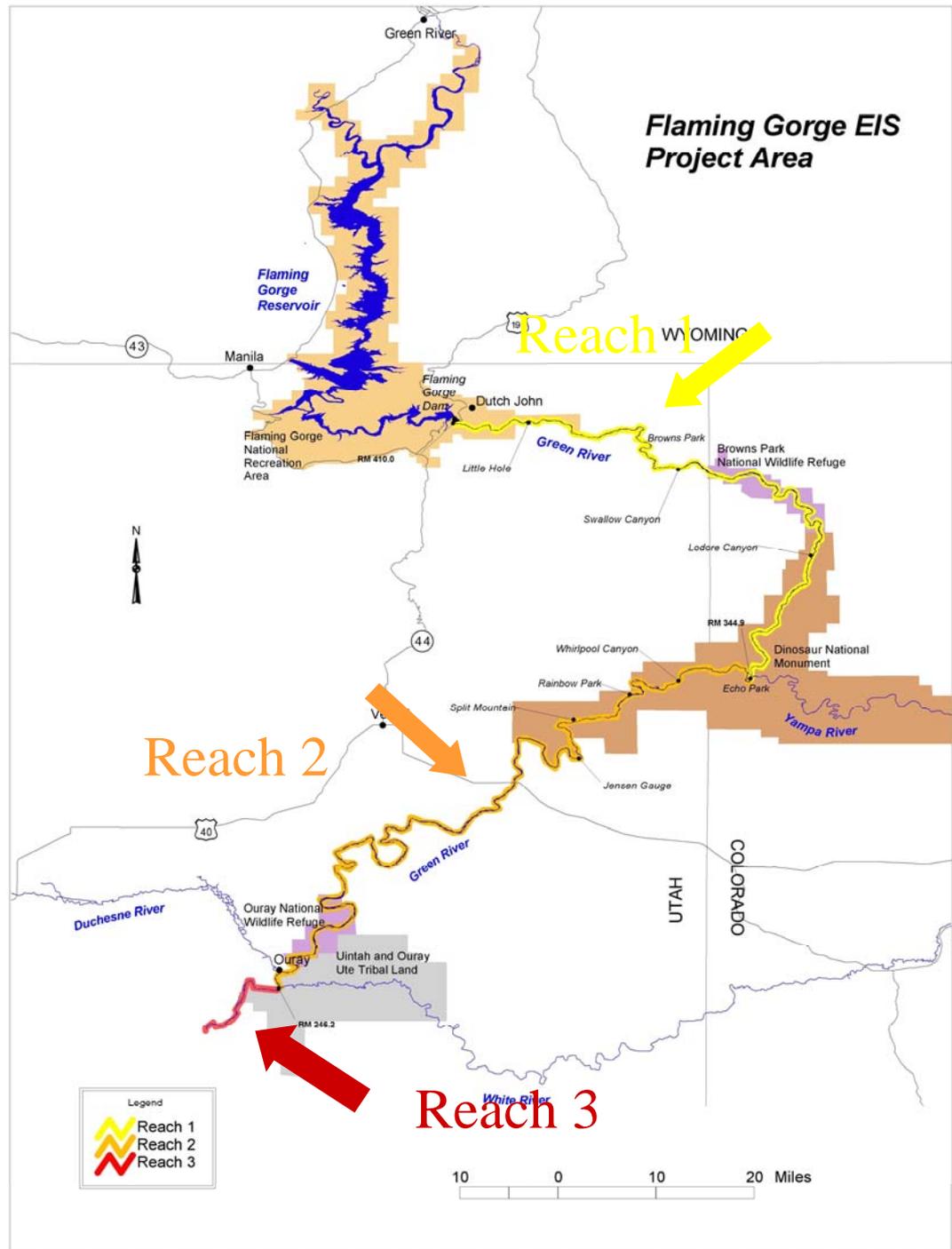


A large concrete dam spans across a deep valley. The dam is a massive, light-colored structure with a central spillway. The valley walls are steep and rocky, with some sparse vegetation. In the foreground, a river flows through the valley. The sky is overcast.

