

**2002 303(d) LIST
OF WATERS
FOR KENTUCKY**



**Natural Resources and
Environmental Protection Cabinet**

Kentucky Division of Water

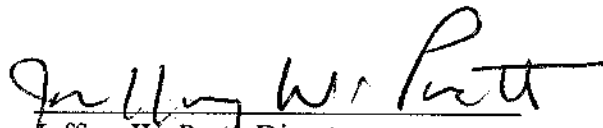
January 2003

**2002 303(d) LIST
OF WATERS
FOR KENTUCKY**

**KENTUCKY DEPARTMENT FOR ENVIRONMENTAL PROTECTION
DIVISION OF WATER**

Frankfort, Kentucky

This report has been approved for release:



Jeffrey W. Pratt, Director
Division of Water

1/27/03
Date

2002 303(d) LIST OF WATERS FOR KENTUCKY

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List of Acronyms

BMP	best management practice
COE	United States Army Corps of Engineers
DMRs	Discharge Monitoring Reports
EPA	United States Environmental Protection Agency
KDOW	Kentucky Division of Water
KNREPC	Kentucky Natural Resources and Environmental Protection Cabinet
KPDES	Kentucky Pollutant Discharge Elimination System
MSD	Louisville and Jefferson County Metropolitan Sewer District
ORSANCO	Ohio River Valley Water Sanitation Commission
RM	river mile
SD#1	Northern Kentucky Sanitation District #1
TMDL	total maximum daily load
USGS	United States Geological Survey

Citations and Regulations

Clean Water Act, Section 104(b)(3)

Authorizes funding for grants to conduct and promote research, investigations, experiments, training, demonstrations, surveys, and studies related to causes, effects, extent, prevention, reduction, and elimination of pollution.

Clean Water Act, Section 303(d)

Refers to federal requirements in the Clean Water Act for states to develop a list of waterbodies not supporting designated uses. The Code of Federal Regulations 40 Part 130.7(b)(4) states that listed waters are to be prioritized for total maximum daily load (TMDL) development.

Clean Water Act, Section 305(b)

Section 305(b) requires that states submit to U.S. Environmental Protection Agency on a biennial basis a report assessing current water quality conditions throughout the state.

Clean Water Act, Section 314

Clean Lakes Program, the purpose of Section 314 is to work towards water quality improvement in lakes. The section also authorizes funding directed toward such efforts.

Clean Water Act, Section 319

The purpose of Section 319 is to control identified nonpoint source pollution problems through the implementation of best management practices. Subsection (h) authorizes funding for nonpoint source pollution control projects.

Clean Water Act, Section 401

Section 401 Water Quality Certification, as authorized in Kentucky Revised Statutes 224.16-50, is a program that allows the state to issue, waive, or deny water quality certification for any federally permitted or licensed activity that may result in a discharge into wetlands or streams. The purpose is to protect wetland resources.

INTRODUCTION

Pursuant to Section 303(d) of the Clean Water Act, the State of Kentucky has developed a list of waterbodies presently not supporting designated uses as required by 40 CFR 130.7(b)(4) and needing Total Maximum Daily Load (TMDL) development. For additional information or questions, please contact the TMDL Coordinator at the Kentucky Division of Water (KDOW), 14 Reilly Road, Frankfort, Kentucky 40601. The phone number is (502) 564-3410.

PUBLIC PARTICIPATION IN THE 2002 303(d) LIST PREPARATION

A draft copy of this report was submitted to the U.S. Environmental Protection Agency (EPA) and released for 30-day public comment on August 7, 2002. The press release indicated that the report could be viewed on the KDOW web page or that a printed copy of the report could be obtained by contacting the KDOW. Comments received via email, or postmarked (for surface mailings), on or before Thursday, September 6, 2002 would receive a formal response. The comment period was subsequently extended to September 20, 2002 after several individuals and groups requested additional time to comment on the draft report. Comments received or postmarked after that date would not be responded to. In addition, one interested party was notified that the draft report was available for public comment.

WATERSHED MANAGEMENT FRAMEWORK

Kentucky has adopted the use of the Watershed Management Framework as a comprehensive means of assessment monitoring to determine use support, assessments, TMDL development, and remediation through the establishment of basin teams (Figures 1 and 2). The initial 5-year watershed cycle, begun in 1997 (See Figure 1), has focused heavily on assessment monitoring. The concept is to increase the spatial (areal) extent of water quality assessment throughout the state. Monitoring in the watershed management units has progressed as follows:

Kentucky River Unit:	April 1998 to March 1999
Salt/Licking River Unit:	April 1999 to March 2000
Tennessee/Mississippi/Cumberland River Unit:	April 2000 to March 2001
Tradewater/Green River Unit:	April 2001 to March 2002
Big and Little Sandy/Tygarts Unit:	April 2002 to March 2003

For each unit, biological assessments were to be done on most 4th order streams (typically 250 - 300 sites per watershed unit) and chemical quality data (including bacteriological data) were to be collected on most 5th order streams (typically 25 - 30 sites). On selected streams within each unit, biological assessment monitoring may have been done at a number of locations along the stream. Data from other agencies were also available for producing assessments. The 2002 Kentucky Report to Congress on Water Quality (the 305(b) Report) will contain information on these sources. These sources include (but are not limited to):

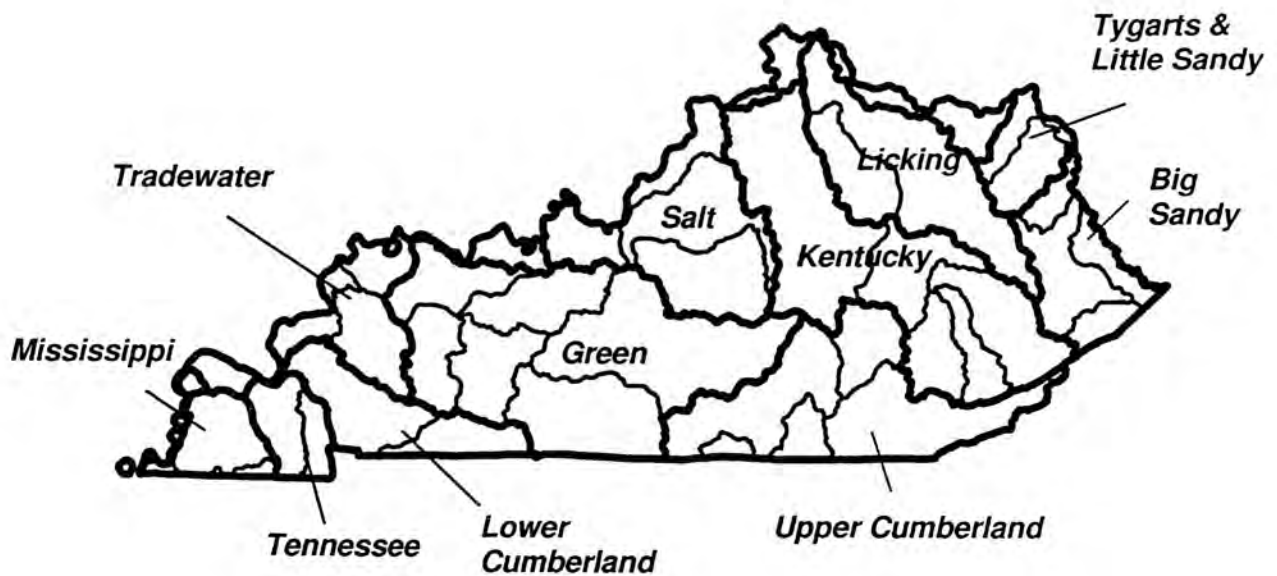


Figure 1. Major River Basins of Kentucky

Basin Schedule. Each basin will be phased into the Watershed Framework schedule as listed below:

- July 1997 – Kentucky River Basin
- July 1998 – Salt and Licking River Basins
- July 1999 – Cumberland, Tennessee, and Mississippi River Basins
- July 2000 – Green and Tradewater River Basins
- July 2001 – Big Sandy, Little Sandy, and Tygarts River Basins

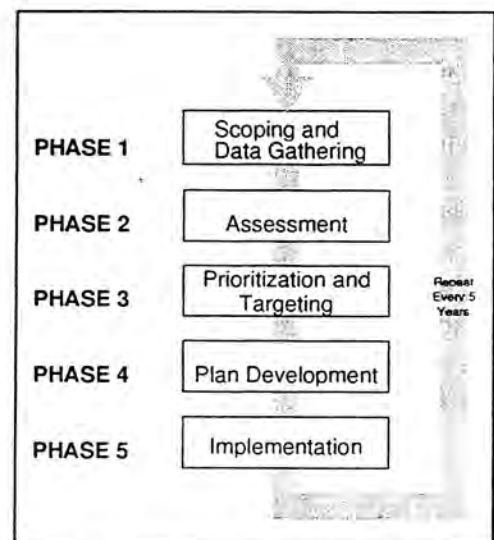


Figure 2. Basin Management Cycle

Kentucky Department for Environmental Protection
Kentucky Department of Fish and Wildlife Resources
Kentucky State Nature Preserves Commission
Louisville and Jefferson County Metropolitan Sewer District
Lexington/Fayette Urban County Government
U.S. Fish and Wildlife Service
U.S. Forest Service
U.S. Army Corps of Engineers
U.S. Geological Survey
Ohio River Valley Water Sanitation Commission
Discharge Monitoring Reports
Water Quality Data from other states (Tennessee, Virginia, West Virginia)
State Universities

The focus of this monitoring was to provide information to determine whether designated uses were being met. These uses are warmwater aquatic habitat use (referred to as aquatic life use in this report), primary contact recreation (referred to as swimming in this report), drinking water supply use, and the protection of human health from the consumption of fish tissue (referred to as fish consumption in this report) and Outstanding State Resource Water (OSRW). As a result of increased assessment monitoring, a large number of stream segments were identified as being impaired. Typically 35 to 40 percent of the stream segments that were assessed were determined to be impaired (either partially supporting or nonsupporting of one or more designated uses).

For the 2002 303(d) Report, assessment information from the Kentucky, Salt/Licking, and Tennessee/Mississippi/Cumberland River Unit assessment monitoring periods was available for inclusion. Therefore, there are many additional stream and lake listings for these three watershed units from what was included in the 1998 303(d) Report. However, very little new assessment information is available for either the Tradewater/Green River Unit, or the Big and Little Sandy/Tygarts Unit. Some new information is also available from ORSANCO on the Ohio River (main stem).

LISTING METHODOLOGY AND USE SUPPORT ASSESSMENT

The 1998 303(d) Report listings were used as the starting point for the 2002 303(d) Report list (Kentucky did not produce a 2000 303(d) Report). The 1998 303(d) Report listings were carried forward to this report and the new assessment information was incorporated into those 1998 303(d) Report listings. In many cases, incorporating this new information resulted in many of the 1998 303(d) Report listings (particularly the longer stream segments) being broken up into several listings. The result is that this effectively makes some 1998 Report listings no longer relevant.

All of the assessment information used to compile the 2000 and 2002 (in draft) Kentucky Report to Congress on Water Quality (the 305(b) Report) was used in producing the listings contained in this (the 2002) 303(d) Report. This is in keeping with what is currently being referred to as the 'Integrated Listing Methodology.' Please refer to the 2000 and 2002 305(b) Reports for

information on use support assessments for streams and lakes in Kentucky. For each watershed management unit within the Watershed Management Framework, a monitoring meeting was held several months prior to the initiation of data collection efforts by the KDOW in that watershed management framework. These meetings were designed to bring those institutional groups together that were involved in data collection efforts within the watershed unit. It was also designed to make these groups aware of the KDOW's efforts with respect to the watershed management unit. In this manner, all of the parties were aware of each other's data collection and monitoring efforts throughout that watershed unit. Therefore, through these meetings, the KDOW was aware of which institutional groups were collecting data that could be used for assessment purposes for compiling the 305(b) Report. That information was subsequently gathered for 305(b) assessment (and Report) purposes. The assessments produced through this process were used to develop the 2002 303(d) Report.

The 305(b) Report uses all available information on stream and lake water quality that is considered reliable from the standpoint of quality assurance and quality control. Some of those groups that collect that data were identified previously and additional information is contained in the 305(b) Report. Citizen data are used as a screening tool to define stream segments that may have potential water quality problems. However, the KDOW does not use citizen data independently for listing and assessment purposes at this time. Citizen data are used as a screening tool to define stream segments that may have potential water quality problems. Follow-up monitoring is done (based on available resources) on those stream segments that have the highest potential for water quality problems so that a use-assessment determination can be done. One of the reasons that the KDOW does not currently use citizen data independently for assessment purposes is that the KDOW does not currently have a program established or the resources available to fully assess and manage citizen-generated data. Currently, there is no agreement on quality assurance/quality control practices with the citizen groups for citizen data, or the available human resources to carry out what would be considerable QA/QC requirements. As such, the KDOW is not in a position to defend this data if the KDOW should use the data for listing and assessment purposes, and the data are subsequently questioned. The KDOW uses data collected by institutional entities (including university data collected through affiliation with a KDOW program, such as 319 Assessment Monitoring) for assessment purposes because the KDOW deems that the institution and KDOW are better positioned to defend the data. In these cases, KDOW personnel review work plans and QA/QC procedures to be used by the university personnel involved in the data collection and/or analysis.

Stream segments identified as being in nonsupport of one or more designated uses are classified as 1st Priority in this 303(d) Report. Stream segments identified as being in partial support of one or more designated uses (but not nonsupport of any use) are classified as 2nd Priority in this 303(d) Report. Waters with federally threatened or endangered species in November 1975 have an existing use of Outstanding Resource Water, and the loss or significant decline of one of these populations constitutes a use impairment. Stream segments in this category are listed as First Priority. Waters were further prioritized based on the use impairment, and extent of public concern.

TABLE LISTINGS IN THE 2002 303 (d) REPORT

All of the tables are located in the back of the report. Tables 1 and 2 in this report are alphabetic listings of the impaired streams and lakes in Kentucky, respectively. Tables 3 through 7 are for each of the watershed management units. Table 8 lists the Ohio River impairments. Table 9 lists the lake impairments.

Tables 3 through 9 are broken into either five or seven categories. The first category is 'Modifications to the 1998 303(d) Report' (1st and 2nd Priority). This provides information on changes that are warranted to the 1998 303(d) Report listings. A description is given as to the action that was taken. The second category is 'Delistings' (1st and 2nd Priority), where new information indicates that the stream fully supports the designated use, or where a pollutant of concern is no longer causing or contributing to an impairment. The third category is 'Approved TMDLs - those which have been developed for specific stream segments and specific pollutants of concern and formally approved by EPA. In some instances, selected stream segments in the same watershed have been grouped together under a 'watershed' heading. The fourth category is 'TMDLs Under Development.' These are in various stages of development. The fifth category is '2002 303(d) Listings' (1st and 2nd Priority). These fifth category listings are comprehensive in that they contain not only the impaired waters but also the waters that are being delisted and the waters that have approved TMDLs. This was done to allow for a comprehensive listing of all streams that were listed as impaired, have been delisted, or have an approved TMDL. This should allow report users to more easily determine if an approved TMDL is available or if a formerly 303(d)-listed stream has been delisted. The sixth category (which is not included in either Table 8 or Table 9), 'Stream Segments Needing Additional Information before Being 303(d) Listed,' shows stream segments for which adequate assessment information was not available, but for which there is an indication of an impairment. These sites will be reassessed during the next monitoring cycle for that watershed unit. The seventh category (which is not included in either Table 8 or Table 9), 'Stream Segments That May Be Impaired Based Solely on Discharge Monitoring Reports (DMRs)' was added as a result of comments received on the draft report. The stream segment immediately downstream from a discharger who is in significant noncompliance with their permit limits (based on DMR information) may be shown in the 305(b) Report as being impaired. This is a subjective determination based on best professional judgement and taking several factors into consideration, including the pollutant of concern and receiving stream attributes. In these cases, no in-stream data exists to confirm that an impairment exists. In addition, this assumed impairment is a permit compliance issue. If the permit limits were being met, then there would be no 305(b) Report listing. A presumed impairment based on DMRs is not a 303(d) issue because if permit discharge limits were being met, then in-stream water quality would not be adversely impacted by the discharge. Therefore, no reallocation of pollutant load is necessary; the permittee needs to meet discharge limits. These streams are listed as a means of accounting for 305(b) listings of impaired waters that do not require a TMDL.

