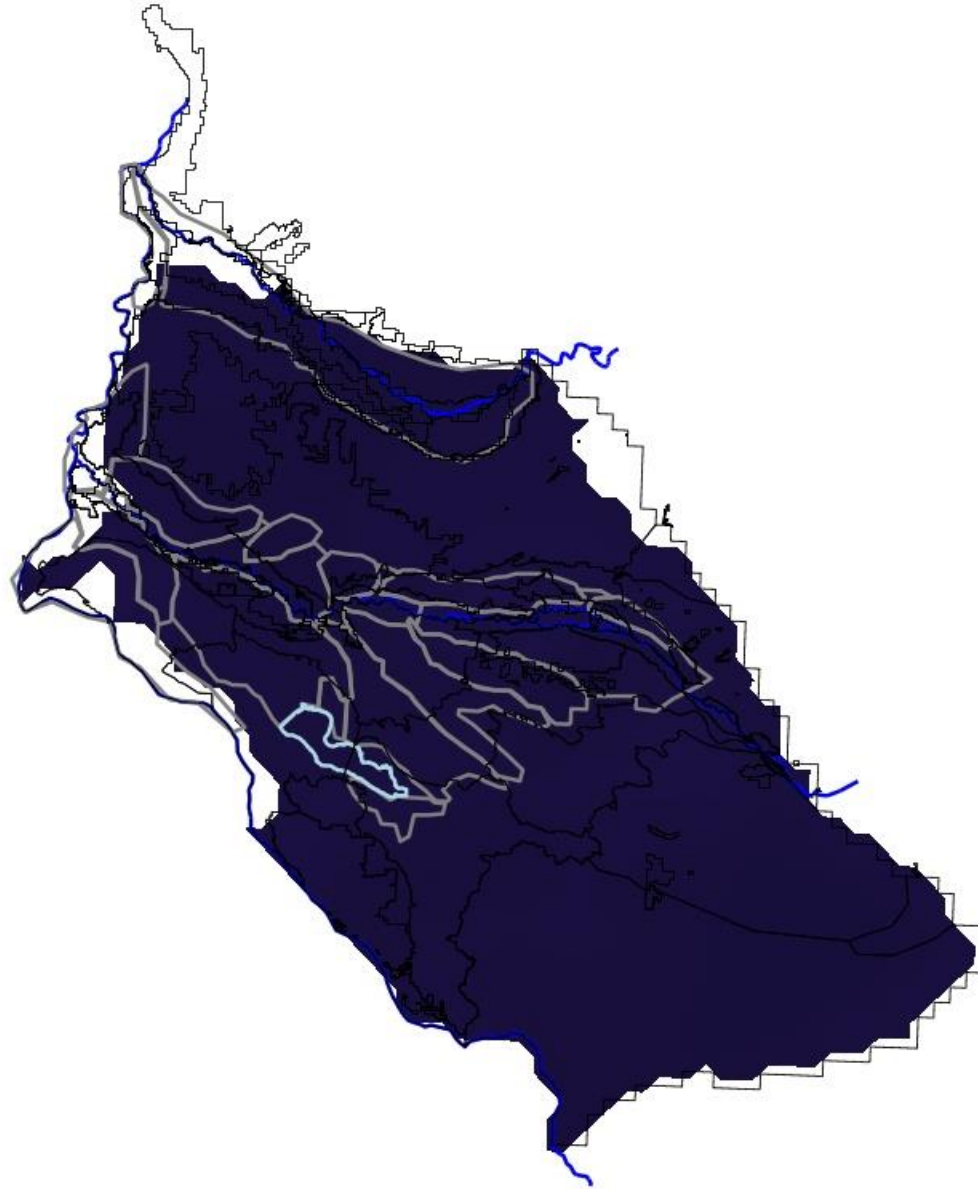


Layer 3  
SS

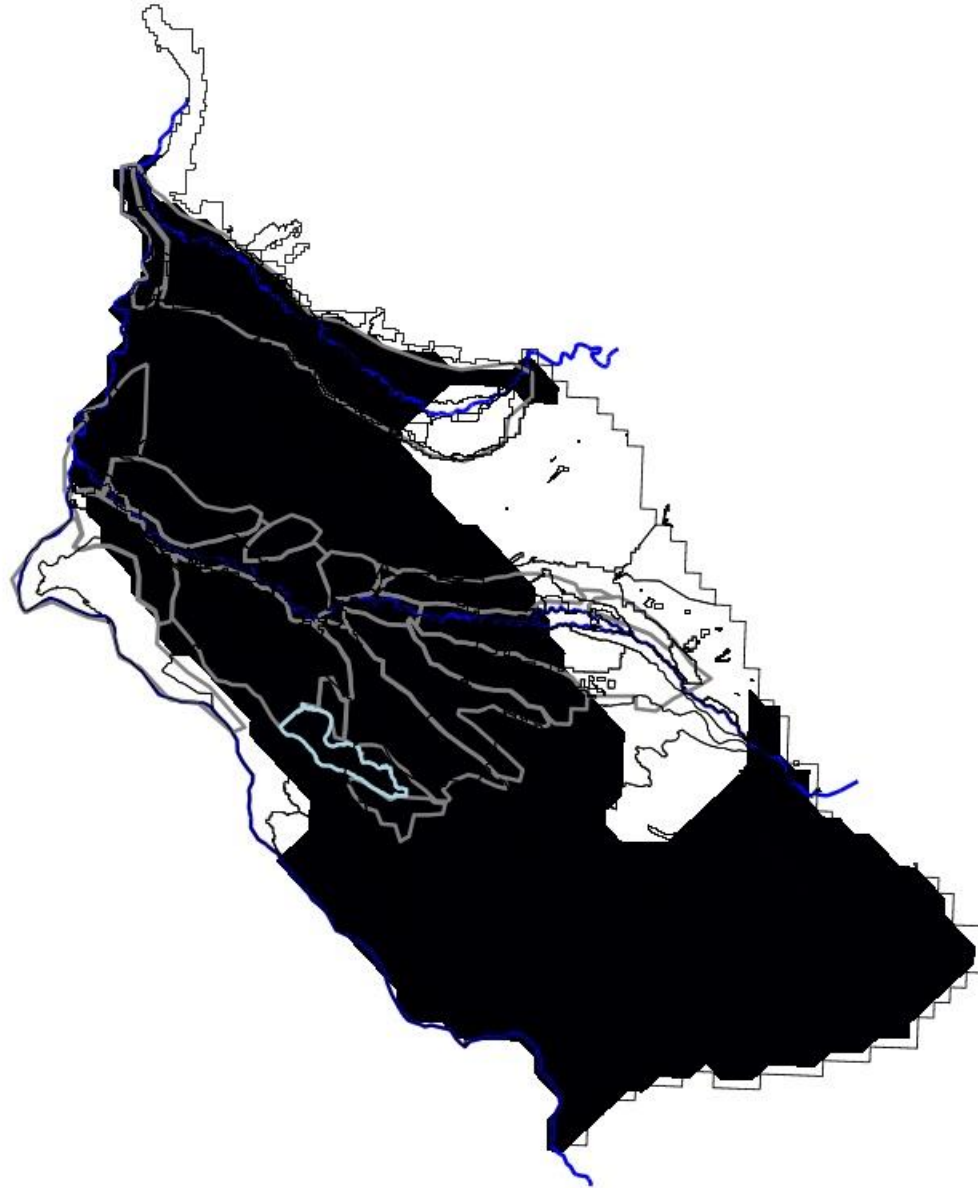




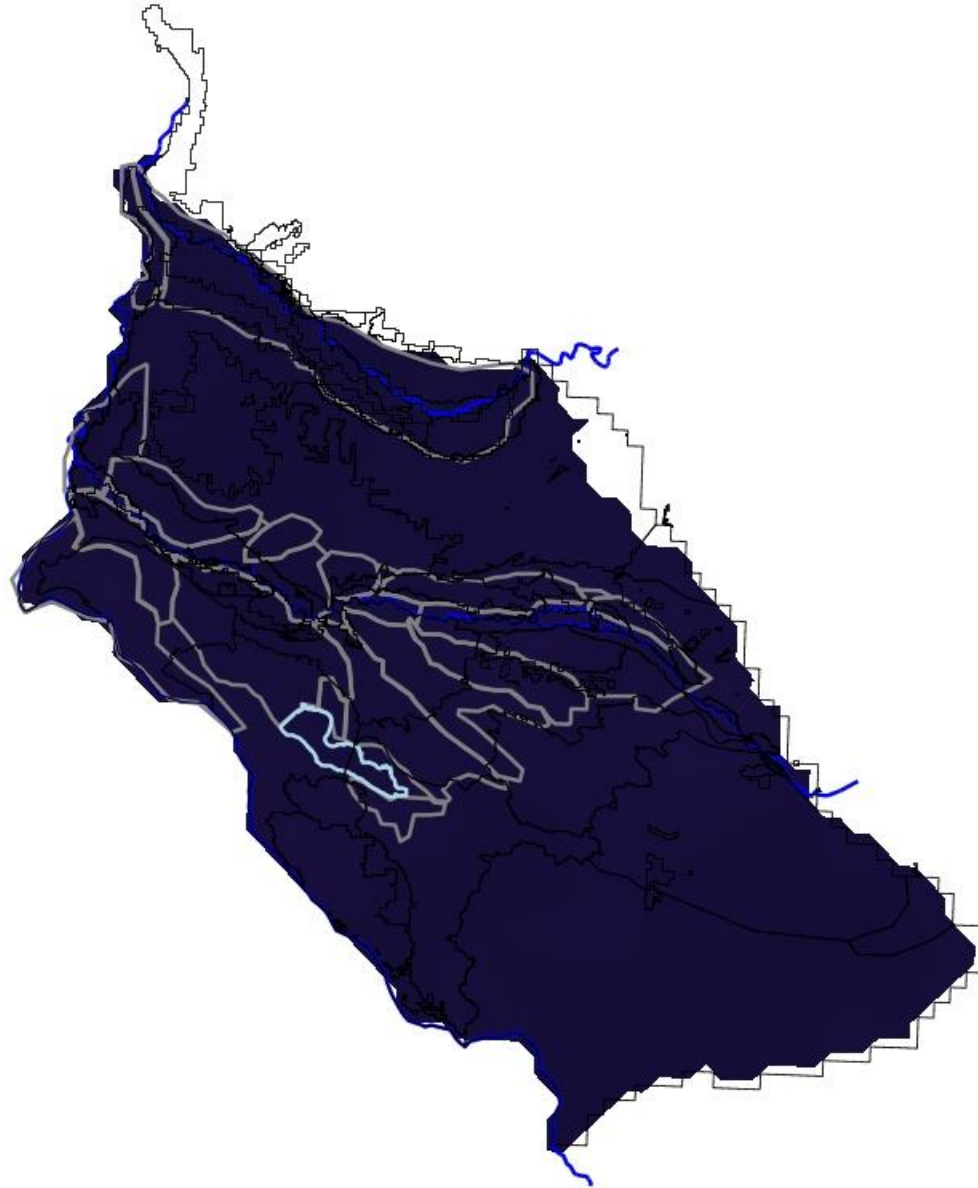
Layer 4  
