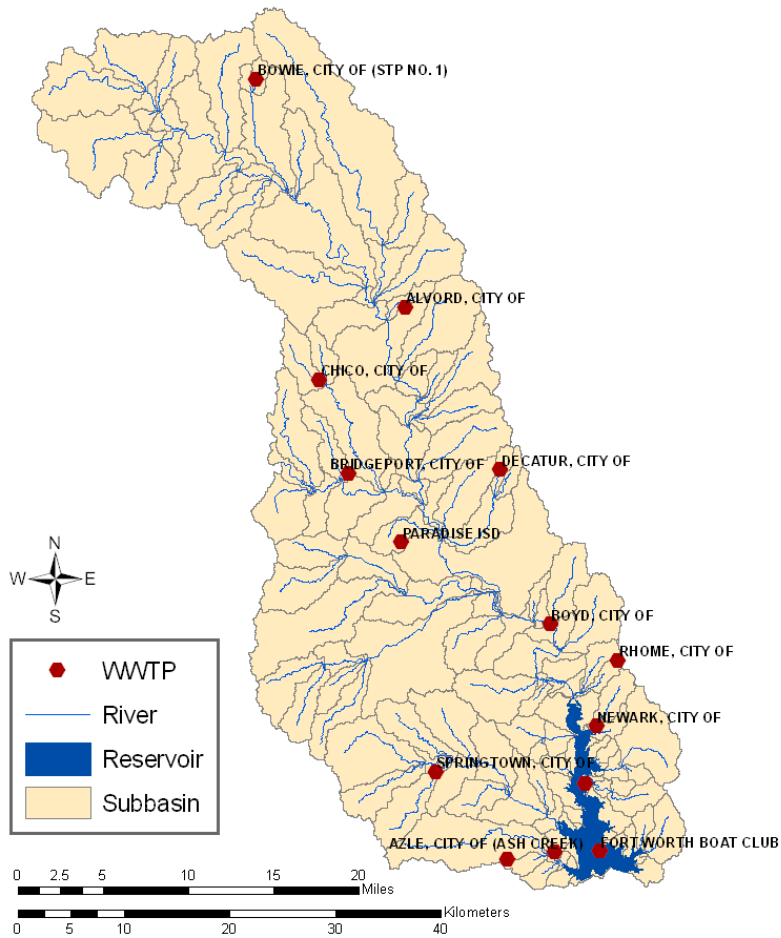


# SWAT Calibration

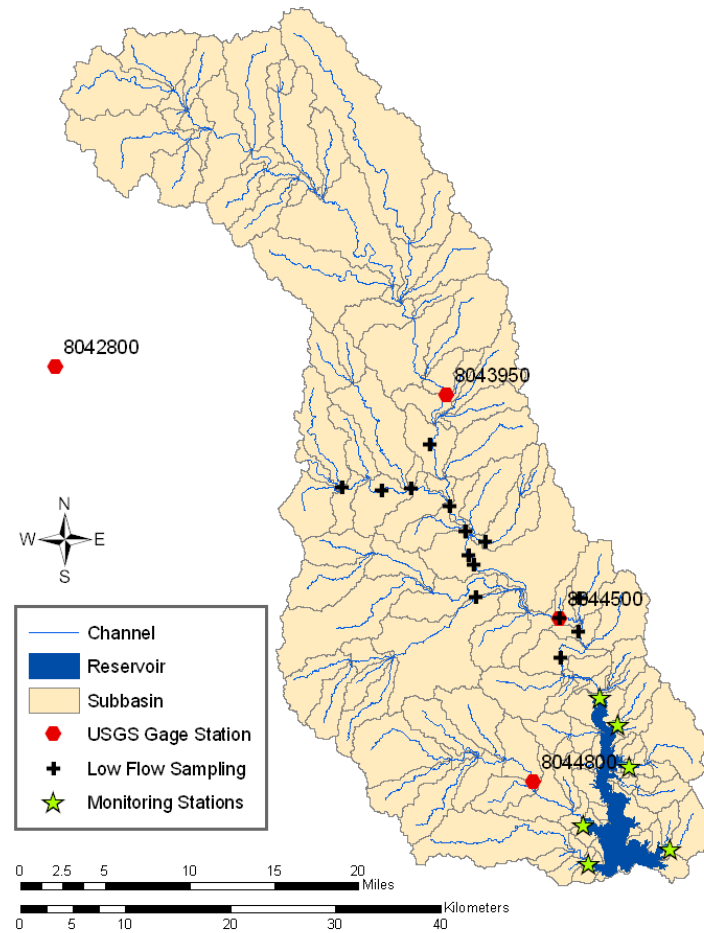
Taesoo Lee  
Spatial Science Laboratory,  
Texas A&M University

