Utah's 2006 Integrated Report
Volume II: Utah's 303(d) List

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I. INTRODUCTION

Pursuant to Section 303(d) of the Clean Water Act as amended, each State is required to identify those assessment units (AUs) for which existing pollution controls are not stringent enough to implement state water quality standards. Thus, those waters or assessment units (i.e., lakes, reservoirs, rivers, and streams) that are not currently achieving or are not expected to achieve those standards are identified as water quality limited. An assessment unit is considered water quality limited when it is known that its water quality does not meet applicable water quality standards or is not expected to meet applicable water quality standards. Assessment units can be water quality limited due to point sources of pollutants, non point sources of pollutants or both. Examples of pollutants that can cause beneficial use impairment include chemicals for which there are numeric standards (e.g., ammonia, chlorine, organic compounds and trace elements), and pathogens.

Once an AU is identified as water quality limited, the State is to determine the source(s)of the water quality problem and to allocate the responsibility for controlling the pollution. This analysis which the State does to determine the reduction in pollutant loading necessary for that AU to meet water quality standards and support its beneficial uses is called a Total Maximum Daily Load analysis or "TMDL". The result of this process determines (1) the amount of a specific pollutant that an assessment unit can receive with out exceeding a water quality standard or impair a beneficial use, (2) the apportionment of the load to point and nonpoint sources, and (3) a margin of safety. While the term TMDL implies that loading capacity is determined on a daily time scale, TMDLs can range from meeting an instantaneous concentration (e.g., an acute standard) to computing an acceptable annual phosphorus load for a lake or reservoir.

When the State prepares its 303(d) list, it is required to prioritize its assessment units for TMDL development and to identify those AUs that will be targeted for TMDL development within the next two years.

For the 2006 Integrated Report, Utah is using the five-part integrated list for reporting the status of the State's waters (EPA, 2006). One major change from the 2004 Integrated Report report includes the reporting of all completed TMDLs in Category 4A, TMDLs completed and approved by EPA. Other TMDLs in the same AU not completed will be listed on the 2006 303(d) list. Therefore, an AU can be assessed as a Category 4A and 5A water. Waters found to be impaired by "pollutants" are required to have TMDLs developed. Water quality impairments caused by pollution, i.e. habitat alteration, flow alteration, will be listed in Category 4A, impaired, but a TMDL is not required for this type of impairment. The State will continue to add and delete AUs from the 303(d) list by moving them to the correct category according to the procedures outlined in this document. An overview of the five categories and a

decision flow diagram are provided later in this report.

The 303(d) list is a dynamic list in which AUs can be added (i.e. new permits are issued, new assessments are made) or removed (i.e. water quality standards are now being met). Information supporting Utah's TMDL list is provided in the subsequent sections of this document. At a minimum, a state's supporting information should include: (1) a description of the methodology used to develop the list; (2) a description of the data and information used to develop the list; (3) the rationale for any decision to not use any information or the rationale for removing AUs previously listed as water quality limited; and (4) a summary of comments received on the list during the state's public comment period. Following an opportunity for public review and comment the State must submit its list to the EPA Regional Administrator by April 1, 2006.The EPA Regional Administrator then has 30 days to approve, conditionally approve, or disapprove a state's listing. If the EPA Regional Administrator disapproves a state's submittal. EPA then has 30 days to develop a list for the state.

II. ASSESSMENT UNIT DELINEATION AND IDENTIFICATION

To assess waters of the State, the Division of Water Quality (DWQ) has delineated lakes, reservoirs, streams, and rivers into discrete units called assessment units (AUs). Lakes and reservoirs have been delineated as individual AUs and the size is reported in acres. Rivers and streams have been delineated by specific river, river or stream reach, or several stream reaches in sub-watersheds. When using sub-watersheds to delineate stream AUs, the new U.S.G.S. 5th (10 digit) and 6th (12 digit) level watershed units for Utah were used to delineate the AUs. These watershed units allow for the aggregation of stream reaches into individual AUs that are hydrologically defined. The watershed units were developed by a group of individuals representing state and federal agencies, and have been certified by the Natural Resource Conservation Service. In delineating river and stream AUs, DWQ followed the guidelines listed below with the first two guideline statements being fixed rules.

1. Each AU is within an eight-digit USGS hydrologic unit (HUC).

2. Each river and stream AU is comprised of stream reaches having the same water quality standards classifications (2B, 1C, 3A,and 4 or 2B, 3B, and 4).