SS



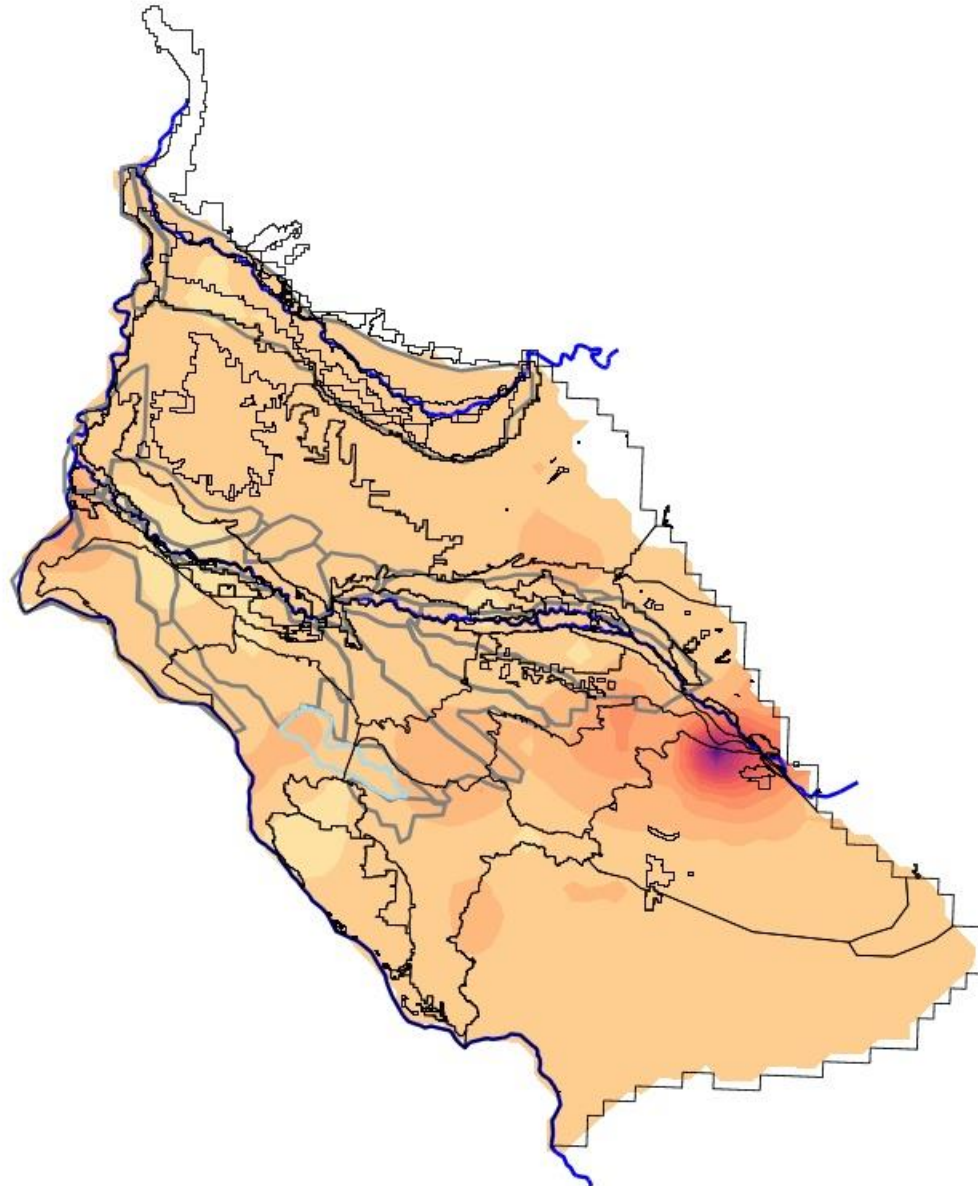
Layer 5  
SS



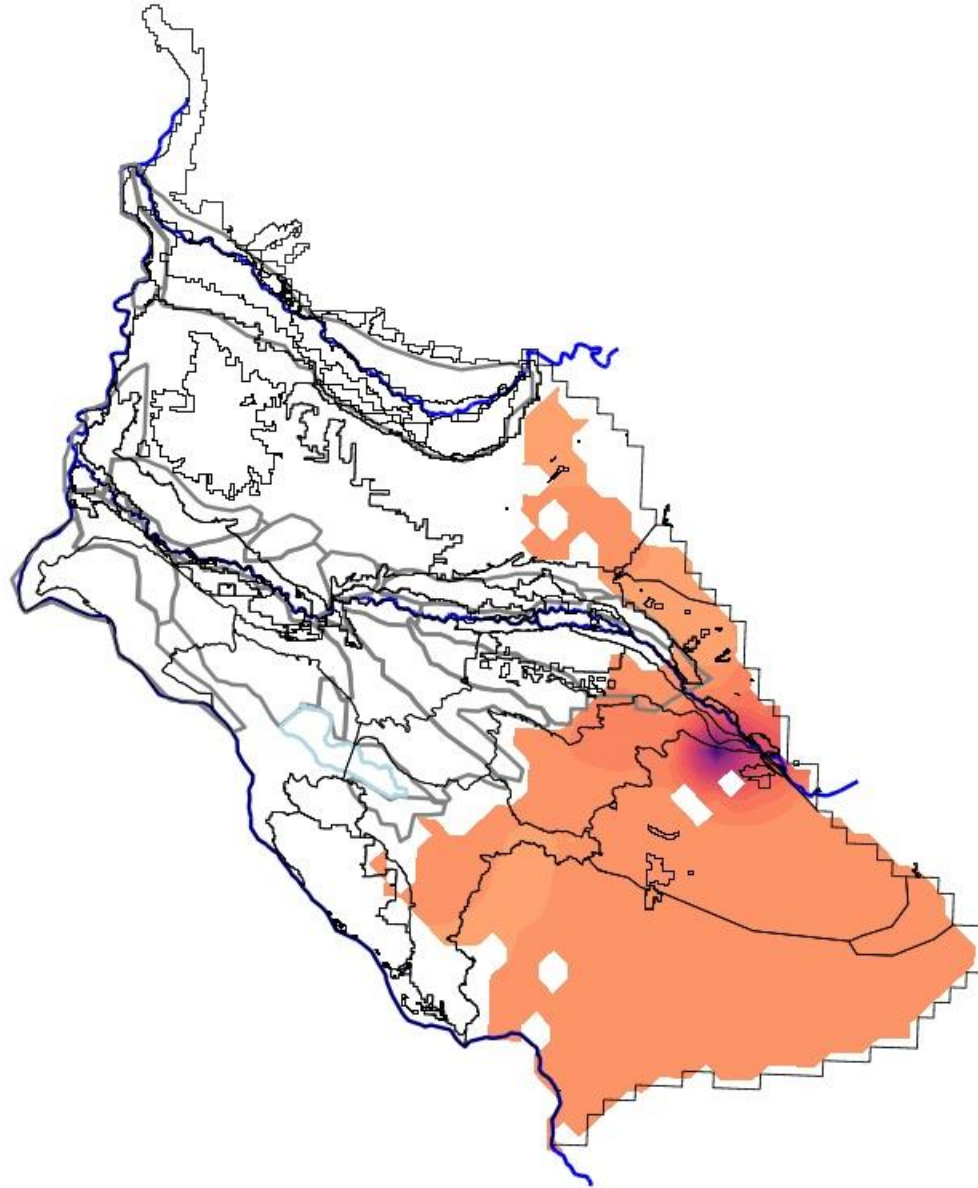
Layer 6  
SS



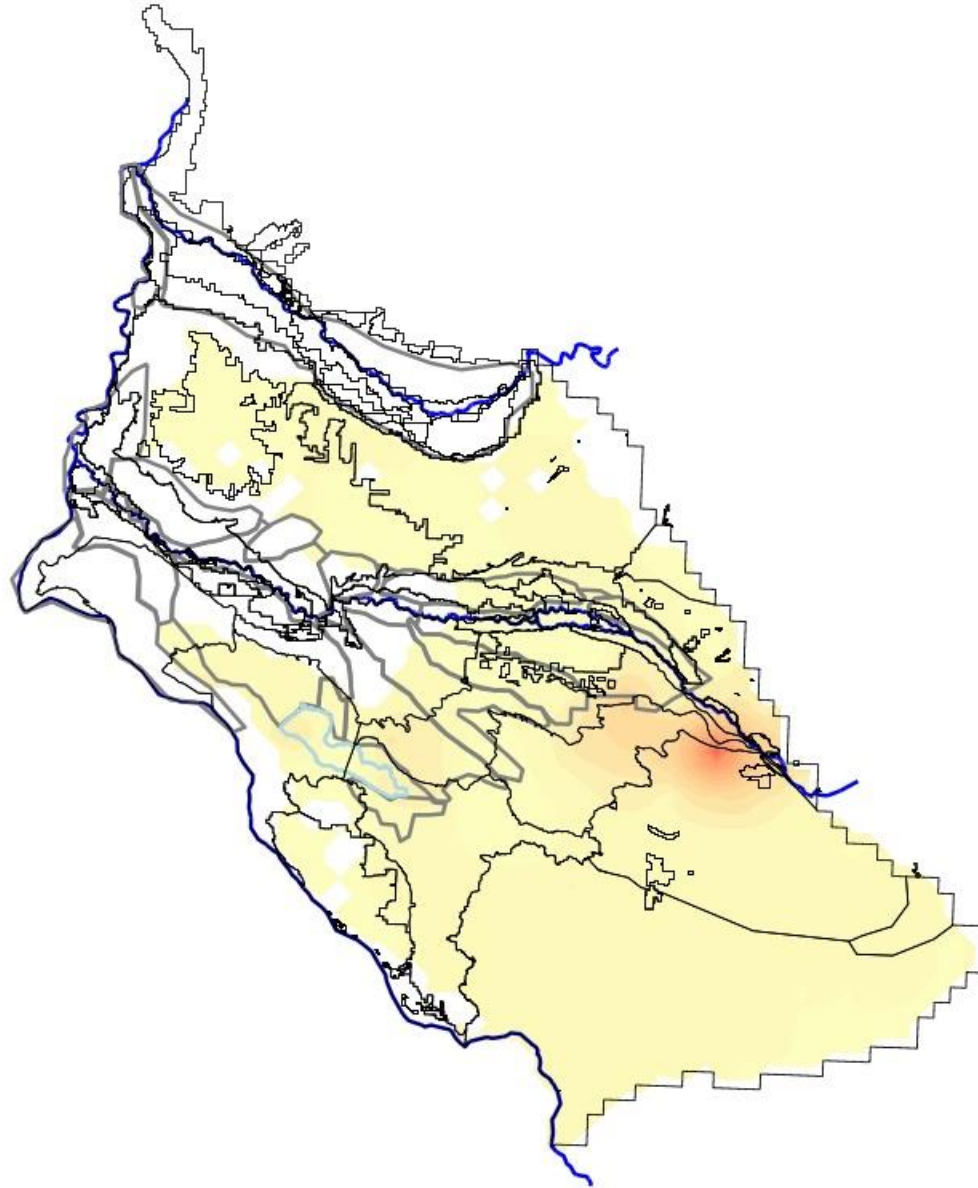
