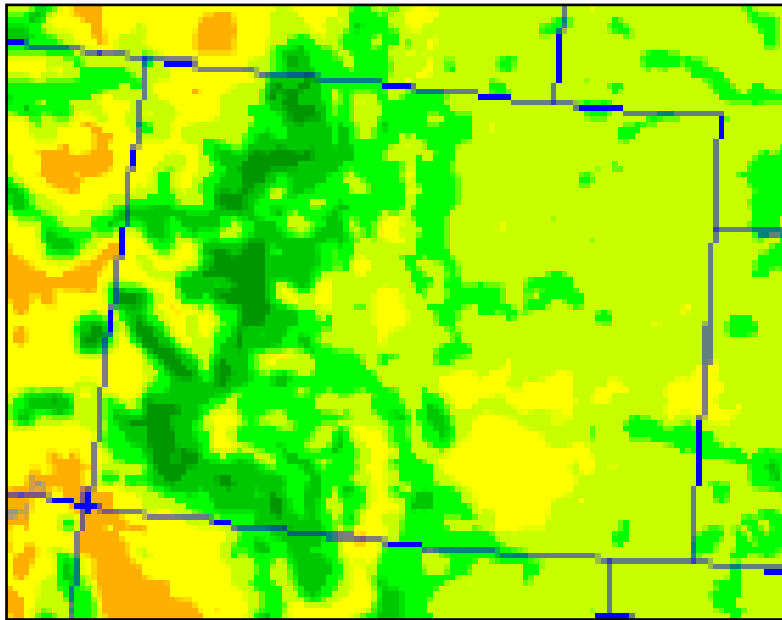
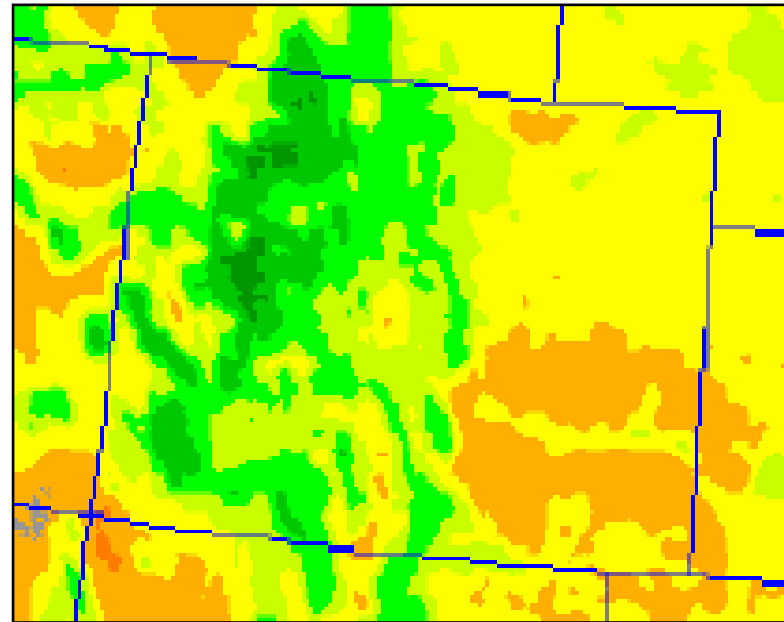


# Colorado - Vegetation Comparison



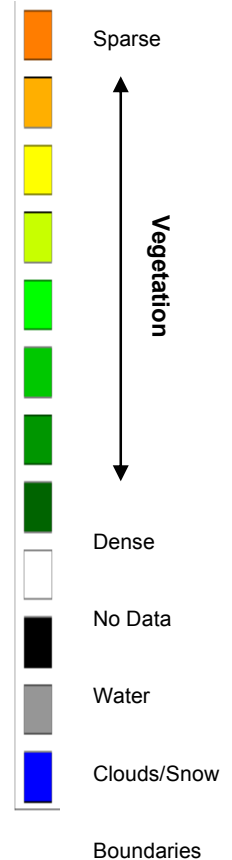
**June 2001** Green and Vigorous  
Vegetation

**NDVI Composite – June 1- 15, 2001**  
**NOAA 16 Polar Orbiter**



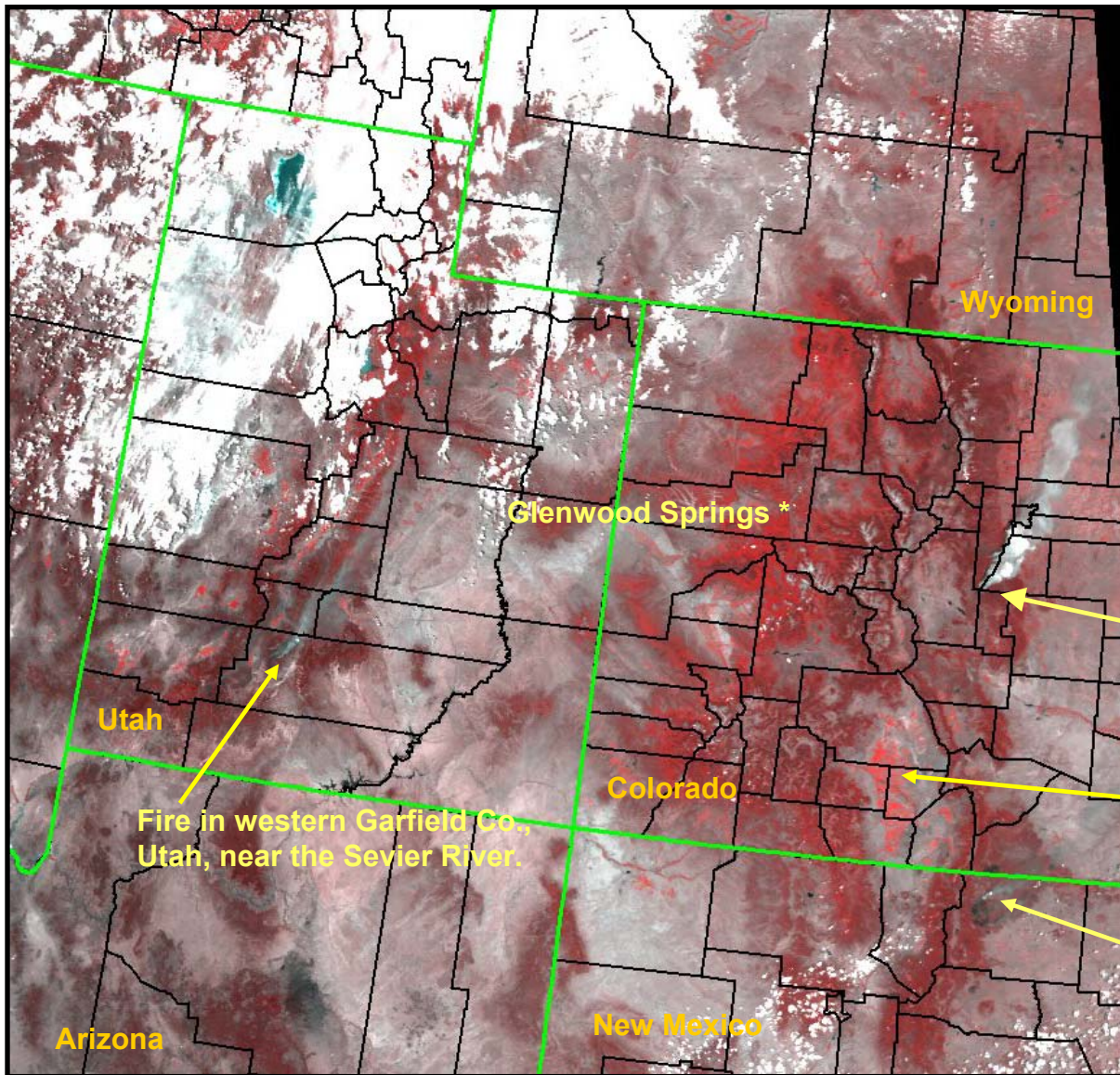
**June 2002** Much less green

**NDVI Composite – June 1- 12, 2002**  
**NOAA 16 Polar Orbiter**



While there is some drop in vegetation vigor during June 2002 compared to 2001 across the mountains in western Colorado, the big drop in vegetation across the eastern plains.

# NOAA 16 – Four Corners States



Smoke filled Denver Skyline on June 10, 2002.

Photo by Gary Caskey/Reuters

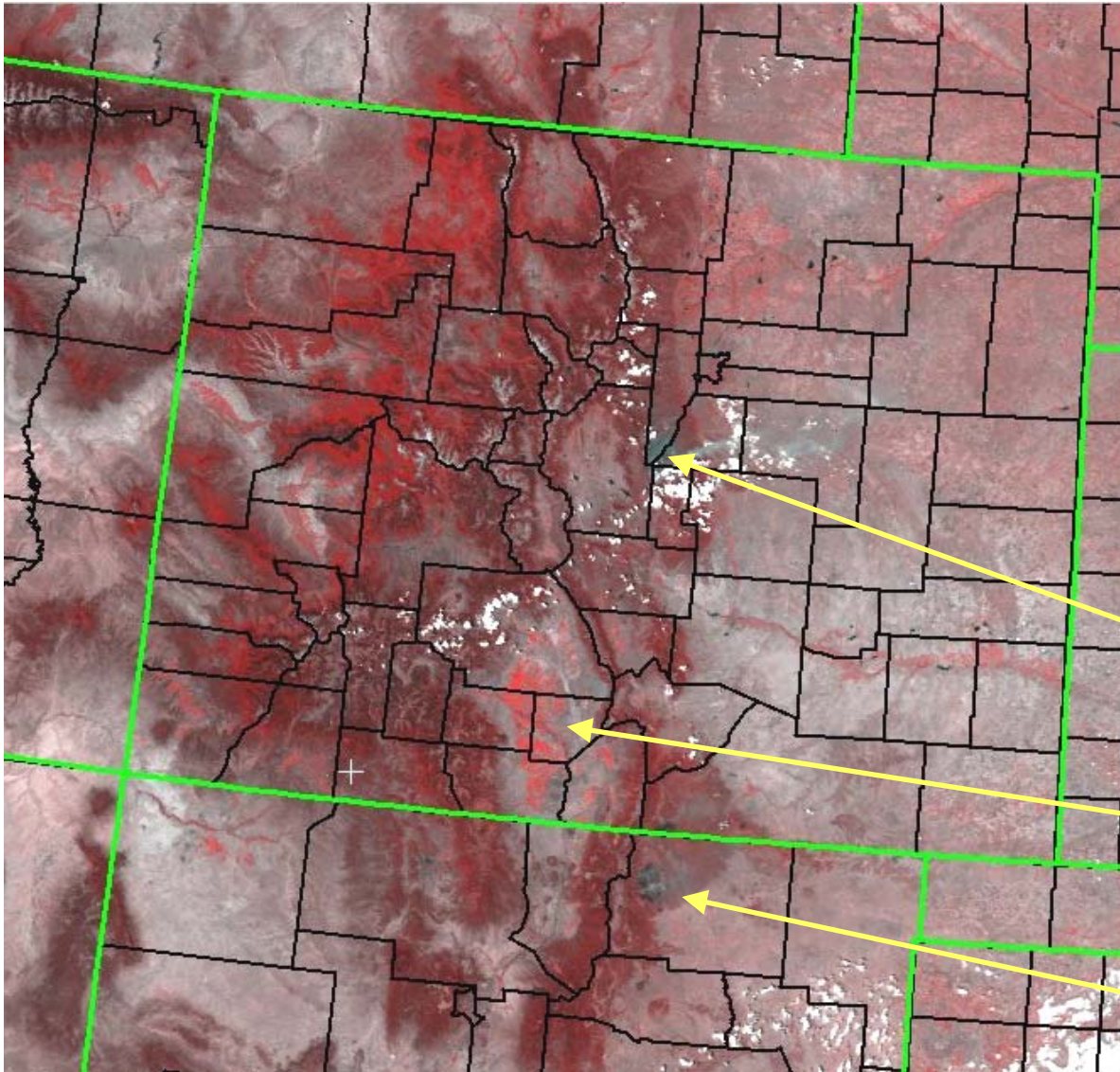
Hayman Wildfire, south of Denver.

Irrigated crops in the San Luis Valley. A major production area for barley, wheat, potatoes, and hay.

Wildfires in New Mexico's Sangre De Cristo Mts.



# NOAA 16 - Colorado



Crew digging fireline on 6 13 02, from the Hayman Fire website.

Photo by Ed Andrieski Associated Press

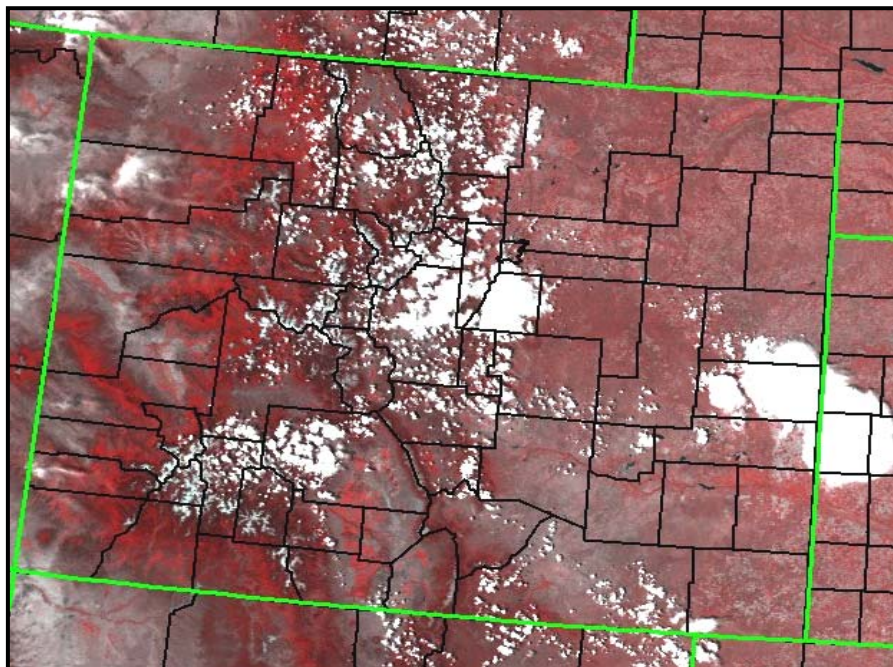
Hayman Wildfire, south of Denver. The gray is burned area, mostly in Jefferson and Douglas counties.

Irrigated crops in the San Luis Valley. A major production area for barley, wheat, potatoes, and hay.

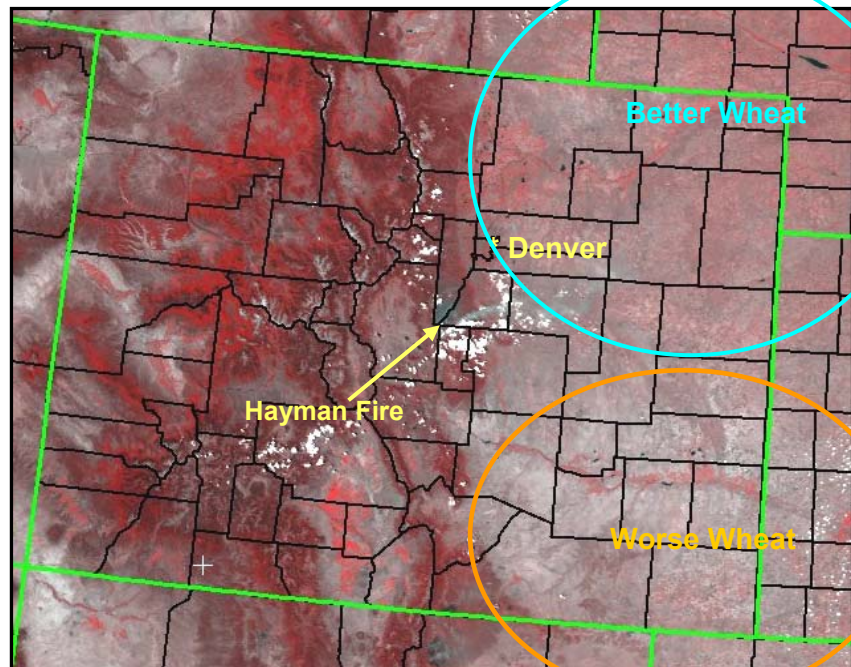
Wildfires in New Mexico's Sangre De Cristo Mts.



