

Native and Sport Fish of the San Miguel and Dolores Rivers



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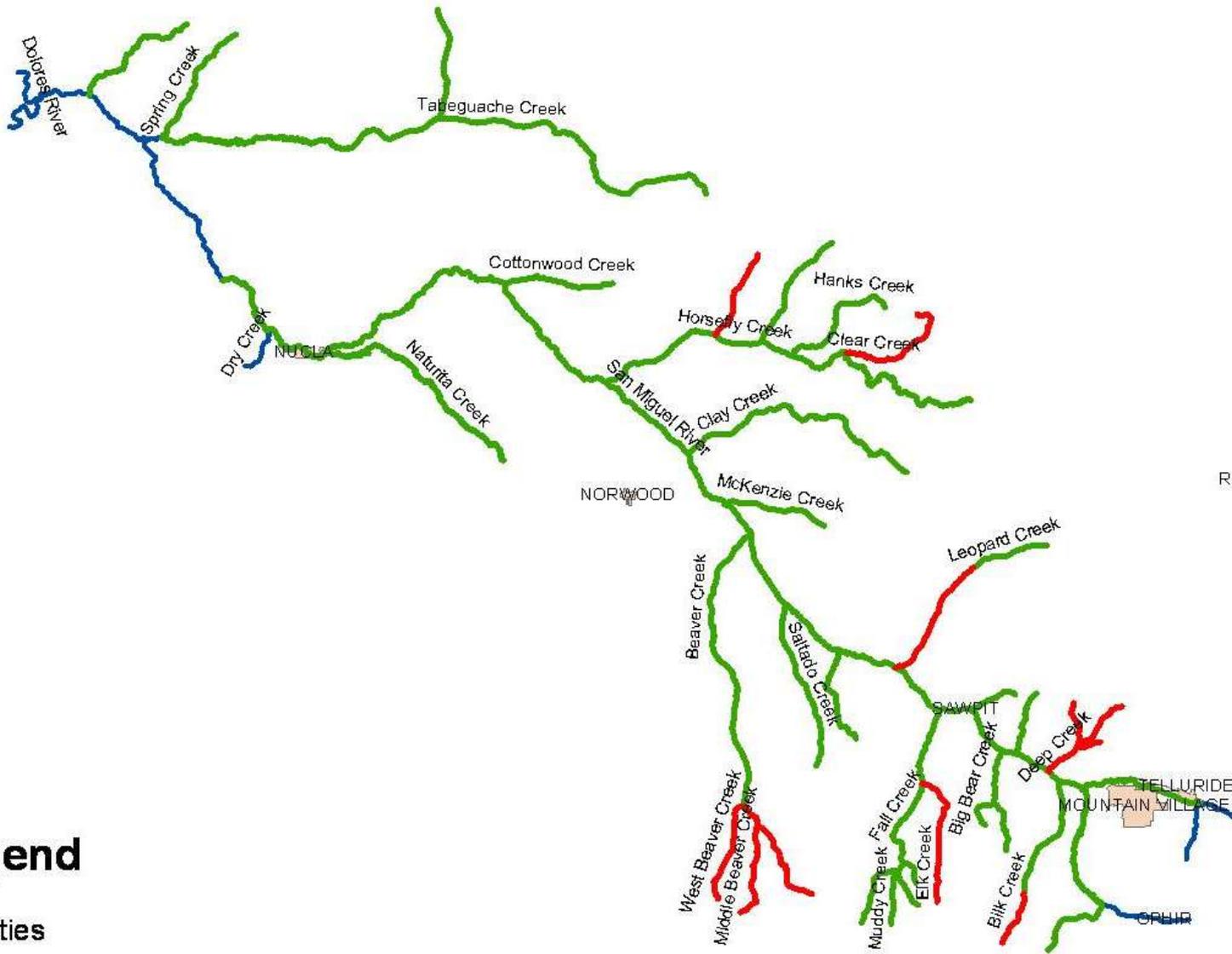
Native and Sport Fish of the San Miguel and Dolores River

- Sport Fish- Description& Distribution
- Native Fish Species- Description& Distribution
- Native Fish Trends in the Dolores River Basin
- Conclusions and Recommendations
- Discussion