Layer 1  
vk



Layer 2  
vk

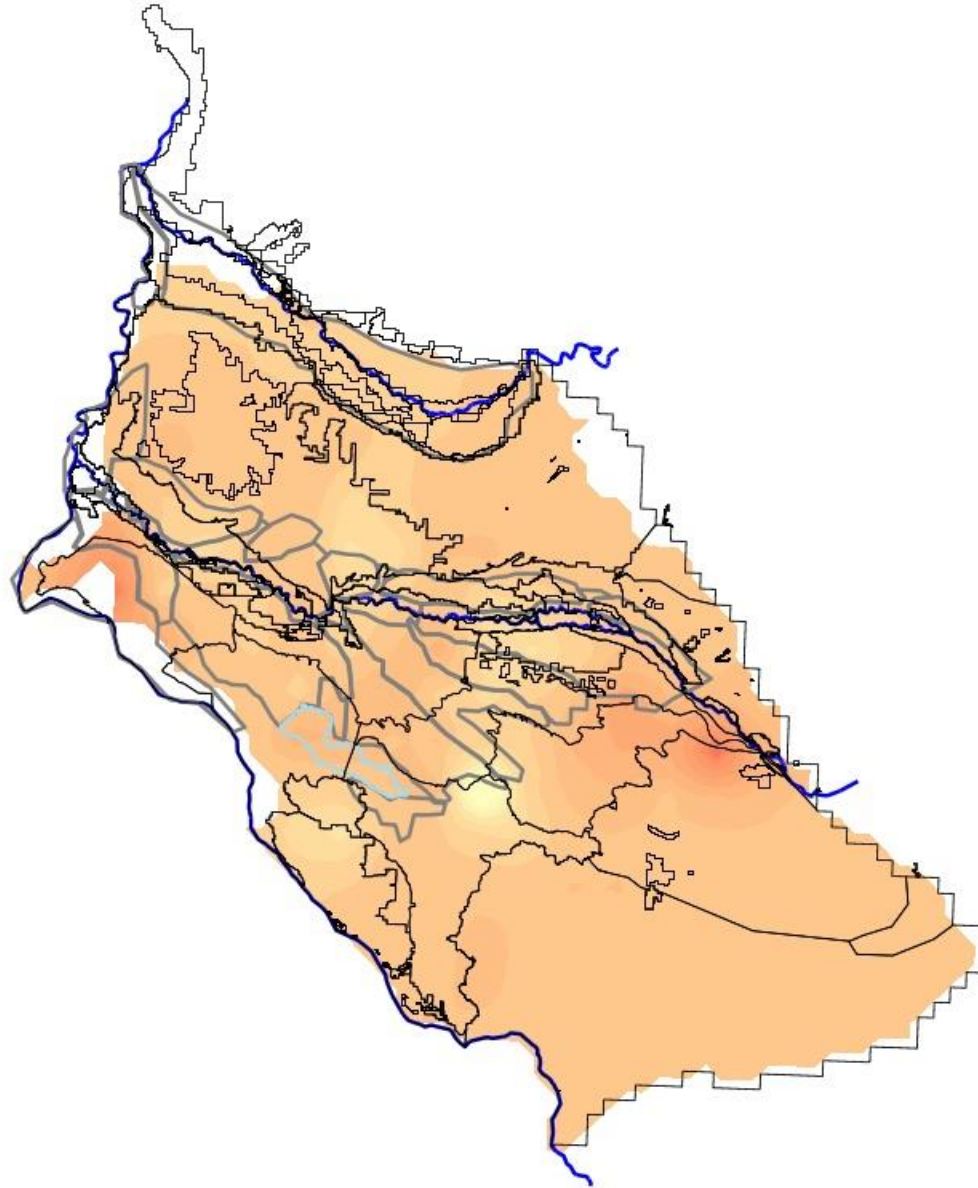


Layer 3  
vk

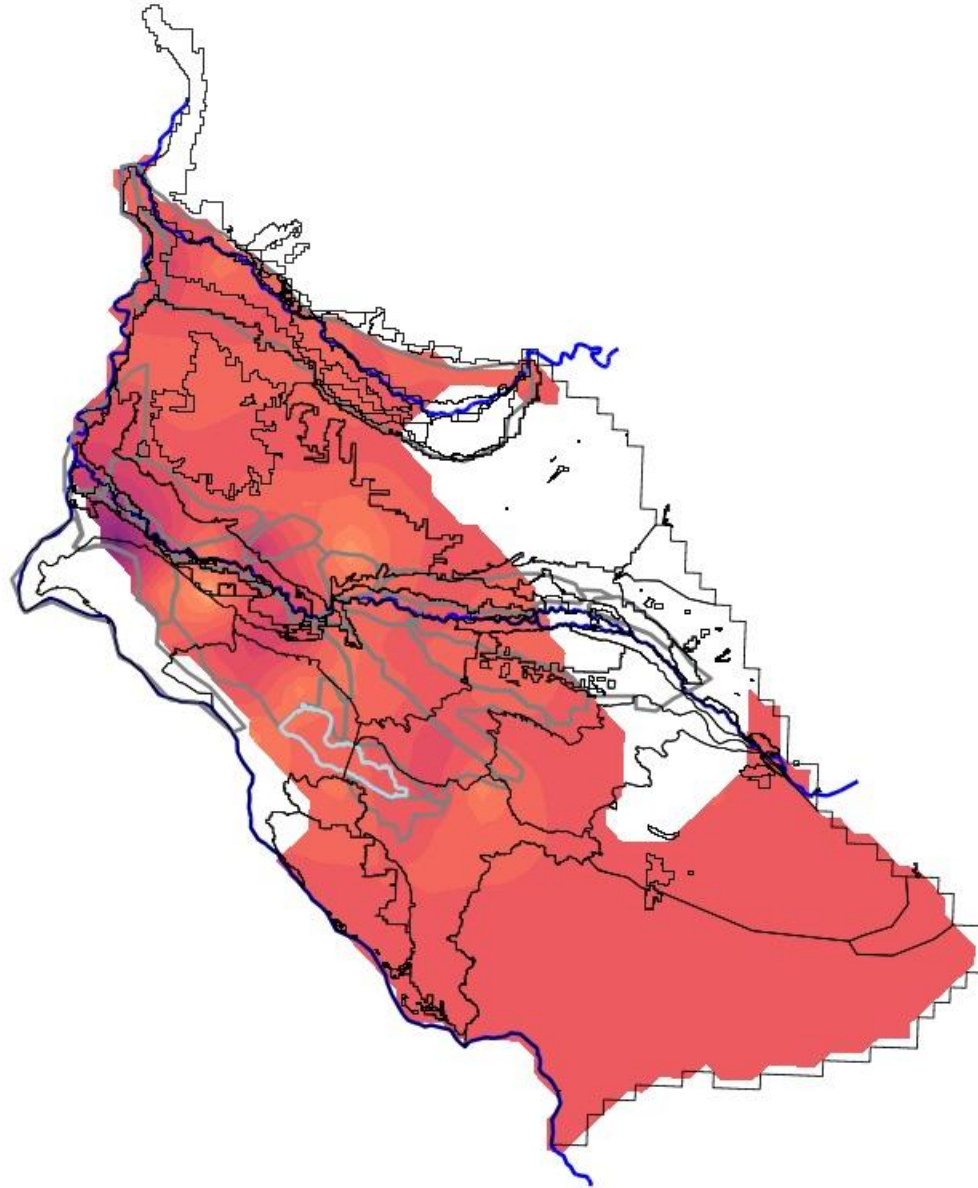




Layer 4  
vk