OHIO RIVER (MAIN STEM) LISTING INFORMATION

River Miles (RM) in this report for the main stem of the Ohio River use the U.S. Army Corps of Engineers (COE) convention that RM 0.0 is at the confluence of the Allegheny and Monongahela Rivers (Pittsburgh, Pennsylvania) and that the mouth of the Ohio River is at RM 981.0. Using this convention, the Ohio River along Kentucky's border extends from RM 981.0 (the mouth of the Ohio River) to RM 317.1 (the confluence of the Ohio River and the Big Sandy River. Normal river mileage convention, and that used on Kentucky Pollutant Discharge Elimination System (KPDES) permits, is RM 0.0 at the mouth of the Ohio River and RM 663.9 at the confluence of the Ohio River and Big Sandy River. This report uses the COE mileage convention because bordering states' 303(d) Reports and agencies outside Kentucky use the COE convention, making cross-referencing between states' 303(d) Reports practicable.

ORSANCO is the Ohio River Valley Water Sanitation Commission. ORSANCO is an agency that, among other activities, promotes coordination of water quality monitoring activities between the various states on the main stem of the Ohio River. Part of the funding for this activity comes from the states that border the Ohio River. These states are: New York, Pennsylvania, Virginia, West Virginia, Ohio, Kentucky, Indiana, and Illinois. The data collected by ORSANCO, and other agencies, are used to assess whether designated uses for the Ohio River are being met. The Kentucky Division of Water does not collect any information on the main stem of the Ohio River and relies on data collection by ORSANCO and other agencies.

More recently, ORSANCO is promoting consistency in 303(d) Report listings for the Ohio River among the bordering states. For the 2002 303(d) Report, this isn't completely possible for Kentucky because Kentucky has listings that appeared in the 1998 303(d) Report (that must be carried forward) that other border states did not. Differences in water quality standards for the Ohio River also present a challenge to consistency of assessing the various stream segments and 303(d) Report listing. Also, ORSANCO is just now collecting certain types of data for the most downstream segments of the Ohio River (in particular dioxin), so assessment of those segments for particular pollutants is not yet possible. However, data collection is continuing. Also, only limited pathogens data is available for most segments of the Ohio River.

In the 1998 303(d) Report for Kentucky, PCBs were shown as a pollutant of concern for the entire length of the Ohio River along Kentucky's border (from RM 981.0 to 317.1). That listing remains in effect for this 303(d) Report, and therefore fish consumption is an impaired use for the entire length of the Ohio River along Kentucky's border (RM 981.0 to 317.1). In the 1998 303(d) Report for Kentucky, Priority Organics (specifically chlordane) was shown as a pollutant of concern for the entire reach of the Ohio River along Kentucky's border. Fish tissue analysis shows that chlordane levels in fish tissue have been below the FDA Action Level for several years. A request to delist the main stem of the Ohio River for priority organics (specifically chlordane) was submitted to EPA Region 4. EPA Region 4 concurred, and informally delisted the Ohio River main stem along Kentucky's border (RM 981.0 to 317.1) for priority organics (specifically chlordane). A request to formally delist the main stem of the Ohio River along Kentucky's border for chlordane will be submitted with the 2002 303(d) Report.

In the 1998 303(d) Report for Kentucky, several segments of the Ohio River along Kentucky's border were listed as not meeting the swimmable (swimming) designated use because of pathogens. Those listings have been carried forward and any additional stream miles that recent ORSANCO assessment information has shown as being impaired by pathogens have been incorporated into this 303(d) Report listing.

Dioxin sampling has just recently been initiated on the Ohio River main stem along Kentucky's border. For many of the most downstream segments of the Ohio River along Kentucky's border, limited dioxin data are available, making an assessment with respect to dioxin in those segments inappropriate at this time. Data are sufficient to make this assessment in upper reaches. Data continue to be collected by ORSANCO.

Fish tissue analysis for mercury has also been conducted for the Ohio River along Kentucky's border. For consistency between the assessment information contained in Kentucky's 305(b) Report and the listing of impaired waters in Kentucky's 303(d) Report, the 303(d) Report will adhere to the assessment criteria used in Kentucky's 305(b) Report. The Kentucky 305(b) Report uses the EPA recommended criteria that a stream segment is considered impaired if the concentration of methylmercury in fish tissue is greater than 0.3 ppm. Therefore, for purposes of both 305(b) and 303(d) reporting, waters are not considered impaired unless fish exhibit mercury tissue concentrations of at least 0.3 ppm. Currently, ORSANCO defines total mercury from fish tissue analysis - methylmercury would be a fraction of the total mercury. The Great Lakes protocol recommends a one meal per week advisory for methylmercury concentrations of 0.12 to 0.24 ppm. However, Kentucky and several other states have determined that one-meal-per-week fish advisories do not constitute a violation of water quality standards and deems the EPA recommended value of 0.3 ppm as the most appropriate value to use for defining impairment.

KENTUCKY'S PROGRESS IN DEVELOPING TMDLs FOR THE 1998 303 (d) REPORT LISTINGS

TMDL development has been incorporated into the Watershed Management Framework in Kentucky. For each watershed management unit, priority watersheds for TMDL development would be delineated based on various factors including agency priorities for human health, aquatic life, drinking water sources, and fish consumption. River basin teams established as part of the Watershed Management Framework select priority watersheds, some of which have impaired stream segments or impaired lakes. TMDLs for priority watersheds within each watershed unit are targeted for development during the 3rd year and extending into the 4th year of each particular watershed unit.

The 2002 National Academy of Sciences stated in June 2001 that the goal of state water quality programs, including the TMDL Program, should be the ultimate delisting of impaired waters for pollutants of concern. TMDLs are one tool that can be used as part of the process to bring an impaired water back to supporting designated uses. With respect to the 1998 303(d) listed streams, Kentucky has tried to identify those stream segments that now fully support their

designated uses and therefore should be delisted, as well as developing TMDLs for those needing remediation.

For the 2002 303(d) Report, Kentucky will submit 53 waterbody/pollutant combinations for delisting based either on a modification needed to the 1998 303(d) Report listings or delisting based on new data, which show that the stream segment is no longer impaired for the pollutant of concern. Kentucky has previously submitted and already received informal EPA approval on 22 of these 53 delisting/modification requests. Kentucky also has approved TMDLs that include 44 waterbody/pollutant combinations of which 5 were approved prior to the 1998 303(d) Report approval. Kentucky also will submit a request to EPA Region 4 to delist 11 partial stream segments. Kentucky currently has 38 TMDLs under development, 4 of which have (1) EPA Region 4 informal approval, (2) received no comment from the 30-day public comment period, and (3) have been submitted to EPA Region 4 for formal approval. Three (3) others, 2 of which are included on the 1998 303(d) Report list, have gone through the 30-day public comment period and have been submitted to EPA Region 4 for formal approval. Two others have been submitted to EPA for informal approval.

For those waterbodies included on the 1998 303(d) Report list for which a delisting or approved TMDL did not already exist, a synopsis is:

- 53 Delistings/Modifications requests will be submitted with the 2002 303(d) Report, of which 22 have EPA Region 4 informal approval.
- 37 Approved TMDLs (as previously mentioned, 5 of these TMDLs approved after the 1998 303(d) Report was approved but for which the streams were not included on the 1998 303(d) Report listings. There are 5 other TMDLs approved prior to approval of the 1998 303(d) Report. Two other stream segments had approved TMDLs, but are being delisted. Therefore, they are included in the delistings and not with the approved TMDLs.
Therefore:
- 90 Total Delistings/Modifications/Approved TMDLs for waterbody/pollutant combinations included on the 1998 303(d) Report list.

There are 367 waterbody/pollutant combinations included on the 1998 303(d) Report list and including the 5 streams which weren't included on the 1998 303(d) Report list brings the total to 372. The completion rate is 24% and is keeping with the completion schedule agreed to between Kentucky and EPA Region 4. For the years from 1998 - 2002, Kentucky was scheduled to produce 77 TMDLs/Delistings.

In addition (as mentioned previously):

- 7 Partial segments will be submitted for delisting (which include 12 pollutants of concern)
- 38 TMDLs are currently under development.

A breakdown by Watershed Management Unit is:

Kentucky River Unit

- 3 Modification requests to the 1998 303(d) Report listing, which will result in 3 stream segments being included under a previously approved TMDL
- 10 Informally approved delistings, but one of which will need to be omitted from consideration
- 4 Additional delisting requests, 2 of which have approved TMDLs
- 6 Approved TMDLs, 2 of which will be submitted for delisting, and one of which was approved prior to 1998 303(d) Report approval.

Therefore, as relates to the 1998 303(d) Report there are:

- 16 Delistings/Modifications
- 3 Approved TMDLs
- 1 Partial delistings
- 7 TMDLs under development, 2 of which have been submitted to EPA for informal approval.

Salt/Licking River Unit

- 1 Informally approved delisting
- 8 Additional delisting requests
- 16 Approved TMDLs (waterbody/pollutant combinations), 3 of which were approved prior to approval of the 1998 303(d) Report and 4 of which were not on the 1998 303(d) list, but for which the TMDLs were done in conjunction with other streams that were on the 1998 303(d) Report list.

Therefore, as relates to the 1998 303(d) Report there are:

- 9 Delistings/Modifications
- 13 Approved TMDLs
- 2 Partial delistings
- 12 TMDLs under development

Tennessee/Mississippi/Cumberland River Unit

- 1 Modification to the 1998 303(d) Report listing, which removes fish consumption as an impaired use, but which doesn't count against the number of TMDLs/delistings required
- 4 Informally approved delistings
- 5 Additional delisting requests
- 17 Approved TMDLs (waterbody/pollutant combinations)

Therefore, as relates to the 1998 303(d) Report there are:

- 9 Delistings/Modifications
- 17 Approved TMDLs
- 8 Partial delistings
- 6 TMDLs under development

Tradewater/Green River Unit

- 2 Modification to the 1998 303(d) Report listing
- 0 Informally approved delistings
- 1 Additional delisting
- 2 Approved TMDLs

Therefore, as relates to the 1998 303(d) Report there are:

- 3 Delistings/Modifications
- 2 Approved TMDLs
- 1 Partial delisting
- 12 TMDLs under development

Big and Little Sandy/Tygarts Unit

- 0 Informally approved delistings
- 0 Modification to the 1998 303(d) Report listing
- 0 Additional delisting
- 2 Approved TMDLs, one of which was approved prior to 1998 303(d) Report approval.

Therefore, as relates to the 1998 303(d) Report there are:

- 0 Delistings/Modifications
- 1 Approved TMDLs
- 0 Partial delisting
- 0 TMDLs under development

Ohio River (Main Stem)

- 3 Modifications to the 1998 303(d) Report listing, which was really a duplicate listing.
- 1 Informally approved delisting
- 0 Additional delistings
- 0 Approved TMDLs

Therefore, as relates to the 1998 303(d) Report there are:

- 4 Delistings/Modifications
- 0 Approved TMDLs
- 0 Partial delisting
- 0 TMDLs under development

Lakes (Statewide)

- 1 Modifications to the 1998 303(d) Report listing
- 2 Informally approved delistings
- 9 Additional delisting requests
- 1 Approved TMDL

Therefore, as relates to the 1998 303(d) Report there are:

- 12 Delistings/Modifications
- 1 Approved TMDL
- 0 Partial delistings
- 1 TMDL under development

The breakdown indicates that the focus for TMDL development has been toward the first three watershed units. However, some effort has been given toward TMDL development in the Tradewater/Green River Unit in anticipation of priority watershed selection by the Tradewater/Green River Basin Team. TMDLs have been developed or are in the process of being developed for those streams in the 1998 303(d) Report shown as First Priority for the Kentucky River unit if the stream has not been delisted. For 2003-04, a pathogens TMDL is planned for Elkhorn Creek – data are currently being collected. For the Salt/Licking River Unit, the 1998 303(d) Report contains a large number of 1st Priority Salt/Licking Unit streams, many in Jefferson County. Currently the focus has been on the Fleming Creek watershed (in the Licking River basin), where 11 pathogens TMDLs have been approved and several TMDLs for nutrients and organic enrichment/Low DO are being developed. For 2003-04, a pathogens TMDL is planned for the Beargrass Creek watershed (Middle Fork, South Fork, and Muddy Fork) in Jefferson County. Two other streams, Mussin Branch and UT to Rolling Fork River (both in the Salt River basin) are also targeted for TMDL development in 2003. For the Tennessee/Mississippi/Cumberland River Unit, 17 TMDLs have been approved, 16 of which are for streams in the Upper Cumberland River impaired because of pathogens. Several TMDLs are being developed for streams in the watershed which are impaired because of Low pH from acid mine drainage. The six streams shown as being under development in the Tennessee/Mississippi/Cumberland River Unit are targeted for completion in 2003 (See Table 5 - Tennessee/Mississippi/Cumberland River Unit – TMDLs Under Development).

ORSANCO, at the states' request, will develop TMDLs for the main stem of the Ohio River for the pollutants of concern. As with data collection, ORSANCO is progressing in a downstream direction with respect to developing TMDLs for the main stem of the Ohio River. This is a logical approach because of the current approach to data collection and assessment, and because TMDLs for downstream segments will use the information developed from the TMDLs developed for the upstream segments.

There are no TMDLs currently being developed for the main stem of the Ohio River along the Kentucky border. ORSANCO is in the process of developing TMDLs for the Ohio River in the upper reaches along the West Virginia and Ohio border and on selected major tributaries of the upper Ohio River. This process will continue in a downstream direction. It will therefore be several years before TMDL development will be initiated for the Ohio River along the Kentucky border. Kentucky intends to have ORSANCO do the data collection and modeling for the Ohio River along Kentucky's border. It is anticipated that the adjoining states of Ohio, Indiana, and Illinois will also have ORSANCO perform these tasks. The states would then be responsible for actual TMDL development using this information. No schedule has been set for this process at this time.

RECOMMENDED WATERS FOR TMDL DEVELOPMENT

Kentucky has reported a significant number of delistings for waterbody/pollutant combinations shown in the 1998 303(d) Report list. With those delistings, and combined with the number of approved TMDLs, Kentucky is slightly ahead of the TMDL development schedule that has been

agreed to by Kentucky and EPA Region 4 (see above). According to that schedule, Kentucky is to develop 19 TMDLs in 2003 and 22 TMDLs in 2004, for a total of 41 TMDLs. Kentucky also has a significant number of TMDLs (38) currently under development (see above).

Kentucky plans, for the period 2003 and 2004, to complete the 38 TMDLs currently under development plus the 3 pathogens TMDLs for Middle Fork, South Fork, and Muddy Fork of Beargrass Creek in Jefferson County, Kentucky. This brings the total to 41, which matches the previous schedule. To account for the new listings, Kentucky plans to develop 10 additional TMDLs in 2004. This would bring the total number of TMDLs to 32 for 2004. These 10 TMDLs would be for the listings for (1) South Fork Little River (siltation, nutrients, and pathogens) and (2) North Fork Little River (siltation, nutrients, pathogens, and unknown toxicity), both in Christian County (in the Tennessee/Mississippi/Cumberland River Unit), (3) Elkhorn Creek (pathogens) in Franklin County (in the Kentucky River Unit), and (4) East Hickman Creek (pathogens and nutrients) in Fayette County (in the Kentucky River Unit).