# SWAT Calibration

## Eagle Mountain Watershed WWTPs

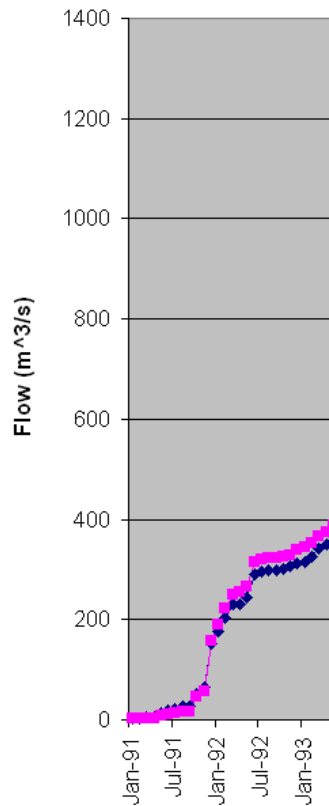


## Eagle Mountain Monitoring Sites

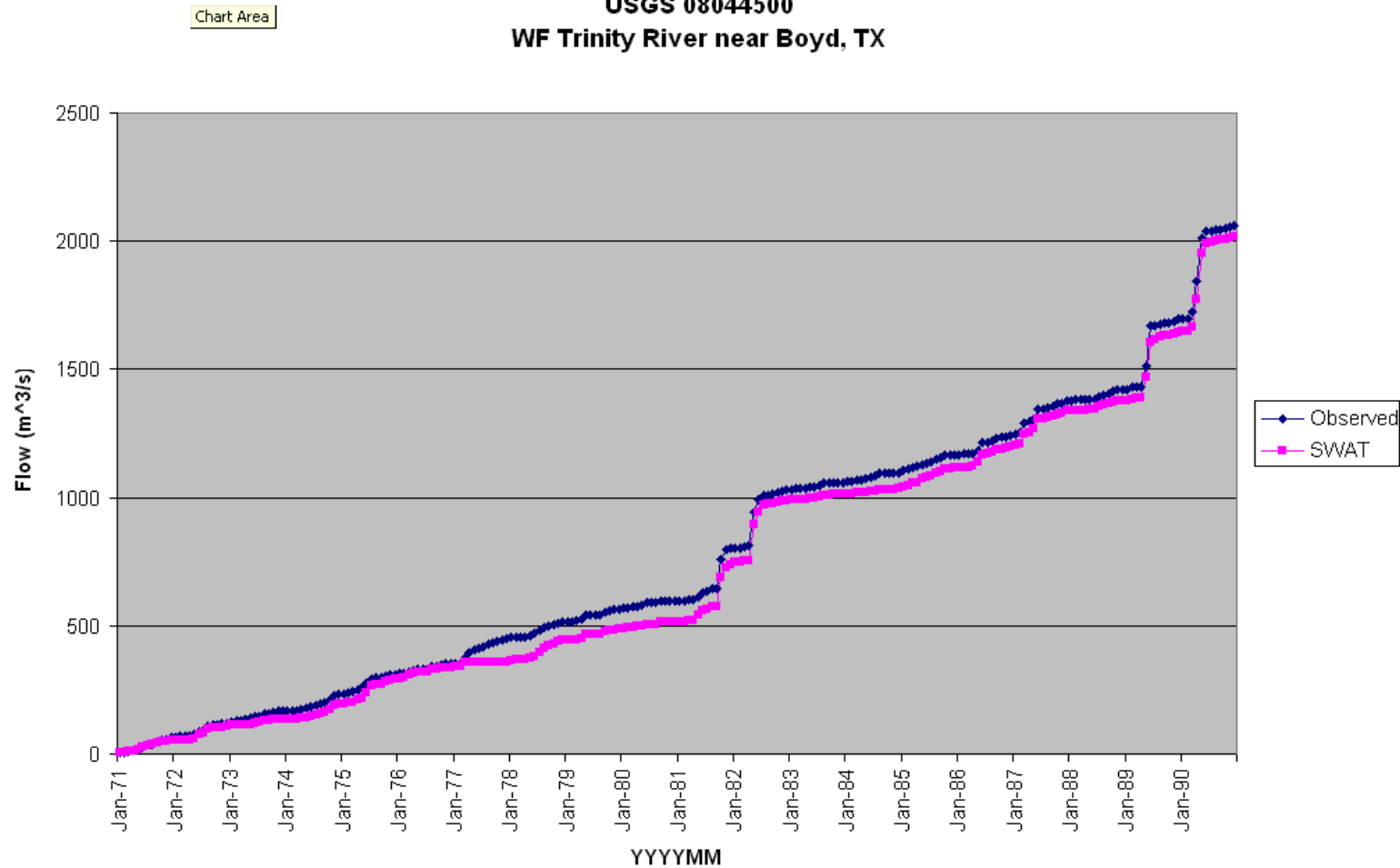


# Flow Calibration

1991-2004  
USGS 08044500



1971-1990  
USGS 08044500  
WF Trinity River near Boyd, TX



# Sediment Calibration

## Sediment Loads by Overland Flow

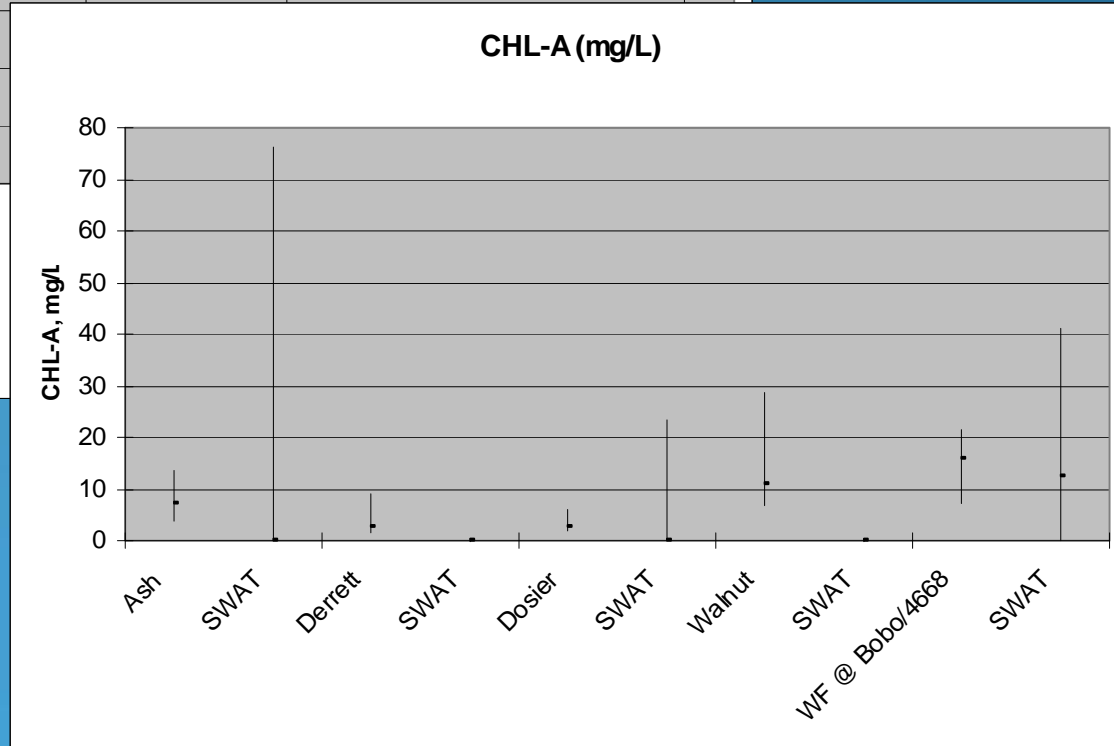
