



Uinta Watershed Management Unit Water Quality Assessment - 2004 305(b)

SUMMARY

The Uinta Watershed Management Unit lies in northeastern Utah and includes the U.S.G.S. hydrological units listed in Table 1. Streams included in this unit are the Green River and the tributaries streams that flow into it downstream to approximately where the Price River enters the Green River. Tributary streams include those on the north and south slopes of the Uinta Mountains. Major streams on the north slope include the West Fork Blacks Fork, East Fork Blacks Fork, Blacks Fork, West Fork Smiths Fork, East Fork Smiths Fork, Henry's Fork and Burnt Fork Rivers. Major south slope streams include Currant Creek, Duchesne River, Rock Creek, Lake Fork Creek, Yellowstone River, Uinta River, Ashley Creek, and Brush Creek. Two other major rivers are the Strawberry and White Rivers. The Strawberry River, located in the western part of the management unit, flows east to join the Duchesne River downstream from Starvation Reservoir. The White River flows west from the Utah-Colorado border to join the Green River near the confluence of the Duchesne and Green Rivers. Smaller tributaries to the south include Nine Mile Creek, Range Creek and Rock Creek.

Table 1. U.S.G.S. Hydrological Units in the Uinta Watershed Management Unit

Number	Name
14040106	Upper Green-Flaming Gorge Reservoir
14040107	Blacks Fork
14040108	Muddy
14050007	Lower White
14060001	LowerGreen-Diamond
14060002	Ashley-Brush
14060003	Duchesne
14060004	Strawberry
14060005	Lower Green - Desolation Canyon
14060006	Willow

Beneficial Use Assessment- Streams were assessed against State water quality standards to determine if their designated beneficial uses were being met. The streams in the Uinta Management Unit are classified as one of the following or a combination of the following beneficial use classifications: protected as a source of drinking water (1C), secondary contact recreation (2B), cold water game fish (3A), warm water game fish (3B), non-game fish and other aquatic life (3C), aquatic birds and other aquatic life, (3D), and agricultural use including irrigation and stock watering (4) (Figure 2). Data from the 2000-2001 intensive survey were used in assessing beneficial use support. Data collected in cooperation with the United States Forest Service and the U.S. Bureau of Land Management were also used.

There are an estimated 3,445 perennial stream miles within the Uinta Watershed Management Unit. An assessment of the support of beneficial uses was made for 2,719 miles. Based upon at least one beneficial use being assessed, 2,114 (77.8%), were assessed as fully supporting, 229 miles (8.4%) were assessed as partially supporting, and 375 miles (13.8%) were assessed as not supporting at least one designated beneficial use (Figure 1). The beneficial use not assessed was primarily Class 2B, secondary contact recreation.

The beneficial uses not supported were aquatic life and agriculture. Individual beneficial use support is listed in Table 2. Two-thousand seven-hundred nineteen (2,719) stream miles were assessed for aquatic life. Eighty-nine

percent (89.0%) were assessed as fully supporting, 99 miles (3.6%) as partially supporting and 201.3 miles (7.4%) were assessed as not supporting this beneficial use support. Of the streams assessed for agricultural use, 2,322 (85.6%) were assessed as fully supporting, 153 (5.6%) partially supporting, and 237 miles (8.7%) not supporting this beneficial use. Class 1C waters, source of drinking water, that were assessed were all supporting this beneficial use designation.

Dissolved metals, water temperature, habitat alterations, flow alterations and a fish consumption advisory were the cause of non support for aquatic life and total dissolved solids were the cause of non support for agricultural use (Figure 2).

The major sources of impairment were agricultural activities, natural, and habitat modification. Other sources included hydrological modification, industrial and municipal point discharge sources. The relative percent impacts by sources are shown in Figure 3.