With respect to monitoring for the next 5-year watershed cycle scheduled to start in the spring of 2003, it is proposed that much of the monitoring resources be applied to TMDL development (approximately 75-80%). For the 1st 5-year cycle, monitoring resources were targeted mostly for assessment monitoring. Because many of the impairments included in this 303(d) Report were defined based on a biological assessment, there is no quantitative pollutant data for TMDL development. Also, these assessments were usually made near the lower end of a 4th order stream, which generally corresponds to a fairly large watershed. As a first step, it is planned that a number of impaired stream segments be selected and prioritized. Stream sites within the watershed would be selected, and rapid biological assessment protocols and bacteriological sampling would be used in conjunction with land-use delineation techniques to define sub-areas in the watershed that are contributing most to the impairment defined at the 4th order downstream location. From the results of this rapid biological assessment, selected streams could be targeted for water quality data collection. Then the TMDL could be developed. Resources for water sample and bacteriological analysis are limited and would likely be the determining factor in the number of 4th order streams and the number of subwatershed sites that could be targeted.

SUMMARY

Kentucky is currently producing TMDLs in accordance with the schedule agreed to by EPA and Kentucky. However, Kentucky will need to significantly increase the capacity for developing TMDLs in the very near future. The schedule for development of the 1998 303(d) listed waterbodies is on an increasing scale from year to year. As a result of the assessment findings from the first three of five watershed management units, the number of waterbody/pollutant combinations now stands at 949. The 1998 listings of 367 waterbody/pollutant combinations were to be completed in a 13-year period. If 13 years are given to complete the 2002 303(d) listings, this is an average of 45 TMDLs per year from the 2002 list (949-367/13), in addition to the TMDLs scheduled for the 1998 list, which is 19 for 2003 and 22 for 2004, and escalates to 47 for 2011. Also, because many of the newly identified impairments are based on biological assessments, no chemical quality data currently exists for development of many TMDLs.

Table 1. Alphabetic Listing of 2002 303(d) Listed Streams for Kentucky

Note: In the actual 303(d) listings, there may be multiple 303(d) listed streams for any entry shown here. This occurs if the different stream segments are in the same county, have the same priority status, but have different pollutants of concern. The number in parentheses under 'Status' denotes the number of pollutants of concern.

<u>River Name</u>	<u>County</u>	<u>Status</u>	<u>Watershed Unit</u>
Allen Fork of Woolper Creek	Boone	1 st Priority	Salt/Licking
Allison Creek of Fleming Creek	Fleming	TMDL Approved (1)	Salt/Licking
Allison Creek of Fleming Creek	Fleming	TMDL Under Development (3)	Salt/Licking
Angle Creek of Little Cypress Creek	Marshall	1 st Priority	TN/MS/Cumberland
Arnolds Creek of Ten mile Creek	Grant	2 nd Priority	Kentucky
Bacon Creek of Nolin River	Hart/Larue	1 st Priority	Tradewater/Green
Bailey Creek of Clover Fork	Harlan	TMDL Approved (1)	TN/MS/Cumberland
Balls Fork of Troublesome Creek	Knott	1 st Priority	Kentucky
Banklick Creek of Licking River	Kenton	1 st Priority	Salt/Licking
Banta's Fork of Salt River of Six Mile Creek	Henry	2 nd Priority	Kentucky
Barren River of Green River	Warren	Delisted (partial-1)	Tradewater/Green
Barren River of Green River	Warren	2 nd Priority	Tradewater/Green
Baughman Fork of Boone Creek	Fayette	2 nd Priority	Kentucky
Baughman Fork of Boone Cr (actually a UT to Baughman Fork)	Fayette	TMDL Approved (2)	Kentucky
Bayou Creek of Ohio River	McCracken	1 st Priority	TN/MS/Cumberland
Bayou de Chien of Mississippi River	Graves/Hickman	1 st Priority	TN/MS/Cumberland
Bear Creek of South Fork Cumberland River	McCreary	1 st Priority	TN/MS/Cumberland
Bear Creek of Tennessee River (Kentucky Lake)	Marshall	1 st Priority	TN/MS/Cumberland
Beargrass Creek of Ohio River	Jefferson	1 st Priority	Salt/Licking
Beaver Creek of Licking River	Menifee	2 nd Priority	Salt/Licking
Becks Creek of Jellico Creek	Whitley	1 st Priority	TN/MS/Cumberland
Bee Creek of Clarks River	Calloway	1 st Priority	TN/MS/Cumberland
Beech Creek of Pond Creek	Muhlenburg	TMDL Under Development (1)	Tradewater/Green
Beech Fork of Rolling Fork	Nelson/Washington	2 nd Priority	Salt/Licking
Beechy Creek of Blood River	Calloway	Delisted (1)	TN/MS/Cumberland

Table 1 --continued. Alphabetic Listing of 2002 303(d) Listed Streams for Kentucky

<u>River Name</u>	<u>County</u>	<u>Status</u>	<u>Watershed Unit</u>
Benson Creek of Kentucky River	Franklin	1 st Priority	Kentucky
Benson Creek of Kentucky River	Franklin	2 nd Priority	Kentucky
Big Bone Creek of Ohio River	Boone	2 nd Priority	Salt/Licking
Big Caney Creek of Quicksand Creek	Breathitt	2 nd Priority	Kentucky
Big Indian Creek of Cumberland River	Knox	1 st Priority	TN/MS/Cumberland
Big Lily Creek of Cumberland River (Lake Cumberland)	Russell	Delisted (1)	TN/MS/Cumberland
Big Renox Creek of Cumberland River	Cumberland	2 nd Priority	TN/MS/Cumberland
Big Sandy River of Ohio River	Lawrence	2 nd Priority	Big and Little Sandy/Tygarts
Big South Fork of Rolling Fork	Marion	1 st Priority	Salt/Licking
Big Twin Creek of Kentucky River	Owen	2 nd Priority	Kentucky
Big Willard Creek of North Fork Kentucky River	Perry	1 st Priority	Kentucky
Blacks Creek of Hinkston Creek	Bourbon	2 nd Priority	Salt/Licking
Blizzard Pond of West Fork Clarks River	McCracken	1 st Priority	TN/MS/Cumberland
(Blue) Spring Ditch of Northern Ditch	Jefferson	1 st Priority	Salt/Licking
Boone Creek of Hinkston Creek	Bourbon	2 nd Priority	Salt/Licking
Boone Creek of Kentucky River	Fayette	1 st Priority	Kentucky
Boone Creek of Kentucky River	Fayette/Clark	2 nd Priority	Kentucky
Briary Creek of Buck Creek	Pulaski	2 nd Priority	TN/MS/Cumberland
Brier Creek of Pond River	Muhlenburg	TMDL Approved (1)	Tradewater/Green
Brooks Run of Floyds Fork	Bullitt	TMDL Under Development (3)	Salt/Licking
Brush Creek of Cumberland River	Knox	1 st Priority	TN/MS/Cumberland
Brush Creek of Obion Creek	Graves	2 nd Priority	TN/MS/Cumberland
Brush Creek of Obion Creek	Hickman	2 nd Priority	TN/MS/Cumberland
Brush Creek of Red River	Powell	2 nd Priority	Kentucky
Brush Creek of Roundstone Creek	Rockcastle	1 st Priority	TN/MS/Cumberland
Brush Creek of Twelve Mile Creek	Campbell	1 st Priority (Remediation Underway)	Salt/Licking

Table 1 --continued. Alphabetic Listing of 2002 303(d) Listed Streams for Kentucky

<u>River Name</u>	<u>County</u>	<u>Status</u>	<u>Watershed Unit</u>
Buck Creek of Clear Fork	Whitley	Delisted (3)	TN/MS/Cumberland
Buck Creek of Cumberland River	Pulaski	1 st Priority	TN/MS/Cumberland
Buck Run of Eagle Creek	Owen	1 st Priority	Kentucky
Buckhorn Creek of Rolling Fork	Marion	Delisted (1)	Salt/Licking
Buckhorn Creek of Troublesome Creek	Breathitt	1 st Priority	Kentucky
Bucks Branch of Jellico Creek	Whitley/McCreary	TMDL Under Development(1)	TN/MS/Cumberland
Bull Creek of Collins Fork	Knox	2 nd Priority	Kentucky
Bullitt Lick Creek of Salt River	Bullitt	2 nd Priority	Salt/Licking
Burning Fork of Licking River	Magoffin	1 st Priority	Salt/Licking
Butchers Branch of Blackford Creek	Hancock	TMDL Under Development (1)	Tradewater/Green
Cabin Creek of Ohio River	Mason/Lewis	1 st Priority	Salt/Licking
Caldwell Creek of Terrapin Creek	Graves	1 st Priority	TN/MS/Cumberland
Camp Creek of West Fork Clarks River	McCracken	2 nd Priority	TN/MS/Cumberland
Cane Branch of Middle Fork (Beaver Creek)	McCreary	TMDL Under Development (1)	TN/MS/Cumberland
Cane Creek of Bayou de Chien	Hickman	1 st Priority	TN/MS/Cumberland
Cane Creek of North Fork Kentucky River	Breathitt	TMDL Approved (1)	Kentucky
Cane Creek of Red River	Powell	1 st Priority	Kentucky
Cane Creek of Shawnee Creek	Ballard	2 nd Priority	TN/MS/Cumberland
Cane Run of Caney Creek	Hopkins	TMDL Under Development (1)	Tradewater/Green
Cane Run of North Elkhorn Creek	Scott/Fayette	TMDL Under Development (1)	Kentucky
Cane Run of North Elkhorn Creek	Scott	1 st Priority	Kentucky
Caney Creek of Licking River	Morgan	2 nd Priority	Salt/Licking
Caney Creek of Pond Creek	Muhlenburg	1 st Priority	Tradewater/Green
Carr Fork of North Kentucky River	Perry	TMDL Approved (1)	Kentucky
Carr Fork of North Kentucky River	Perry	2 nd Priority	Kentucky

Table 1 --continued. Alphabetic Listing of 2002 303(d) Listed Streams for Kentucky

<u>River Name</u>	<u>County</u>	<u>Status</u>	<u>Watershed Unit</u>
Cartwright Creek of Beech Fork	Washington	2 nd Priority	Salt/Licking
Casey Creek of Little River	Trigg	2 nd Priority	TN/MS/Cumberland
Cassidy Creek of Fleming Creek	Fleming	TMDL Approved (1)	Salt/Licking
Catron Creek of Martins Fork	Harlan	TMDL Approved (1)	TN/MS/Cumberland
Cedar Creek of Floyds Fork	Jefferson/Bullitt	Delisted (1)	Salt/Licking
Cedar Creek of Kentucky River	Owen	2 nd Priority	Kentucky
Central Creek of Truman Creek	Carlisle	Delisted (1)	TN/MS/Cumberland
Central Creek of Truman Creek	Carlisle	1 st Priority	TN/MS/Cumberland
Champion Creek of Island Creek	McCracken	1 st Priority	TN/MS/Cumberland
Chaplain River of Beech Fork	Mercer	1 st Priority	Salt/Licking
Chenoweth Run of Floyds Fork	Jefferson	TMDL Approved (1)	Salt/Licking
Chenoweth Run of Floyds Fork	Jefferson	1 st Priority	Salt/Licking
Chestnut Creek of Clarks River	Marshall	2 nd Priority	TN/MS/Cumberland
Christy Creek of Triplett Creek	Rowan	2 nd Priority	Salt/Licking
Clanton Creek of Humphrey Creek	Ballard	1 st Priority	TN/MS/Cumberland
Clarks River of Tennessee River	McCracken	2 nd Priority	TN/MS/Cumberland
Clarks River of Tennessee River	Calloway	Delisted (partial-4)	TN/MS/Cumberland
Clarks River of Tennessee River	Calloway	1 st Priority	TN/MS/Cumberland
Clarks River of Tennessee River	Calloway	2 nd Priority	TN/MS/Cumberland
Clarks Run of Dix River	Boyle	1 st Priority	Kentucky
Clarks Run of Dix River	Boyle	2 nd Priority	Kentucky
Claylick Creek of Cumberland River	Crittenden/Livingston	1 st Priority	TN/MS/Cumberland
Clayton Creek of Clarks River	Calloway	1 st Priority	TN/MS/Cumberland
Clayton Creek of Clarks River	Calloway	2 nd Priority	TN/MS/Cumberland
Clear Creek of Bullskin Creek	Shelby	1 st Priority	Salt/Licking

Table 1 --continued. Alphabetic Listing of 2002 303(d) Listed Streams for Kentucky

<u>River Name</u>	<u>County</u>	<u>Status</u>	<u>Watershed Unit</u>
Clear Creek of Rolling Fork	Hardin	1 st Priority	Salt/Licking
Clear Creek of Tradewater River	Hopkins	1 st Priority	Tradewater/Green
Clover Fork of Cumberland River	Harlan	TMDL Approved (1)	TN/MS/Cumberland
Clover Fork of Cumberland River	Harlan	1 st Priority	TN/MS/Cumberland
Cloverlick Creek of Poor Fork	Harlan	TMDL Approved (1)	TN/MS/Cumberland
Cloverlick Creek of Poor Fork	Harlan	1 st Priority	TN/MS/Cumberland
Collins Fork of Goose Creek	Clay	2 nd Priority	Kentucky
Cooley Creek of Mayfield Creek	Graves	1 st Priority	TN/MS/Cumberland
Cooper Run of Stoner Creek	Bourbon	1 st Priority	Salt/Licking
Cope Fork of Frozen Creek	Breathitt	2 nd Priority	Kentucky
Copper Creek of Dix River	Lincoln/Rockcastle	Delisted (partial-1)	Kentucky
Copper Creek of Dix River	Lincoln/Rockcastle	2 nd Priority	Kentucky
Copperas Fork of Cooper Creek	McCreary	TMDL Under Development (1)	TN/MS/Cumberland
Cox Creek of Salt River	Nelson/Bullitt	2 nd Priority	Salt/Licking
Craborchard Creek of Drakes Creek	Hopkins	TMDL Under Development (1)	Tradewater/Green
Craintown Branch of Fleming Creek	Fleming	TMDL Approved (1)	Salt/Licking
Craintown Branch of Fleming Creek	Fleming	TMDL Under Development (2)	Salt/Licking
Cranks Creek of Martins Fork	Harlan	2 nd Priority	TN/MS/Cumberland
Crocus Creek of Cumberland River	Cumberland/Adair	2 nd Priority	TN/MS/Cumberland
Crooked Creek of Licking River	Nicholas	1 st Priority	Salt/Licking
Crooked Creek of Ohio River	Crittenden	1 st Priority	Tradewater/Green
Crooked Creek of Rolling Fork	Bullitt	1 st Priority	Salt/Licking
Crooked Creek of Roundstone Creek	Rockcastle	2 nd Priority	TN/MS/Cumberland
Cumberland River of Ohio River	Bell	TMDL Approved (1)	TN/MS/Cumberland
Cumberland River of Ohio River	Bell	1 st Priority	TN/MS/Cumberland

Table 1 –continued. Alphabetic Listing of 2002 303(d) Listed Streams for Kentucky