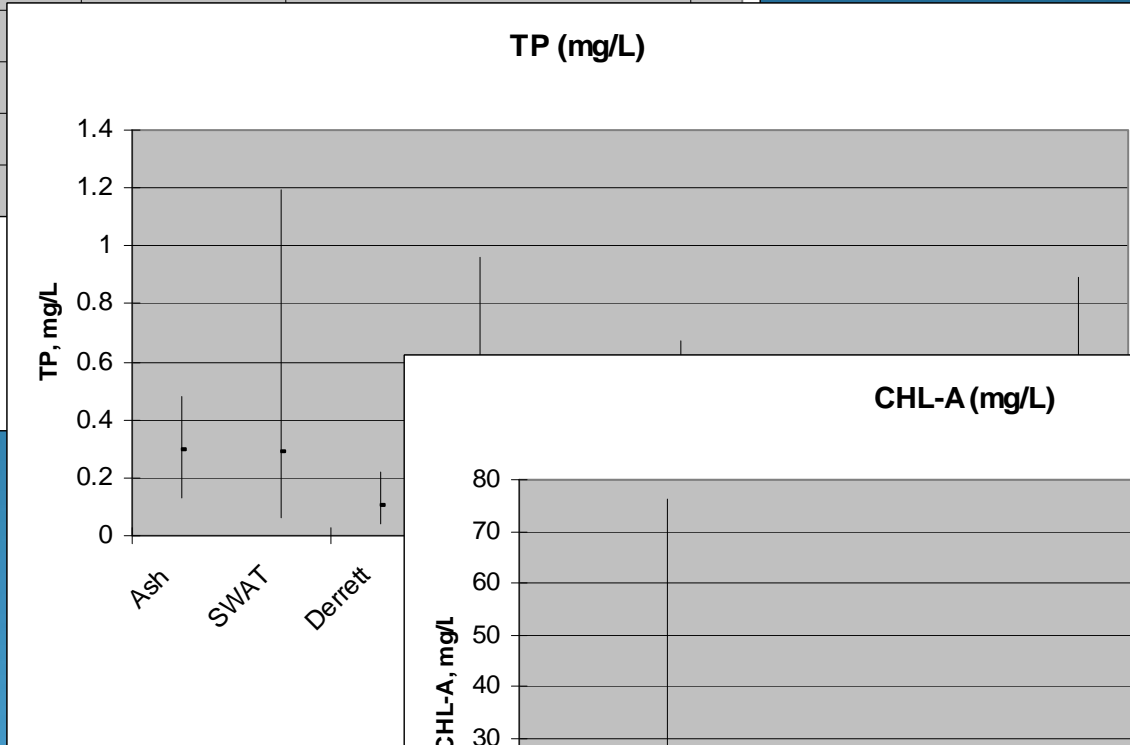
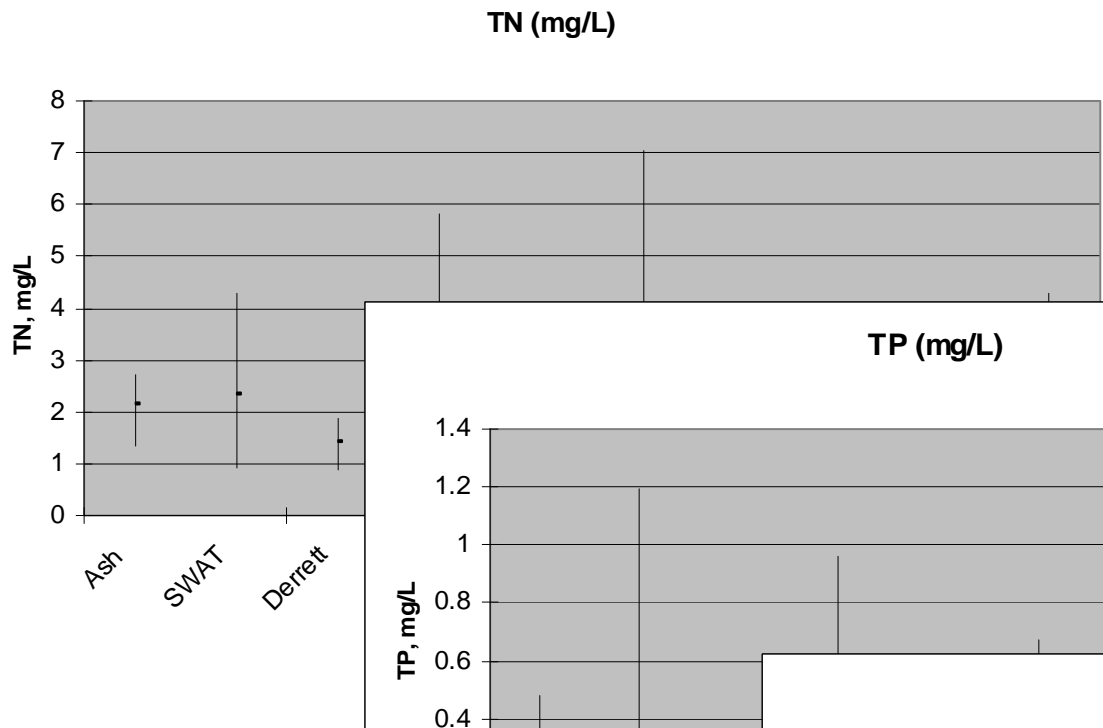
Period	Observed (metric ton)	Modeled (metric ton)	Differences (%)
<b>Total (Annual average)</b>		<b>196,909</b>	<b>-0.2%</b>
Calibration (1994 – 2004)	197,313	206,294	+4.6%
Validation (1970 – 1990)		191,748	-2.8%