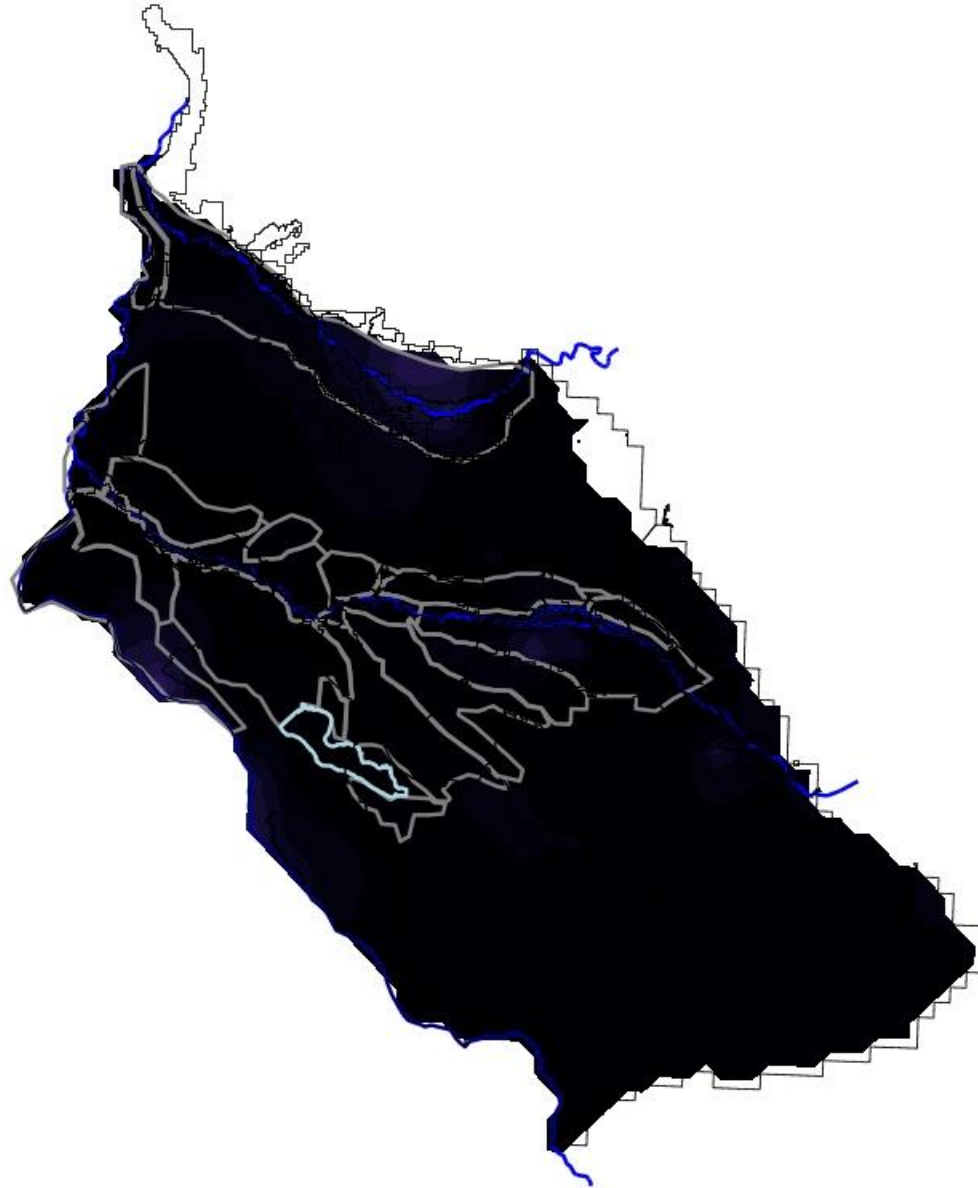


Layer 5  
vk

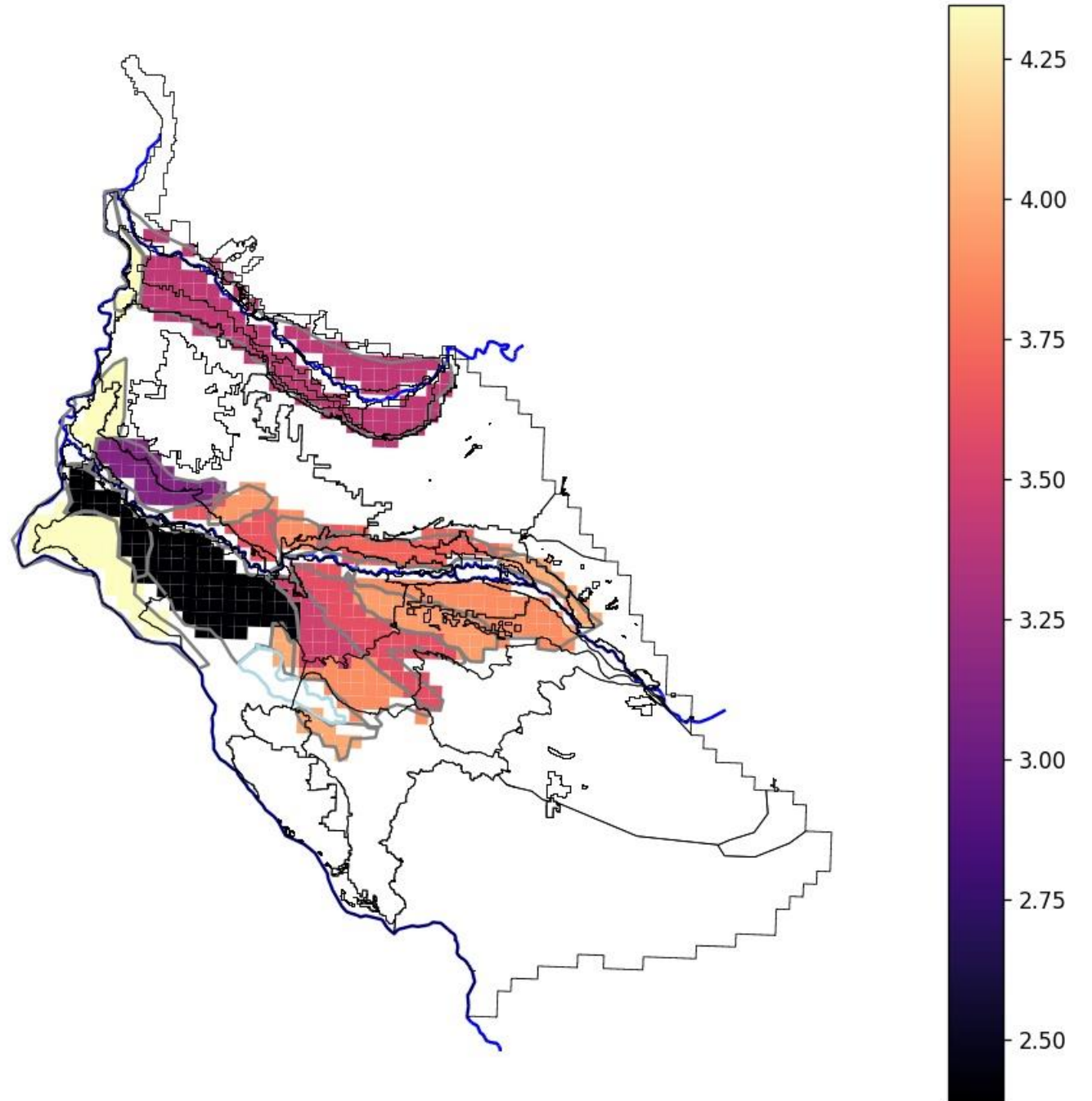




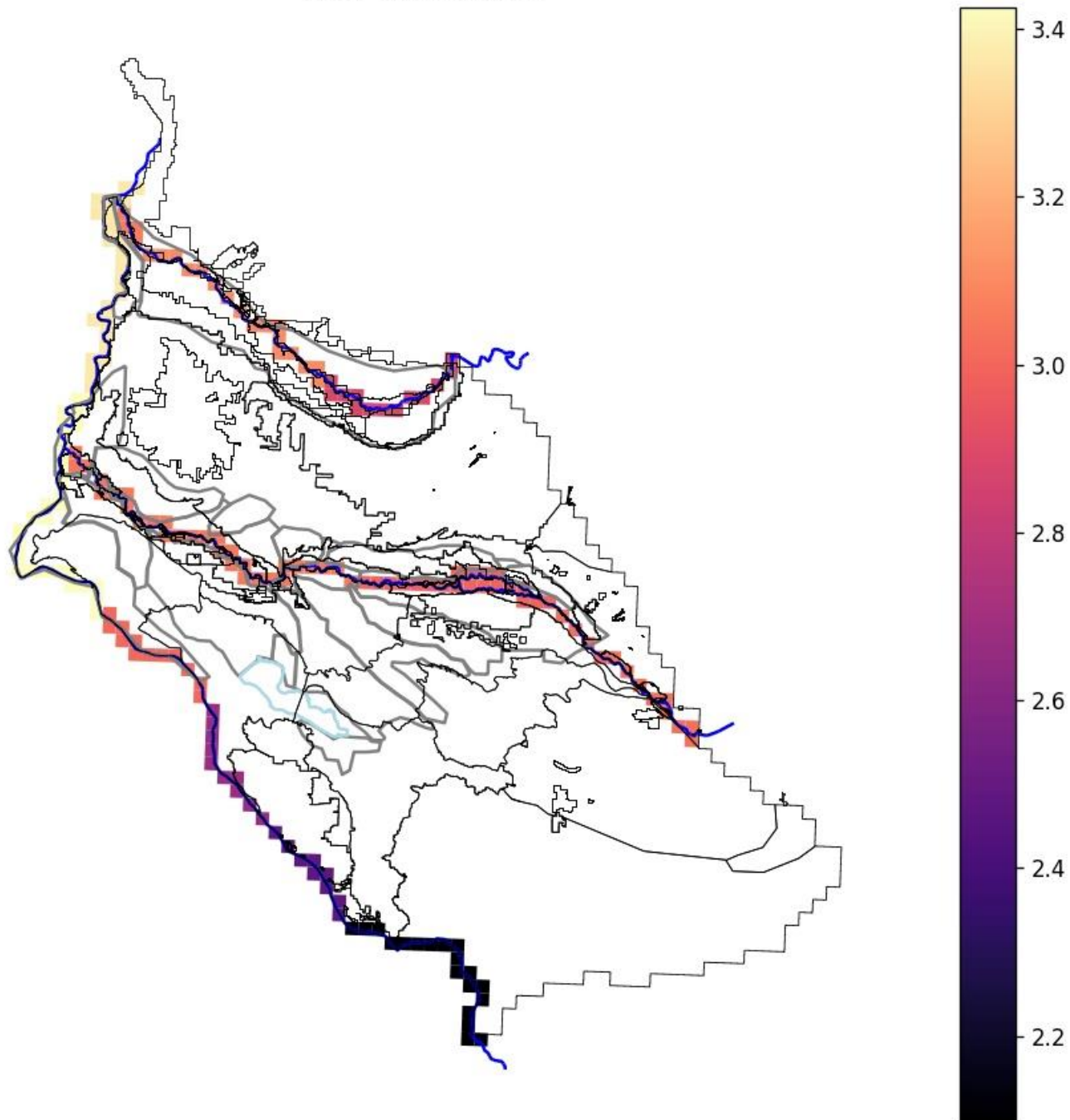
Layer 6  
vk