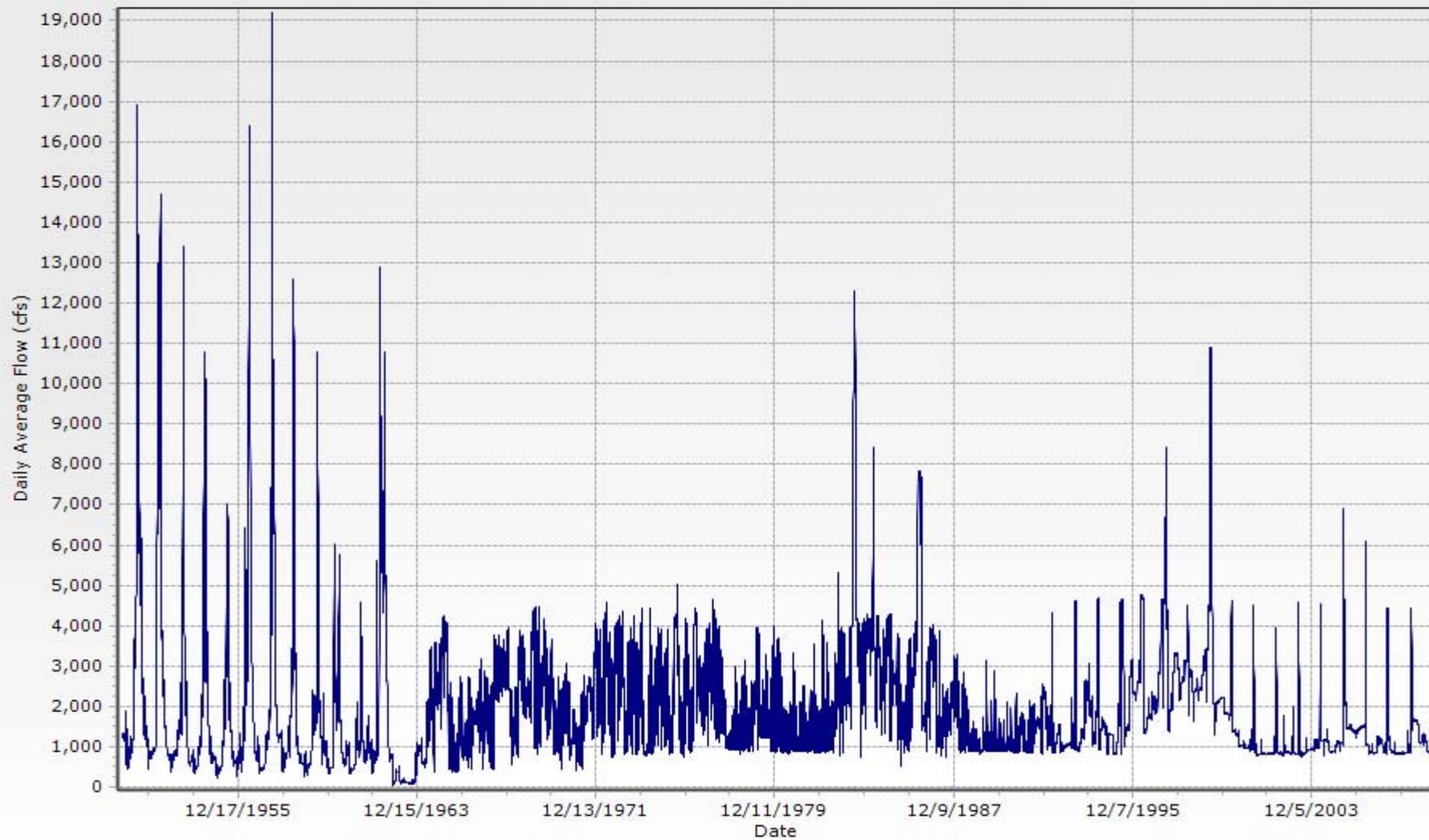
# **Flaming Gorge TWG Flow and Temperature Recommendations Spring 2009**