3. Large rivers such as the Green River, Colorado River and portions of other large rivers (Bear River, Weber River, etc), were delineated into "linear" or "ribbon" AUs. Where a major tributary entered these rivers or hydrological features such as dams exist, the river is further delineated into two or more AUs.

4. Tributary rivers and streams were delineated primarily using the 5th and 6th level hydrologic units to define the AUs.

5. Additional AUs were defined by combining or splitting 5th or 6th level watersheds using tributary streams, stream size, and ecological changes such as geology, vegetation, or land use.

6. Small tributary streams to larger streams that could not be incorporated into a watershed unit were combined into separate unique AUs.

These AUs units have been geo-referenced (indexed) to the National Hydrologic Database using a reach-indexing tool that provides the capability of using GIS techniques to display information and data for each AU. Beneficial use classifications and assessments for individual AUs can be mapped or displayed to provide visual representation of assessment results. Individual stream AUs were assigned a unique identification code for indexing which includes the 8-digit hydrological unit (HUC) number with the prefix UT and a 3-digit code to identify each unique AU in a HUC. Lake and reservoir AUs were identified by adding the prefix UT-L- to the 8-digit HUC number and adding a 3-digit code.

Figure 1 illustrates the results of using the above guidelines to delineate and identify AUs. The Weber River was delineated as a linear AU from its confluence with Chalk Creek upstream to the Wanship Dam (UT16020101-017). One AU, UT16020101-011, in the Chalk Creek watershed was delineated by combining two 5th level watershed units located in the South Fork Chalk Creek sub-basin. The first AU, (UT16020101-010), in the Chalk Creek watershed was delineated using the confluence of the South Fork as the upstream point. This necessitated splitting the 5th level watershed unit into two segments. An example of small tributary streams that could not be combined into a hydrological based AU is illustrated by theAU,UT16020101-019. These are very small tributaries and the Weber River is not reflective of their stream order or the habitat that they flow through. Rockport Reservoir (UT-L-16020101-002) and Echo Reservoir (UT16020101-001) are examples of lake and reservoir Aus.

III. Category Definitions for Listing Assessment Units.

For this reporting cycle, assessment units (AUs) will be placed in one of five attainment categories with sub-categories as needed (USEPA, 2006). The methodology for determining whether or not an AU is meeting water quality standards or fully supporting its designated beneficial uses is discussed in Section II. For those AUs for which there are no reliable data, either monitored or evaluated, for a specific designated beneficial use, a designation of **Not Assessed** for that specific beneficial use shall be assigned. For those AUs for which there are no reliable data, either monitored or evaluated, for all criteria for all applicable designated uses, a designation of **Not Assessed** will be assigned to all the designated beneficial uses for that AU.

The determination of use support using methods described in section II and other specified protocols will be combined to determine the overall water quality attainment category for each AU. The unique assessment categories are described as follows:

Category 1. All designated uses are attained. AUs are listed in this category if there are data and information that meet all requirements of the assessment and listing methodology and support a determination of full support for all of an AU's designated beneficial uses.

Category 2. Some of the designated uses are attained, but here is insufficient data to determine beneficial use support for the remaining designated uses. AUs are listed in this category if there are data and information that meet requirements of the assessment and listing methodology to support a determination that some, but not

all, uses are attained. Attainment status of the remaining uses is unknown because there is insufficient or no data to assess beneficial use support.

Category 3. Insufficient or no data and information to determine if any designated use is attained. AUs are listed in this category where data or information is not sufficient or does not exist to determine whether any beneficial use is attained following the requirements of the assessment and listing methodology.

Category 4. Impaired for one or more designated uses, but does not require development of a TMDL.

A. TMDL has been completed for any pollutant. AUs are listed in this sub-category when any TMDL(s) has been developed and approved by EPA, that when implemented, are expected to result in full support of the water quality standards or support the designated beneficial uses. Where more than one pollutant is associated with the impairment of an AU, the AU and the parameter(s) that has an approved TMDL will be placed in this category. For those pollutants that still need a TMDL, they will be placed in Category 5.

B. Other pollution control requirements are reasonably expected to result in attainment of the water quality standard in the near future. Consistent with the regulation under 40 CFR, 130.7(b)(I), (ii), and (iii), AUs are listed in this subcategory where other pollution control requirements (e.g., best management practices)required by local, state, or federal authority are stringent enough to meet any water quality standard or support any beneficial use applicable to such waters.