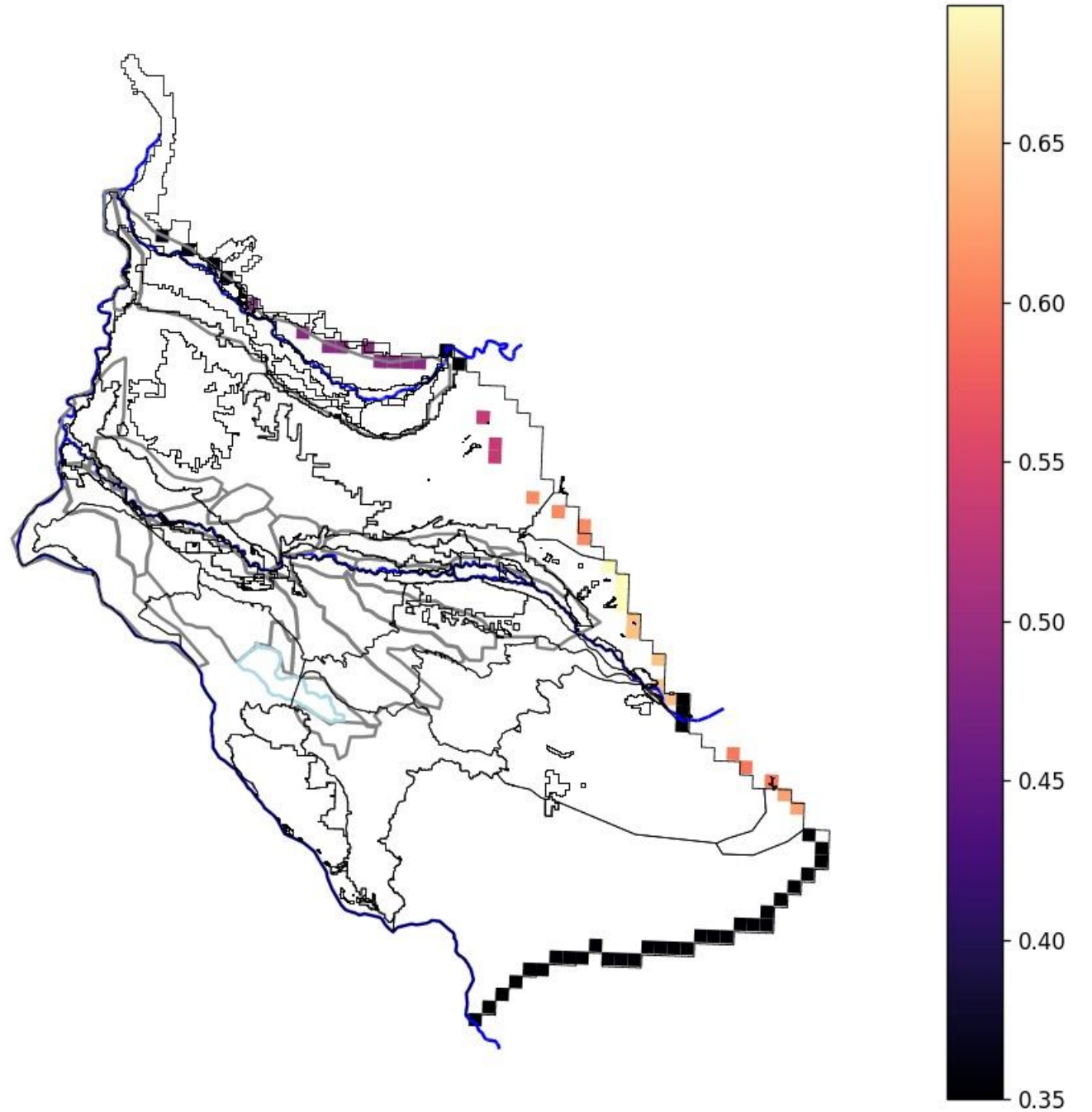
drain conductance



river conductance



tributary underflow multiplier



Thoughts? Questions?

# Next steps and publication timeline

Stephen Hundt

# From here...

## Approx Timeline

## Tasks

Mid January

- Complete modelling

Late January

- Have one last MTAC

February

- Complete draft of report

March – summer?? ○ USGS Publication process

cooperator  
courtesy  
review

- Center review
- Peer review
- Editorial review and layout
- Bureau approval
- Publication & release to public and IDWR

- Always available for questions (I'm not going anywhere)

- IDWR has the model