<u>River Name</u>	<u>County</u>	<u>Status</u>	<u>Watershed Unit</u>
Cumberland River of Ohio River	Harlan	TMDL Approved (1)	TN/MS/Cumberland
Cumberland River of Ohio River	Harlan	1 st Priority	TN/MS/Cumberland
Cumberland River of Ohio River	Harlan	2 nd Priority	TN/MS/Cumberland
Curry's Fork of Floyds Fork	Oldham	1 st Priority	Salt/Licking
Cypress Creek of Pond River	Muhlenburg	TMDL Under Development (1)	Tradewater/Green
Cypress Creek of Pond River	Muhlenburg	TMDL Under Development (1)	Tradewater/Green
Cypress Creek of Tennessee River	Marshall	1 st Priority	TN/MS/Cumberland
Damon Creek of West Fork Clarks River	Calloway	1 st Priority	TN/MS/Cumberland
Daniels Creek of Rock Lick Creek	Breckinridge	2 nd Priority	Tradewater/Green
Dix River of Kentucky River	Garrard	1 st Priority	Kentucky
Doe Run of Ohio River	Meade	1 st Priority	Salt/Licking
Donaldson Creek of Cumberland River	Trigg	2 nd Priority	TN/MS/Cumberland
Doty Creek of Fleming Creek	Fleming	TMDL Approved (1)	Salt/Licking
Doty Creek of Fleming Creek	Fleming	1 st Priority	Salt/Licking
Drakes Creek of Barren River	Warren	1 st Priority	Tradewater/Green
Drakes Creek of Pond River	Hopkins	Delisted (1)	Tradewater/Green
Drakes Creek of Pond River	Hopkins	Delisted (1)	Tradewater/Green
Drakes Creek of Pond River	Hopkins	TMDL Under Development (1)	Tradewater/Green
Dry Creek of Cumberland River (Lake Barkley)	Trigg	1 st Priority	TN/MS/Cumberland
Dry Creek of Eddy Creek	Caldwell	2 nd Priority	TN/MS/Cumberland
Dry Creek of Ohio River	Gallatin	2 nd Priority	Salt/Licking
Dry Creek of Ohio River	Boone/Kenton	2 nd Priority	Salt/Licking
Dry Creek of Triplett Creek	Rowan	2 nd Priority	Salt/Licking
Dry Fork Creek of Noah's Spring Branch	Christian	1 st Priority	TN/MS/Cumberland
Dry Run of North Elkhorn Creek	Scott	2 nd Priority	Kentucky

Table 1 –continued. Alphabetic Listing of 2002 303(d) Listed Streams for Kentucky

<u>River Name</u>	<u>County</u>	<u>Status</u>	<u>Watershed Unit</u>
Eagle Creek of the Kentucky River	Grant/Gallatin/Owen	TMDL Under Development (1)	Kentucky
Eagle Creek of the Kentucky River	Grant/Gallatin/Owen	2 nd Priority	Kentucky
East Fork Little Sandy River	Boyd	TMDL Approved (1)	Big and Little Sandy/Tygarts
East Fork of Beech Fork	Washington	1 st Priority	Salt/Licking
East Fork of Lynn Camp Creek	Knox/Whitley	2 nd Priority	TN/MS/Cumberland
East Fork Otter Creek of Kentucky River	Madison	2 nd Priority	Kentucky
East Hickman Creek of Hickman Creek	Fayette	1 st Priority	Kentucky
Eddy Creek of Cumberland River (Lake Barkely)	Lyon	1 st Priority	TN/MS/Cumberland
Eddy Creek of Cumberland River (Lake Barkley)	Caldwell	2 nd Priority	TN/MS/Cumberland
Elijahs Creek of Ohio River	Boone	TMDL Approved (1)	Salt/Licking
Elk Creek of Eagle Creek	Owen	2 nd Priority	Kentucky
Elk Creek of Pond Creek	Hopkins	1 st Priority	Tradewater/Green
Elk Fork of Licking River	Morgan	1 st Priority	Salt/Licking
Elk Fork of Licking River	Morgan	2 nd Priority	Salt/Licking
Elk Fork of Red River	Todd	1 st Priority	TN/MS/Cumberland
Elk Spring Creek of Beaver Creek	Wayne	1 st Priority	TN/MS/Cumberland
Elkhorn Creek of Kentucky River	Franklin	TMDL Under Development(1)	Kentucky
Ewing Creek of Cumberland River	Harlan	1 st Priority	TN/MS/Cumberland
Ferguson Creek of Cumberland River	Livingston	1 st Priority	TN/MS/Cumberland
Ferguson Creek of Cumberland River	Livingston	2 nd Priority	TN/MS/Cumberland
Fern Creek/Northern Ditch of Pond Creek	Jefferson	1 st Priority	Salt/Licking
Ferris Fork Creek of Marrowbone Creek	Cumberland	1 st Priority	TN/MS/Cumberland
Flat Creek of Kentucky River	Franklin	2 nd Priority	Kentucky
Flat Creek of Licking River	Bath	1 st Priority	Salt/Licking
Flat Creek of Pond Creek	Hopkins	TMDL Under Development(1)	Tradewater/Green

Table 1 –continued. Alphabetic Listing of 2002 303(d) Listed Streams for Kentucky

<u>River Name</u>	<u>County</u>	<u>Status</u>	<u>Watershed Unit</u>
Flat Run of Stoner Creek	Bourbon	1 st Priority	Salt/Licking
Fleming Creek of Licking River	Fleming/Nicholas	TMDL Approved(1)	Salt/Licking
Fleming Creek of Licking River	Fleming/Nicholas	TMDL Under Development(2)	Salt/Licking
Floyds Fork of Salt River	Jefferson/Bullitt	TMDL Approved (1)	Salt/Licking
Floyds Fork of Salt River	Jefferson	1 st Priority	Salt/Licking
Floyds Fork of Salt River	Jefferson	2 nd Priority	Salt/Licking
Fourmile Creek of Ohio River	Campbell	Delisted (2)	Salt/Licking
Fourmile Creek of Ohio River	Campbell	1 st Priority	Salt/Licking
Fox Creek of Licking River	Fleming	1 st Priority	Salt/Licking
Fox Creek of Licking River	Fleming	2 nd Priority	Salt/Licking
Gilbert Creek of Mayfield Creek	Graves	1 st Priority	TN/MS/Cumberland
Gilmore Creek of Craborchard Creek	Lincoln/Pulaski	2 nd Priority	TN/MS/Cumberland
Goodin Creek of Cumberland River	Knox	2 nd Priority	TN/MS/Cumberland
Goose Creek of Benson Creek	Shelby	2 nd Priority	Kentucky
Goose Creek of Locust Creek	Bracken	2 nd Priority	Salt/Licking
Goose Creek of Ohio River	Jefferson	1 st Priority	Salt/Licking
Goose Creek of Ohio River	Jefferson	2 nd Priority	Salt/Licking
Goose Creek of South Fork Kentucky River	Clay	2 nd Priority	Kentucky
Goose Creek of Wilson Creek	Graves	2 nd Priority	TN/MS/Cumberland
Grapevine Creek of North Fork Kentucky River	Perry	1 st Priority	Kentucky
Grassy Lick Creek of Hinkston Creek	Montgomery	2 nd Priority	Salt/Licking
Grassy Run of Eagle Creek	Grant	2 nd Priority	Kentucky
Greasy Creek of Cumberland River	Bell	TMDL Approved (1)	TN/MS/Cumberland
Green River of Ohio River	Hart/Edmonson/Green	1 st Priority	Tradewater/Green
Green River of Ohio River	McLean/Butler/Ohio	2 nd Priority	Tradewater/Green

Table 1 –continued. Alphabetic Listing of 2002 303(d) Listed Streams for Kentucky

<u>River Name</u>	<u>County</u>	<u>Status</u>	<u>Watershed Unit</u>
Griers Creek of Kentucky River	Woodford	2 nd Priority	Kentucky
Guess Creek of Tennessee River	Livingston	2 nd Priority	TN/MS/Cumberland
Guist Creek of Brashears Creek	Shelby	2 nd Priority	Salt/Licking
Gunpowder Creek of Ohio River	Boone	TMDL Approved (1)	Salt/Licking
Gunpowder Creek of Ohio River	Boone	1 st Priority	Salt/Licking
Gunpowder Creek of Ohio River	Boone	2 nd Priority	Salt/Licking
Hammon’s Fork of Collins Fork	Knox	2 nd Priority	Kentucky
Hanging Fork of Dix River	Lincoln	1 st Priority	Kentucky
Hardins Creek of Sinking Creek	Breckinridge	1 st Priority	Salt/Licking
Hardwick Creek of Red River	Powell	1 st Priority	Kentucky
Hardy Creek of Little Kentucky River	Trimble	1 st Priority	Salt/Licking
Harrods Creek of Ohio River	Jefferson/Oldham	Delisted (partial-1)	Salt/Licking
Harrods Creek of Ohio River	Jefferson/Oldham	TMDL Approved (1)	Salt/Licking
Hatchell Branch of Eagle Creek	McCreary	2 nd Priority	TN/MS/Cumberland
Hatton Creek of Red River	Powell	2 nd Priority	Kentucky
Hawes Fork of Quicksand Creek	Breathitt	1 st Priority	Kentucky
Hazel Creek of Wetland Ponds (Axe Lake)	Ballard	1 st Priority	TN/MS/Cumberland
Hell Creek of North Fork Kentucky River	Lee	2 nd Priority	Kentucky
Hickman Creek of Kentucky River	Jessamine	2 nd Priority	Kentucky
Hickory Creek of Cumberland	Livingston	1 st Priority	TN/MS/Cumberland
Hinkston Creek of South Fork Licking River	Bourbon	1 st Priority	Salt/Licking
Hinkston Creek of South Fork Licking River	Bourbon	2 nd Priority	Salt/Licking
Hinkston Creek of South Fork Licking River	Montgomery	1 st Priority	Salt/Licking
Hinkston Creek of South Fork Licking River	Montgomery	2 nd Priority	Salt/Licking
Hite Creek of Ohio River	Jefferson	1 st Priority	Salt/Licking

Table 1 –continued. Alphabetic Listing of 2002 303(d) Listed Streams for Kentucky

<u>River Name</u>	<u>County</u>	<u>Status</u>	<u>Watershed Unit</u>
Holly Creek of North Fork Kentucky River	Wolfe	2 nd Priority	Kentucky
Horse Creek of Goose Creek	Clay	2 nd Priority	Kentucky
Houston Creek of Stoner Creek	Bourbon	1 st Priority	Salt/Licking
Houston Creek of Stoner Creek	Bourbon	2 nd Priority	Salt/Licking
Humphrey Creek of Ohio River	Ballard	2 nd Priority	TN/MS/Cumberland
Hunting Creek of Quicksand Creek	Breathitt	1 st Priority	Kentucky
Hurricane Creek of Obion Creek	Carlisle	2 nd Priority	TN/MS/Cumberland
Indian Creek of Buck Creek	Pulaski	2 nd Priority	TN/MS/Cumberland
Island Creek of Tennessee River	McCracken	1 st Priority	TN/MS/Cumberland
Island Creek of Tennessee River	McCracken	2 nd Priority	TN/MS/Cumberland
Jenneys Branch of Laurel Creek	McCreary	1 st Priority	TN/MS/Cumberland
Jeptha Creek of Guist Creek	Shelby	1 st Priority	Salt/Licking
Johnson Creek of Licking River	Magoffin	1 st Priority	Salt/Licking
Johnson Creek of Licking River	Robertson	1 st Priority	Salt/Licking
Jonathan Creek of Tennessee River (Kentucky Lake)	Calloway/Marshall	2 nd Priority	TN/MS/Cumberland
Jones Creek of North Rolling Fork	Marion	2 nd Priority	Salt/Licking
Judy Creek of Red River	Powell	1 st Priority	Kentucky
Kenady Creek of Muddy Fork	Trigg	2 nd Priority	TN/MS/Cumberland
Kentucky River of Ohio River	Madison/Fayette/ Jessamine/Clark	1 st Priority	Kentucky
Kentucky River of Ohio River	Carroll/Henry/Owen	2 nd Priority	Kentucky
Kentucky River of Ohio River	Madison/Fayette/ Jessamine/Clark	2 nd Priority	Kentucky
Kentucky River of Ohio River	Madison/Estill/Clark	2 nd Priority	Kentucky
Knob Creek of Blackmore Creek	Graves	1 st Priority	TN/MS/Cumberland
Knoblick Creek of Green River	Webster	2 nd Priority	Tradewater/Green
Knox Creek of Tug Fork	Pike	2 nd Priority	Big and Little Sandy/Tygarts

Table 1 –continued. Alphabetic Listing of 2002 303(d) Listed Streams for Kentucky

<u>River Name</u>	<u>County</u>	<u>Status</u>	<u>Watershed Unit</u>
Lacey Creek of Red River	Wolfe	2 nd Priority	Kentucky
Laurel Creek of Goose Creek	Clay	Delisted (4)	Kentucky
Laurel Creek of Goose Creek	Clay	2 nd Priority	Kentucky
Laurel Fork of Clear Fork	Whitley	1 st Priority	TN/MS/Cumberland
Laurel River of Cumberland River	Laurel	1 st Priority	TN/MS/Cumberland
Left Fork Island Creek of Island Creek	Owsley	2 nd Priority	Kentucky River
Left Fork Millstone Creek of Millstone Creek	Letcher	1 st Priority	Kentucky River
Left Fork Straight Creek of Straight Creek	Bell	TMDL Approved(1)	TN/MS/Cumberland
Left Fork Straight Creek of Straight Creek	Bell	1 st Priority	TN/MS/Cumberland
Left Fork White Oak Creek of Licking River	Morgan/Magoffin	2 nd Priority	Salt/Licking
Levisa Fork of Big Sandy River	Lawrence	1 st Priority	Big and Little Sandy/Tygarts
Levisa Fork of Big Sandy River	Johnson/Floyd	1 st Priority	Big and Little Sandy/Tygarts
Levisa Fork of Big Sandy River	Pike	1 st Priority	Big and Little Sandy/Tygarts
Lewis Creek of Green River	Ohio	2 nd Priority	Tradewater/Green
Lick Creek of Eagle Creek	Carroll	2 nd Priority	Kentucky
Lick Creek of Green River	Henderson	1 st Priority	Tradewater/Green
Lick Run Creek of Ohio River	Breckinridge	2 nd Priority	Salt/Licking
Licking River of Ohio River	Morgan	Delisted (1)	Salt/Licking
Licking River of Ohio River	Campbell/Kenton	1 st Priority	Salt/Licking
Licking River of Ohio River	Magoffin	1 st Priority	Salt/Licking
Licking River of Ohio River	Magoffin	2 nd Priority	Salt/Licking
Line Fork of Defeated Creek	Letcher	2 nd Priority	Kentucky
Little Bayou Creek of Bayou Creek	McCracken	TMDL Approved(1)	TN/MS/Cumberland
Little Bayou Creek of Bayou Creek	McCracken	1 st Priority	TN/MS/Cumberland
Little Bayou de Chien of Bayou de Chien	Fulton	1 st Priority	TN/MS/Cumberland

Table 1 –continued. Alphabetic Listing of 2002 303(d) Listed Streams for Kentucky