C. The impairment is not caused by a pollutant. Assessment units are listed in this subcategory if the impairment is not caused by a pollutant (e.g., habitat alteration).

Category 5. The water quality standard is not attained and is caused by a pollutant. The AU is found not supporting one or more of its designated beneficial uses as determined by current water quality standards and assessment methodologies. This category constitutes the Section 303(d) list of waters. Category 5 is further delineated into the following sub-categories.

A. A TMDL is underway or scheduled [303(d) list]. AUs are listed in this category if the AU is impaired for one or more designated uses by a pollutant.

B. A request is made to remove one or more pollutants from the 303(d) list. AUs are listed in this category for the following reasons: If the most recent water quality assessment indicates that water quality standards are being met, the AU is listed in this

sub-category. If errors in previous assessments or a new delineation of an assessment unit is the cause for meeting water quality standards, the AU is included in this sub-category. If a change in the water quality standards was made and it results in the AU meeting the standard, the AU is listed in this category. UPDES permit renewals for which a letter of approval has not been received were placed in this category. A more detailed list of reasons for removal is provided later in the report.

C. A Utah Pollutant Discharge Elimination System permit renewal TMDL is scheduled to determine discharge limitations that will meet water quality standards or protect designated beneficial uses. Parameters listed with UPDES Permit Renewal TMDLs are effluent limited and the receiving water is not impaired and does not violate water quality standards. Water quality standards may be violated and water quantity impaired if the permitted effluent limits are not met. Assessment units are listed in this category if there is a discharge permit renewal scheduled between April 1, 2006 and March 31, 2008 inclusive.

D. A Lake or Reservoir has been assessed as not meeting standards for one monitoring cycle. The assessment has identified impairment during one of the even or odd year monitoring cycles. If the AU is assessed as impaired during the next assessment period, it will be listed in Category 5A, TMDL required.

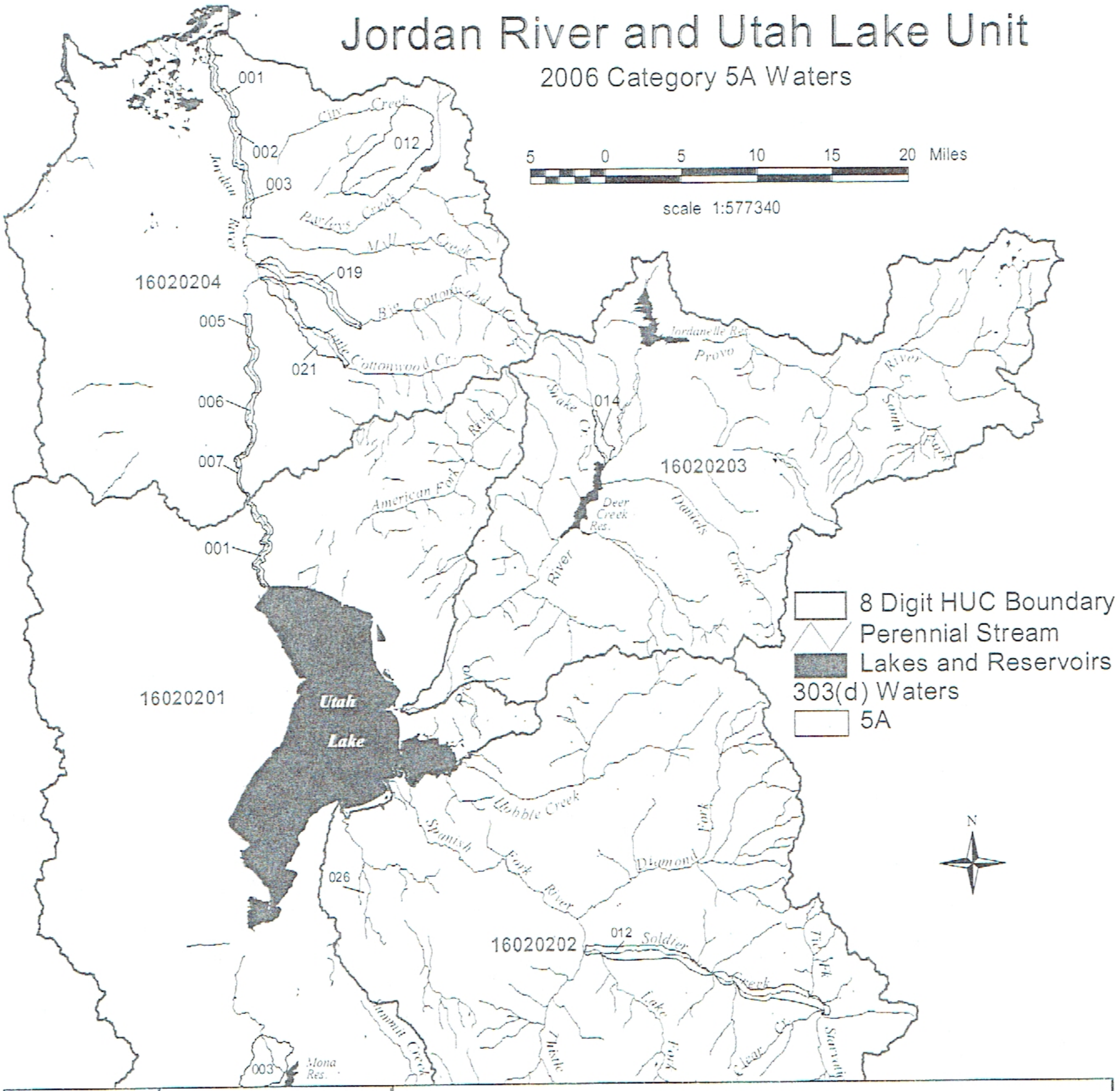
The five categories of reporting were developed by EPA to provide a clearer summary of a state's water quality status and to assist in developing management actions to protect and restore waters of the state to meet water quality standards and support beneficial uses. The decision criteria for determining where an AU is assigned is illustrated in Figure 2. Figure 3 illustrations further decision criteria applied to Category 5 sub-categories.