# NOAA Polar Orbiters – Colorado



NOAA 16, June 10, 2001

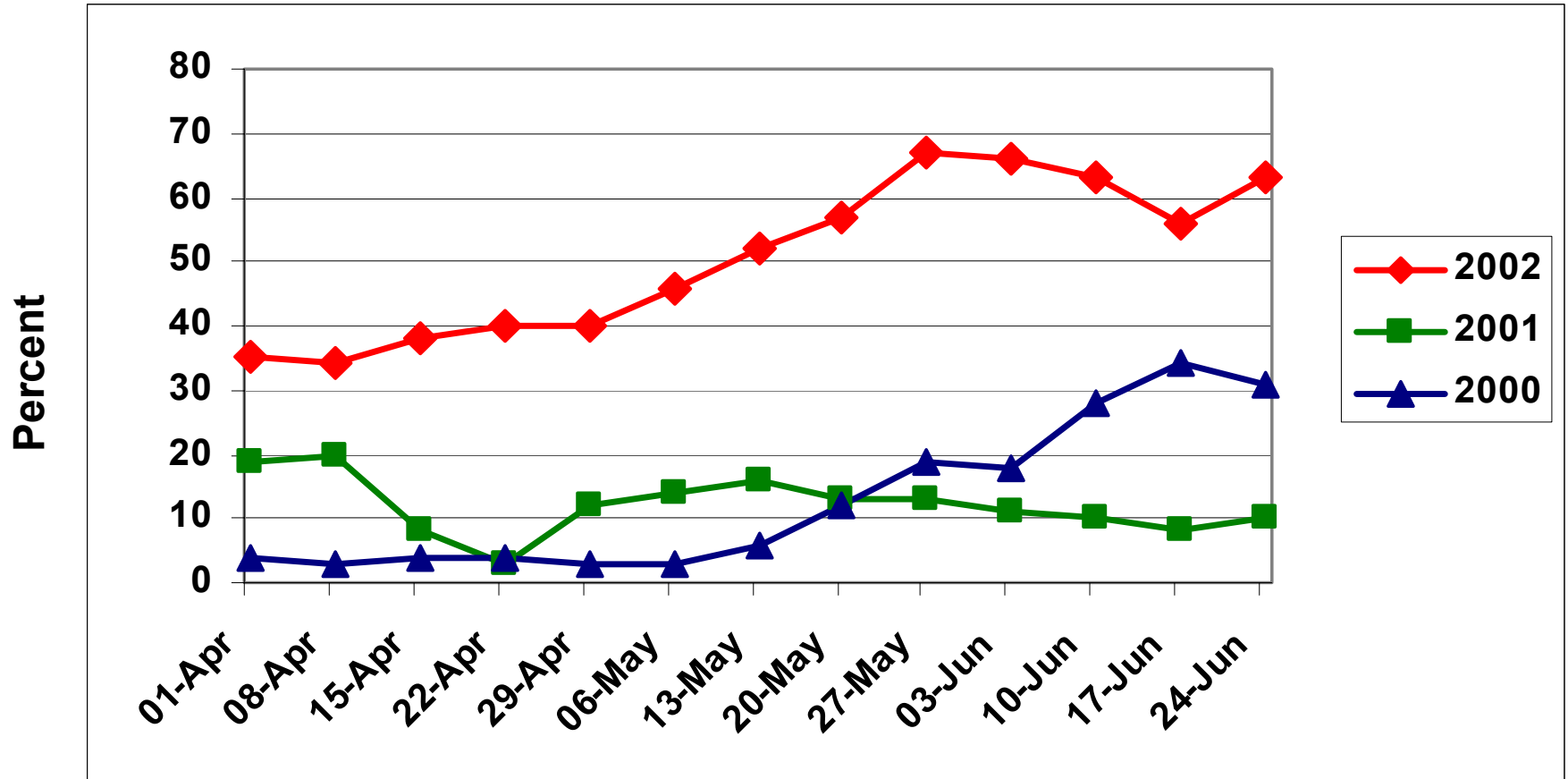


NOAA 16 - June 11, 2002

On the Eastern Prairie, Winter Wheat is in better condition this crop year from Kit Carson Co. and north (in light blue circle) compared to the wheat from Cheyenne Co. and south (in the orange circle). Throughout the state, winter wheat, pastures and hay crops are in much poorer condition this year compared to last year, evidenced by the red tones on the June 10, 2001 scene and the less red and more gray tones on the June 11, 2002 scene.

# Colorado Winter Wheat Condition

## Percent Rated Poor - Very Poor

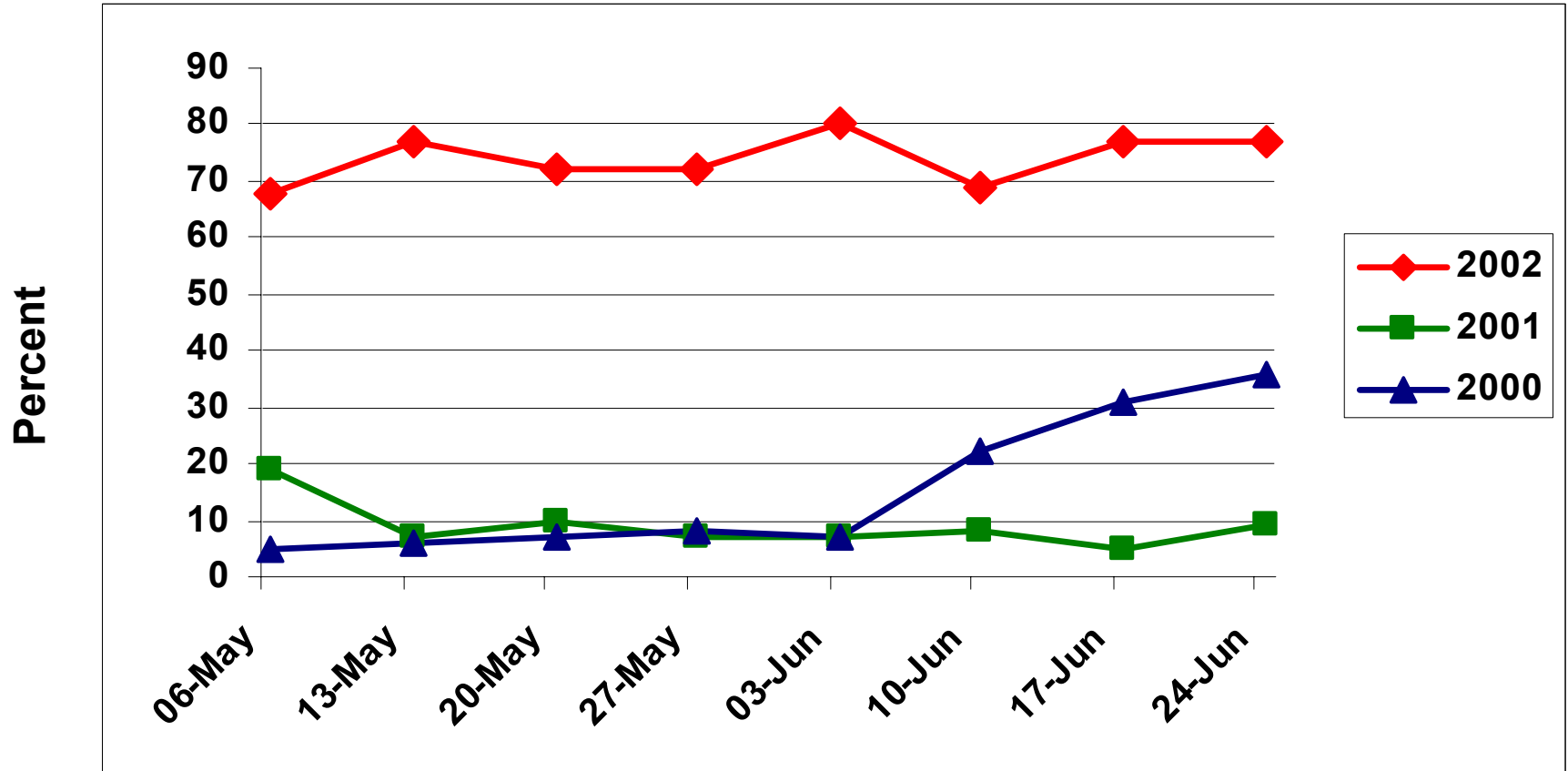


Data Source: USDA - NASS

Latest Data June 24, 2002

# Colorado Range & Pasture Condition

## Percent Rated Poor - Very Poor

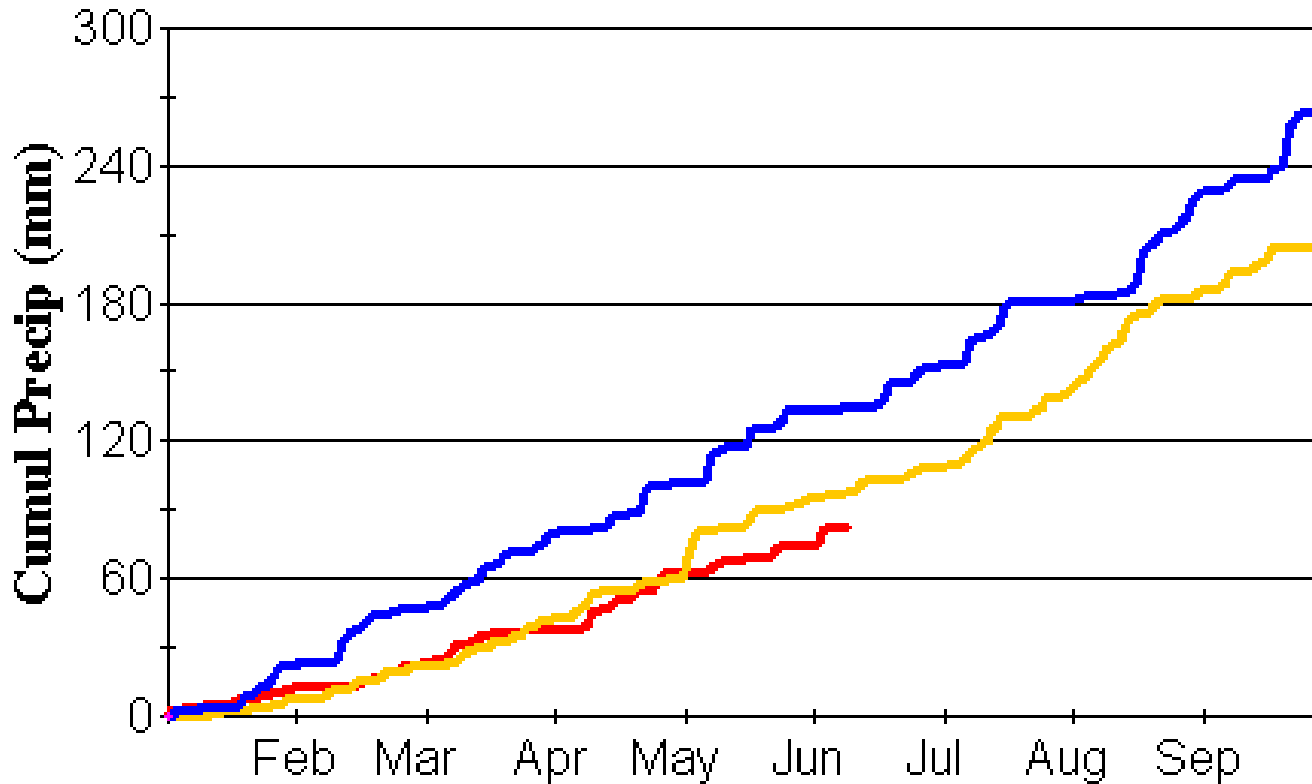
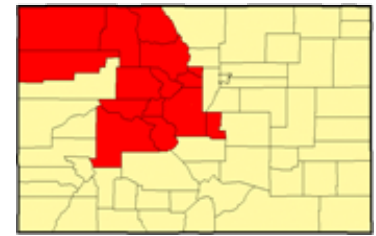


Data Source: USDA - NASS

Latest Data June 24, 2002

# Colorado (Northwest & Mountain District) Cumulative Precipitation

## Northwest District



- 2002
- 2001
- 2000
- 1999 (No Data)

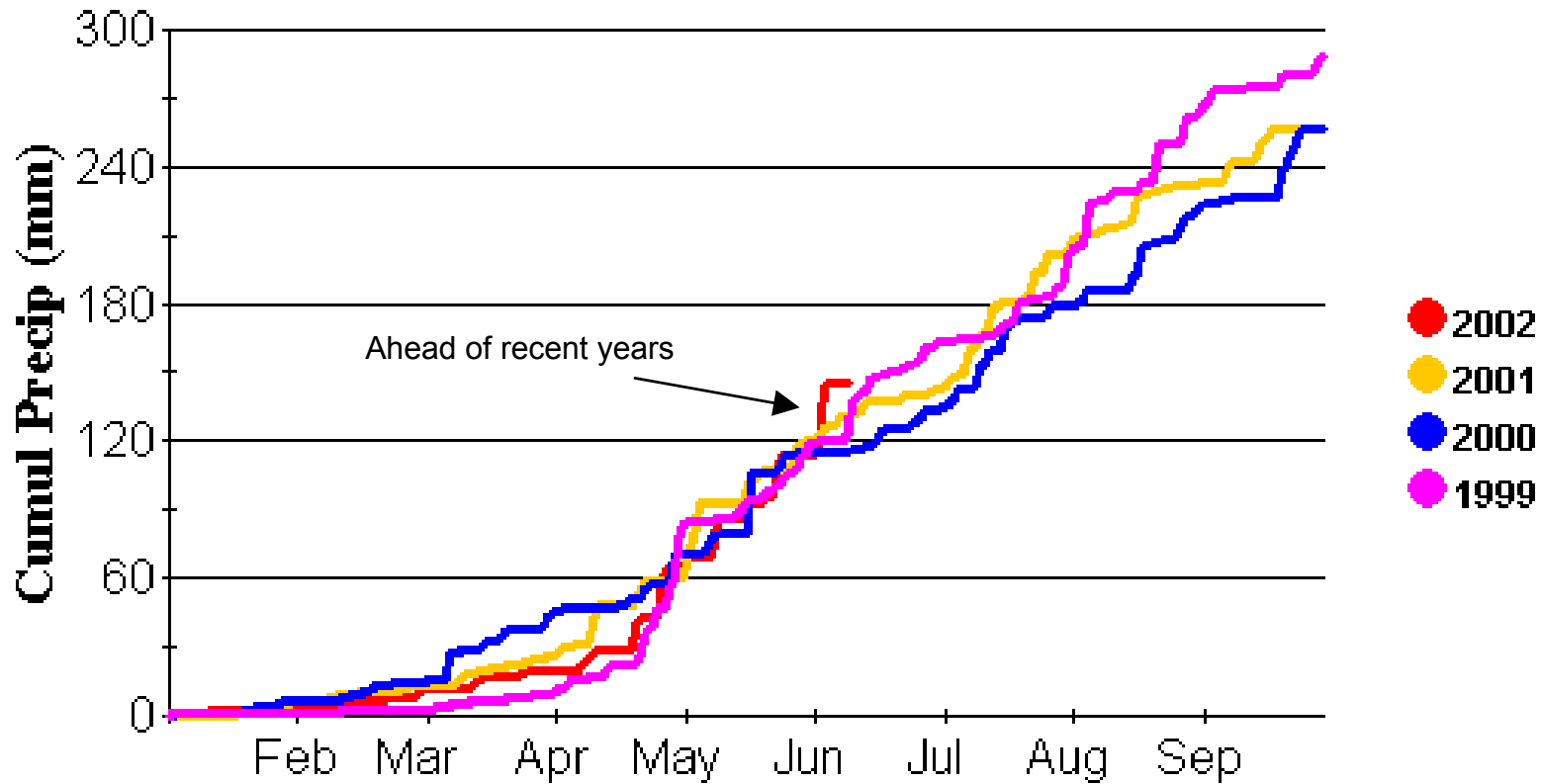
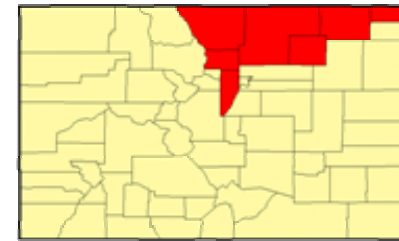
USDA-FAS-PECAD

US Air Force Gridded Data – 25.4 mm = 1 inch.