# Sediment Calibration

## Sediment Loads at Reservoir

Period	Observed (Metric ton)	Modeled (metric ton)	Differences (%)
<b>Total (Annual average)</b>	295,822	<b>296,400</b>	<b>+0.2%</b>
Calibration (1994 – 2004)		263,827	-10.8%
Validation (1970 – 1990)		324,880	+9.8%

# Nutrients Calibration



# Baseline

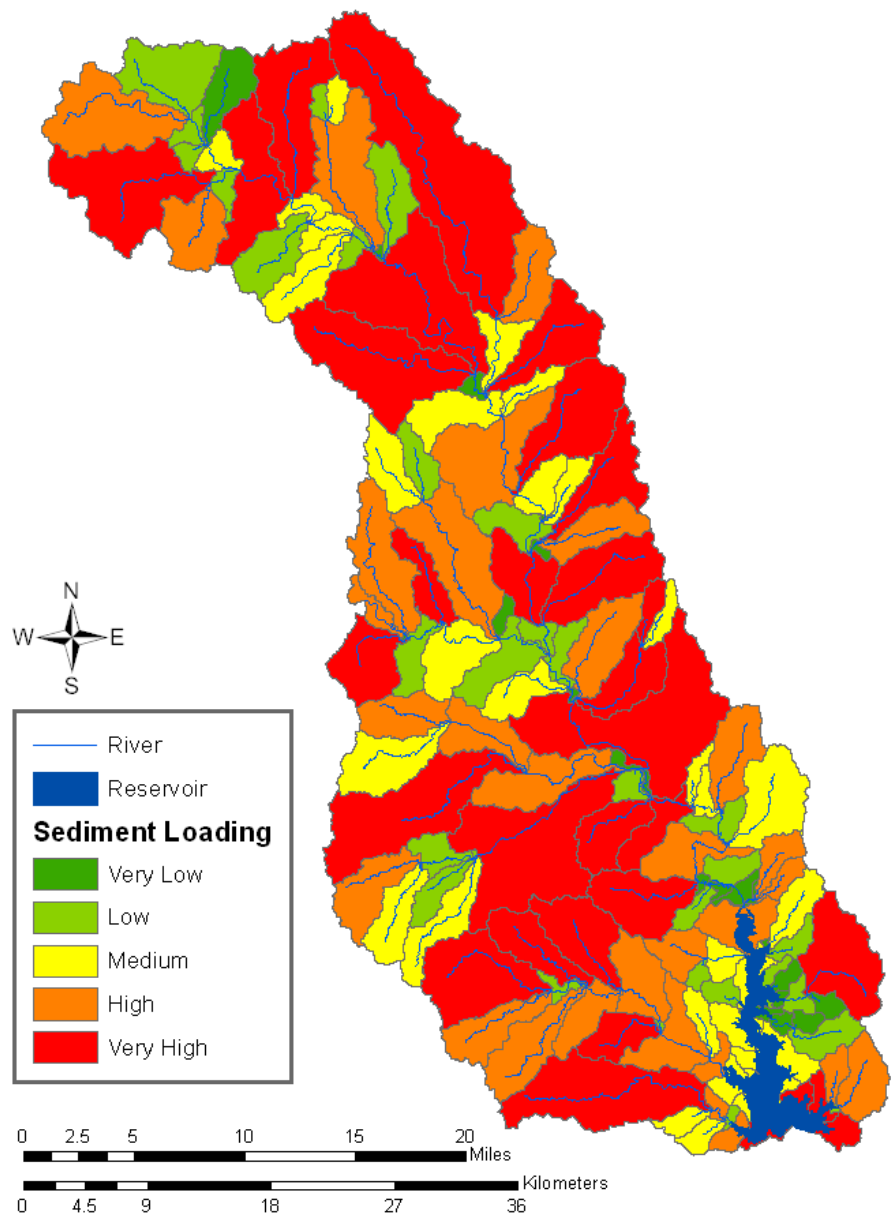
<b>Sediment (t/y)</b>	<b>TN (kg/y)</b>	<b>TP (kg/y)</b>
<b>296,400</b>	<b>1,055,220</b>	<b>173,020</b>