II. METHODOLOGY FOR DEVELOPING THE 303(d) LIST

The purpose of this section is to describe the methods and decision-making process used to identify and list water quality limited assessment units needing TMDLs, as well as the criteria used to de-list assessment units previously identified in any of the State's previous TMDL lists.

A. Division of Water Quality Programs Involved In Identifying Impaired Waters.

1. Utah Pollutant Discharge Elimination System Program (UPDES)- Any receiving AU (lake, reservoir, river, stream) on which a facility is located that requires a Utah Pollutant Discharge Elimination System discharge permit renewal between April 1, 2006 and March 31, 2008 for pollutants that are not controlled through technology-based requirements or end-of-pipe requirements was listed. The assessment units identified and associated with the UPDES permit dischargers are water quality limited, which means a TMDL is needed to determine proper water quality-based limits to assure water quality standards are maintained or attained. Listing of permittees and pollutants doesn't imply that the receiving water is currently



Assessment Unit	Name	Assessment Unit Description
		jordan303d2006.apr
UT16020201-001	Jordan River-8	Jordan River from Narrows to Utah Lake
UT16020201-003	Currant Creek	Current Creek from mouth of Goshen Canyon to Mona Reservoir
UT16020202-012	Soldier Creek-1	Soldier Creek from confluence with Thistle Creek to confluence of Starvation Creek
UT16020203-014	Snake Creek-1	Snake Creek from confluence w/ Provo River to WWSP Golf Course
UT16020204-001	Jordan River-1	Jordan River from Farmington Bay upstream contiguous with the Davis County line.
UT16020204-002	Jordan River-2	Jordan River from Davis County line upstream to North Temple Street.
UT16020204-003	Jordan River-3	Jordan River from North Temple to 2100 S
UT16020204-005	Jordan River-5	Jordan River from 6400 S to 7800 S
UT16020204-006	Jordan River-6	Jordan River from 7800 S to Bluffdale
UT16020204-007	Jordan River-7	Jordan River from Bluffdale to Narrows
UT16020204-012	Emigration Creek	Emigration Creek and tributaries from Foothill BLVD to headwaters
UT16020204-019	Big Cottonwood Creek-1	Big Cottonwood Creek and tributaries from Jordan River to Big Cottonwood WTP
UT16020204-021	Little Cottonwood Creek-1	Little Cottonwood Creek and tributaries from confluence Jordan River to Metropolitan WTP

Figure 8.Jordan River / Utah Lake Category 5 Assessment units