Data through June 10, 2002.

# Colorado (Northeast District) Cumulative Precipitation

## Northeast District



USDA-FAS-PECAD

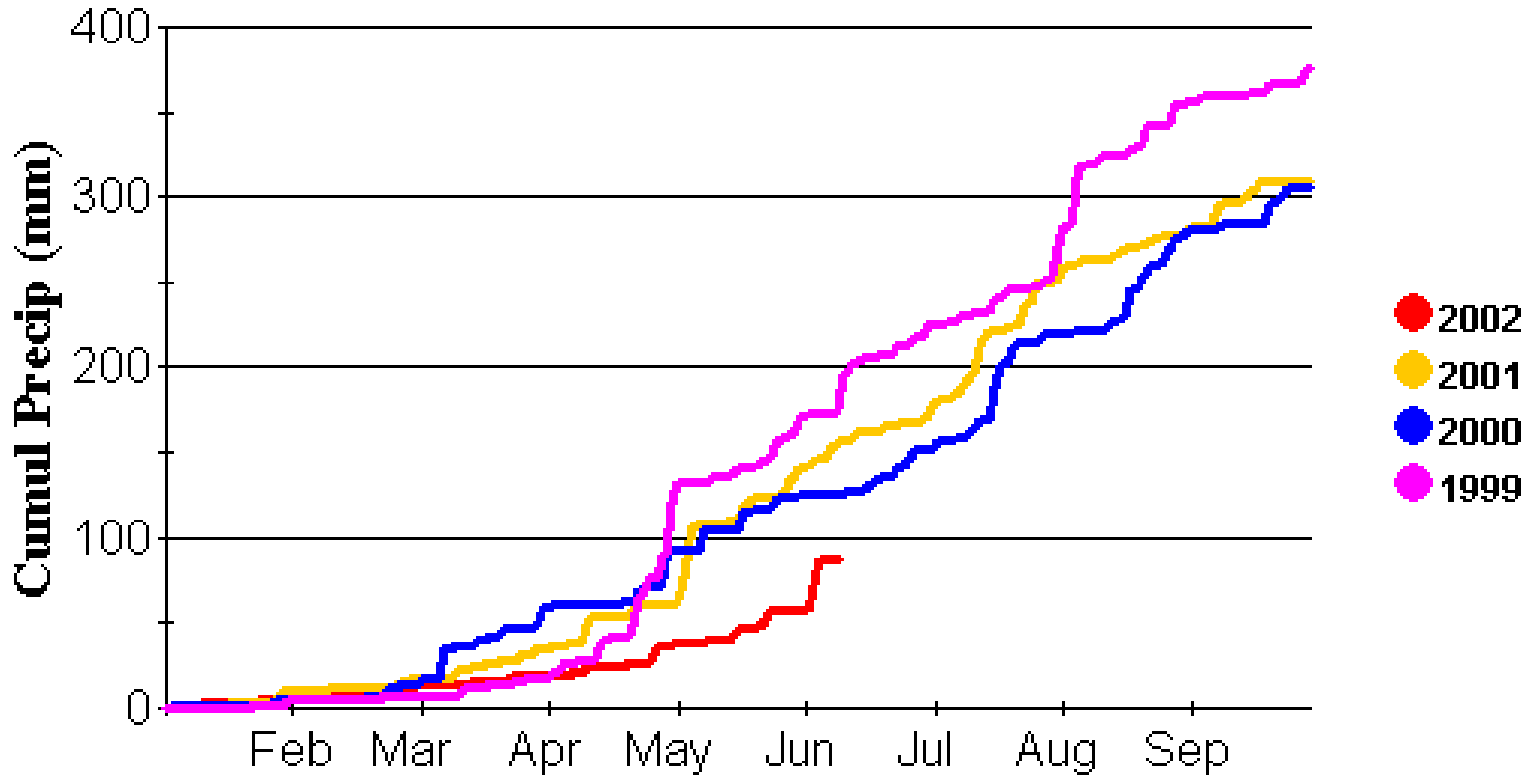
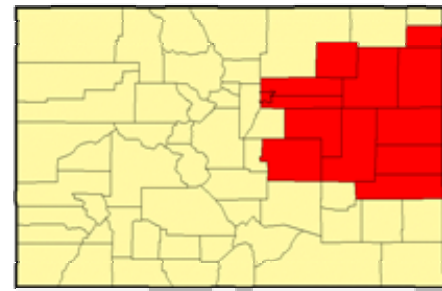
US Air Force Gridded Data – 25.4 mm = 1 inch.

Data through June 10, 2002.



# Colorado (East Central District) Cumulative Precipitation

## East Central District



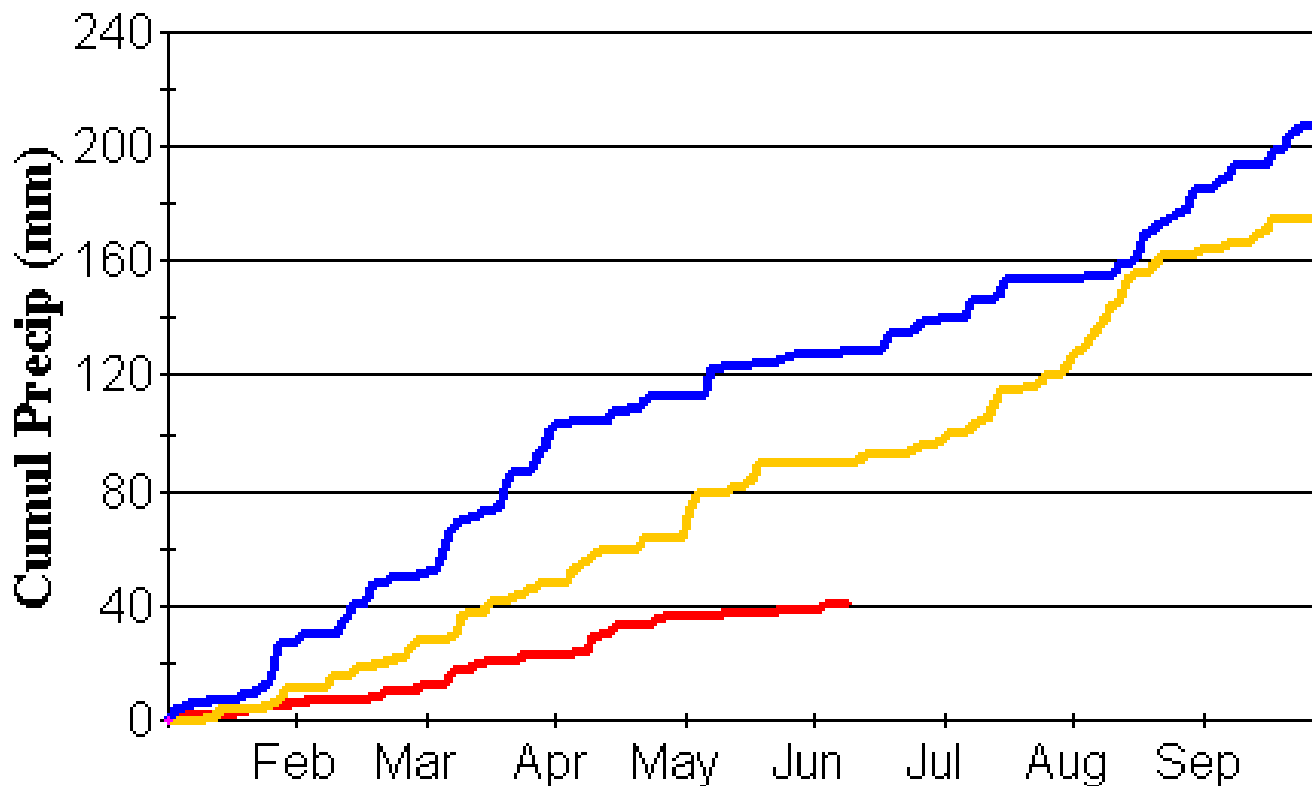
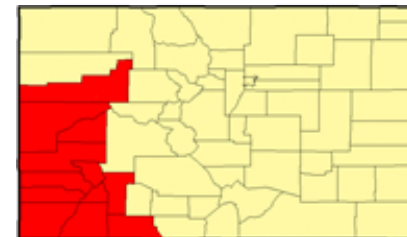
USDA-FAS-PECAD

US Air Force Gridded Data – 25.4 mm = 1 inch.

Data through June 10, 2002.

# Colorado (Southwest District) Cumulative Precipitation

## Southwest District



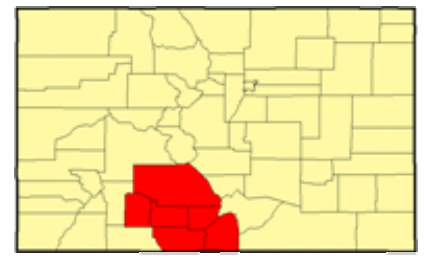
- 2002
- 2001
- 2000
- 1999 (No Data)

USDA-FAS-PECAD

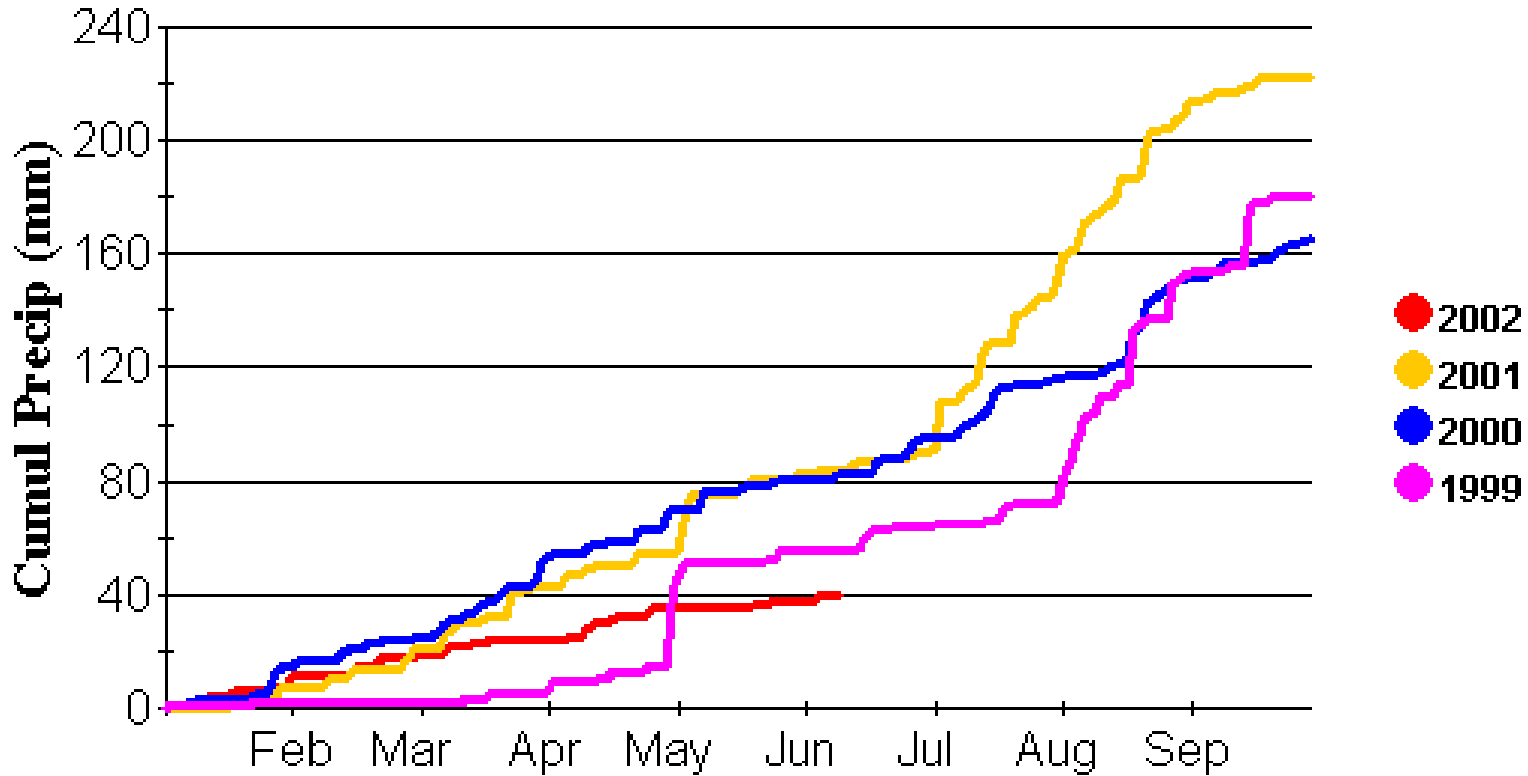
US Air Force Gridded Data – 25.4 mm = 1 inch.

Data through June 10, 2002.

# Colorado (San Luis Valley District) Cumulative Precipitation



## San Luis Valley



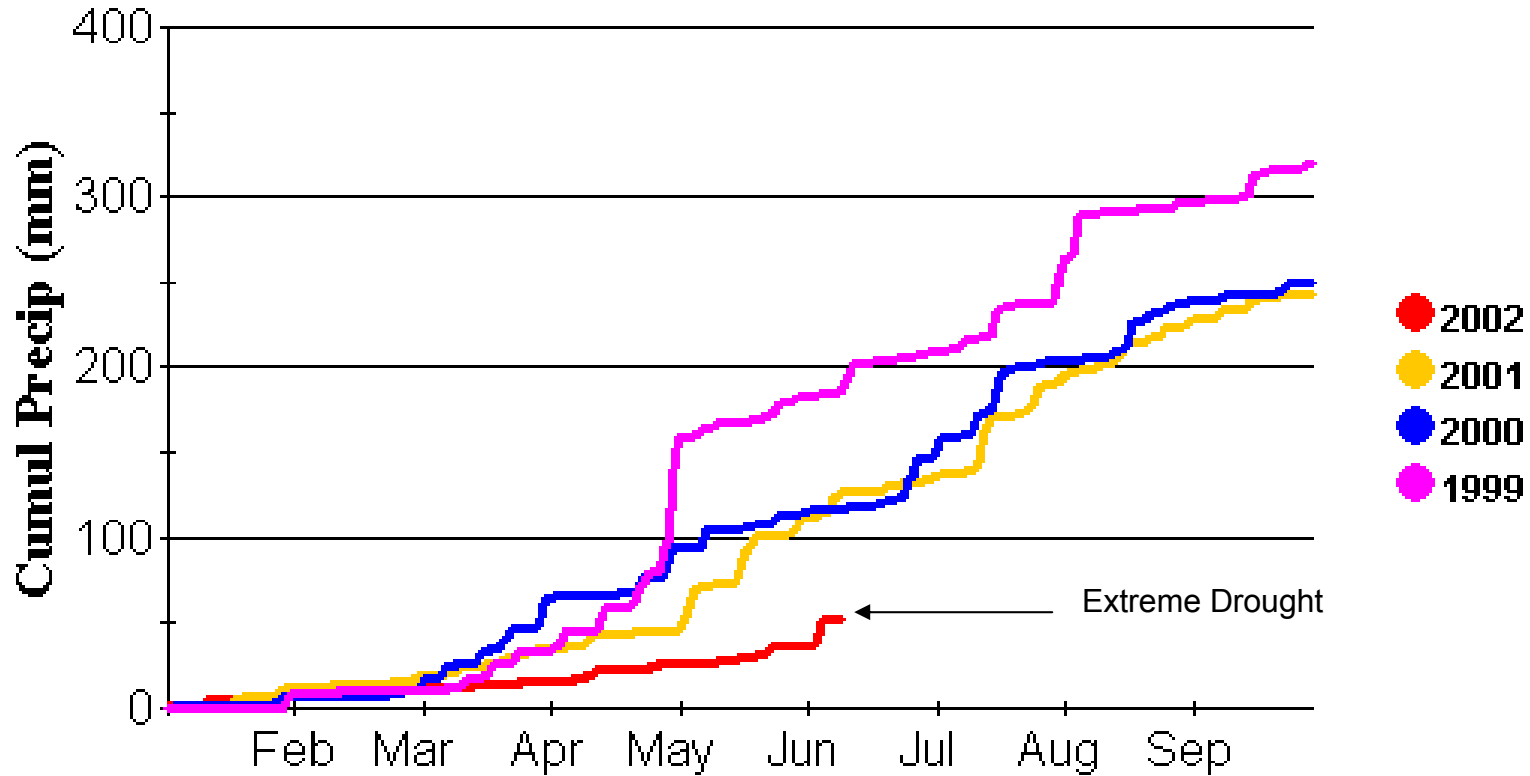
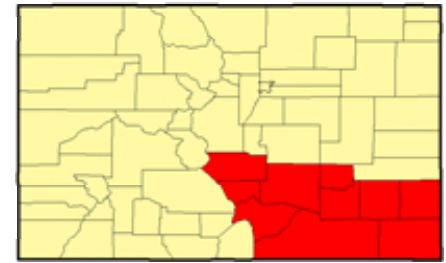
USDA-FAS-PECAD

US Air Force Gridded Data – 25.4 mm = 1 inch.