Sport Fish of the San Miguel River







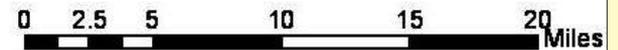
Legend

 Cities

 San Miguel River Watershed

 Colorado River Cutthroat Trout Range

 Non-Native Brook, Brown, and Rainbow Trout Range



Sport Fish of the San Miguel River

- Coldwater sport fisheries for brown, brook, rainbow, and cutthroat trout
- Mixture of wild trout management, native cutthroat management, and stocked sportfish management
- No sport fish ORV's identified by BLM
 - Fishing was identified as important recreational value on many segments
 - San Miguel Segments 1&2 are very important, highly used fisheries
 - Creel surveys indicate average catch rates but very high angler satisfaction
 - San Miguel Segment 2 exceeds Gold Medal Biomass standard some years and may deserve a fish ORV

Native Fish Species of the San Miguel River

- Colorado Pikeminnow FE, ST
- Bluehead Sucker SS
- Flannelmouth Sucker SS
- Roundtail Chub SSC, SS
- Speckled Dace
- Mottled Sculpin
- Colorado River Cutthroat Trout SSC

FE- Federally Endangered

ST- State Threatened

SSC- State Species of Special Concern

SS- BLM Sensitive Species

Colorado Pikeminnow



- Large predatory fish (70+ inches and 80 lbs)
- Naturally lower density, move great distances
- Habitat generalist but depend on natural peak flows for habitat and spawning cues

Bluehead Sucker



- Facultative herbivore, forages in riffles for algae, detritus, occasional invertebrates
- Strongly associated with riffle habitat
- Dependant on adequate base flows and quality of riffle habitat
- Currently occupy about 45% of historic habitat