# Loading by Subbasin



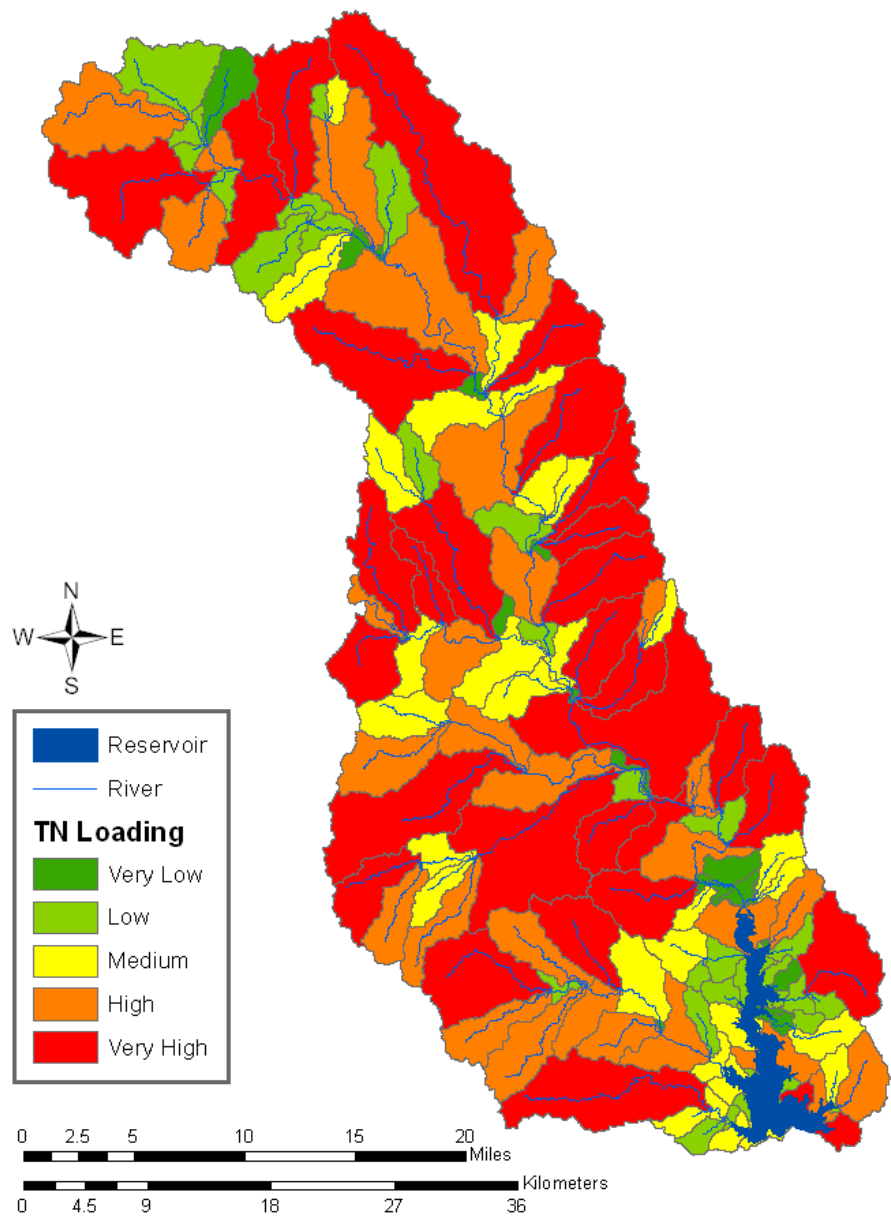
# Sediment Loading

## Sediment Loading by Overland Flow



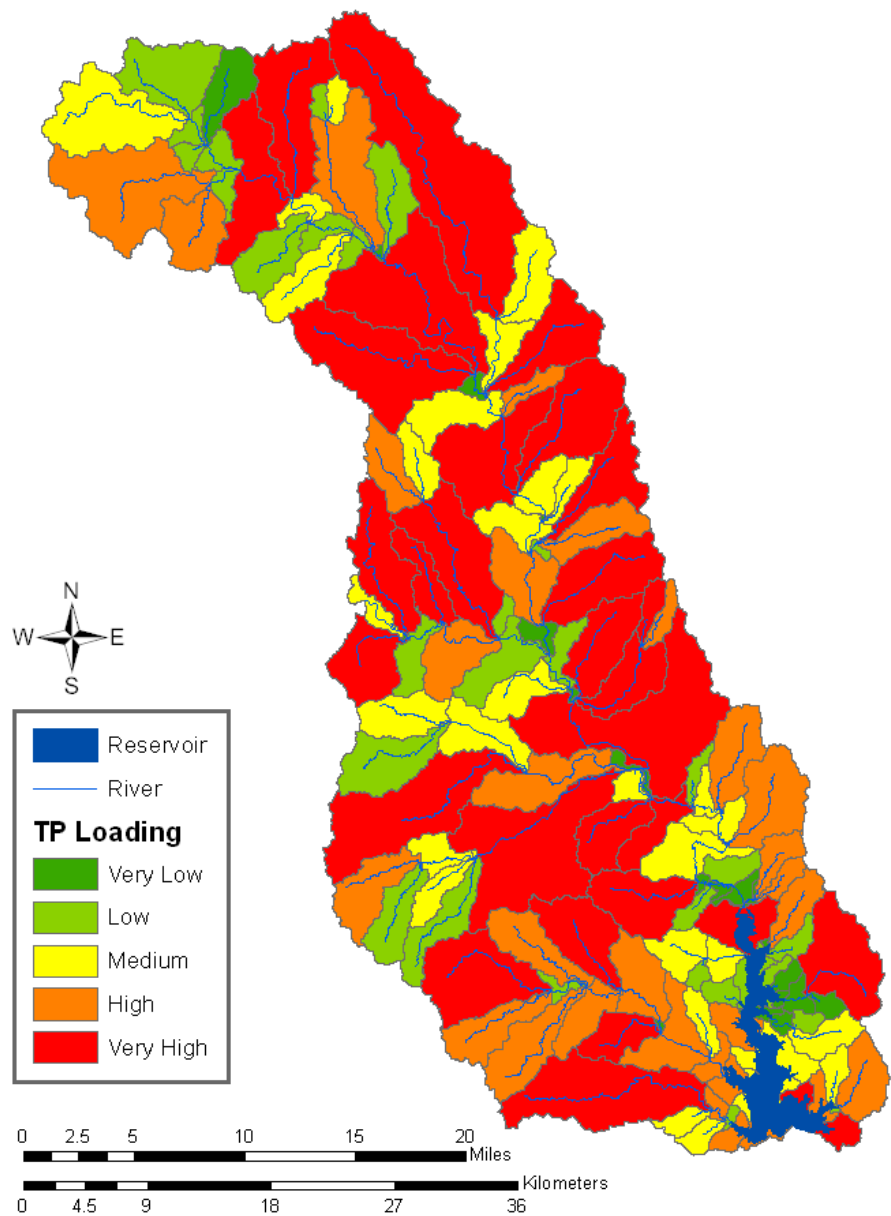
# Total N Loading

## Total N Loading by Overland