Data through June 10, 2002.

# Colorado (Southeast District) Cumulative Precipitation

## Southeast District



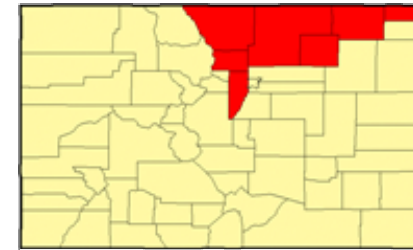
USDA-FAS-PECAD

US Air Force Gridded Data – 25.4 mm = 1 inch.

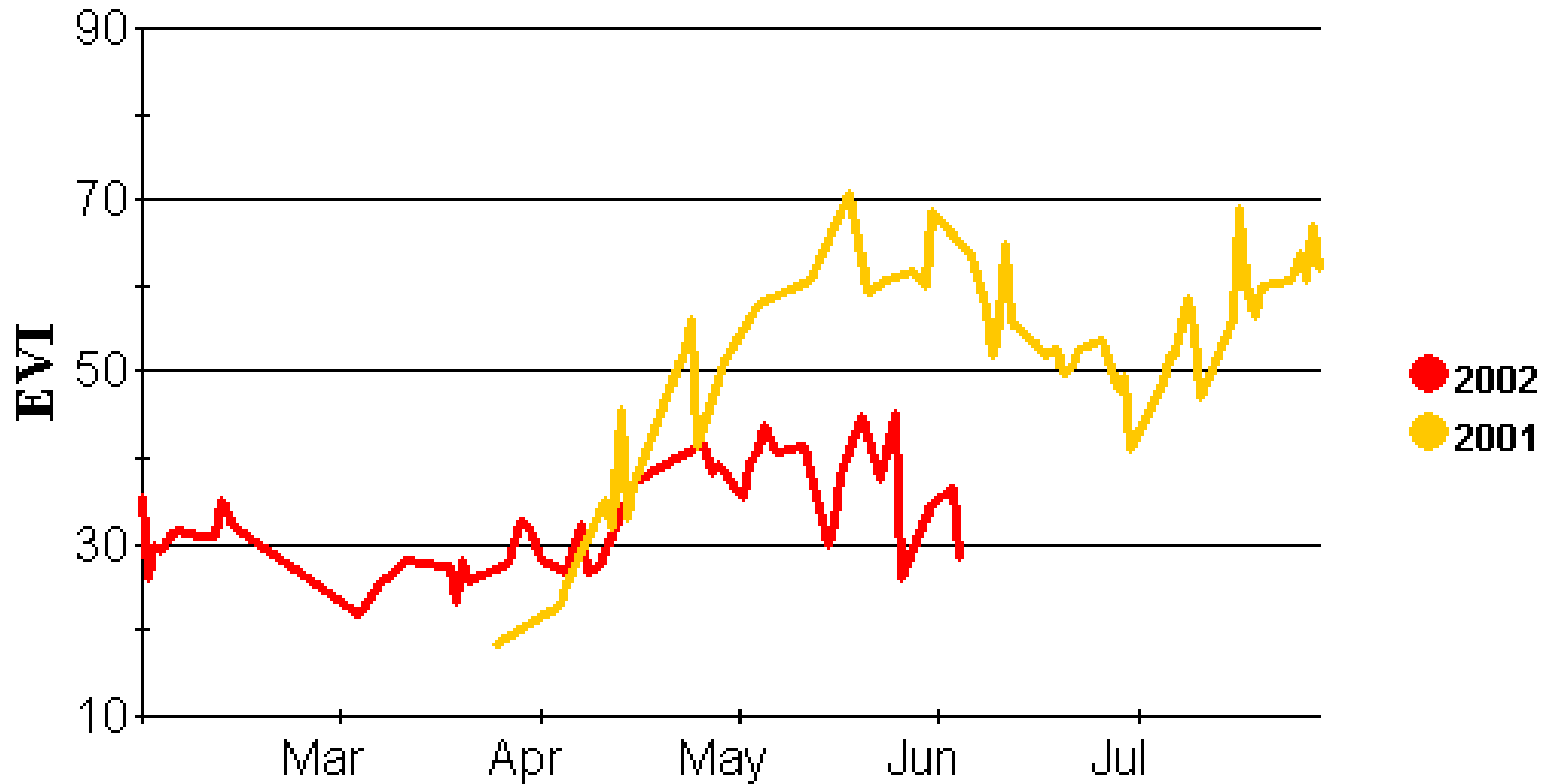
Data through June 10, 2002.



# Northeast Colorado – Vegetation



## Northeast District

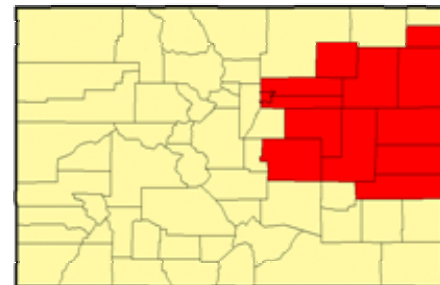


USDA-FAS-PECAD

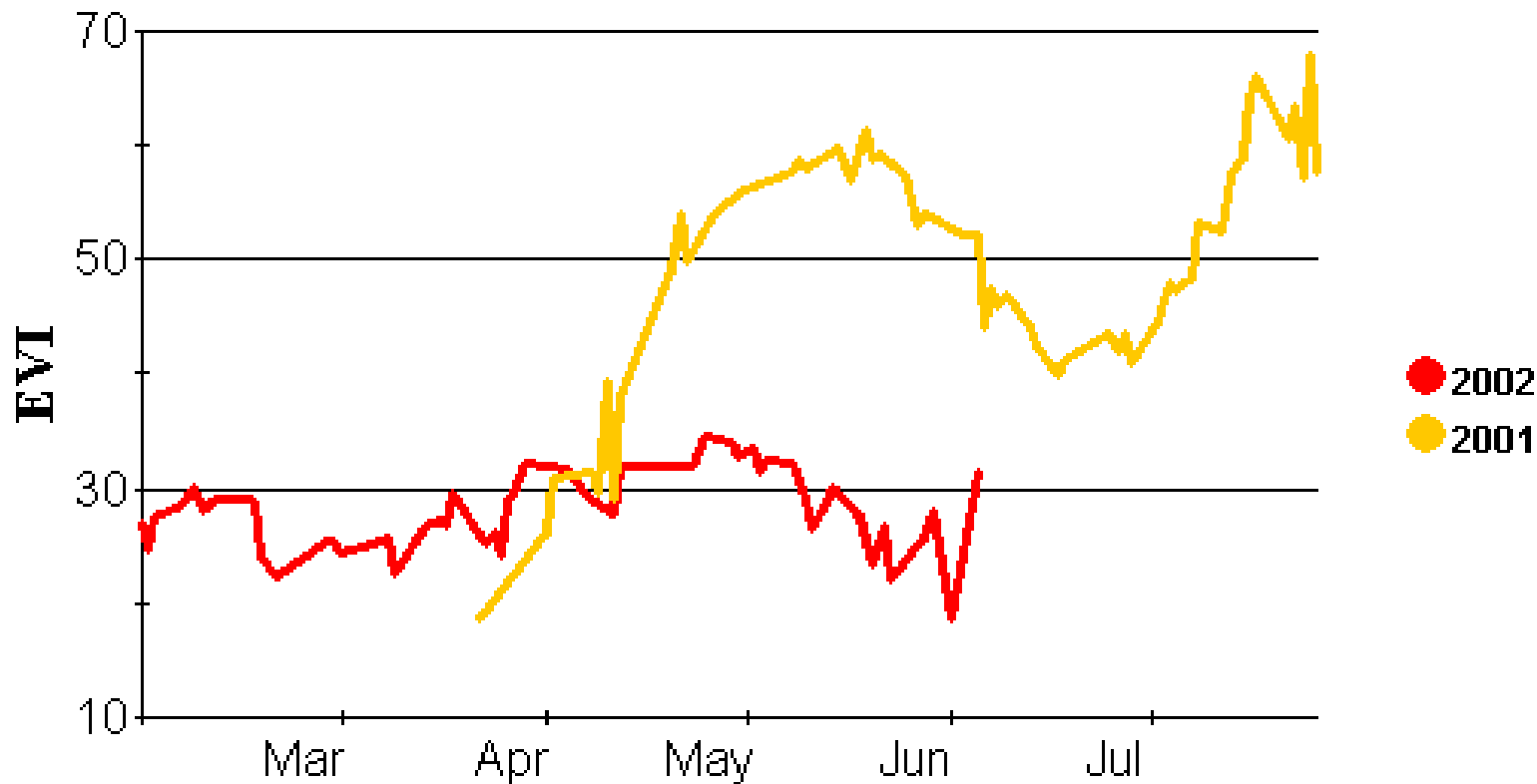
Source = NOAA 16  
EVI = Ch.2 - Ch. 1

Data through June 10, 2002.

# East Central Colorado – Vegetation



## East Central District

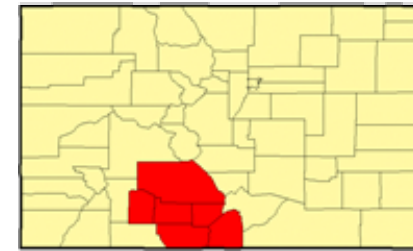


USDA-FAS-PECAD

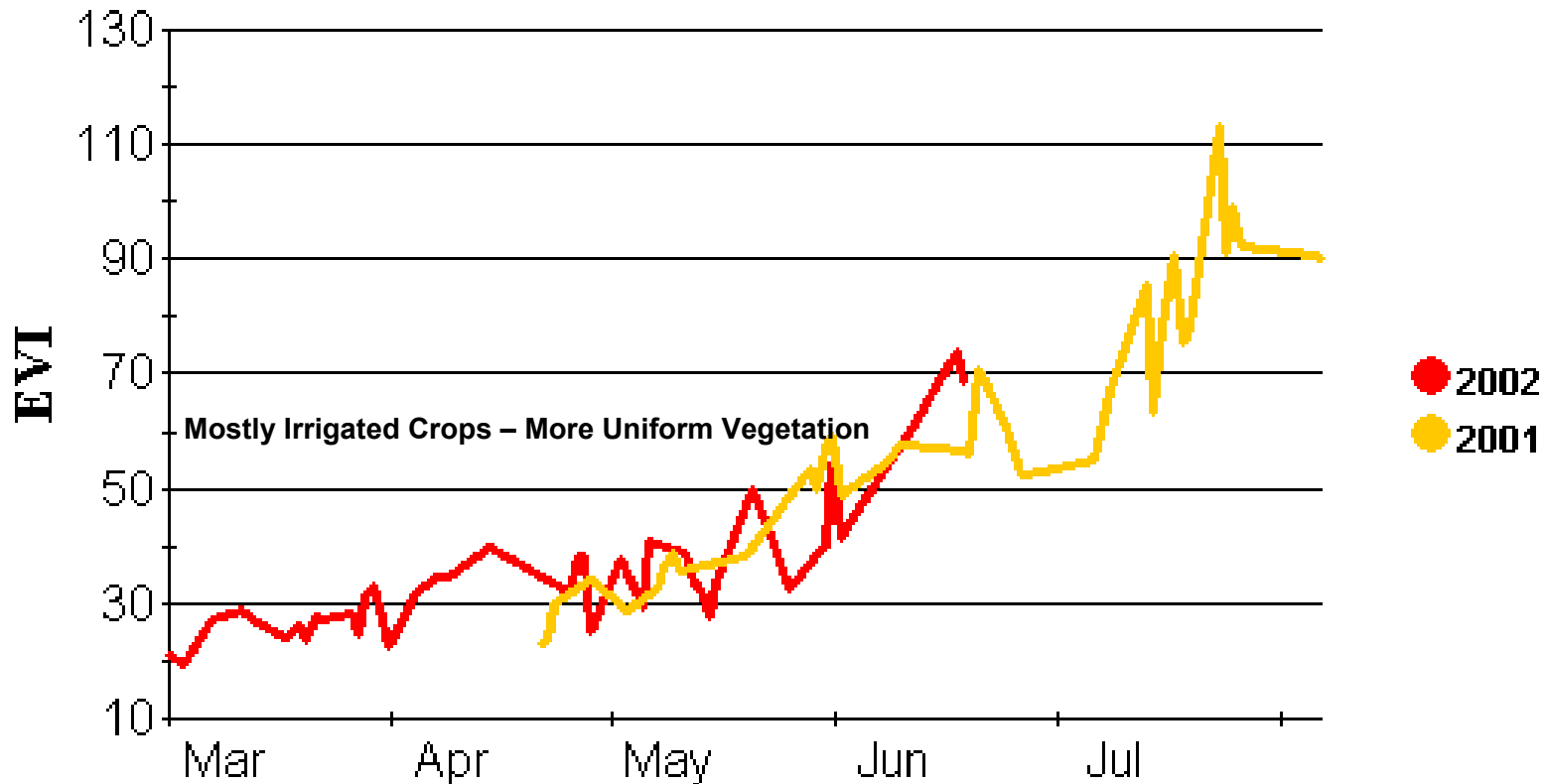
Source = NOAA 16  
EVI = Ch.2 - Ch. 1

Data through June 10, 2002.