The streams within the Sevier Watershed Management Unit were also placed in new assessment categories: **Category 1**, all beneficial uses assessed and fully supporting; **Category 2**, some beneficial uses assessed and fully supporting; **Category 3**, not assessed; **Category 4A**, all TMDLs completed; **Category 4C**, waters impaired by pollution, not TMDL required; **Category 5A**, TMDL required (303(d)

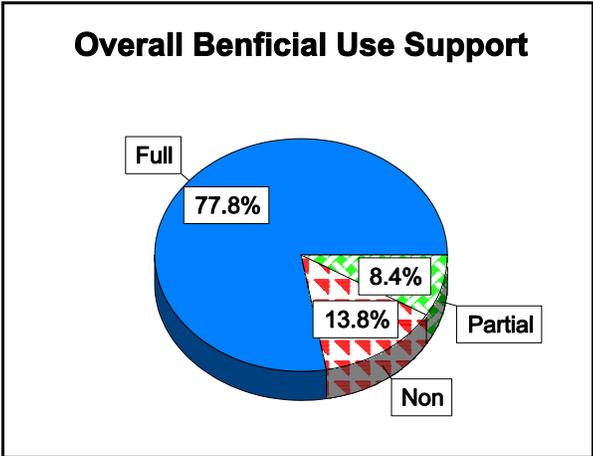


Figure 1. Overall beneficial use support based upon at least one beneficial use being assessed.

list); Category 5B, completed TMDL or request for removal from 303(d) list.

Table 3 is a list of the categories with the number of stream miles assigned to each category. Figure 5 displays the categories for each assessment unit. The reader is referred to the Utah 2004 305(b) report, to find the assessment unit name, description and the stream miles in each unit.

Table 2. Individual Use Support Summary for the Uinta River Watershed Management Unit.							
Goals	Use	Size Assessed	Size Fully Supporting	Size Fully Supporting but Threatened	Size Partially Supporting	Size Not Supporting	Size Not Attainable
Protect & Enhance Ecosystems	Aquatic Life	2,718.7	2,418.5 89.0%	0.0	99.0 3.6%	201.3 7.4%	0.0
Protect & Enhance Public Health	Fish Consumption	16.0	0.0	0.0	0.0	16.0 100.0%	0.0
	Swimming	0.0	0.0	0.0	0.0	0.0	0.0
	Secondary Contact	0.0	0.0	0.0	0.0	0.0	0.0
	Drinking Water	1,534.9	1,534.9 100.0%	0.0	0.0	0.0	0.0
Social and Economic	Agricultural	2,711.5	2,322.1 85.6%	0.0	152.8 5.6%	236.6 8.7%	0.0
	Total	2,718.7	2,114.4 77.8%	0.0	229.0 8.4%	375.3 13.8%	0.0

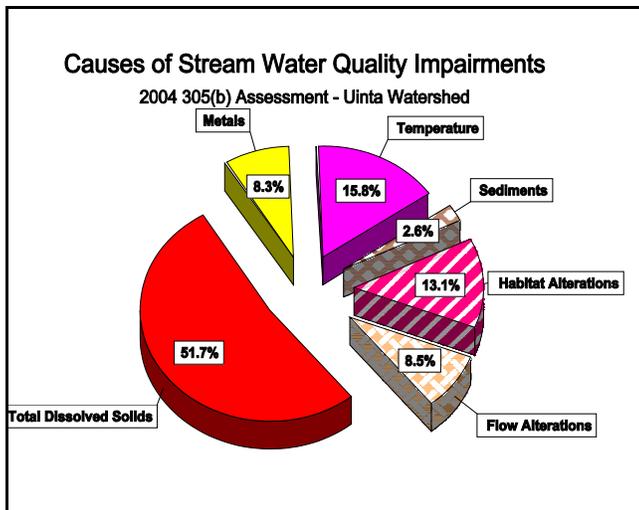


Figure 2. Relative percent contribution of causes to impairment of streams.

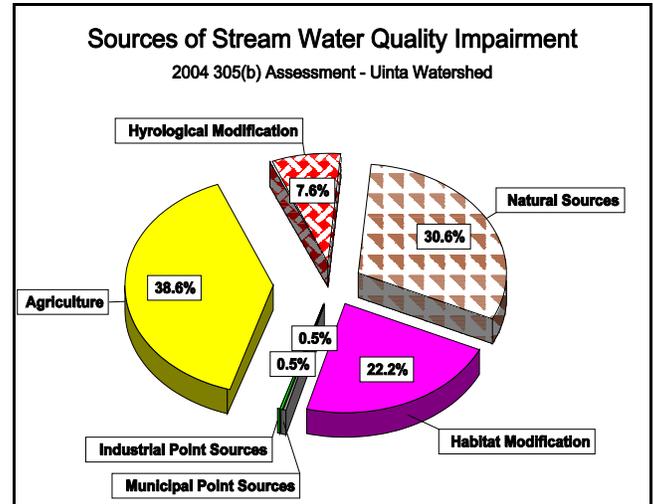


Figure 3. Relative percent contribution of sources to impairment of stream water quality.