Flow



# Total P Loading

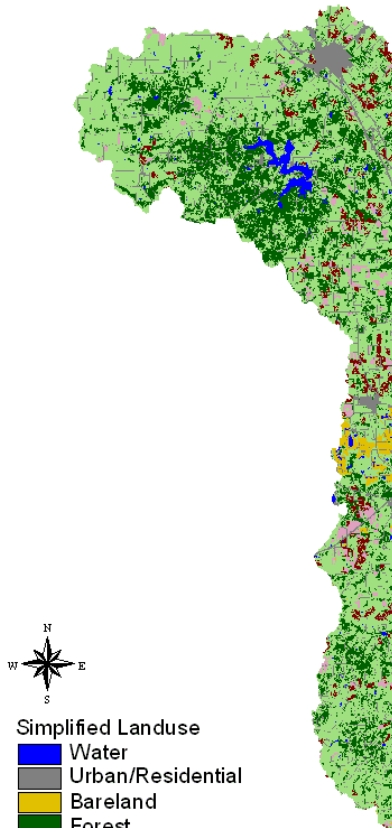
## Total P Loading by Overland Flow



# Loading by Landuse

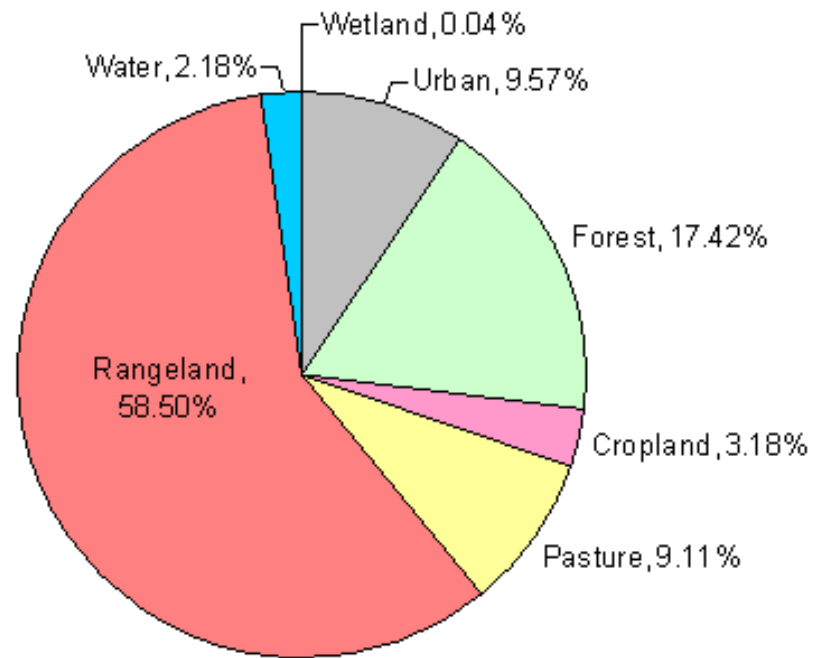
# Landuse Distribution

## Simplified