# San Luis Valley Colorado – Vegetation



## San Luis Valley



USDA-FAS-PECAD

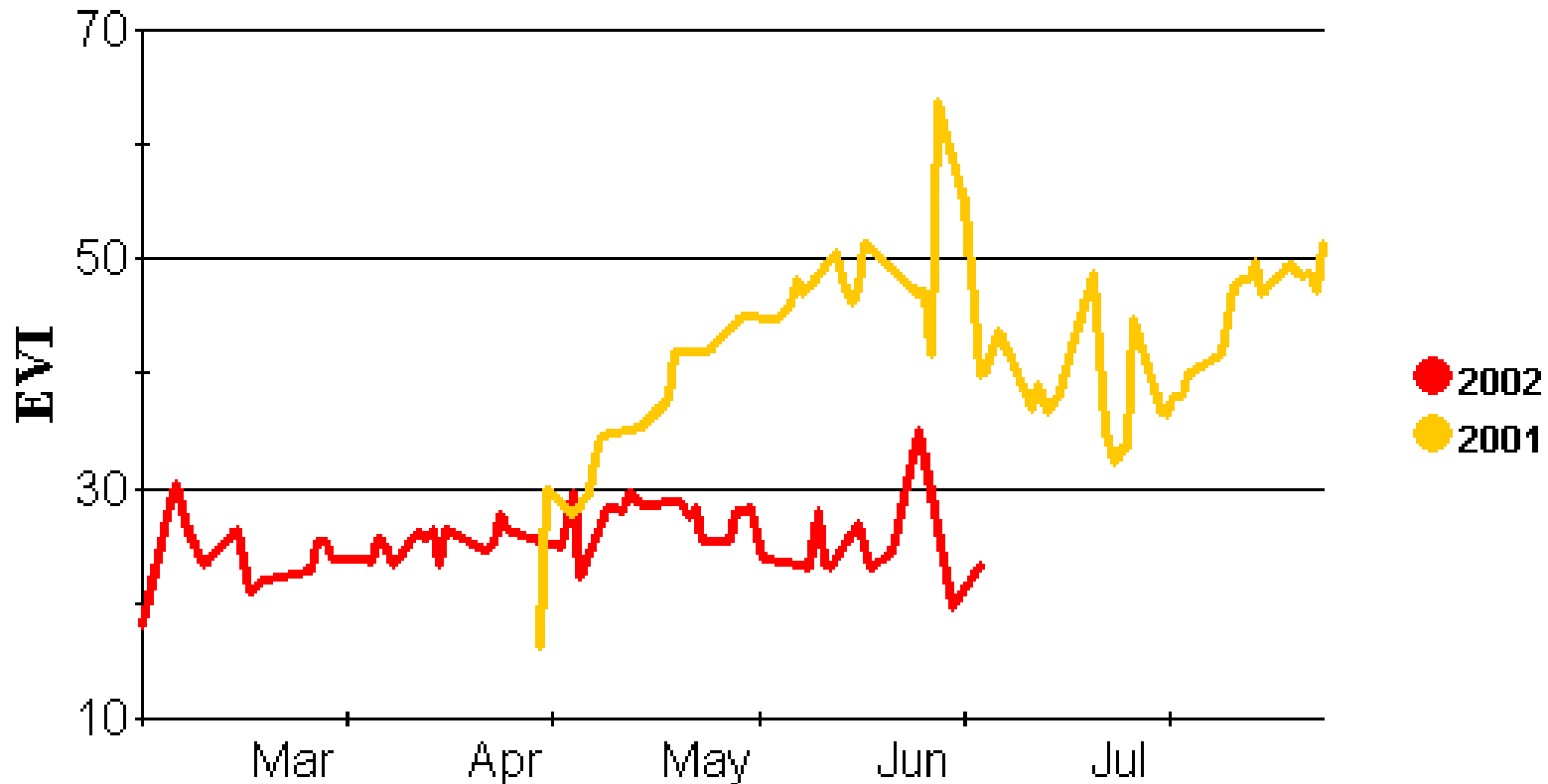
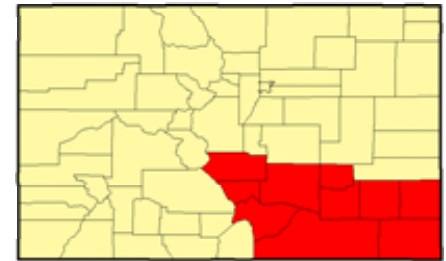
Source = NOAA 16  
EVI = Ch.2 – Ch. 1

Data through June 10, 2002.



# Southeast Colorado – Vegetation

## Southeast District



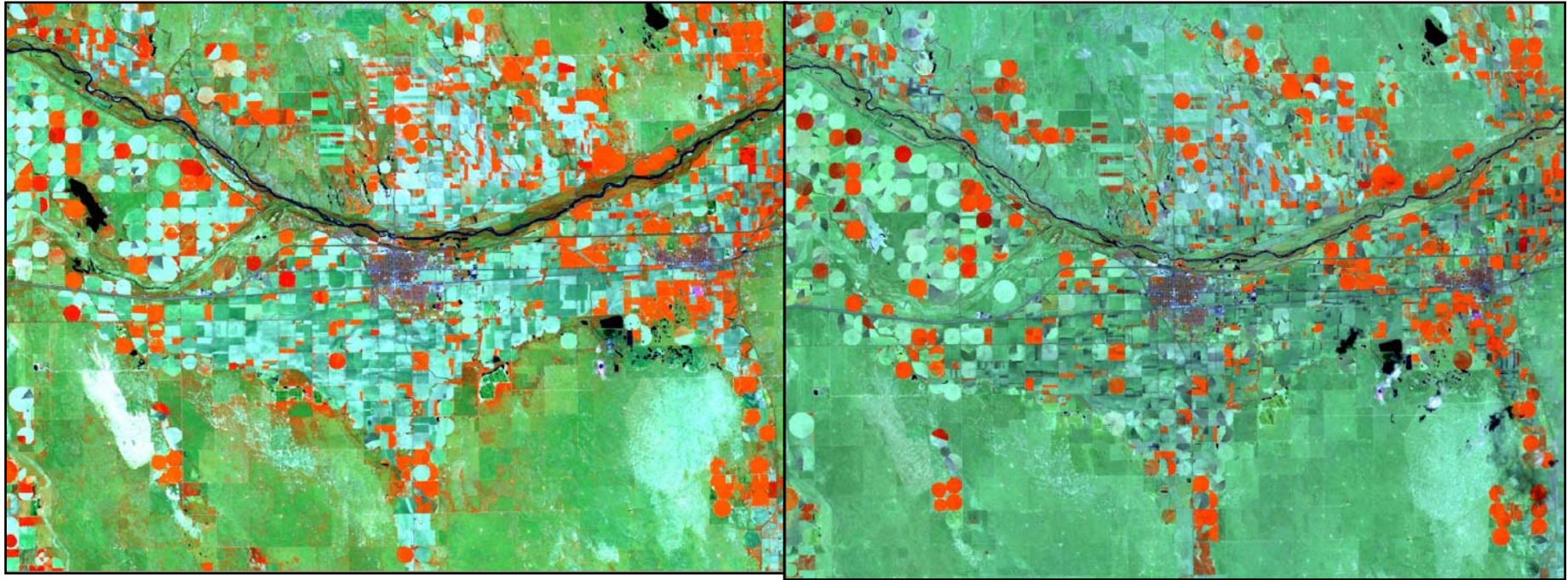
USDA-FAS-PECAD

Source = NOAA 16  
EVI = Ch.2 – Ch. 1

Data through June 10, 2002.



# Ft. Morgan, Colorado



May 12, 2001

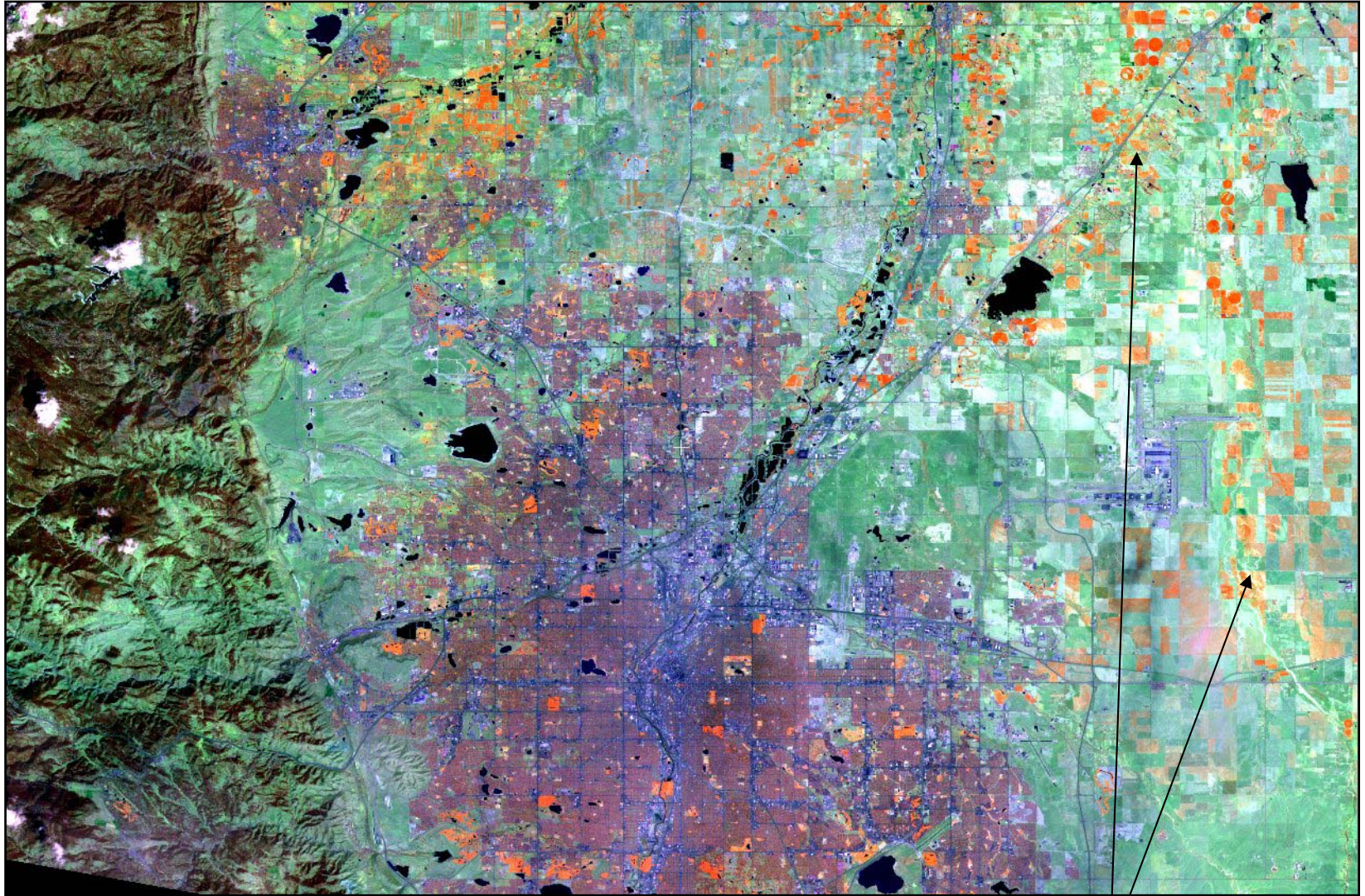
May 15, 2002

There is not as big difference in vegetation vigor in northeast Colorado, comparing Spring 2002 with 2001 compared to other regions of Colorado.

**Landsat 7 TM – Ch. 4,5,3 Full Resolution**



# Denver, Colorado



Poor Condition wheat fields  
and forage.