Table 3. Stream Miles by Assessment Category -Uinta Watershed Management Unit		
Category	Definition	Stream Miles
1	All designated beneficial uses were assessed and are fully supported.	0
2	Some of the designated uses are fully supported, but there is insufficient data to determine beneficial use support for the remaining designated uses.	2,114

Table 3. Stream Miles by Assessment Category -Uinta Watershed Management Unit		
Category	Definition	Stream Miles
3	Insufficient or no data and information to determine if any designated use is attained	710
4A	TMDL has been completed for all pollutants.	116
4B	Other pollution control requirements are reasonably expected to result in attainment of the water quality standard in the near future	0
4C	The impairment is not caused by a pollutant, e.g. habitat alteration.	99
5A	Assessment unit is impaired by a pollutant and a TMDL is needed.	412
5B	AUs are listed in this category to identify those pollutants for which a TMDL has been approved, but TMDLs are still required for other pollutants identified, water quality standards are now being met, new delineation of assessment unit, changes in beneficial use classification result in meeting standards, change in listing methods results in meeting standards or change in water quality standards and standards now being met.	27

Portions of the Duchesne River main stem of the Duchesne River were assessed as partially supporting its beneficial uses. Total dissolved solids (TDS) were still a problem from its confluence with the Green River to Myton. Its agricultural classification (Class 4) was designated as impaired.

Lake Fork River from its confluence with the Duchesne River to the Pigeon Water Creek confluence was listed as non supporting its cold water game fish classification (Class 3A) because of temperature and was also evaluated as not supporting its agricultural classification because of total dissolved solid concentrations greater than the standard. The other segments of Lake Fork River and its tributaries were assessed as fully supporting all of the beneficial uses that were assessed.

Dry Gulch Creek has a completed TMDL for it and its tributaries for total dissolved solids.

Antelope Creek was assessed as non supporting its agricultural use. Irrigation return flows, grazing, and habitat alteration are thought to be the most significant source of total dissolved solids.

The Uinta River has a completed and approved TMDL for total dissolved solids for assessment units Uinta River-1 and Uinta River-2. Assessment unit Uinta River-1, Uinta River and tributaries from confluence with Duchesne River upstream to Dry Gulch confluence, was placed in Category 5B. Uinta River-2 was placed in Category 4A, because the TMDL has been approved. The assessment unit, Uinta River-1, had the temperature and habitat alteration impairments removed because it had been incorrectly assessed as a Class 3A stream instead of a 3B, warm water fishery.

The White River was assessed as fully supporting all of the beneficial uses it was assessed for.

Willow Creek had excessive levels of total dissolved solids and is impaired for its agricultural beneficial use.

Pariette Draw was assessed as impaired for agricultural activities due to boron and total dissolved solids. It was also listed as not supporting its aquatic life beneficial use because of violations of the chronic standard for selenium. Big Brush Creek was also listed because of selenium violations.

The lower 16 miles of Ashley Creek were found not supporting its fishery and agriculture classifications. This stream segment also has a fish consumption advisory on it because of elevated levels of selenium found in fish tissue. Seepage from municipal wastewater lagoons leaches selenium from the geological strata and it enters the stream. Irrigation return flows probably add to the elevated concentrations of total dissolved solids found in this segment also. The municipal waste water lagoons have been abandoned and a new mechanical treatment plant built which eliminates seepage from the lagoons. A TMDL has been completed, but not approved by EPA yet.