Landuse



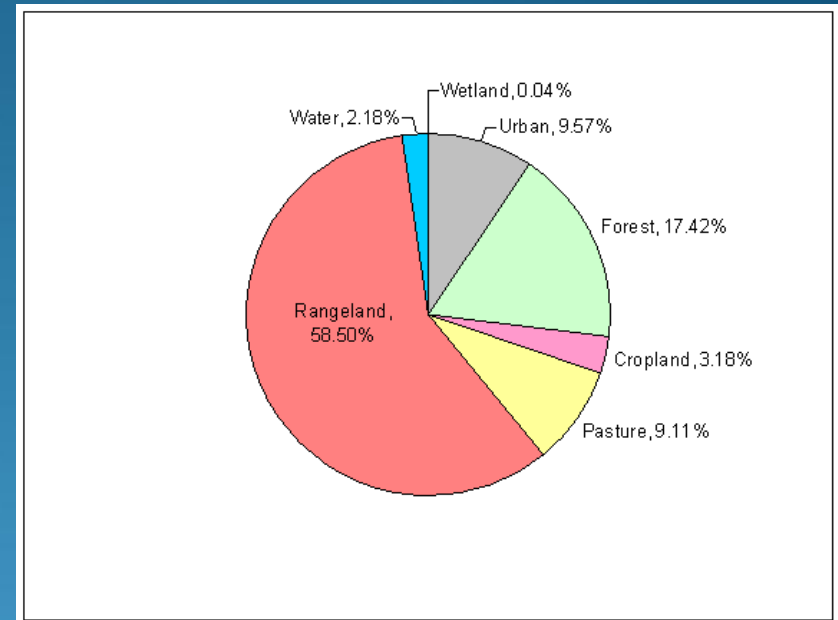
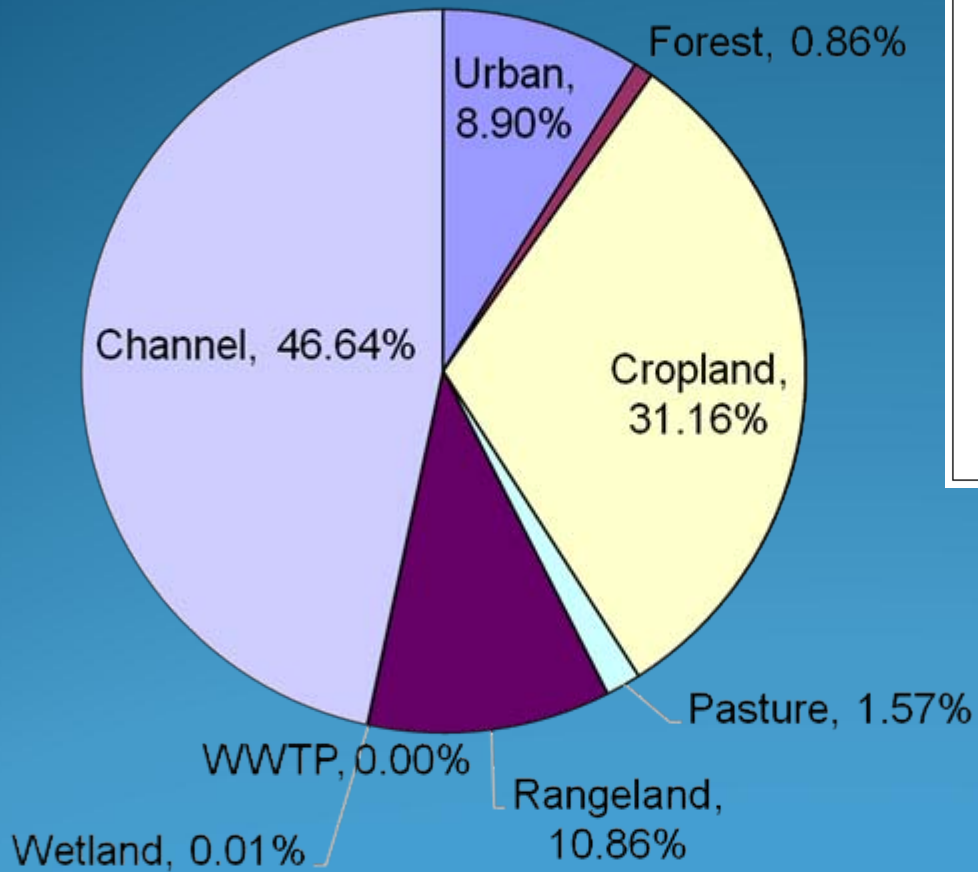
- Simplified Landuse
- Water
  - Urban/Residential
  - Bareland
  - Forest
  - Rangeland
  - Pasture
  - Cropland
  - Wetland