<u>River Name</u>	<u>County</u>	<u>Status</u>	<u>Watershed Unit</u>
Little Bayou de Chien of Bayou de Chien	Hickman	2 nd Priority	TN/MS/Cumberland
Little Clear Creek of Clear Creek	Bell	1 st Priority	TN/MS/Cumberland
Little Creek of Obion Creek	Carlisle	1 st Priority	TN/MS/Cumberland
Little Cypress Creek of Cypress Creek	Marshall	1 st Priority	TN/MS/Cumberland
Little Cypress Creek of Obion Creek	Graves	1 st Priority	TN/MS/Cumberland
Little Goose Creek of Goose Creek	Jefferson	Delisted (1)	Salt/Licking
Little Goose Creek of Goose Creek	Jefferson	1 st Priority	Salt/Licking
Little Kentucky River of Ohio River	Henry	2 nd Priority	Salt/Licking
Little Laurel River of Laurel River	Laurel	1 st Priority	TN/MS/Cumberland
Little Mud Creek of Bayou de Chien	Fulton	2 nd Priority	TN/MS/Cumberland
Little Pitman Creek of Pitman Creek	Taylor/Green	Delisted (1)	Tradewater/Green
Little Pitman Creek of Pitman Creek	Taylor/Green	1 st Priority	Tradewater/Green
Little Popular Creek of Cumberland River	Knox	2 nd Priority	TN/MS/Cumberland
Little River of Cumberland River (Lake Barkley)	Trigg	Delisted (1)	TN/MS/Cumberland
Little River of Cumberland River (Lake Barkley)	Trigg	1 st Priority	TN/MS/Cumberland
Little River of Cumberland River (Lake Barkley)	Trigg	2 nd Priority	TN/MS/Cumberland
Little River of Cumberland River (Lake Barkley)	Christian	1 st Priority	TN/MS/Cumberland
Little River of Cumberland River (Lake Barkley)	Trigg/Christian	2 nd Priority	TN/MS/Cumberland
Little Sandy River of Ohio River	Greenup/Carter	2 nd Priority	Big and Little Sandy/Tygarts
Little South Fork of South Fork Cumberland River	Wayne/McCreary	1 st Priority	TN/MS/Cumberland
Little Stoner Creek of Stoner Creek	Clark	1 st Priority	Salt/Licking
Livingston Creek of Cumberland River	Crittenden/Lyon	1 st Priority	TN/MS/Cumberland
Livingston Creek of Cumberland River	Crittenden	2 nd Priority	TN/MS/Cumberland
Locust Creek of Licking River	Fleming	2 nd Priority	Salt/Licking
Locust Creek of Ohio River	Bracken	1 st Priority	Salt/Licking

Table 1 --continued. Alphabetic Listing of 2002 303(d) Listed Streams for Kentucky

<u>River Name</u>	<u>County</u>	<u>Status</u>	<u>Watershed Unit</u>
Logan Run of Fleming Creek	Fleming	TMDL Approved (1)	Salt/Licking
Logan Run of Fleming Creek	Fleming	1 st Priority	Salt/Licking
Long Falls Creek of Green River	McLean	2 nd Priority	Tradewater/Green
Long Fork of Buckhorn Creek	Breathitt	1 st Priority	Kentucky
Long Lick Creek of Salt River	Bullitt	1 st Priority	Salt/Licking
Long Pond Branch of Muddy Fork Little River	Trigg	1 st Priority	TN/MS/Cumberland
Long Run of Floyds Fork	Jefferson	1 st Priority	Salt/Licking
Looney Creek of Poor Fork	Harlan	TMDL Approved (1)	TN/MS/Cumberland
Lost Creek of Troublesome Creek	Breathitt	1 st Priority	Kentucky
Lotts Creek of North Kentucky River	Perry	1 st Priority	Kentucky
Lower Branch of North Fork Licking River	Christian	2 nd Priority	TN/MS/Cumberland
Lower Buffalo Creek of South Fork Kentucky River	Owsley	2 nd Priority	Kentucky
Lower Howard Creek of Kentucky	Clark	1 st Priority	Kentucky
Lulbegrud Creek of Red River	Clark/Powell	2 nd Priority	Kentucky
Lynn Camp Creek of Laurel River	Laurel/Knox/Whitley	1 st Priority	TN/MS/Cumberland
Lynn Camp Creek of Laurel River	Knox/Whitley	2 nd Priority	TN/MS/Cumberland
Lytles Fork of Eagle Creek	Scott County	2 nd Priority	Kentucky
Marrowbone Creek of Cumberland Creek	Cumberland	2 nd Priority	TN/MS/Cumberland
Marsh Creek of Cumberland River	McCreary	1 st Priority	TN/MS/Cumberland
Martins Fork of Clover Fork	Harlan	TMDL Approved (1)	TN/MS/Cumberland
Martins Fork of Clover Fork	Harlan	1 st Priority	TN/MS/Cumberland
Martins Fork of Clover Fork	Harlan	2 nd Priority	TN/MS/Cumberland
Massac Creek of Ohio River	McCracken	Delisted (2)	TN/MS/Cumberland
Massac Creek of Ohio River	McCracken	2 nd Priority	TN/MS/Cumberland
Mayfield Creek of Mississippi River	Carlisle	1 st Priority	TN/MS/Cumberland

Table 1 --continued. Alphabetic Listing of 2002 303(d) Listed Streams for Kentucky

<u>River Name</u>	<u>County</u>	<u>Status</u>	<u>Watershed Unit</u>
Mayfield Creek of Mississippi River	Graves	1 st Priority	TN/MS/Cumberland
Mayfield Creek of Mississippi River	Calloway	1 st Priority	TN/MS/Cumberland
Mayfield Creek of Mississippi River	Carlisle/Ballard	2 nd Priority	TN/MS/Cumberland
Mayfield Creek of Mississippi River	Carlisle	2 nd Priority	TN/MS/Cumberland
Mayfield Creek of Mississippi River	McCracken	2 nd Priority	TN/MS/Cumberland
Mayfield Creek of Mississippi River	Graves	2 nd Priority	TN/MS/Cumberland
McConnell Run of North Fork Elkhorn Creek	Scott	2 nd Priority	Kentucky
Meadow Creek of Cumberland River	Whitley/Knox	2 nd Priority	TN/MS/Cumberland
Meadow Creek of South Fork Kentucky River	Owsley	2 nd Priority	Kentucky
Middle Fork Beargrass Creek of Beargrass Creek	Jefferson	Delisted (partial-1)	Salt/Licking
Middle Fork Beargrass Creek of Beargrass Creek	Jefferson	1 st Priority	Salt/Licking
Middle Fork Clarks River of Clarks River	Calloway	1 st Priority	TN/MS/Cumberland
Middle Fork Clarks River of Clarks River	Calloway	2 nd Priority	TN/MS/Cumberland
Middle Fork Creek of Clarks River	Marshall	1 st Priority	TN/MS/Cumberland
Middle Fork Kentucky River	Leslie	Delisted (3)	Kentucky
Middle Fork Licking River of Licking River	Magoffin	1 st Priority	Salt/Licking
Middle Fork of Richland Creek	Knox	2 nd Priority	TN/MS/Cumberland
Mill Creek of Ohio River	Jefferson	1 st Priority	Salt/Licking
Mill Creek of Salt River	Hardin	1 st Priority	Salt/Licking
Mill Creek Branch of Mill Creek	Hardin	2 nd Priority	Salt/Licking
Mill Creek Cutoff of Ohio River	Jefferson	1 st Priority	Salt/Licking
Mitchell Creek of Sinking Creek	Laurel	1 st Priority	TN/MS/Cumberland
Moseby Branch of Eagle Creek	Owen	1 st Priority	Kentucky
Mud Creek of Bayou de Chien	Fulton	1 st Priority	TN/MS/Cumberland
Mud Creek of Clear Fork	Whitley	2 nd Priority	TN/MS/Cumberland

Table 1 --continued. Alphabetic Listing of 2002 303(d) Listed Streams for Kentucky

<u>River Name</u>	<u>County</u>	<u>Status</u>	<u>Watershed Unit</u>
Muddy Creek of Kentucky River	Madison	1 st Priority	Kentucky
Muddy Fork Little River of Little River	Trigg	1 st Priority	TN/MS/Cumberland
Muddy Fork of Beargrass Creek	Jefferson	1 st Priority	Salt/Licking
Mussin Branch of Moore Creek	Marion	TMDL Under Development(1)	Salt/Licking
Newcombe Creek of Little Sandy River	Elliot	TMDL Approved (1)	Big and Little Sandy/Tygarts
Nolin River of Green River	Hart/Hardin/Grayson	1 st Priority	Tradewater/Green
North Benson Creek of Benson Creek	Franklin	2 nd Priority	Kentucky
North Elkhorn Creek of Elkhorn Creek	Fayette	1 st Priority	Kentucky
North Fork Kentucky River and Tributaries	Breathitt/Lee/Letcher	TMDL Approved (1)	Kentucky
North Fork Kentucky River of Kentucky River	Perry/Wolfe		
	Letcher	1 st Priority	Kentucky
North Fork Licking River of Licking River	Bracken/Mason	1 st Priority	Salt/Licking
North Fork Little River of Little River	Christian	1 st Priority	TN/MS/Cumberland
North Fork Little River of Little River	Christian	2 nd Priority	TN/MS/Cumberland
North Fork North Benson Creek	Franklin	2 nd Priority	Kentucky
North Fork Panther Creek of Panther Creek	Daviess	1 st Priority	Tradewater/Green
Obion Creek of Mississippi River	Hickman/Graves	2 nd Priority	TN/MS/Cumberland
Obion Creek of Mississippi River	Graves	2 nd Priority	TN/MS/Cumberland
Obion Creek of Mississippi River	Fulton	1 st Priority	TN/MS/Cumberland
Obion Creek of Mississippi River	Hickman	1 st Priority	TN/MS/Cumberland
Ohio River	Kentucky/Ohio/Indiana/ Illinois Border	Delisted (1)	Not applicable
Ohio River	Kentucky/Ohio/Indiana/ Illinois Border	1 st Priority	Not applicable
Ohio River	Kentucky/Ohio/Indiana/ Illinois Border	2 nd Priority	Not applicable
Opossum Creek of Obion Creek	Graves	1 st Priority	TN/MS/Cumberland
Otter Creek of Kentucky River	Madison	2 nd Priority	Kentucky
Otter Creek of Ohio River	Meade	2 nd Priority	Salt/Licking

Table 1 –continued. Alphabetic Listing of 2002 303(d) Listed Streams for Kentucky

<u>River Name</u>	<u>County</u>	<u>Status</u>	<u>Watershed Unit</u>
Paint Lick Creek of Kentucky River	Garrard/Madison	2 nd Priority	Kentucky
Pennsylvania Run of Floyds Fork	Jefferson/Bullitt	1 st Priority	Salt/Licking
Phillips Creek of Licking River	Campbell	1 st Priority	Salt/Licking
Pitman Creek of Cumberland River	Pulaski	2 nd Priority	TN/MS/Cumberland
Pleasant Grove Creek of Red River	Logan	1 st Priority	TN/MS/Cumberland
Pleasant Run of Drakes Creek	Hopkins	TMDL Under Development(1)	Tradewater/Green
Plum Creek of Pond Creek	Muhlenburg	1 st Priority	Tradewater/Green
Plum Creek of Red River	Powell	2 nd Priority	Kentucky
Polls Creek of Cutshin Creek	Leslie	2 nd Priority	Kentucky
Pond Creek of Green River	Muhlenburg	TMDL Under Development(1)	Tradewater/Green
Pond Creek of Green River	Muhlenburg	1 st Priority	Tradewater/Green
Pond Creek of Ohio River	Oldham	2 nd Priority	Salt/Licking
Pond Creek of Salt River	Jefferson	1 st Priority	Salt/Licking
Pond River of Green River	McLean/Muhlenburg/ Hopkins	2 nd Priority	Tradewater/Green
Poor Fork of Cumberland River	Harlan	TMDL Approved (1)	TN/MS/Cumberland
Poor Fork of Cumberland River	Harlan	1 st Priority	TN/MS/Cumberland
Pope Lick Creek of Floyds Fork	Jefferson	1 st Priority	Salt/Licking
Popular Creek of Fleming Creek	Fleming	TMDL Approved (1)	Salt/Licking
Potter Fork of Boone Fork	Letcher	1 st Priority	Kentucky
Prickly Ash of Slate Creek	Bath	1 st Priority	Salt/Licking
Puckett Creek of Cumberland River	Harlan/Bell	TMDL Approved (1)	TN/MS/Cumberland
Puncheon Camp Creek of Licking River	Magoffin	1 st Priority	Salt/Licking
Puncheon Camp Creek of Middle Fork Kentucky River	Breathitt	2 nd Priority	Kentucky
Quicksand Creek of North Fork Kentucky River	Breathitt	1 st Priority	Kentucky
Raccoon Creek of South Fork Rockcastle River	Laurel	2 nd Priority	TN/MS/Cumberland

Table 1 --continued. Alphabetic Listing of 2002 303(d) Listed Streams for Kentucky

<u>River Name</u>	<u>County</u>	<u>Status</u>	<u>Watershed Unit</u>
Rattlesnake Creek of Eagle Creek	Grant	1 st Priority	Kentucky
Red Bird River of South Fork Kentucky River	Clay	1 st Priority	Kentucky
Red River of Cumberland River	Logan	2 nd Priority	TN/MS/Cumberland
Red River of Kentucky River	Clark/Estill/Powell	Delisted (1)/Additional Monitoring	Kentucky
Red River of Kentucky River	Menifee/Wolfe	Delisted (2)	Kentucky
Reeves Branch of Sugar Creek	Marshall	2 nd Priority	TN/MS/Cumberland
Render Creek of Lewis Creek	Ohio	TMDL Under Development(1)	Tradewater/Green
Renfro Creek of Roundstone Creek	Rockcastle	2 nd Priority	TN/MS/Cumberland
Rhodes Creek of Panther Creek	Daviess	1 st Priority	Tradewater/Green
Richland Creek of Cumberland River	Knox	TMDL Approved (1)	TN/MS/Cumberland
Richland Creek of Cumberland River	Knox	1 st Priority	TN/MS/Cumberland
Richland Creek of Cumberland River	Livingston	1 st Priority	TN/MS/Cumberland
Richland Creek of Eagle Creek	Owen	2 nd Priority	Kentucky
Richland Slough of Green River	Henderson/Daviess	1 st Priority	Tradewater/Green
Road Run of Cartwright Creek	Washington	2 nd Priority	Salt/Licking
Roaring Paunch Creek of South Fork Cumberland River	McCreary	1 st Priority	TN/MS/Cumberland
Rock Creek of South Fork Cumberland River	McCreary	TMDL Under Development(1)	TN/MS/Cumberland
Rock Creek of South Fork Cumberland River	McCreary	2 nd Priority	TN/MS/Cumberland
Rockhouse Creek of North Fork Kentucky River	Letcher	1 st Priority	Kentucky
Rolling Fork of Salt River	Bullitt/Harden/Nelson	Delisted (1)	Salt/Licking
Roundstone Creek of Rockcastle River	Rockcastle	1 st Priority	TN/MS/Cumberland
Running Slough of Obion River (Reelfoot Lake)	Fulton	2 nd Priority	TN/MS/Cumberland
Ryans Creek of Jellico Creek	McCreary/Whitley	TMDL Under Development(1)	TN/MS/Cumberland
Ryans Creek of Jellico Creek	McCreary/Whitley	1 st Priority	TN/MS/Cumberland
Salt Lick Creek of Licking River	Bath	2 nd Priority	Salt/Licking

Table 1 --continued. Alphabetic Listing of 2002 303(d) Listed Streams for Kentucky