Range Creek in the lower segment of was assessed as fully supporting its beneficial uses. The middle and upper reaches were not assessed. All segments of the Green River in the Uinta watershed management unit were supporting all of the beneficial uses assessed. All streams on the North Slope of the Uinta Mountains that were assessed were found to be supporting all of their beneficial uses that were assessed.

Uinta Basin Management Unit

Beneficial Use Classification

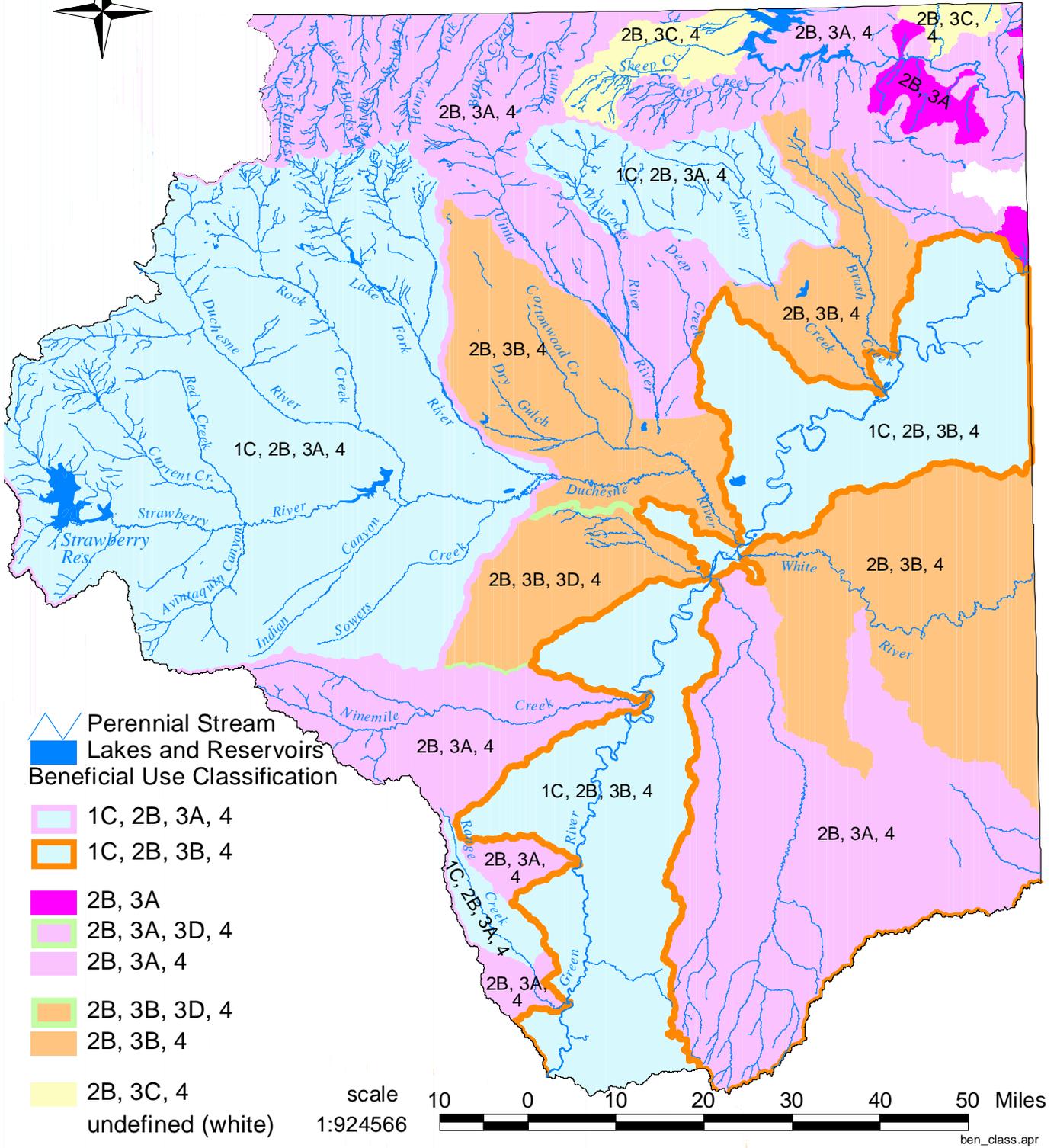


Figure 4. Beneficial use designations - Uinta Watershed Management Unit.