**Bureau of Reclamation  
Provo Area Office**

# GEOGRAPHIC SCOPE

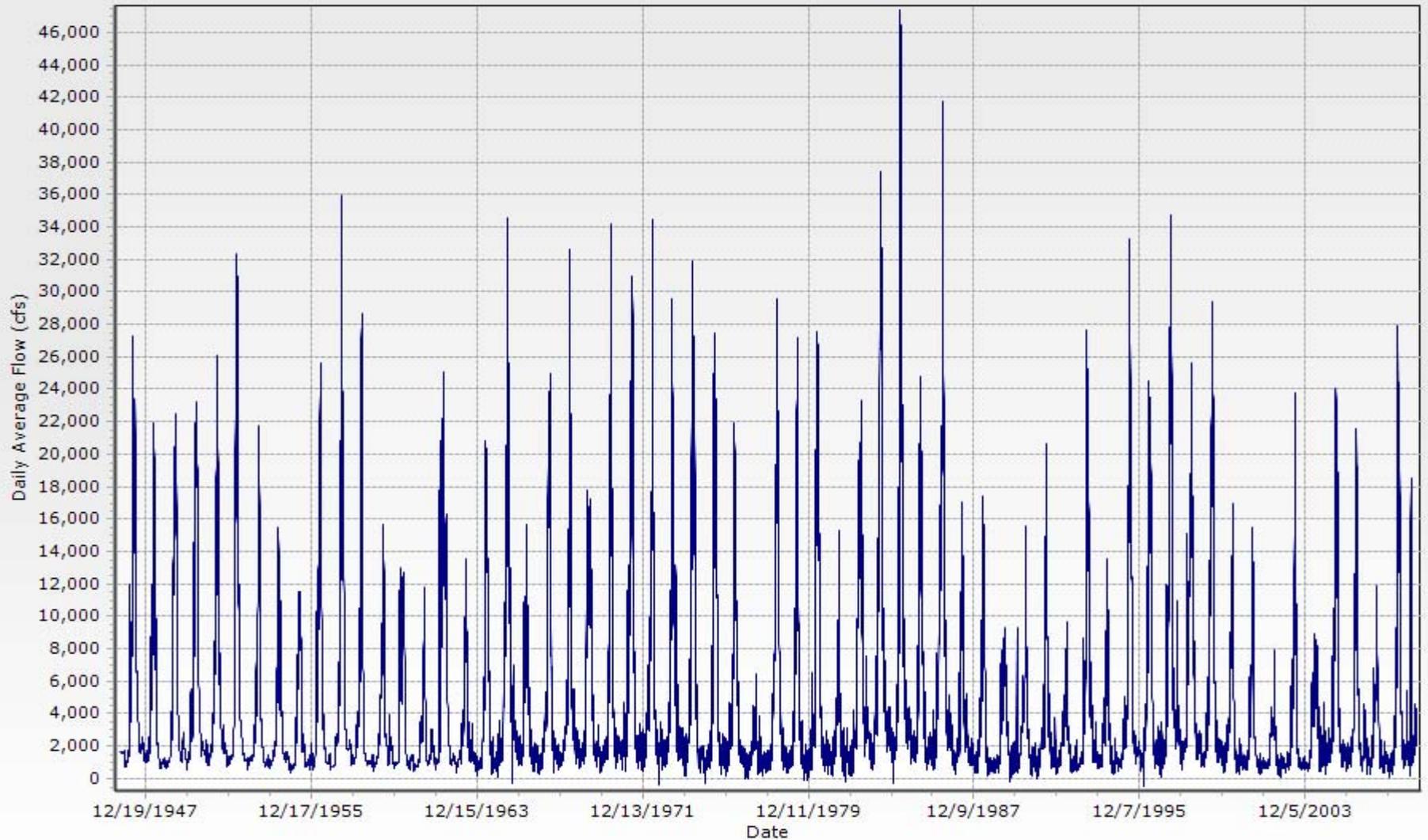


## Reach 1: Green River near Greendale, Utah USGS Streamgauge Average Daily Flows



# RECLAMATION

## Reach 2: Green River near Jensen, Utah USGS Streamgauge Average Daily Flows



RECLAMATION

# Percentage Exceedances and Hydrologic Classifications

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Hydrologic Classification	Percentage Exceedance Range
Wet	<10
Moderately Wet	30 to 10.1
Average	70 to 30.1
Moderately Dry	90 to 70.1
Dry	>90

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# Hydrologic Classification

- Unregulated inflow volume (April-July)
  - » Green River Basin
  - » Yampa River Basin
- 2006            mod dry            average
- 2007            dry                    mod dry
- 2008            mod dry            mod wet
- 2009            average            mod wet

# Proposed Spring Flow Objectives for 2009

If the Flaming Gorge unregulated inflow falls between 783 KAF and 1,345 KAF on the May 1 Final Forecast (**average**).

