

An aerial photograph of a large reservoir, likely a dam, situated in a mountainous region. The reservoir is surrounded by rugged, brownish-orange hills and mountains. The sky is filled with large, white, fluffy clouds. The text is overlaid on the image.

Recent Activities and Issues in the Upper Virgin River

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Virgin River Issues in Utah

- River System
 - Flooding
 - Natural River Function
 - Water Quality
 - Land Use Planning
- Wildfires
- Endangered Species
- Tamarisk



Flooding, January 9-12, 2005

- 22 Homes Lost
- 9 Homes Unsafe
- >150 Vacant Parcels Affected
- 50 Families Displaced
- 15 bridges damaged or destroyed
- Utilities (water, sewer, irrigation, power, telephone, etc.)
- Roads damaged
- Parks and trails damaged
- Golf Courses damaged



January 2005 Event

Not a Huge Event (20-25 yr. event)

Reasons for severity of damage:

- Increased runoff due to widespread fires
- Insufficient stream capacity-parties prevented from maintaining channel and removing tamarisk
- Duration of the event
- Lack of soil cohesiveness



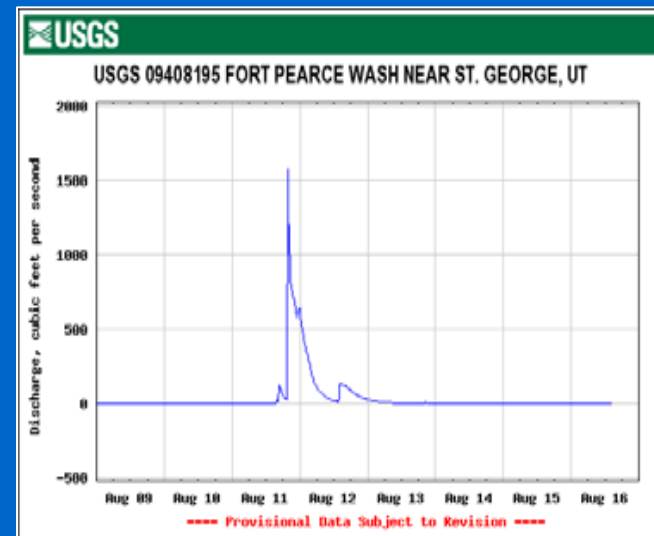
Efforts following the Flood

- Santa Clara River Master Plan
 - Erosion Hazard Mapping (reconstruction, revegetation, maintenance)
 - Draft City Floodplain and Erosion Hazard Ordinances
- Virgin River Master Plan (WFD to Bloomington)
- NRCS Emergency Watershed Protection
 - Hard Armoring
 - Revegetation
- 100-Year Hydrology and Floodplain Reevaluation
- Getting more tools for the cities and county to make good management decisions.



Current Flood Potential

- Scoured Channels
- Lack of Vegetation
- High percentage of burned areas-increased runoff
- Inadequate prediction tools
- Need for flood mitigation especially on Ft. Pearce Wash



Virgin River Water Quality

- Nutrient and dissolved oxygen problems in Gunlock and Baker Dam Reservoirs.
- Total Dissolved Solids high in the River.
- Need for increased stormwater planning



Wildfires

- 165,066 acres burned in Washington County in 2005, 10% of the County
- 166,891 acres have burned so far this year.
- Much of the burn areas are concentrated in the west desert.
- Cheat Grass Invasion
 - Increased Fire Cycle
 - Impacts to livelihoods
 - Impact to Desert Tortoises
- Wildfires in Tamarisk in the river corridor



Endangered Species

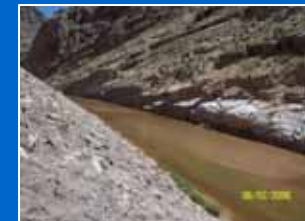
- Fish
 - Federally listed species: Woundfin and Virgin River Chub
 - State Conservation Species: Flannelmouth Sucker and Spinedace
- Birds – Southwestern Willow Flycatcher



Virgin River Resource Management and Recovery Program

Addressing recovery of species (fish and birds)
while allowing for use of the water resources.

- Fish Recovery
 - Invasive Red Shiner
 - Fish Barriers
 - Eradication
 - Other limiting factors: drought, low flow, high temperatures, etc.
- Bird Recovery
 - Habitat Protection and Improvement



Tamarisk

- Severe fires threatening developments
- Alters stream and flood behavior
- Degrades habitat and forage
- Tamarisk Removal group in place-pursuing Section 7 Consultation with USFWS