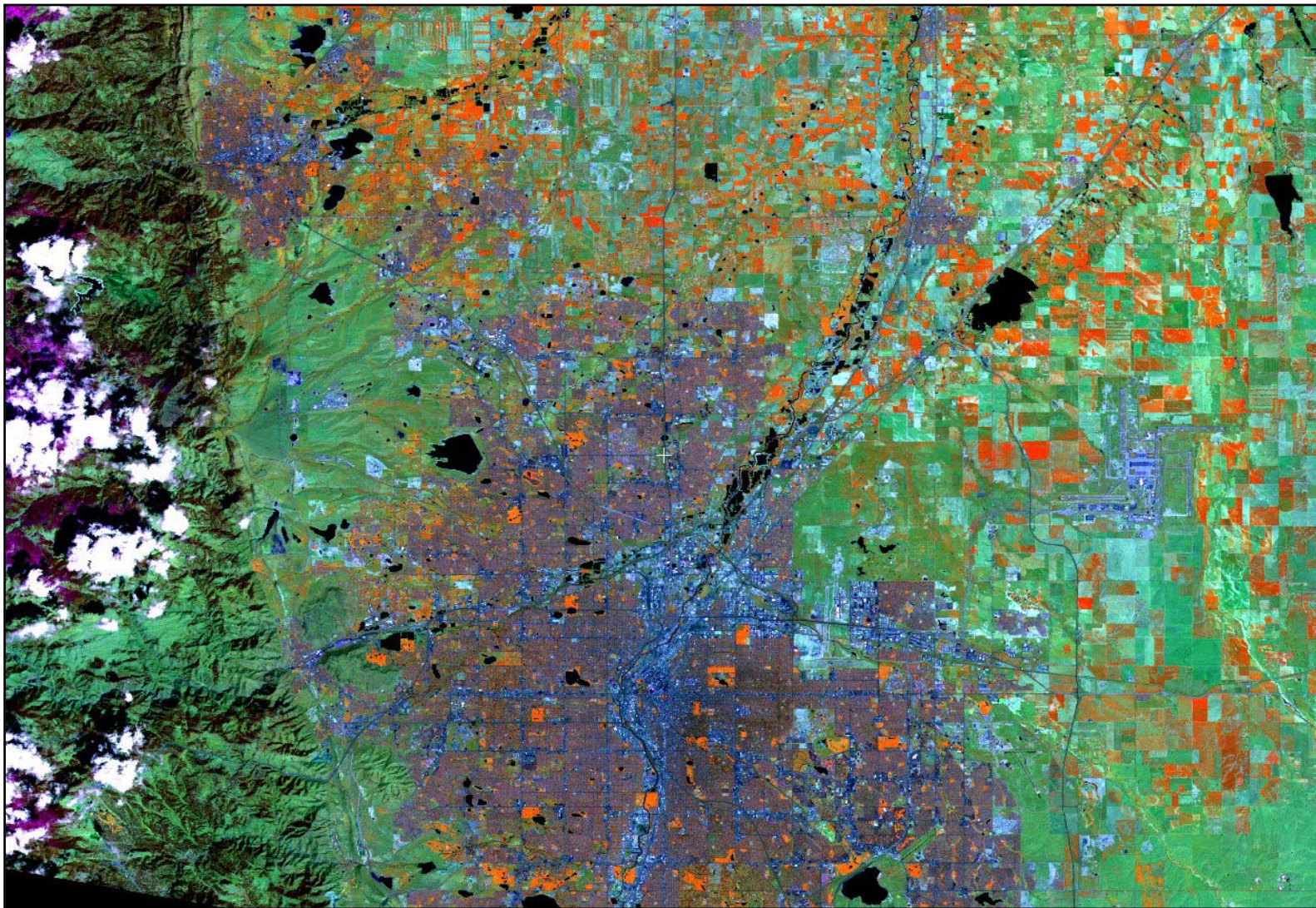
Landsat 7 TM – Ch. 4,5,3 2X2 Skip Image

April 29, 2002





# Denver, Colorado

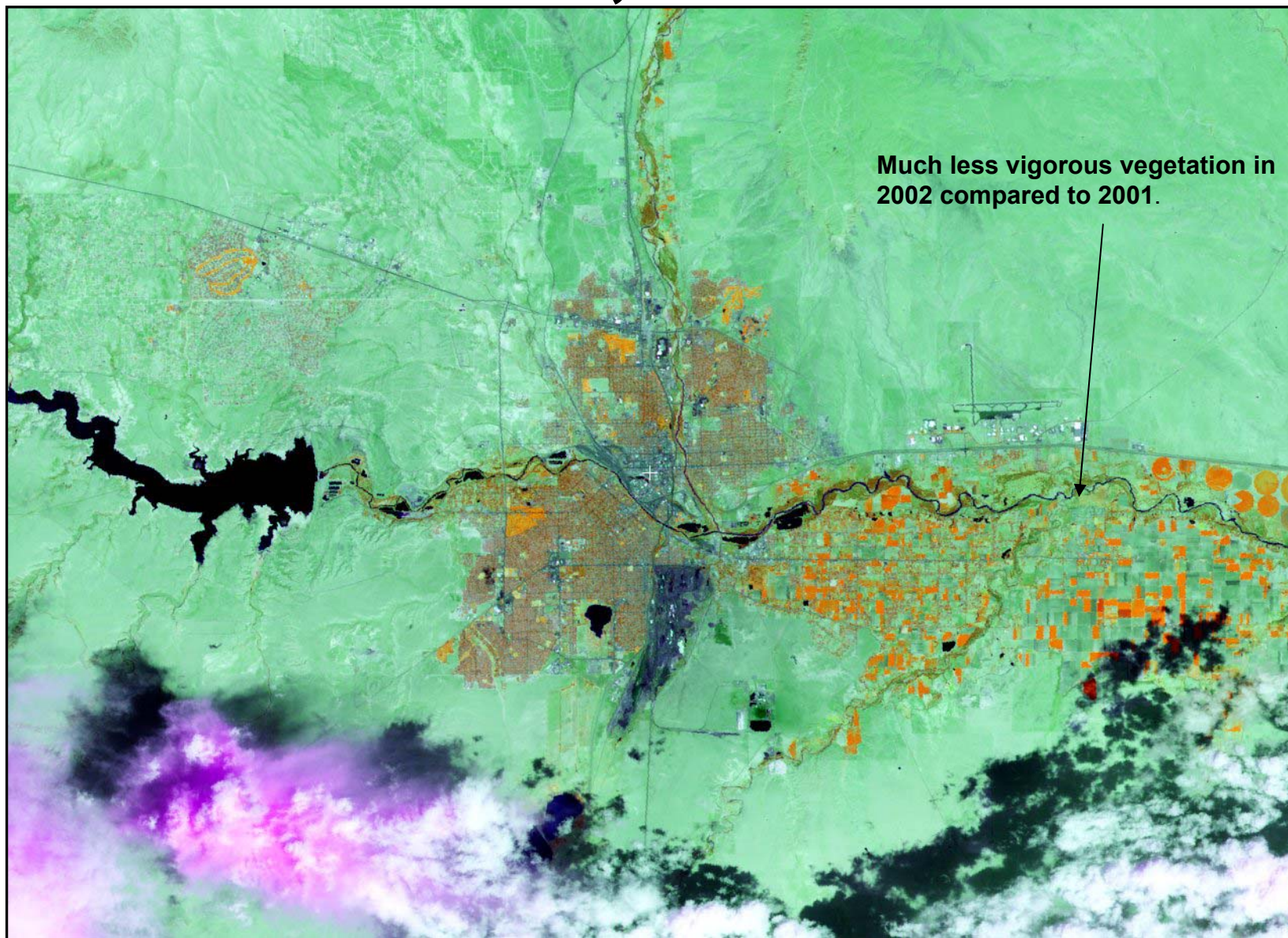


Landsat 7 TM – Ch. 4,5,3 2X2 Skip Image

April 26, 2001



# Pueblo, Colorado

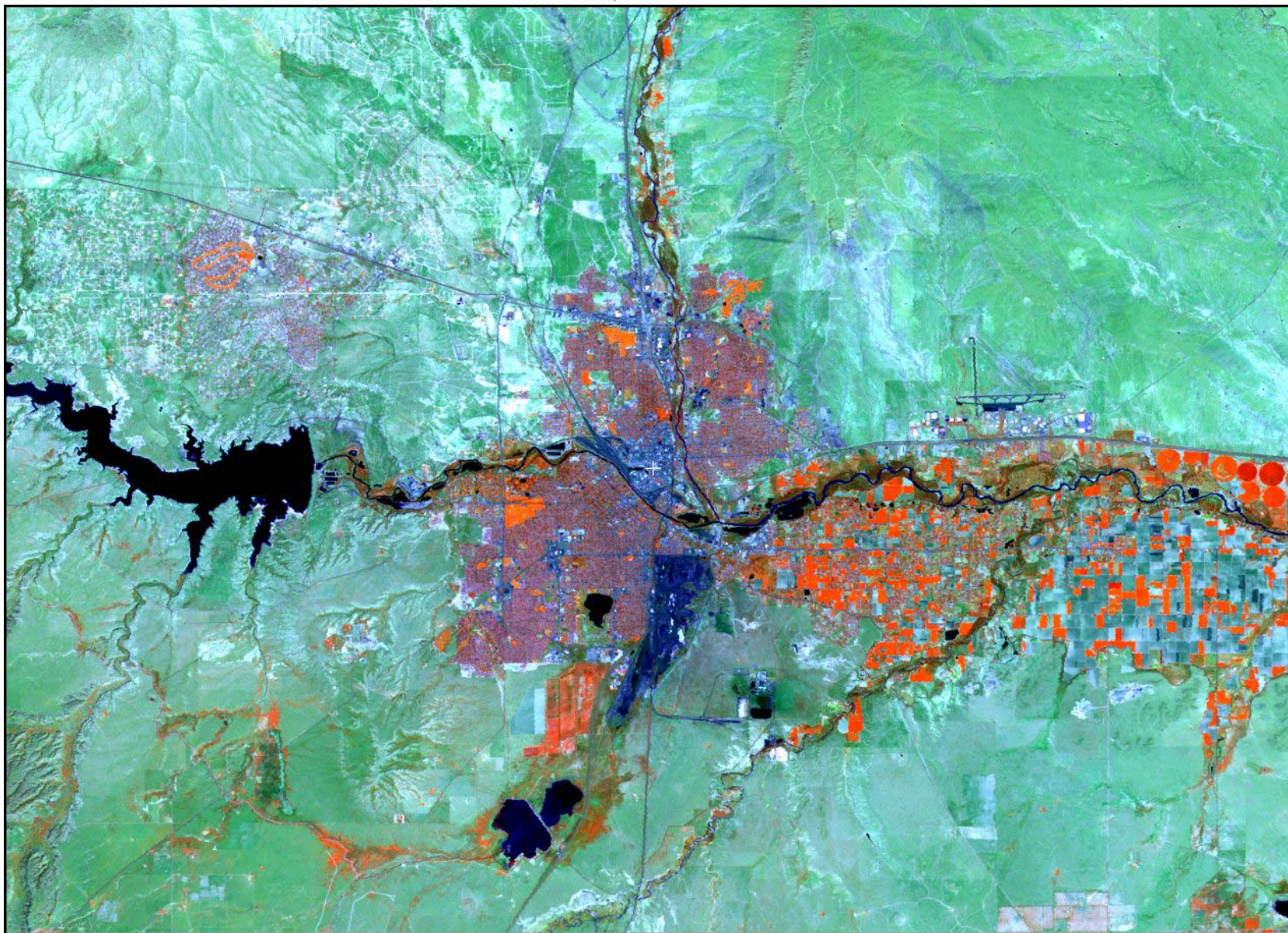


Landsat 7 TM – Ch. 4,5,3 - Full Resolution

May 15, 2002



# Pueblo, Colorado

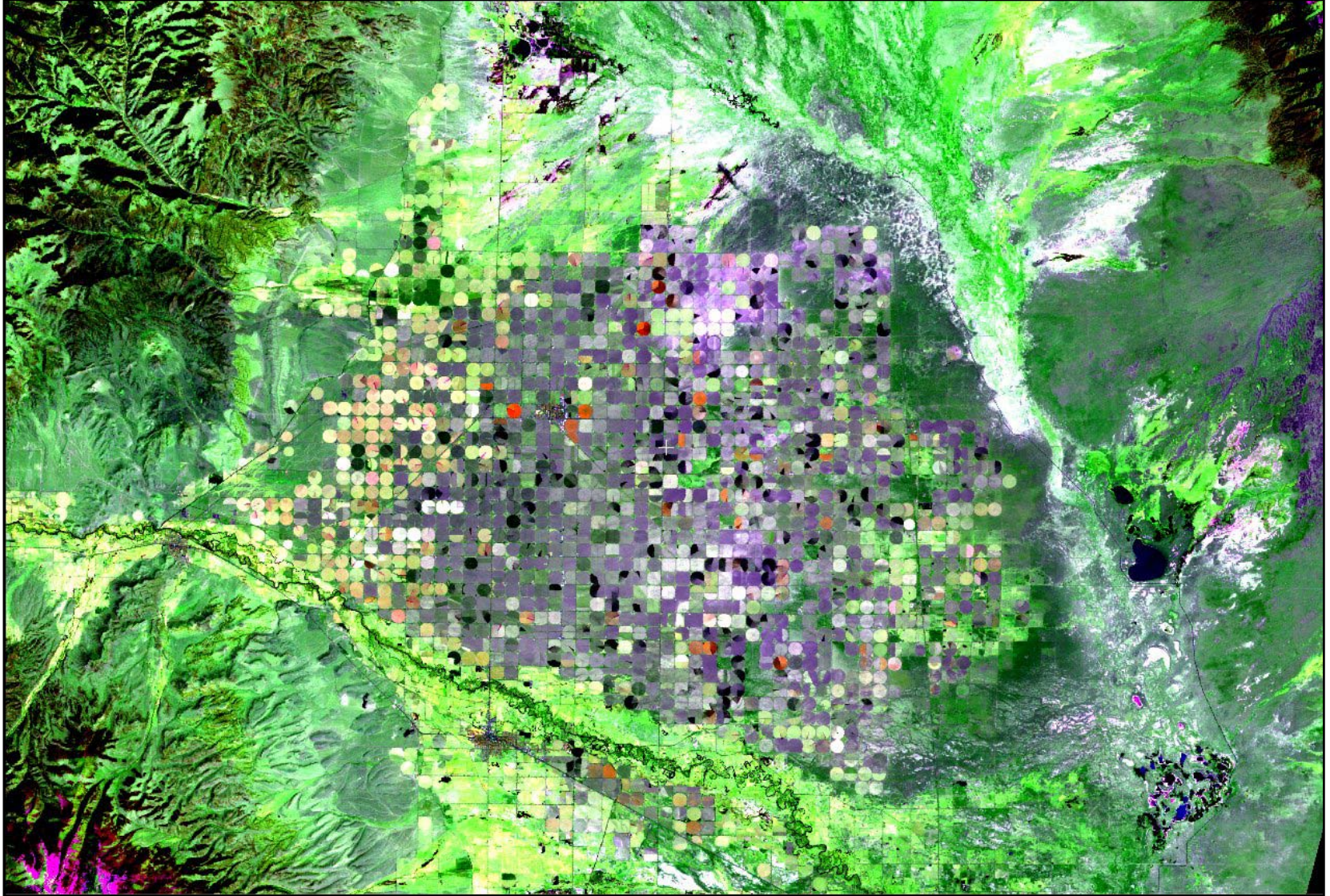


Landsat 7 TM – Ch. 4,5,3 - Full Resolution

May 12, 2001



# San Luis Valley, Colorado

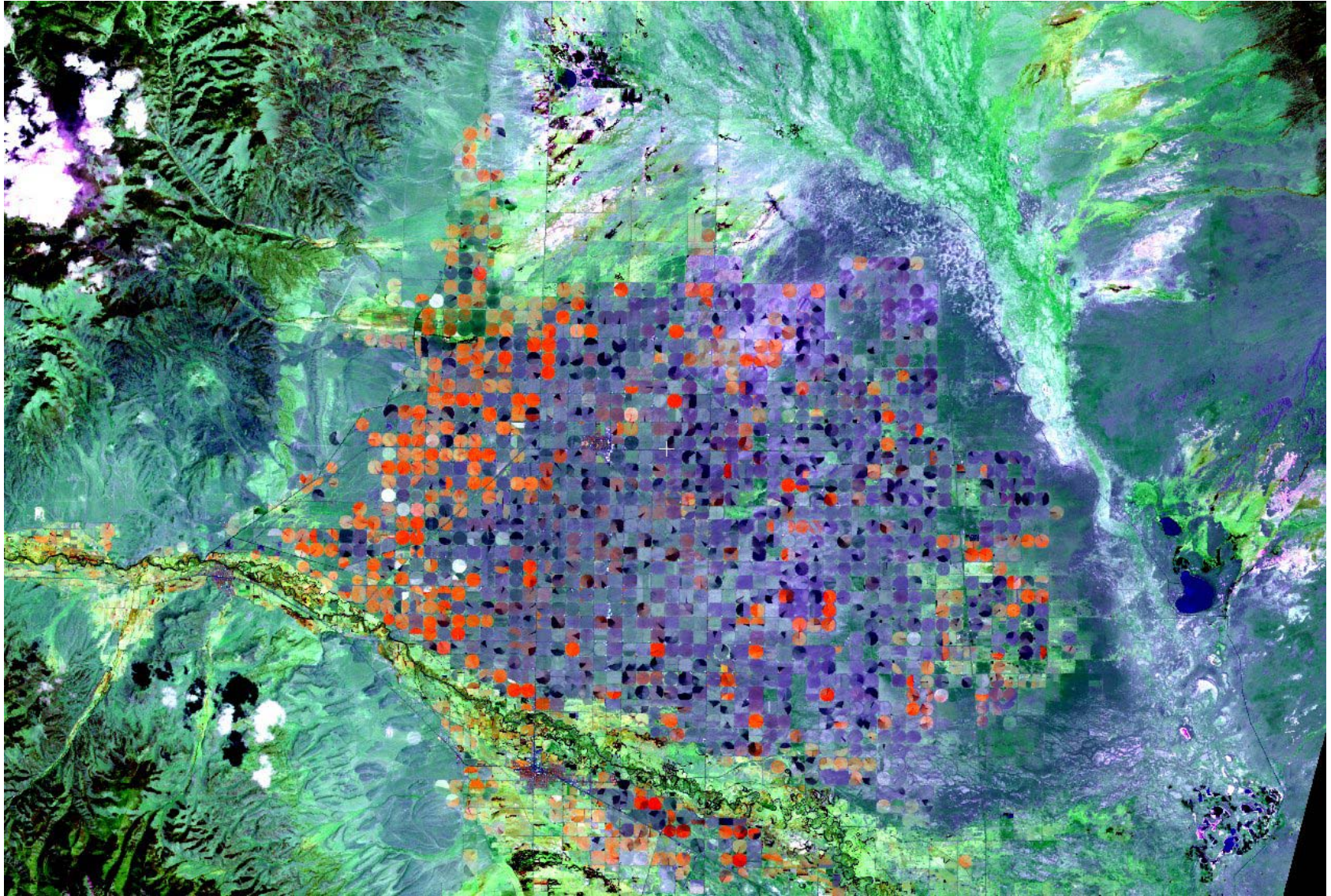


Landsat 7 TM – Ch. 4,5,3 - 2X2 Skip

April 4, 2002



# San Luis Valley, Colorado

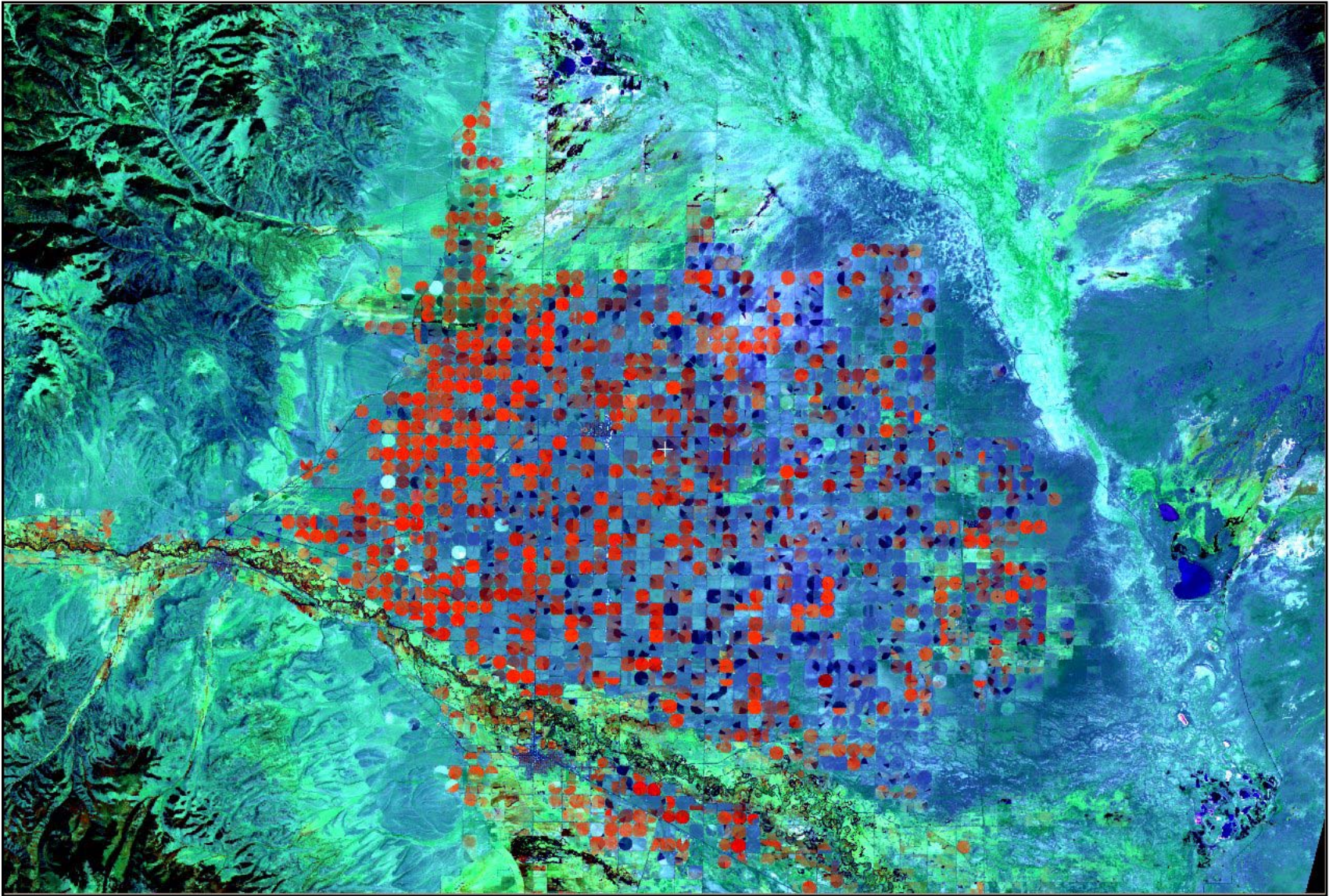


Landsat 7 TM – Ch. 4,5,3 - 2X2 Skip

May 6, 2002