0 3 6 9 12 Kilometers



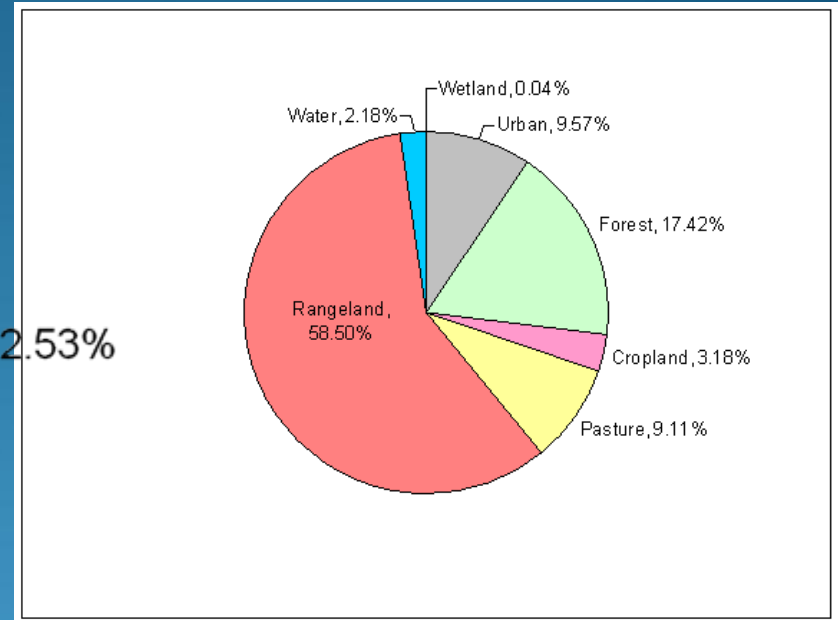
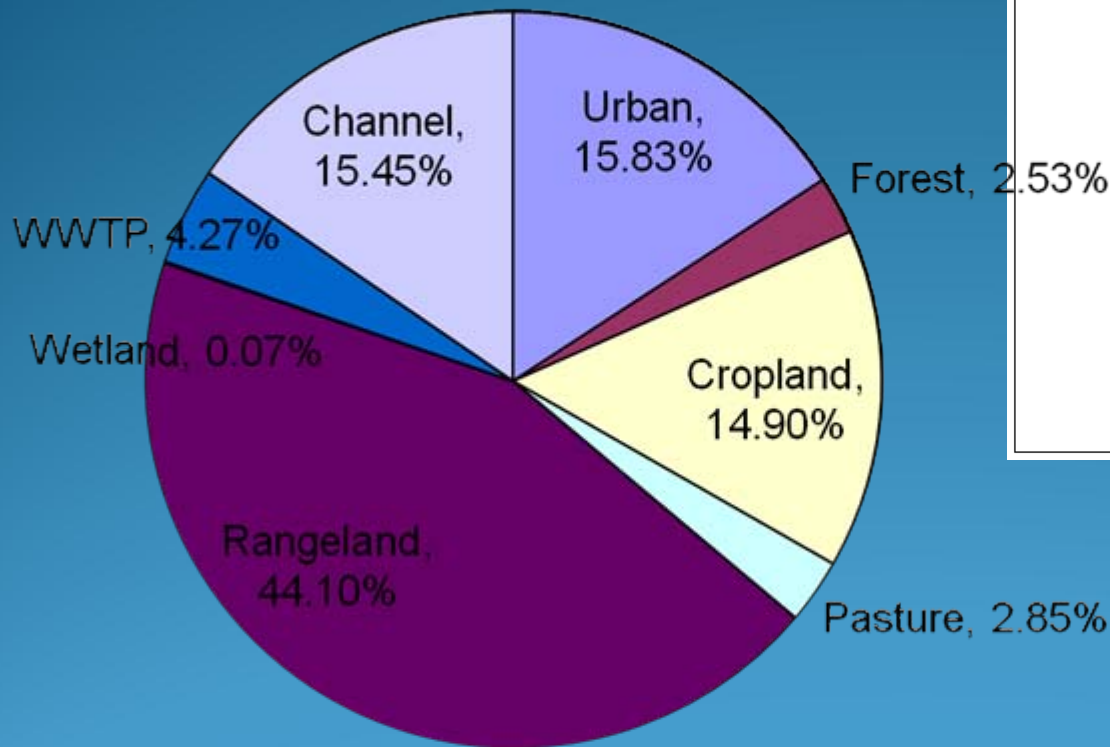
# Sediment Yield by Landuse

## Sediment Yield by Landuse



# TN Loading by Landuse

## TN Loading by Landuse



# TP Loading by Landuse

TP Loading by Landuse