## ROD

- Flows in Reach 1 should be managed in order to achieve at least 4,300 cfs for a spring peak duration necessary to achieve targets in Reach 2. In Reach 2 achieve an instantaneous one day peak of 18,600 cfs 25% of all years or 14 days of 18,600 cfs in 25% of all years or 8,300 cfs in 50% of all years.

## FGTWG

- **Flows in Reach 1 should be managed in order to achieve at least 4,300 cfs or greater for a spring peak duration necessary to achieve an instantaneous one day peak of 18,600 cfs in Reach 2 and accommodate the Recovery Program research request of at least 15,000 cfs for a minimum of five consecutive days**
- **Once the spring peak research flows and instantaneous peak objective have been achieved in Reach 2, Reach 1 flows should be gradually reduced at a rate of 500 cfs/day to base flow levels.**
- *This flow should be achieved during the peak and post peak flows of the Yampa River.*

# Proposed Spring Flow Objectives for 2009

If the Flaming Gorge unregulated inflow falls below 783 KAF the hydrologic classification would be (**moderately dry**).

## ROD

- Flows in Reach 1 should be managed in order to achieve at least 4,300 cfs for a spring peak duration necessary to achieve targets in Reach 2. Flows in Reach 2 should be managed to the extent possible in order to achieve at least 8,300 cfs for at least 7 days.

## FGTWG

- **If the Yampa River Basin forecast remains above 1,248 KAF and Reach 2 flows exceed 14,000 cfs, it is proposed that the above proposal for the average hydrological classification be implemented.**
- **If the Yampa River Basin forecast falls below 1,248 KAF, it is proposed that flows in Reach 1 would be managed up to 4,300 cfs to achieve 8,300 cfs in Reach 2 for at least 7 days.**
- **Once the spring peak research request and instantaneous peak objectives have been achieved in Reach 2, Reach 1 flows should be gradually reduced at a rate of 350 cfs/day to base flow levels.**
- *This flow should be achieved during the peak and post peak flows of the Yampa River.*

# Proposed Spring Flow Objectives for 2009

If the Flaming Gorge Reservoir forecast increases above 1,346 KAF the hydrologic classification would be (**moderately wet**).

## ROD

- Flows in Reach 1 should be managed in order to achieve at least 4,300 cfs for a spring peak duration necessary to achieve the duration target in Reach 2.
- Flows in Reach 2 should be managed to the extent possible in order to achieve at least 20,300 cfs for at least 1 day in 50% of all moderately wet years.
- Flows in Reach 2 should be managed to the extent possible in order to achieve at least 18,600 cfs for at least 14 days in 50% of all moderately wet years.

## FGTWG

- **If the hydrologic classification is within moderately wet the proposal for the average hydrological classification would be implemented.**
- **In addition, flows in Reach 1 would be managed in order to achieve a one-day peak flow of 20,300 cfs in Reach 2 and 18,600 cfs for at least two weeks. Reach 1 flows should be gradually reduced at a rate of 1,000 cfs/day to base flow levels.**
- *This flow should be achieved during the peak and post flows of the Yampa River.*

# Proposed Base Flow Targets for 2009

## ROD

After the spring flow objectives in Reach 1 and Reach 2 have been achieved, flows should be gradually reduced to achieve base flow levels by no later than July 1, 2009.

Base flows in Reaches 1 and 2 should be managed to fall within the prescribed base flow ranges described in the 2000 Flow and Temperature Recommendations depending on the hydrologic designation for 2009.

# Proposed Temperature Targets for 2009

## ROD

Temperature of flows should be managed to be at least 18 degrees Celsius for 2 to 5 weeks in Upper Lodore Canyon during the beginning of the base flow period.

Water temperatures in the Green River should also be managed to be no more than 5 degrees Celsius colder than those of the Yampa River at the confluence of the Green and Yampa rivers for the summer of 2009 (June through August).