Flannelmouth Sucker

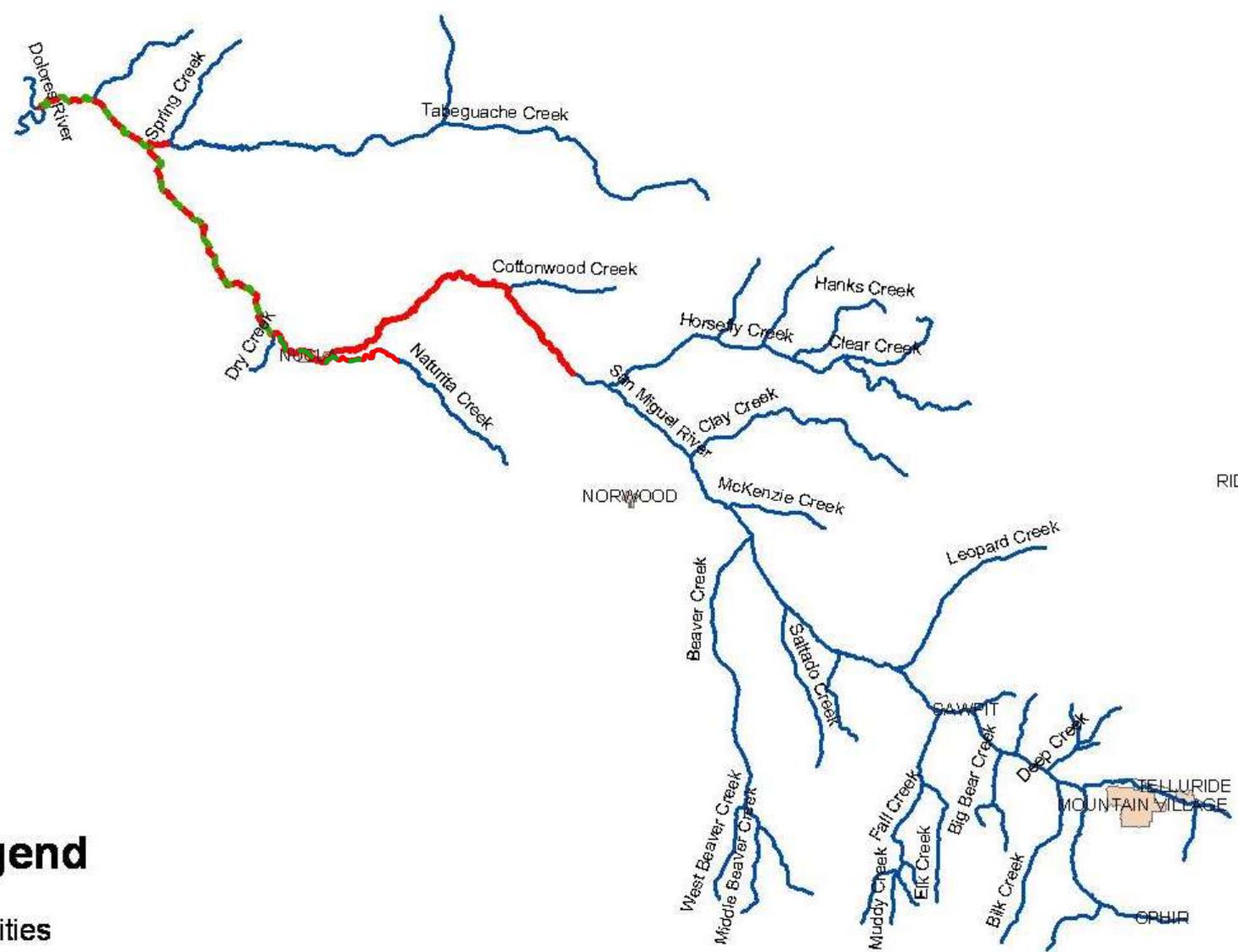


- Omnivore- consumes algae, detritus, invertebrates
- Associated with deep run and riffle habitat
- Dependant on adequate base flows and quality of riffle/run habitat
- Currently occupy about 50% of historic habitat

Roundtail Chub

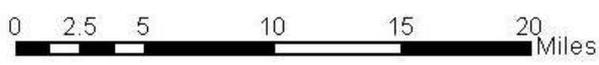


- Opportunistic predator, aquatic insects major prey
- Habitat generalist more associated with pool habitat, prefer murky water
- More likely to be limited by food resources than habitat, but reduced base flows reduce habitat
- Currently occupy about 55% of historic habitat



Legend

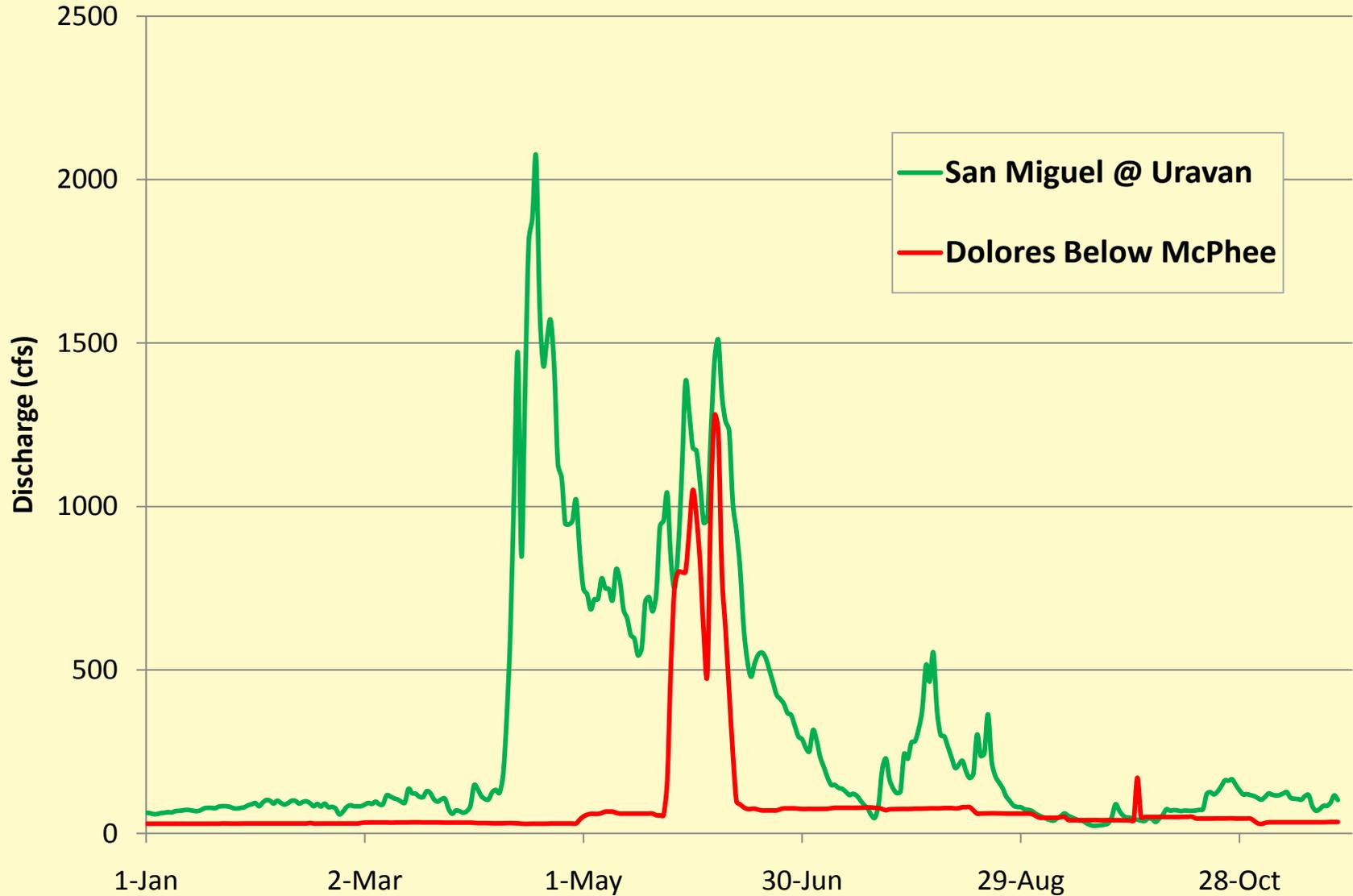
-  Cities
-  San Miguel River Watershed
-  Flannelmouth Sucker and Bluhead Sucker Range
-  Roundtail Chub Range