# San Luis Valley, Colorado

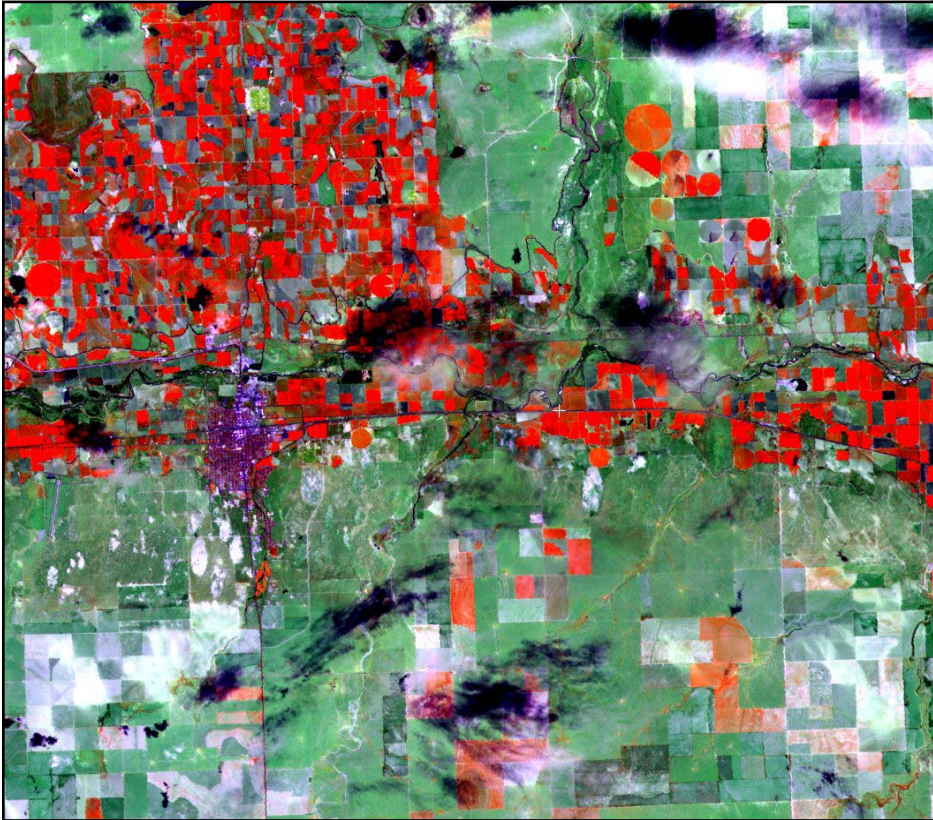


Landsat 7 TM – Ch. 4,5,3 - 2X2 Skip

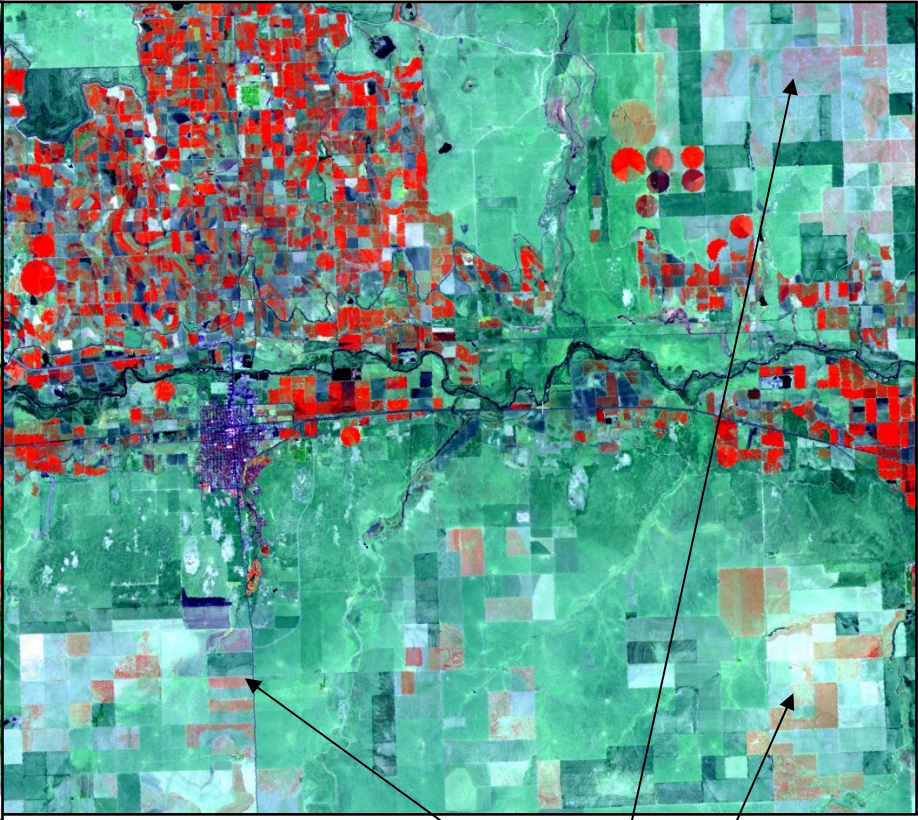
May 22, 2002



# Lamar, Colorado



April 12, 2001  
Landsat 5 - TM

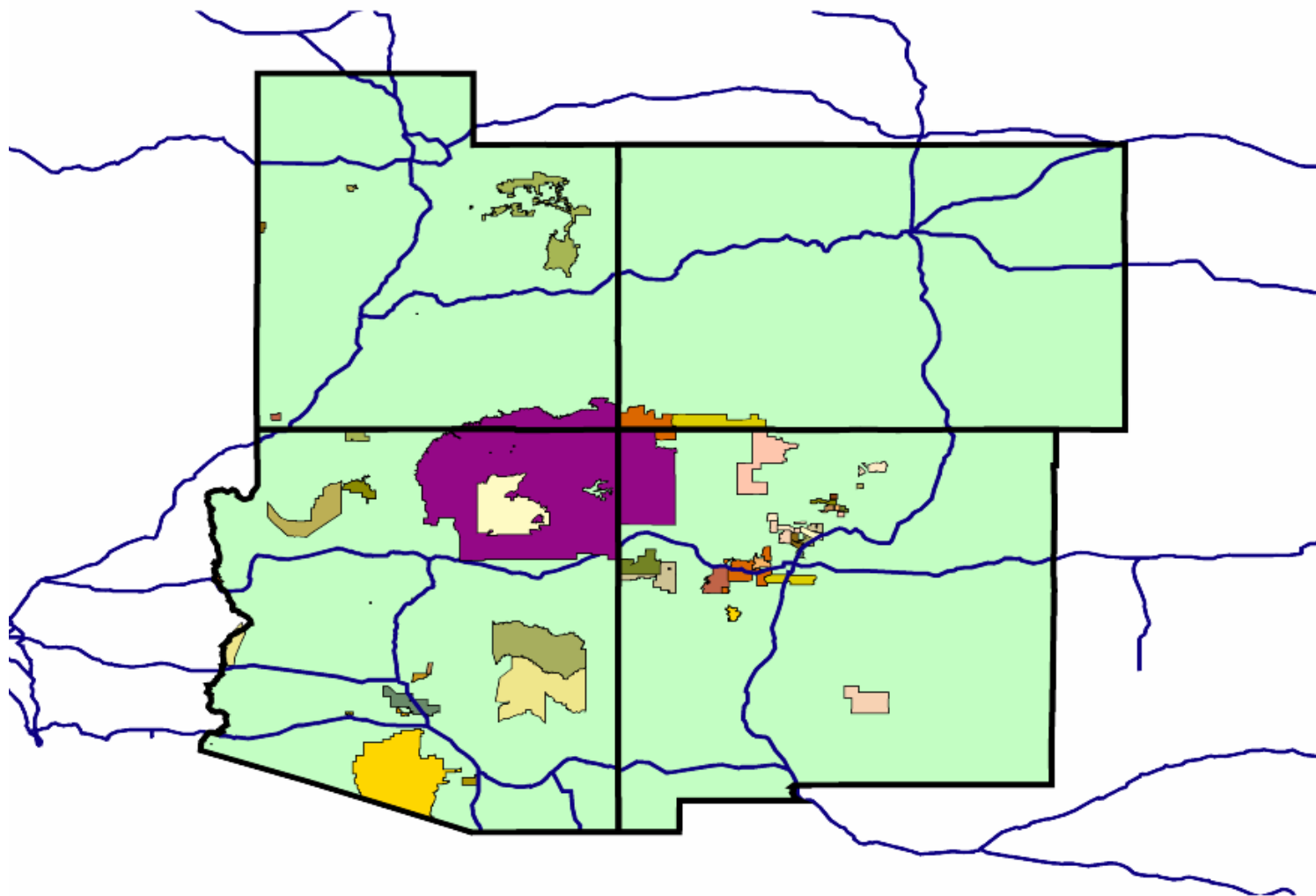


April 15, 2002  
Landsat 7 - TM



Poor Condition wheat fields  
and forage.

Landsat TM – Ch. 4,5,3

# Tribal Lands in the Four Corners Region



**Legend**

	Navajo Indian Nation		Interstate Hwy.
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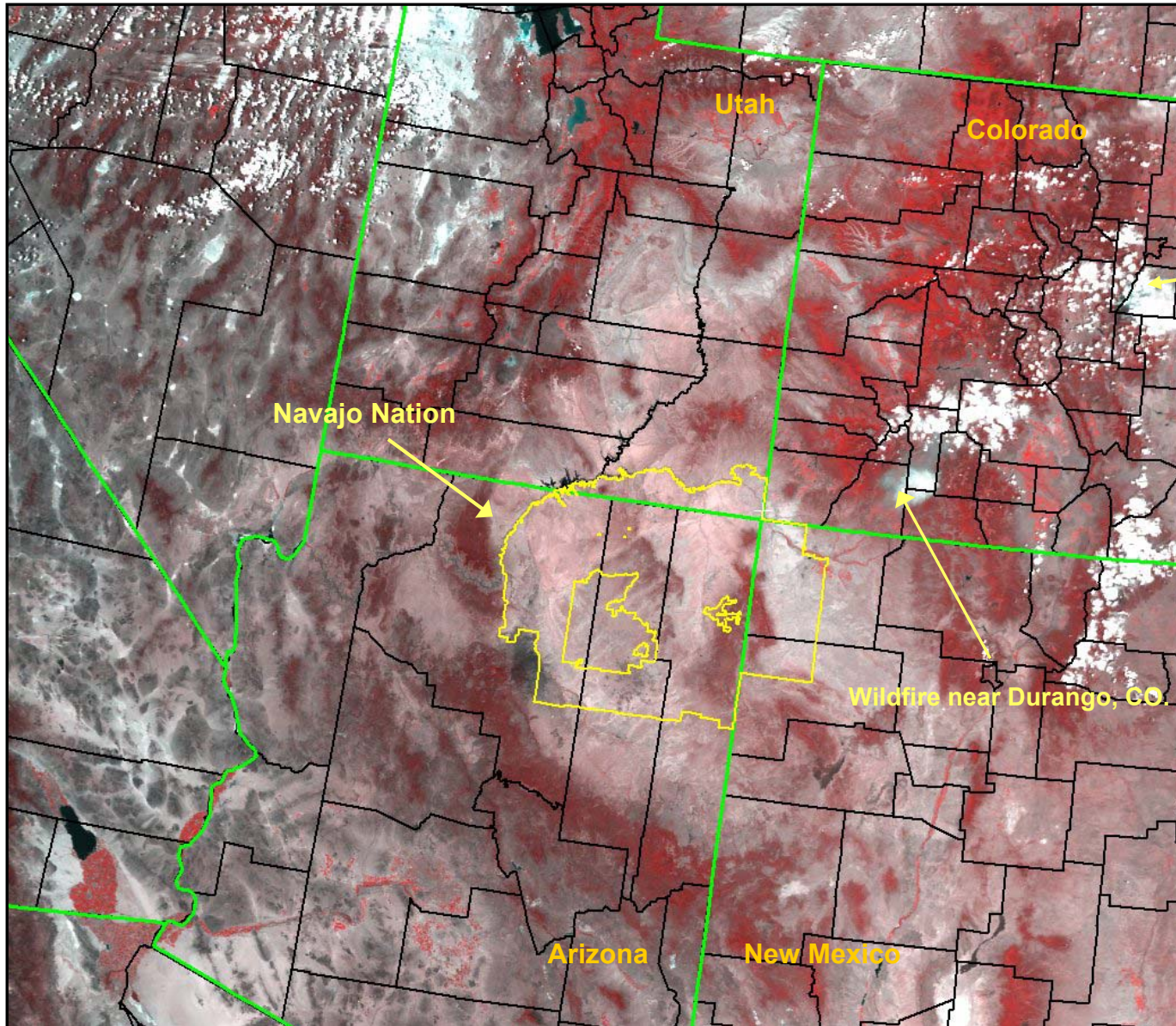


FFAS Center for Remote Sensing Analysis

<http://fas.usda.gov/pecad/pecad.html>



# NOAA 16 – Four Corners States



Hayman Wildfire, south of Denver.