<u>River Name</u>	<u>County</u>	<u>Status</u>	<u>Watershed Unit</u>
Salt River of Ohio River	Bullitt	1 st Priority	Salt/Licking
Salt River of Ohio River	Anderson	1 st Priority	Salt/Licking
Sam Branch of Fishing Creek	Pulaski	2 nd Priority	TN/MS/Cumberland
Sand Lick Fork of South Fork Red River	Powell	Delisted (1)	Kentucky
Sandy Creek of Cumberland River	Livingston	1 st Priority	TN/MS/Cumberland
Sawdridge Creek of Cedar Creek	Owen	2 nd Priority	Kentucky
Scrubgrass Creek of Cassidy Creek	Nicholas	1 st Priority	Salt/Licking
Sexton Creek of Goose Creek	Clay	2 nd Priority	Kentucky
Shawnee Creek of Mississippi River	Ballard	2 nd Priority	TN/MS/Cumberland
Shawnee Creek Slough of Mississippi River	Ballard	1 st Priority	TN/MS/Cumberland
Silver Creek of Kentucky River	Madison	1 st Priority	Kentucky
Silver Creek of Kentucky River	Madison	2 nd Priority	Kentucky
Sims Fork of Left Fork Straight Creek	Bell	1 st Priority	TN/MS/Cumberland
Sinking Creek of Ohio River	Breckinridge	1 st Priority	Salt/Licking
Sinking Fork of Little River	Christian	1 st Priority	TN/MS/Cumberland
Sinking Fork of Little River	Trigg	2 nd Priority	TN/MS/Cumberland
Skegg Creek of Rockcastle River	Rockcastle	2 nd Priority	TN/MS/Cumberland
Skinframe Creek of Livingston Creek	Lyon	1 st Priority	TN/MS/Cumberland
Skinner Creek of Casey Creek	Trigg	1 st Priority	TN/MS/Cumberland
Slate Creek of Licking River	Bath	1 st Priority	Salt/Licking
Sleepy Run of Fleming Creek	Fleming	TMDL Approved (1)	Salt/Licking
Slop Ditch of Southern Ditch	Jefferson	1 st Priority	Salt/Licking
Snag Creek of Ohio River	Bracken	1 st Priority	Salt/Licking
South Elkhorn Creek of Elkhorn Creek	Scott/Woodford	Delisted (2)	Kentucky
South Elkhorn Creek of Elkhorn Creek	Scott/Woodford	TMDL Under Development (2)	Kentucky

Table 1 --continued. Alphabetic Listing of 2002 303(d) Listed Streams for Kentucky

<u>River Name</u>	<u>County</u>	<u>Status</u>	<u>Watershed Unit</u>
South Elkhorn Creek of Elkhorn Creek	Woodford	1 st Priority	Kentucky
South Elkhorn Creek of Elkhorn Creek	Fayette	2 nd Priority	Kentucky
South Fork Bayou de Chien of Bayou de Chien	Graves	1 st Priority	TN/MS/Cumberland
South Fork Beargrass Creek of Beargrass Creek	Jefferson	1 st Priority	Salt/Licking
South Fork Gunpowder Creek	Boone	1 st Priority	Salt/Licking
South Fork Licking River	Pendleton/Harrison	Delisted (2)	Salt/Licking
South Fork Little River of Little River	Christian	1 st Priority	TN/MS/Cumberland
South Fork Red River of Middle Fork Red River	Powell	Delisted (1)	Kentucky
South Fork Panther Creek of Panther Creek	Daviess	1 st Priority	Tradewater/Green
South Fork Quicksand Creek of Quicksand Creek	Breathitt	2 nd Priority	Kentucky
South Fork Rockcastle River of Rockcastle River	Laurel	1 st Priority	TN/MS/Cumberland
South Fork Rockcastle River of Rockcastle River	Laurel	2 nd Priority	TN/MS/Cumberland
South Fork Russell Creek of Russell Creek (actually a UT of South Fork Russell Creek)	Green	TMDL Approved (1)	Tradewater/Green
Southern Ditch of Pond Creek	Jefferson	Delisted (1)	Salt/Licking
Southern Ditch of Pond Creek	Jefferson	1 st Priority	Salt/Licking
Spring Creek of Livingston Creek	Lyon	1 st Priority	TN/MS/Cumberland
Spring Creek of West Fork Clarks River	Graves	2 nd Priority	TN/MS/Cumberland
Spring (Blue Spring) Ditch of Northern Ditch	Jefferson	1 st Priority	Salt/Licking
Spring Fork of Quicksand Creek	Breathitt	1 st Priority	Kentucky
Station Camp Creek of Kentucky River	Estill	2 nd Priority	Kentucky
Stevens Creek of Eagle Creek	Owen	2 nd Priority	Kentucky
Stinking Creek of Cumberland River	Knox	2 nd Priority	TN/MS/Cumberland
Stoner Creek of South Fork Licking River	Bourbon	1 st Priority	Salt/Licking
Stony Creek of Licking River	Nicholas	1 st Priority	Salt/Licking
Stony Fork of Bennetts Fork	Bell	1 st Priority	TN/MS/Cumberland

Table 1 --continued. Alphabetic Listing of 2002 303(d) Listed Streams for Kentucky

<u>River Name</u>	<u>County</u>	<u>Status</u>	<u>Watershed Unit</u>
Stony Fork of Straight Creek	Bell	1 st Priority	TN/MS/Cumberland
Straight Creek of Cumberland River	Harlan/Bell	TMDL Approved (1)	TN/MS/Cumberland
Straight Creek of Cumberland River	Bell	1 st Priority	TN/MS/Cumberland
Straight Creek of Elk Fork	Morgan	1 st Priority	Salt/Licking
Strodes Creek of Stoner Creek	Bourbon	1 st Priority	Salt/Licking
Stump Cave Branch of South Fork Red River	Powell	TMDL Approved (1)	Kentucky
Sugar Creek of Clear Creek	Hopkins	TMDL Under Development(1)	Tradewater/Green
Sugar Creek of Cumberland River	Livingston	2 nd Priority	TN/MS/Cumberland
Sugar Creek of Muddy Fork Little River	Christian	1 st Priority	TN/MS/Cumberland
Sulphur Creek of Drennon Creek	Henry	1 st Priority	Kentucky
Swift Camp Creek of Red River	Wolfe	2 nd Priority	Kentucky
Tate Creek of Kentucky River	Madison	1 st Priority	Kentucky
Ten Mile Creek of Eagle Creek	Grant	2 nd Priority	Kentucky
Tennessee River of Ohio River	Marshall	2 nd Priority	TN/MS/Cumberland
Three Forks Creek of Eagle Creek	Grant/Owen	2 nd Priority	Kentucky
Threemile Creek of Licking River	Campbell	1 st Priority	Salt/Licking
Town Branch of Fleming Creek	Fleming	TMDL Approved (1)	Salt/Licking
Town Branch of South Elkhorn Creek	Fayette	TMDL Under Development(2)	Kentucky
Town Branch of South Elkhorn Creek	Fayette	1 st Priority	Kentucky
Townsend Creek of South Fork Licking River	Harrison/Bourbon	1 st Priority	Salt/Licking
Trace Fork of Licking River	Magoffin	2 nd Priority	Salt/Licking
Tradewater River of Ohio River	Union	1 st Priority	Tradewater/Green
Tradewater River of Ohio River	Hopkins/Caldwell	2 nd Priority	Tradewater/Green
Triplett Creek of Licking River	Rowan	1 st Priority	Salt/Licking
Troublesome Creek of North Fork Kentucky River	Breathitt/Perry/Knott	TMDL Approved (1)	Kentucky

Table 1 --continued. Alphabetic Listing of 2002 303(d) Listed Streams for Kentucky

<u>River Name</u>	<u>County</u>	<u>Status</u>	<u>Watershed Unit</u>
Troublesome Creek Of North Fork Kentucky River	Breathitt/Perry/Knott	1 st Priority	Kentucky
Tug Fork of Big Sandy River	Lawrence	1 st Priority	Big and Little Sandy/Tygarts
Tug Fork of Big Sandy River	Martin/Lawrence	1 st Priority	Big and Little Sandy/Tygarts
Two Mile Creek of Eagle Creek	Owen	2 nd Priority	Kentucky
Tygarts Creek of Ohio River	Greenup	2 nd Priority	Big and Little Sandy/Tygarts
Upper Branch of North Fork Little River	Christian	2 nd Priority	TN/MS/Cumberland
Upper Devil Creek of North Fork Kentucky River	Wolfe	2 nd Priority	Kentucky
Upper Howard Creek of Kentucky River	Clark	2 nd Priority	Kentucky
Upper Twin Creek of Middle Fork Kentucky River	Breathitt	2 nd Priority	Kentucky
UT of Baughman Fork of Boone Creek (River Mile 2.6)	Fayette	TMDL Approved (2)	Kentucky
UT of Brooks Run(River Mile 4.1)	Bullitt	TMDL Under Development(3)	Salt/Licking
UT of Cane Run (River Mile 6.05)	Scott/Fayette	1 st Priority	Kentucky
UT of Clear Creek (River Mile 24.4)	Hopkins	1 st Priority	Tradewater/Green
UT of Elk Creek (River Mile 8.8)	Hopkins	1 st Priority	Tradewater/Green
UT of Flat Creek(River Mile 1.9)	Hopkins	1 st Priority	Tradewater/Green
UT of Fleming Creek (River Mile 4.28)	Fleming	TMDL Approved (1)	Salt/Licking
UT of Jennys Branch (River Mile 3.4)	McCreary	1 st Priority	TN/MS/Cumberland
UT of Little Laurel River (River Mile 15.8)	Laurel	1 st Priority	TN/MS/Cumberland
UT of Massac Creek(River Mile 5.2)	McCracken	2 nd Priority	TN/MS/Cumberland
UT of Massac Creek(River Mile 7.0)	McCracken	2 nd Priority	TN/MS/Cumberland
UT of Mayfield Creek (River Mile 24.0)	McCracken	1 st Priority	TN/MS/Cumberland
UT of Mayfield Creek (River Mile 25.6)	Graves	1 st Priority	TN/MS/Cumberland
UT of N Br of Lulbegrud Cr. (River Mile 2.6)	Montgomery	1 st Priority	Kentucky River
UT of Obion Creek (River Mile 16.3)	Hickman	1 st Priority	TN/MS/Cumberland
UT of Old Beaver Dam Slough (River Mile 0.4)	Marshall	1 st Priority	TN/MS/Cumberland

Table 1 --continued. Alphabetic Listing of 2002 303(d) Listed Streams for Kentucky

<u>River Name</u>	<u>County</u>	<u>Status</u>	<u>Watershed Unit</u>
UT of Pond Creek (River Mile 1.5) of Ohio River	Oldham	1 st Priority	Salt/Licking
UT of Rolling Fork (River Mile 94.6)	Marion	TMDL Under Development(1)	Salt/Licking
UT of South Fork Russell Creek (River Mile 4.85)	Green	TMDL Approved (1)	Tradewater/Green
UT of Swift Camp Cr. (River Mile 11.7)	Wolfe	1 st Priority	Kentucky
West Fork of Clarks River	Graves	1 st Priority	TN/MS/Cumberland
West Fork of Clarks River	Graves	2 nd Priority	TN/MS/Cumberland
West Fork of Clarks River	Marshall	2 nd Priority	TN/MS/Cumberland
West Fork of Clarks River	Calloway	2 nd Priority	TN/MS/Cumberland
West Fork of Clarks River (old channel)	Graves	2 nd Priority	TN/MS/Cumberland
West Fork Mill Creek of Mill Creek	Carroll	2 nd Priority	Kentucky
West Fork Drakes Creek of Drakes Creek	Warren/Simpson	1 st Priority	Tradewater/Green
West Hickman Creek of Hickman Creek	Jessamine	2 nd Priority	Kentucky
West Hickman Creek of Hickman Creek	Jessamine/Fayette	2 nd Priority	Kentucky
Wetwoods Creek of Southern Ditch	Jefferson	1 st Priority	Salt/Licking
White Lick Creek of Paint Lick Creek	Garrard	2 nd Priority	Kentucky River
White Oak Creek of Sinking Creek	Laurel	1 st Priority	TN/MS/Cumberland
Whitley Branch of Little Laurel River	Laurel	Delisted (1)	TN/MS/Cumberland
Whitley Branch of Little Laurel River	Laurel	1 st Priority	TN/MS/Cumberland
Wildcat Branch of Cumberland River	Pulaski	TMDL Under Development(1)	TN/MS/Cumberland
Williams Creek of Elk Fork	Morgan	1 st Priority	Salt/Licking
Wilson Run of Fleming Creek	Fleming	TMDL Approved (1)	Salt/Licking
Wolf Creek of Clear Fork	Whitley	1 st Priority	TN/MS/Cumberland
Wolf Run of Town Branch	Fayette	TMDL Under Development(2)	Kentucky
Wolf Run of Town Branch	Fayette	1 st Priority	Kentucky
Woolper Creek of Ohio River	Boone	1 st Priority	Salt/Licking
Wooten Creek of Cutshin Creek	Leslie	2 nd Priority	Kentucky
Yellow Creek of Cumberland River	Bell	Delisted (partial-3)	TN/MS/Cumberland
Yellow Creek of Cumberland River	Bell	2 nd Priority	TN/MS/Cumberland
Yocum Creek of Clover Fork	Harlan	TMDL Approved (1)	TN/MS/Cumberland

Table 2. Alphabetic Listing of 2002 303(d) Listed Lakes for Kentucky

<u>Lake Name</u>	<u>County</u>	<u>Status</u>	<u>Watershed Unit</u>
Barren River Lake	Allan/Barren	2 nd Priority	Tradewater/Green
Briggs Lake	Logan	Delisted (1)	Tradewater/Green
Buckhorn Lake	Perry	2 nd Priority	Kentucky
Campbellsville City Lake	Taylor	Delisted (1)	Tradewater/Green
Caneyville Reservoir	Grayson	2 nd Priority	Tradewater/Green
Carr Fork Lake	Knott	2 nd Priority	Kentucky
Corbin City Reservoir	Laurel	1 st Priority	TN/MS/Cumberland
Cave Run Lake	Bath/Rowan/Morgan/Menifee	2 nd Priority	Salt/Licking
Cranks Creek Lake	Harlan	2 nd Priority	TN/MS/Cumberland
Dewey Lake	Floyd	2 nd Priority	Big and Little Sandy/Tygarts
Doe Run Lake	Kenton	2 nd Priority	Salt/Licking
Elmer Davis Lake	Owen	2 nd Priority	Kentucky
General Butler State Park Lake	Carroll	2 nd Priority	Kentucky
Grapevine Lake	Hopkins	2 nd Priority	Tradewater/Green
Grayson Lake	Carter/Elliott	2 nd Priority	Big and Little Sandy/Tygarts
Green River Lake	Taylor/Adair	2 nd Priority	Tradewater/Green
Greenbriar Lake	Montgomery	2 nd Priority	Salt/Licking
Guist Creek Lake	Shelby	1 st Priority	Salt/Licking
Herrington Lake	Garrard/Boyle/Mercer	TMDL Under Development (1)	Kentucky
Honker Lake	Trigg	Delisted (1)	TN/MS/Cumberland
Jericho Lake	Henry	1 st Priority	Salt/Licking
Kincaid Lake	Henry	2 nd Priority	Salt/Licking
Lake Cumberland	Clinton/Pulaski/Russell/Wayne	2 nd Priority	TN/MS/Cumberland
Lake George	Crittenden	Delisted (1)	Tradewater/Green
Lake Pewee	Hopkins	2 nd Priority	Tradewater/Green

Table 2 --continued. Alphabetic Listing of 2002 303(d) Listed Lakes for Kentucky

<u>Lake Name</u>	<u>County</u>	<u>Status</u>	<u>Watershed Unit</u>
Lake Shelby	Shelby	2 nd Priority	Salt/Licking
Lake Washburn	Ohio	Delisted (1)	Tradewater/Green
Loch Mary Lake	Hopkins	Delisted (2)	Tradewater/Green
Luzerne Lake	Muhlenburg	2 nd Priority	Tradewater/Green
Marion County Sportman Lake	Marion	2 nd Priority	Salt/Licking
McNeely Lake	Jefferson	2 nd Priority	Salt/Licking
Metcalfe County Lake	Metcalfe	Delisted (1)	Tradewater/Green
Metropolis Lake	McCracken	2 nd Priority	TN/MS/Cumberland
Paintsville Reservoir	Johnson/Morgan	2 nd Priority	Big and Little Sandy/Tygarts
Panbowl Lake	Breathitt	1 st Priority	Kentucky
Reformatory Lake	Oldham	Delisted (1)	Salt/Licking
Rough River Lake	Breckinridge/Grayson	Delisted (1)	Tradewater/Green
Salem Lake	Larue	2 nd Priority	Tradewater/Green
Scenic Lake	Henderson	2 nd Priority	Tradewater/Green
Spa Lake	Logan	Delisted (1)	Tradewater/Green
Stanford Reservoir	Lincoln	2 nd Priority	Kentucky
Sympson Lake	Nelson	Delisted (1)	Salt/Licking
Sand Lick Creek Lake	Fleming	2 nd Priority	Salt/Licking
Taylorsville Lake	Spencer	TMDL Approved (1)	Salt/Licking
Wilgreen Lake	Madison	2 nd Priority	Kentucky
Wood Creek Lake	Laurel	2 nd Priority	TN/MS/Cumberland

TABLE 3. 2002 303(d) REPORT FOR KENTUCKY – KENTUCKY RIVER UNIT

**Table 3(a). 2002 303(d) Report For Kentucky - Kentucky River Unit
Modifications to the 1998 303(d) Report**

-1st Priority Listings-

<u>Baughman Fork of Boone Creek</u>	Fayette County	
From River Mile 0.0 to 1.1	Segment Length:	1.1
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Nutrients, Organic Enrichment/Low DO	
Suspected Sources:	Municipal Point Sources	

The listing should have been for Unnamed Tributary to Baughman Fork at River Mile 2.6. The TMDL for nutrients and organic enrichment/low DO has been approved by EPA. See Kentucky River Unit – Approved TMDLs.