Native Fish Habitat Needs

- The native warmwater fish species have adapted to live in large warmwater rivers with a natural snowmelt driven hydrograph
 - High spring peak flows for habitat maintenance and spawning cues
 - Adequate base flows to sustain all live stages of fish
- Large scale changes to the quantity of water or hydrograph pattern have led to the decline of these fish in many rivers
 - Reduced spring peak flows impacted fish in the Gunnison River
 - Reduced base flows impacted native fish in the Yampa River
 - Reduced peak and based flows have severely impacted fish in the Dolores River

Native Fish Habitat Needs



Native Fish Population Trends



Native Fish Population Trends in the San Miguel River

- Native fish populations in the San Miguel have been reduced in range and numbers from pre-settlement times
 - Colorado Pikeminnow extirpated
 - Habitat quantity and quality has been reduced in the middle San Miguel due to dewatering
- Native fish populations are much healthier than 20 years ago
- Water quality contamination from uranium mining at Uravan severely reduced range and numbers of native fish for many years
- Today the Dolores River below the San Miguel supports the healthiest native fish community of the entire Dolores river basin
 - This is chiefly due to the water quantity and natural hydrograph pattern of the San Miguel

Dolores and San Miguel Comparisons

- San Miguel River has a much healthier native fish community than the Dolores
- This is due primarily to water use in the basins and hydrograph patterns
 - The vast majority of water use in the upper Dolores occurs outside the river basin
 - Water is diverted from the Dolores and used in the San Juan River basin
 - The Dolores has an unnatural hydrograph due to the regulation of flows by McPhee Reservoir
 - Late peak flows, reduced peak flows, and reduced base flows
 - The San Miguel river also has large water diversions that impact native fish but all water use occurs within the basin
 - The river benefits from return flows and groundwater accretions

Threats to the Native Fish of the San Miguel

- If the native fish are doing well in the lower San Miguel why are we worried?
 - Rangewide these native fish species have declined
 - The 3 species have lost 45-55% of their total range in the Upper Colorado River basin
 - Of the 7 native fish species, 1 is endangered, 3 have been petitioned for ESA listing and a listing petition seems eminent for the 3 species
- The habitat that supports these fish in the San Miguel is unprotected
 - Flow alterations in the upper Dolores that have caused the decline of these fish could occur in the San Miguel

Recommendations

- Protecting flows in the San Miguel River is essential for sustaining viable native fish populations in the entire Dolores River Basin
- Large senior water rights in the San Miguel River basin actually protect both the sport fishery and the native fish habitat below Calamity Creek *Under Current Operations*
 - Some sort of permanent protection from future depletions is necessary to conserve the native fish habitat that is left
 - State Instream Flow Right and/or Wild and Scenic designation with Federal Reserve Water Right would protect the remaining habitat from future depletions and would not impact the existing senior water rights on the river

Recommendations Continued

- On the Dolores River (Segment #2), new management strategies are needed to conserve native fish
 - The current operations have led to serious declines in the range and numbers of native fish
 - See Department of Natural Resource recommendations on W&S alternatives
- Protect habitat and instream flows of tributaries (perennial & ephemeral) like Naturita Creek, La Sal Creek, Tabeguache Creek, Calamity Draw, Atkinson Creek, Mesa Creek etc.
- More sampling is necessary on the sport fishery in Norwood Canyon to make better recommendations

Questions and Discussion