Navajo Nation

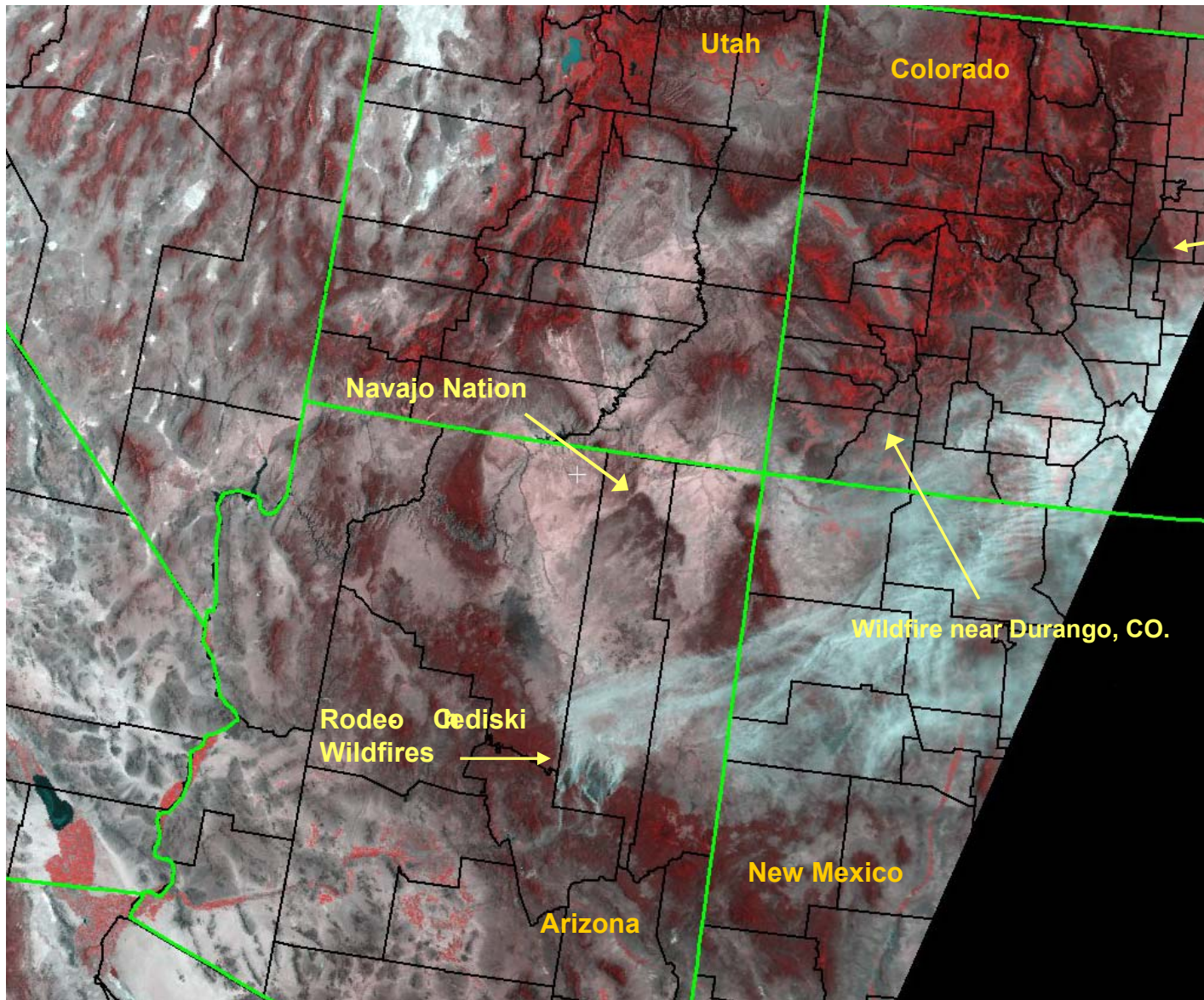
Wildfire near Durango, CO.

NOAA 16 Ch. 2, 1,1 = RGB

June 18, 2002



# NOAA 16 – Four Corners States



Hayman Wildfire,  
south of Denver.

Navajo Nation

Wildfire near Durango, CO.

Rodeo Cediski  
Wildfires

Utah

Colorado

New Mexico

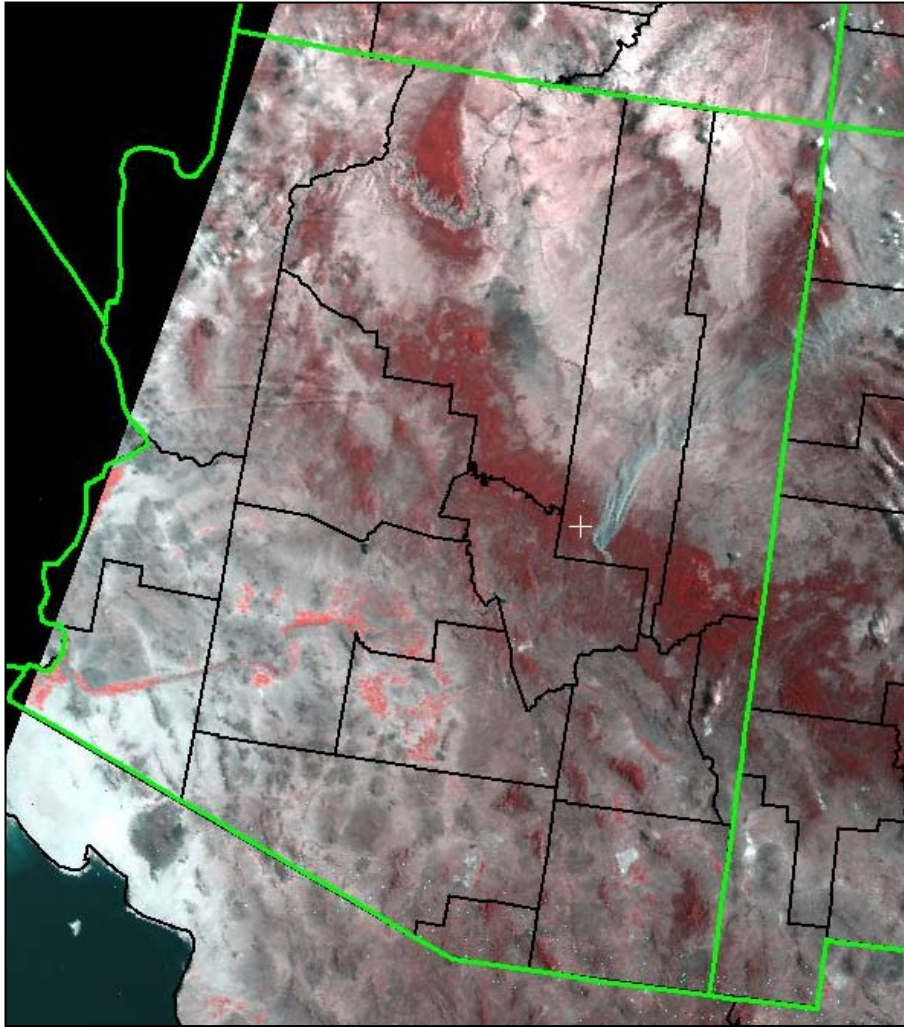
Arizona

NOAA 16 Ch. 2, 1,1 = RGB

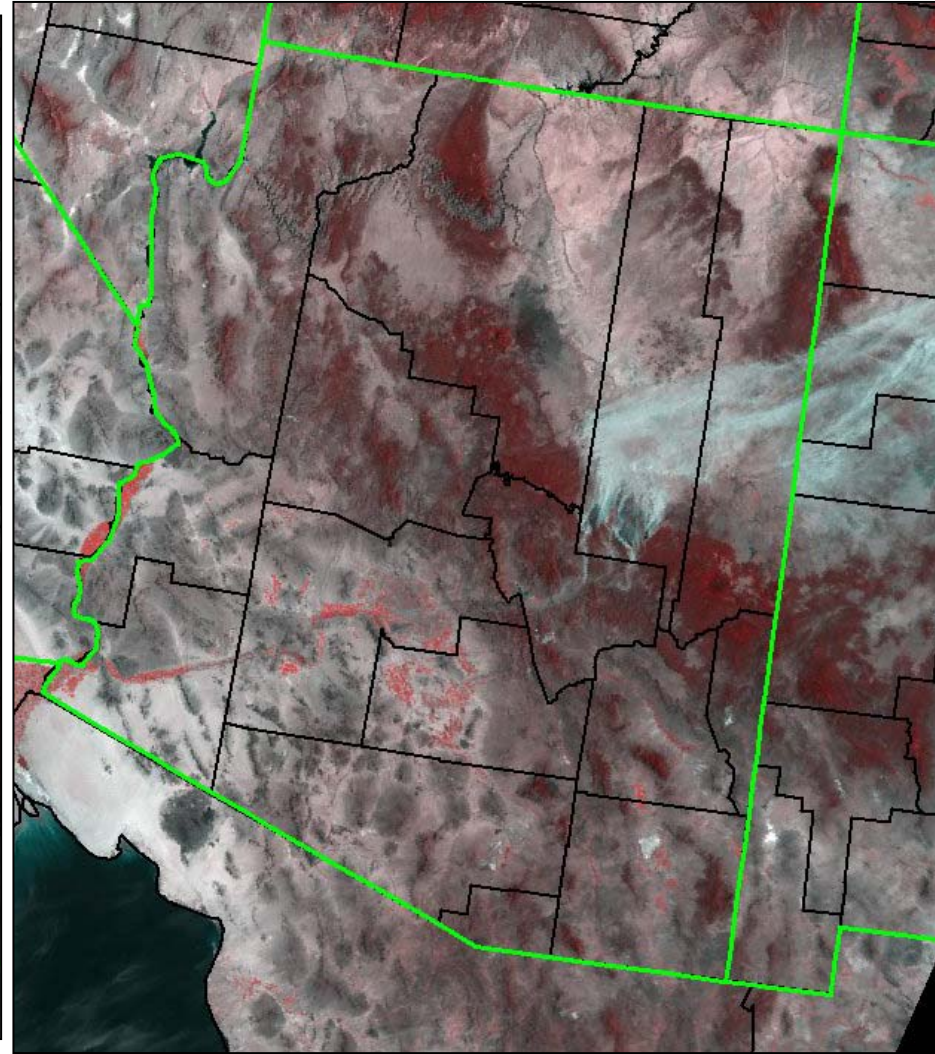
June 23, 2002



# Arizona – Wildfires June 2002



June 20, 2002

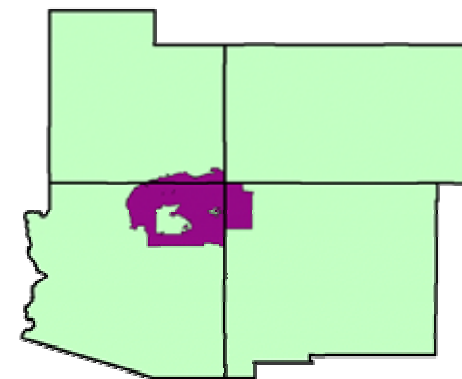
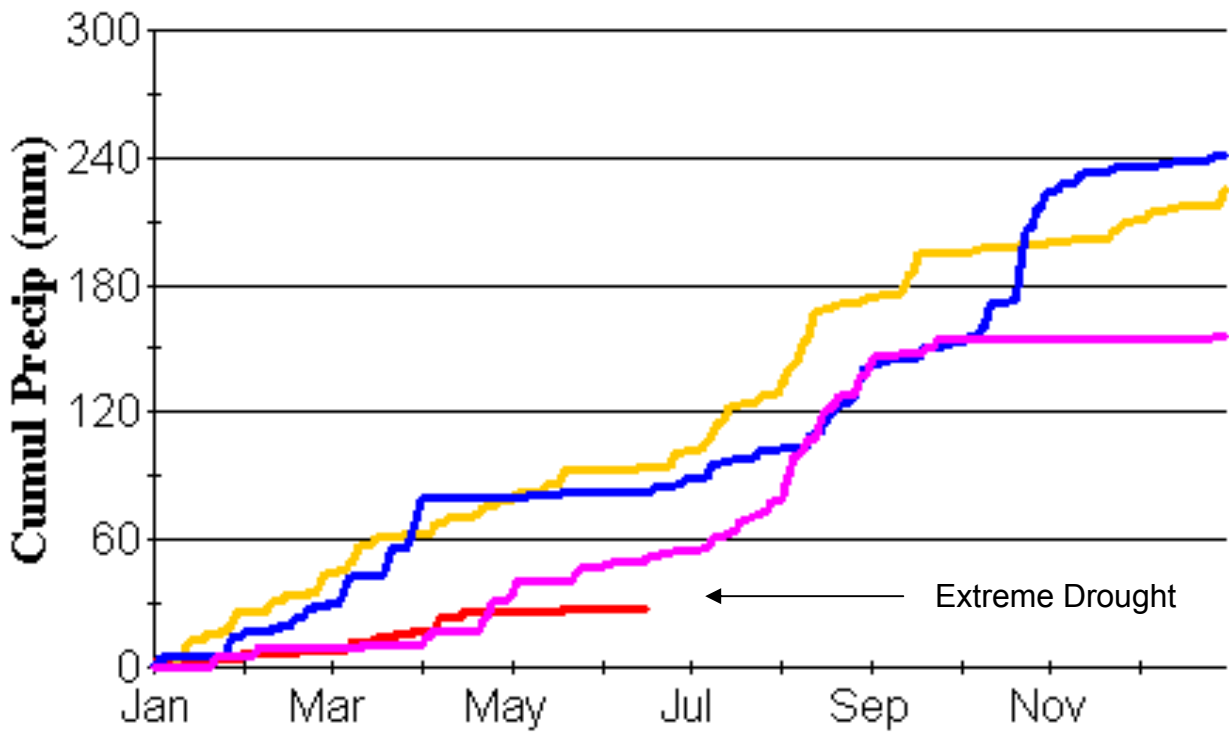


June 23, 2002

NOAA 15 Ch. 2, 1, 1 = RGB

# Navajo Indian Nation - Cumulative Precipitation

Navajo Nation



- 2002
- 2001
- 2000
- 1999

USDA-FAS-PECAD

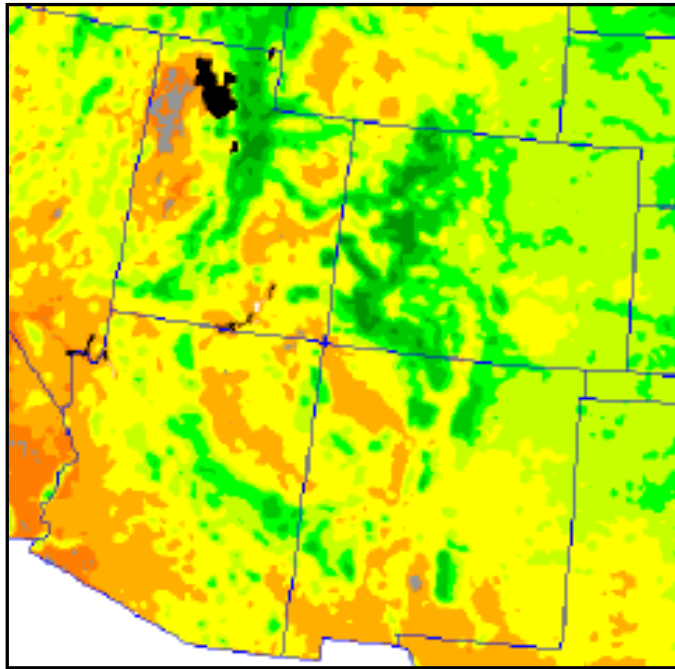
US Air Force Gridded Data – 25.4 mm = 1 inch.

Data through June 18, 2002.



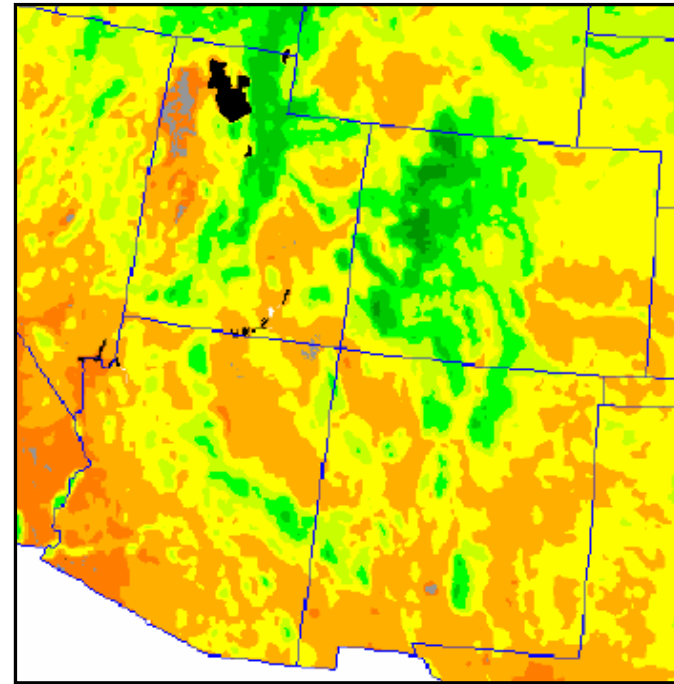


# Four Corners - Vegetation Comparison



**June 2001** More vegetated than 2002

**NDVI Composite – June 1- 15, 2001**  
**NOAA 16 Polar Orbiter**



**June 2002** Much less green

**NDVI Composite – June 1- 15, 2002**  
**NOAA 16 Polar Orbiter**



While 2001 did not look like a highly vegetated year across the Navajo Indian Nation based on NOAA Polar Orbiter images, as of June 15, 2002 there is measurably less vegetation there.