Uinta Basin Management Unit

Assessment Categories

2004

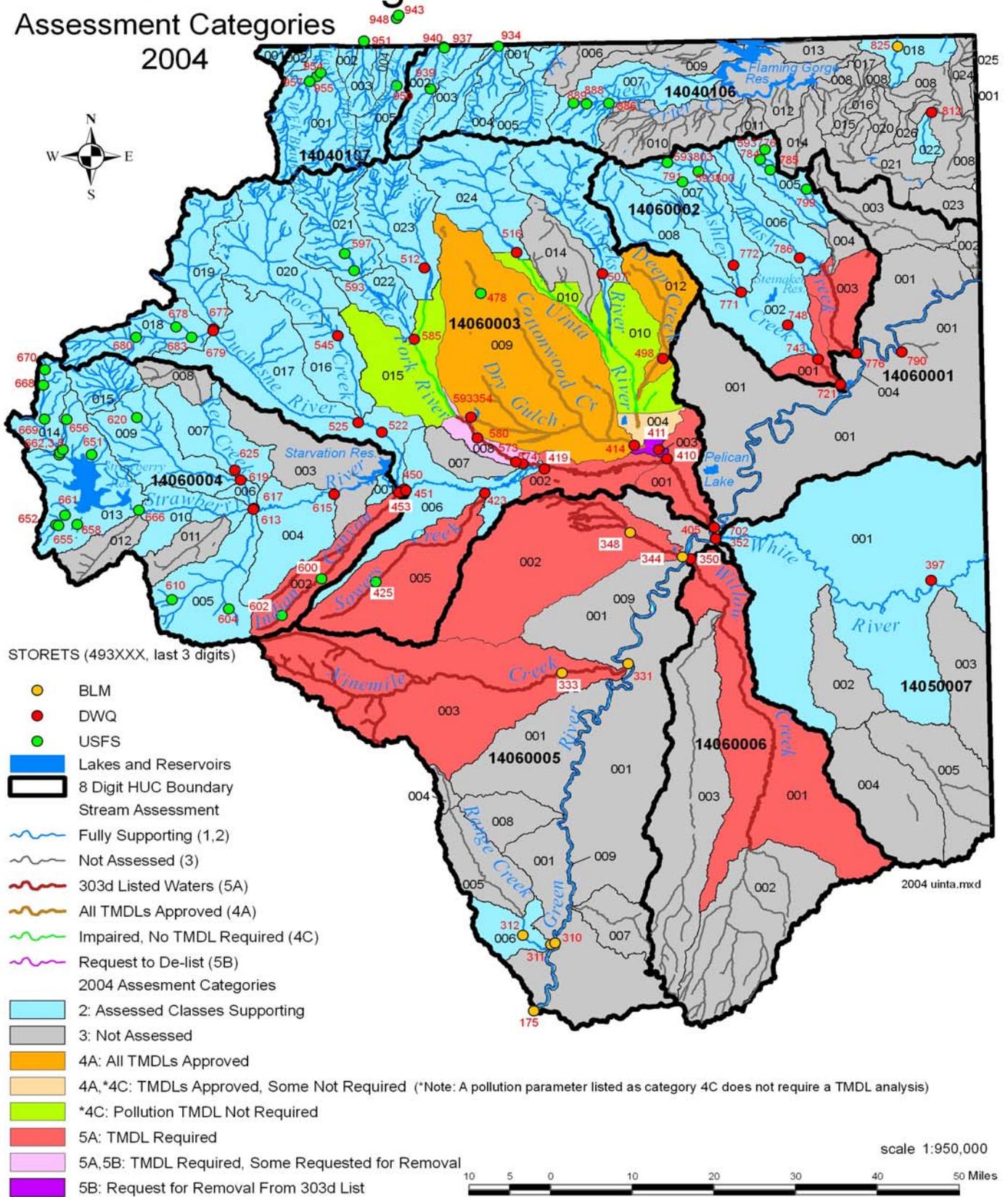


Figure 5. Beneficial use assessment by categories - Uinta Watershed Management Unit.