<u>Cane Creek of North Fork Kentucky River</u>	Breathitt County	
From River Mile 0.0 to 9.5	Segment Length:	9.5
Impaired Use:	Swimming (Nonsupport)	
Pollutant of Concern:	Pathogens	
Suspected Sources:	Land Disposal (Onsite Wastewater Systems – Septic Tanks and/or Straight Pipes), Municipal Point Sources	

It was intended for this stream segment to be included in the previously approved TMDL, ‘Removing Fecal Pollution from the North Fork Kentucky River Basin.’ However, it was inadvertently included on the 1998 303(d) list. The error was realized and a request was made to EPA to have this stream included as part of the ‘North Fork Kentucky River and Tributaries Pathogens TMDL.’ EPA concurred and therefore a separate TMDL will not be developed for Cane Creek. See Kentucky River Unit – Approved TMDLs - North Fork Kentucky River and Tributaries Pathogens TMDL.

<u>Carr Fork of North Fork Kentucky River</u>	Perry County	
From River Mile 0.0 to 8.9	Segment Length:	8.9
Impaired Use:	Swimming (Nonsupport)	
Pollutant of Concern:	Pathogens	
Suspected Sources:	(Onsite Wastewater Systems – Septic Tanks and/or Straight Pipes), Municipal Point Sources	

It was intended for this stream segment to be included in the previously approved TMDL, ‘Removing Fecal Pollution from the North Fork Kentucky River Basin.’ However, it was inadvertently included on the 1998 303(d) list. The error was realized and a request was made to EPA to have this stream included as part of the ‘North Fork Kentucky River and Tributaries Pathogens TMDL.’ EPA concurred and therefore a separate TMDL will not be developed for Carr Fork. See Kentucky River Unit – Approved TMDLs - North Fork Kentucky River and Tributaries Pathogens TMDL.

**Table 3(a) -- continued. 2002 303(d) Report For Kentucky - Kentucky River Unit
Modifications to the 1998 303(d) Report**

-1st Priority Listings-

<u>Troublesome Creek of North Fork Kentucky River</u>	Breathitt/Perry/Knott Counties
From River Mile 0.0 to 49.5	Segment Length: 49.5
Impaired Use:	Swimming (Nonsupport)
Pollutant of Concern:	Pathogens
Suspected Sources:	Land Disposal (Onsite Wastewater Systems – Septic Tanks and/or Straight Pipes), Municipal Point Sources

It was intended for this stream segment to be included in the previously approved TMDL, ‘Removing Fecal Pollution from the North Fork Kentucky River Basin.’ However, it was inadvertently included on the 1998 303(d) list. The error was realized and a request was made to EPA to have this stream included as part of the ‘North Fork Kentucky River and Tributaries Pathogens TMDL.’ EPA concurred and therefore a separate TMDL will not be developed for Troublesome Creek. See Kentucky River Unit – Approved TMDLs - North Fork Kentucky River and Tributaries Pathogens TMDL.

**Table 3(a) --continued. 2002 303(d) Report For Kentucky - Kentucky River Unit
Modifications to the 1998 303(d) Report**

-2nd Priority Listings-

<u>Copper Creek of Dix River</u>	Lincoln/Rockcastle Counties
From River Mile 0.0 to 11.8	Segment Length: 11.8
Impaired Use:	Aquatic Life (Partial Support)
Pollutant of Concern:	Siltation
Suspected Sources:	Agriculture

In the 1998 303(d) Report, Copper Creek was listed as 2nd Priority from RM 0.0 to 11.8 for siltation from agriculture based on 1994 data. The sampling locations were at RM 0.1 and 2.3. The assessment was carried to the headwaters. A more complete assessment of Copper Creek is now available, making this 1998 303(d) Report listing no longer relevant. The latest assessment shows that RM 0.0 to 1.5 is partially supporting aquatic life because of siltation from agriculture. RM 1.5 to 7.6 is fully supporting of aquatic life based on data from RM 2.3 and 4.4. The reach from RM 7.6 to 11.8 is considered to be Not Assessed. Therefore, the 2002 303(d) reflects this new information and replaces the listing in the 1998 303(d) Report. A request to (1) delist the stretch from 1.5 to 7.6 as not supporting aquatic life, and (2) define the stretch from 7.6 to 11.8 as Not Assessed will be submitted to EPA Region 4 with the 2002 303(d) Report. See Kentucky River Unit – Delistings – 2nd Priority Listings.

<u>Eagle Creek of the Kentucky River</u>	Carroll/Gallatin/Owen/Grant Counties
From River Mile 0.0 to 38.8	Segment Length: 38.8
Impaired Use:	Swimming (Partial Support), Aquatic Life (Partial Support)
Pollutant of Concern:	Pathogens, Nutrients
Suspected Sources:	Agriculture

This listing was based solely on information from the ambient network site at RM 20.8 and the reach length should not have been extended this far upstream and downstream of the data collection location. A more complete assessment of the streams in the Eagle Creek watershed is now available, making this 1998 303(d) Report listing no longer relevant. The updated listings follow:

The latest aquatic life designated use assessment information is:

- RM 0.0 to 10.2 fully supports the aquatic life designated use,
- RM 10.2 to 14.4 not assessed for the aquatic life designated use,
- RM 14.4 to 29.9 fully supports the aquatic life designated use,
- RM 29.9 to 34.5 partially supports the aquatic life designated use,
- RM 34.5 to 45.6 not assessed for the aquatic life designated use,
- RM 45.6 to 48.6 fully supports the aquatic life designated use,
- RM 48.6 to 55.9 partially supports the aquatic life designated use,
- RM 55.9 to 66.3 not assessed for aquatic life designated use,
- RM 66.3 to 72.3 fully supports the aquatic life designated use,
- RM 72.3 to 75.8 not assessed for aquatic life designated use,
- RM 75.8 to 81.3 fully supports the aquatic life designated use.

A request to delist the segment from RM 0.0 to 10.2 and RM 14.4 to 29.9 for aquatic life designated use because of nutrients will be submitted to EPA Region 4 with the 2002 303(d) Report.

**Table 3(a) --continued. 2002 303(d) Report For Kentucky - Kentucky River Unit
Modifications to the 1998 303(d) Report**

-2nd Priority Listings-

A request to define the segment from RM 10.2 to 14.4 and 34.5 to 38.8 as not assessed will be submitted to EPA with the 2002 303(d) Report.

The latest swimming designated use assessment information is:

RM 14.4 to 27.3 is nonsupporting of the swimming designated use.

A request to modify the 1998 303(d) listing for pathogens as follows will be submitted to EPA with the 2002 303(d) Report:

RM 0.0 to 14.4 not assessed for the swimming designated use,

RM 14.4 to 27.3 not supporting the swimming designated use,

RM 27.3 to 38.8 not assessed for the swimming designated use.

See Kentucky River Unit – Delistings – 2nd Priority Listings. Also see Kentucky River Unit – 2002 303(d) List – 1st Priority Listings for the updated listings. Also, see Kentucky River Unit – 2002 303(d) List – 2nd Priority Listings for the updated listings.

**Table 3(b). 2002 303(d) Report For Kentucky - Kentucky River Unit
Delistings**

-1st Priority Listings-

Note: The stream/pollutant combinations listed below are only for the designated uses and pollutants of concern for which a delisting request has been made to EPA Region 4. The stream segment may also have been shown in the 1998 303(d) Report as being impaired for the same designated use because of other pollutants or as being impaired for other designated uses.

<u>Laurel Creek of Goose Creek</u>	Clay County
From River Mile 2.5 to 5.4	Segment Length: 2.9
Impaired Use:	Aquatic Life (Nonsupport), Swimming (Nonsupport)
Pollutant of Concern:	Ammonia (Unionized), Suspended Solids, Pathogens, and Organic Enrichment/Low DO
Suspected Sources:	Municipal Point Sources (Package Plants - Small Flows)

The reach of Laurel Creek (Clay County) from River Mile (RM) 2.5 to 5.4 is listed in the 1996 and 1998 303(d) Report for Kentucky as being in nonsupport of the aquatic life and swimming designated uses. Some of the pollutants of concern are: ammonia (unionized), suspended solids, pathogens, and organic enrichment/low DO. The listing was based entirely on Discharge Monitoring Records (DMRs) submitted by several small wastewater treatment plants (WWTPs). Two of the WWTPs have gone through the enforcement process. These 2 WWTPs no longer discharge to Laurel Creek. The 3 remaining WWTPs are either meeting their limits for the pollutants listed above, or modeling has shown that the discharge does not cause an impairment to the receiving stream (Laurel Creek). A request to delist Laurel Creek for ammonia (unionized), suspended solids, pathogens, and organic enrichment/low DO was submitted to EPA. On March 15, 2001, EPA concurred, and Laurel Creek was “informally” delisted for ammonia (unionized), suspended solids, pathogens, and organic enrichment/low DO. A request to formally delist Laurel Creek from RM 2.5 to 5.4 for ammonia (unionized), suspended solids, pathogens, and organic enrichment/low DO will be submitted to EPA Region 4 with the 2002 303(d) List submittal.

NOTE: In the 1998 303(d) Report, the stream segment was also listed as being in nonsupport of the aquatic life designated use because of nutrients from the small wastewater treatment plants. The latest assessment information indicates that the stream from RM 3.8 to 4.8 now partially supports aquatic life and that the pollutant of concern is nutrients from agriculture. This listing is therefore included with the 2nd Priority streams (Kentucky River Unit) in this report. See Kentucky River Unit – 2002 303(d) List – 2nd Priority Listings.

**Table 3(b) --continued. 2002 303(d) Report For Kentucky - Kentucky River Unit
Delistings**

-1st Priority Listings-

<u>Red River of Kentucky River</u>	Estill/Clark/Powell Counties
From River Mile 9.5 to 41.1	Segment Length: 31.6
Impaired Use:	Swimming (Nonsupport)
Pollutant of Concern:	Pathogens
Suspected Sources:	Municipal Point Sources, Agriculture, Land Disposal (Onsite Wastewater Systems – Septic Tanks and/or Straight Pipes)

The latest available data from the KDOW show that this stream segment now fully supports the swimming designated use. A request to delist the stream segment as being impaired for the swimming use because of pathogens will be submitted to EPA Region 4 with the 2002 303(d) Report. However, citizen data indicate that a problem might still exist on this segment of the main stem of the Red River. Therefore, the stream segment will be included in Table 3(f), ‘Stream Segments Needing Additional Information Before Being 303(d) Listed.’

<u>Sand Lick Fork of South Fork Red River</u>	Powell County
From River Mile 0.0 to 5.0	Segment Length: 5.0
Impaired Use:	Aquatic Life (Nonsupport)
Pollutant of Concern:	Salinity/TDS/Chlorides
Suspected Sources:	Resource Extraction (Petroleum Activities)

This listing was in the 1998 303(d) Report. The TMDL is approved. New assessment information shows that this stream segment fully supports the aquatic life use. A request to delist this stream segment as being impaired for the aquatic life use because of salinity/TDS/chlorides will be submitted to EPA Region 4 with the 2002 303(d) Report. See Kentucky River Unit – Approved TMDLs.

<u>South Fork Red River of Middle Fork Red River</u>	Powell County
From River Mile 0.0 to 10.1	Segment Length: 10.1
Impaired Use:	Aquatic Life (Nonsupport)
Pollutant of Concern:	Salinity/TDS/Chlorides
Suspected Sources:	Resource Extraction (Petroleum Activities)

This listing was in the 1998 303(d) Report. The TMDL is approved. New assessment information shows that this stream segment fully supports the aquatic life use. A request to delist this stream segment as being impaired for the aquatic life use because of salinity/TDS/chlorides will be submitted to EPA Region 4 with the 2002 303(d) Report. See Kentucky River Unit – Approved TMDLs.

**Table 3(b) --continued. 2002 303(d) Report For Kentucky - Kentucky River Unit
Delistings**

-2nd Priority Listings-

Note: The stream/pollutant combinations listed below are only for the designated uses and pollutants of concern for which a delisting request has been made to EPA Region 4. The stream segment may have also been shown in the 1998 303(d) Report as being impaired for the same designated use because of other pollutants or as being impaired for other designated uses.

<u>Copper Creek of Dix River</u>	Lincoln/Rockcastle Counties
From River Mile 0.0 to 11.8	Segment Length: 11.8
Impaired Use:	Aquatic Life (Partial Support)
Pollutant of Concern:	Siltation
Suspected Sources:	Agriculture

In the 1998 303(d) Report, Copper Creek was listed as 2nd Priority from RM 0.0 to 11.8 for siltation from agriculture based on 1994 data. The sampling locations were at river mile 0.1 and 2.3. The assessment was carried to the headwaters. A more complete assessment of Copper Creek is now available, making that listing obsolete. The latest assessment shows that RM 0.0 to 1.5 is partially supporting aquatic life because of siltation from agriculture. RM 1.5 to 7.6 is fully supporting of aquatic life based on data from RM 2.3 and 4.4. The reach from RM 7.6 to 11.8 is considered to be Not Assessed. Therefore, the 2002 303(d) reflects this new information and replaces the listing in the 1998 303(d) Report. A request to (1) delist the stretch from 1.5 to 7.6 as not supporting aquatic life, and (2) define the stretch from 7.6 to 11.8 as Not Assessed will be submitted with the 1998 303(d) Report to EPA Region 4. See Kentucky River Unit – Modifications to the 1998 303(d) Report - 2nd Priority Listings.

<u>Eagle Creek of the Kentucky River</u>	Carroll/Gallatin/Owen/Grant Counties
From River Mile 0.0 to 38.8	Segment Length: 38.8
Impaired Use:	Swimming (Partial Support), Aquatic Life (Partial Support)
Pollutant of Concern:	Pathogens, Nutrients
Suspected Sources:	Agriculture

This listing is from the 1998 303(d) Report. It is based solely on information from the ambient network site at RM 20.8 and the reach length should not have been extended this far upstream and downstream of the data collection location. A more complete assessment of the streams in the Eagle Creek watershed is now available, making this 1998 303(d) Report listing no longer relevant. The updated listings follow:

The latest aquatic life designated use assessment information is:

- RM 0.0 to 10.2 fully supports the aquatic life designated use,
- RM 10.2 to 14.4 not assessed for the aquatic life designated use,
- RM 14.4 to 29.9 fully supports the aquatic life designated use,
- RM 29.9 to 34.5 partially supports the aquatic life designated use,
- RM 34.5 to 45.6 not assessed for the aquatic life designated use,
- RM 45.6 to 48.6 fully supports the aquatic life designated use,
- RM 48.6 to 55.9 partially supports the aquatic life designated use,
- RM 55.9 to 66.3 not assessed for aquatic life designated use,
- RM 66.3 to 72.3 fully supports the aquatic life designated use,
- RM 72.3 to 75.8 not assessed for aquatic life designated use,
- RM 75.8 to 81.3 fully supports the aquatic life designated use.

**Table 3(b) --continued. 2002 303(d) Report For Kentucky - Kentucky River Unit
Delistings**

-2nd Priority Listings-

A request to delist the segment from RM 0.0 to 10.2 and RM 14.4 to 29.9 for aquatic life designated use because of nutrients will be submitted to EPA Region 4 with the 2002 303(d) Report.

A request to define the segment from RM 10.2 to 14.4 and 34.5 to 38.8 as not assessed will be submitted to EPA with the 2002 303(d) Report.

The latest swimming designated use assessment information is:

RM 14.4 to 27.3 is nonsupporting of the swimming designated use.

A request to modify the 1998 303(d) listing for pathogens as follows will be submitted to EPA with the 2002 303(d) Report:

RM 0.0 to 14.4 not assessed for the swimming designated use,

RM 14.4 to 27.3 not supporting the swimming designated use,

RM 27.3 to 38.8 not assessed for the swimming designated use.

See Kentucky River Unit – Modifications to the 1998 303(d) Report - 2nd Priority Listings. Also see Kentucky River Unit – 2002 303(d) List – 1st Priority Listings. Also see Kentucky River Unit – 2002 303(d) List – 2nd Priority Listings.

Middle Fork Kentucky River

Leslie County

From River Mile 71.9 to 74.8

Segment Length: 2.9

Impaired Use: Aquatic Life (Partial Support), Swimming (Partial Support)

Pollutant of Concern: Suspended Solids, Pathogens, and Organic Enrichment/Low DO

Suspected Sources: Municipal Point Sources

The reach of Middle Fork Kentucky River (Leslie County) from River Mile (RM) 71.9 to 74.8 is 2nd Priority in the Kentucky 1998 303(d) Report for being in nonsupport of the aquatic life and swimming designated uses because of suspended solids, organic enrichment/low DO, and pathogens. The initial listing in 1996 for these three pollutants was based on Discharge Monitoring Reports (DMRs) submitted by several wastewater treatment plants (WWTPs) and discussions with Division of Water (DOW) Regional Office personnel. This stream segment receives effluent from several small WWTPs, the city of Hyden WWTP, and there were some failed septic systems in the area.

Recent biological assessments (1998) for the stream reach RM 76.1 to 84.0 and RM 0.0 to 12.5 showed full support for the designated uses of aquatic life and fish consumption. In-stream water quality data from RM 66.9 and 8.3 showed full support of primary contact recreation (swimming use). As a result of high scores, the DOW has designated the Middle Fork of the Kentucky River as an Exceptional Water. Recent DMR data also show that the WWTPs are meeting permit limits for these constituents. In addition, construction has started on a new city of Hyden WWTP. The effluent currently being treated by the WWTPs in the area will be transported and treated by the new city of Hyden WWTP; scheduled to go on-line Spring 2002. Also, the Leslie County Health Department has stated that approximately 30 malfunctioning septic systems in the area around Hyden have been eliminated as part of the PRIDE (Personal Responsibility in a Desirable Environment) Program.

**Table 3(b) --continued. 2002 303(d) Report For Kentucky - Kentucky River Unit
Delistings**

-2nd Priority Listings-

A request to delist Middle Fork Kentucky River for these three pollutants was made to EPA. On July 31, 2001 EPA concurred, and Middle Fork Kentucky River has been "informally" delisted for total suspended solids, organic enrichment/low DO, and pathogens. A request to formally delist Middle Fork Kentucky River from RM 71.9 to 74.8 for total suspended solids, organic enrichment/low DO, and pathogens will be submitted to EPA Region 4 with the 2002 303(d) Report.

<u>Red River of Kentucky River</u>	Menifee/Wolfe Counties
From River Mile 59.9 to 94.2	Segment Length: 34.3
Impaired Use:	Aquatic Life (Partial Support)
Pollutant of Concern:	Nutrients, Siltation
Suspected Sources:	Silviculture, Land Disposal, Habitat Modification (Other than Hydromodification) – Removal of Riparian Vegetation and Bank Modification/Destabilization, Unknown Source

The latest available data show that this stream segment now fully supports the aquatic life designated use. A request has been submitted to EPA Region 4 to delist this stream segment as being impaired for aquatic life designated use because of nutrients and siltation.

<u>South Elkhorn Creek of Elkhorn Creek</u>	Scott/Woodford Counties
From River Mile 16.4 to 34.0	Segment Length: 17.6
Impaired Use:	Aquatic Life (Partial Support)
Pollutant of Concern:	Organic Enrichment/Low DO, Pesticides
Suspected Sources:	Agriculture, Urban Runoff/Storm Sewers, Municipal Point Sources

The latest available data show that this stream segment is no longer impaired for aquatic life use because of organic enrichment/low DO and pesticides. A request was submitted to EPA to delist this stream segment for nutrients, organic enrichment/low DO, and pesticides. The 2000 305(b) Report also indicated that nutrients was no longer a pollutant of concern. The information submitted to EPA included:

- The City of Lexington operates a 30-mgd wastewater treatment plant on Town Branch, which flows into South Elkhorn Creek at mile 34. In the late 1980s the facility underwent significant upgrades to its treatment processes. Levels of BOD in the effluent dropped from the mid 20 mg/l range to less than 10, ammonia levels dropped from the 20 mg/l range to less than 2, while dissolved oxygen went from a range of 2 to 4 mg/l to consistently above 7 mg/l. Dissolved oxygen (DO) data, collected from a robot monitor in South Elkhorn Creek at mile 29, showed the stream went from levels consistently less than 4 mg/l during summer months to consistently above 6 mg/l (after the improvements were made).
- Biological data included a habitat assessment, algal assessment, macroinvertebrate assessment, and fish community assessment. Each individual assessment indicates good water quality. The overall Biological Assessment Index (BAI) score of 3.4 indicates full support of the aquatic life use.

**Table 3(b) -- continued. 2002 303(d) Report For Kentucky - Kentucky River Unit
Delistings**

-2nd Priority Listings-

- The listing for pesticides is considered an error. The U.S. Geological Survey collected pesticides in the late 1980s as part of their NAWQA study of the Kentucky River Basin. The data was published in 1995, and subsequently listed in the 1996 and 1998 303(d) lists. One of three samples was found to be in violation of EPA's 1992 Maximum Contaminant Level (MCL) for malathion, while one of one sample was found to be in violation of the MCL for parathion. There were not enough samples collected to statistically determine that the stream, in fact, failed to support its designated uses because of these pesticides. The complete biological analysis done in 1998 showing full support overrides these sporadic samples, collected twelve and thirteen years ago.

The Kentucky Division of Water therefore requested that this section of South Elkhorn Creek be removed (delisted) from the 303(d) list of impaired waters for organic enrichment/low DO, nutrients, and pesticides. On December 10, 2001 EPA concurred with the request and the section of South Elkhorn Creek from river mile 16.4 to 34.4 has been "informally" delisted for organic enrichment/low DO, nutrients, and pesticides.

However, the metrics that the Water Quality Branch (of the KDOW) has been using to assess aquatic life use are being redefined based on ecological regions. As a result, this reach of South Elkhorn Creek has been changed from fully supporting the aquatic life designated use (as reported in the 2000 305(b) Report to Congress on Water Quality) to partially supporting the aquatic life designated use. The cause has been identified as nutrients. Therefore, South Elkhorn Creek can not be formally delisted for nutrients. A TMDL is currently being developed for Town Branch and this section of South Elkhorn Creek for nutrients based on the 1998 303(d) listing. See Kentucky River Unit – TMDLs Under Development.

A request to formally delist South Elkhorn Creek from river mile 16.4 to 34.4 for organic enrichment/low DO and pesticides will be submitted to EPA Region 4 with the 2002 303(d) Report.

**Table 3(c). 2002 303(d) Report For Kentucky - Kentucky River Unit
Approved TMDLs**

(Please access the DOW's TMDL web site to view these documents – water.nr.state.ky.us/dow/tmdl.htm; or a printed copy of the report can be obtained by contacting the Division of Water).

<u>Baughman Fork of Boone Creek</u>	Fayette County	
From River Mile 0.0 to 1.1	Segment Length:	1.1
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Nutrients, Organic Enrichment/Low DO	
Suspected Sources:	Municipal Point Sources	

The listing should have been for Unnamed Tributary to Baughman Fork at River Mile 2.6. The TMDL for nutrients and organic enrichment/low DO is approved and enforcement action has been taken against the Blue Sky WWTP. The case is currently under litigation.

<u>North Fork Kentucky River and Tributaries</u>	Breathitt County	
From River Mile (main stem) 0.0 to 162.6	Segment Length:	162.6
Impaired Use:	Swimming (Nonsupport)	
Pollutant of Concern:	Pathogens	
Suspected Sources:	Land Disposal (Onsite Wastewater Systems – Septic Tanks and/or Straight Pipes), Municipal Point Sources	

The TMDL for pathogens for the North Fork Kentucky River and Tributaries is approved; ‘Removing Fecal Pollution from the North Fork Kentucky River Basin.’ In 1993 the swimming advisory for the lower 76 miles of the North Fork Kentucky River was removed based on sampling studies and enforcement actions. Recent data indicate that the swimming advisory is still warranted for the upper section of the North Fork Kentucky River. This swimming advisory for the entire North Fork Kentucky River was issued on July 1, 2002.

Enforcement activities and WWTP upgrades have resulted in significant improvements in the compliance rate of these facilities for fecal coliform. However, bypasses and straight pipe discharges continue to be a significant source of fecal coliform pollution.

The PRIDE Program (Personal Responsibility in a Desirable Environment) has provided a significant amount of money to the watershed for the upgrade of WWTPs and for the removal of straight pipes and failed septic systems.

<u>South Fork Red River of Middle Fork of Red River</u>	Powell County	
From River Mile 0.0 to 10.1	Segment Length:	10.1
<u>Sand Lick Fork of South Fork of Red River</u>	Powell County	
From River Mile 0.0 to 5.0	Segment Length:	5.0
<u>Stump Cave Branch of South Fork of Red River</u>	Powell County	
From River Mile 0.0 to 2.4	Segment Length:	2.4
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Chlorides/Salinity/TDS	
Suspected Sources:	Resource Extraction (Petroleum Activities)	

**Table 3(c) --continued. 2002 303(d) Report For Kentucky - Kentucky River Unit
Approved TMDLs**

The TMDL for these three streams is approved. The permitting of oil and gas extraction activities was initiated in 1987. Many sites were inactive throughout the 1990s because of low oil prices. The latest stream assessments (1998), indicate that South Fork Red River and Sand Lick Fork now fully support the designated use of aquatic life. The combination of permitting and decreased extraction operations probably aided in the recovery of the stream segments, which now fully support the designated use of aquatic life. Stump Cave Branch was not assessed because it was not on the 1998 303(d) list, but was included in the approved TMDL. An assessment of Stump Cave Branch will be made during the next watershed cycle for the Kentucky River Unit (Year 2003). A request to delist South Fork Red River and Sand Lick Fork will be submitted to EPA with the 2002 303(d) Report. See Kentucky River Unit – Delistings – 1st Priority Listings.

**Table 3(d). 2002 303(d) Report For Kentucky - Kentucky River Unit
TMDLs Under Development**

Eagle Creek Watershed Pathogens TMDL

Eagle Creek of Kentucky River	Owen/Gallatin/Grant Counties
River Mile 14.4 to 27.3 (Two Mile Cr to Ten Mile Cr)	Segment Length: 12.9
Impaired Use: Swimming (Nonsupport)	
Pollutant of Concern: Pathogens	
Suspected Sources: Agriculture	

This listing is based on the latest assessment information (1998) and is part of the information that supercedes the listing in the 1998 303(d) Report. See Kentucky River Unit – Modifications to the 1998 303(d) Report – 2nd Priority Listings. A 104(b)3 Grant through EPA Region 4 was awarded in June 2001 to the Tracy Farmer Center for the Environment to develop this pathogens TMDL. The project is titled; Diagnostic Watershed Model for Pathogen Speciation and Mitigation. The project will investigate the use a various techniques to identify the source of pathogen impairment in addition to developing the pathogens TMDL and is to be completed by October 2003.

Town Branch/South Elkhorn Creek Nutrient TMDL

The Individual Assessments Related to this TMDL are:

(1) Town Branch of South Elkhorn Creek	Fayette County
From River Mile 0.0 to 11.3	Segment Length: 11.3
Impaired Use: Aquatic Life (Partial Support)	
Pollutant of Concern: Nutrients	
Suspected Sources: Agriculture (Grazing-related Sources) – RM 0.0 to 8.8, Municipal Point Sources - RM 0.0 to 10.3, Urban Runoff/Storm Sewers – RM 0.0 to 11.3	

This listing for aquatic life replaces the 1998 303(d) listing, which showed Town Branch as being in nonsupport of the aquatic life designated use.

(2) South Elkhorn Creek of Elkhorn Creek	Scott/Woodford Counties
From River Mile 16.4 to 34.0	Segment Length: 17.6
Impaired Use: Aquatic Life (Partial Support)	
Pollutant of Concern: Nutrients	
Suspected Sources: Agriculture, Urban Runoff/Storm Sewers, Municipal Point Sources	

This listing for nutrients was included in the 1998 303(d) Report (2nd Priority). The 2000 305(b) Report showed that this reach fully supported the designated uses of aquatic life (based on 1998 assessment data). However, the metrics that the Water Quality Branch has been using to assess aquatic life use are being redefined based on ecological regions. As a result, this reach of South Elkhorn Creek has been changed from fully supporting the aquatic life designated use (as reported in the 2000 305(b) Report to Congress on Water Quality) to partially supporting the aquatic life designated use. The cause has been identified as nutrients. Therefore, South Elkhorn Creek can not be formally delisted for nutrients. As part of a 104(b)3 contract, the Kentucky Water Resources Research Institute is developing the TMDL for nutrients for Town Branch and for this portion of South Elkhorn Creek below Town Branch based on the 1998 303(d) listing. The nutrient TMDL has been submitted to EPA Region 4 for informal approval.

**Table 3(d) --continued. 2002 303(d) Report For Kentucky - Kentucky River Unit
TMDLs Under Development**

Town Branch./Wolf Run/S Elkhorn Creek/Cane Run Pathogens TMDL

The Individual Assessments Are Related to this TMDL are:

(1) Town Branch of South Elkhorn Creek From River Mile 0.0 to 11.3	Fayette County Segment Length: 11.3
Impaired Use: Swimming (Nonsupport)	
Pollutant of Concern: Pathogens	
Suspected Sources: Agriculture (Grazing-related Sources) – RM 0.0 to 8.8, Municipal Point Sources - RM 0.0 to 10.3, Urban Runoff/Storm Sewers – RM 0.0 to 11.3	
 (2) Wolf Run of Town Branch From River Mile 0.0 to 4.1	 Fayette County Segment Length: 4.1
Impaired Use: Swimming (Nonsupport)	
Pollutant of Concern: Pathogens	
Suspected Sources: Urban Runoff/Storm Sewers	
 (3) Cane Run of North Elkhorn Creek From River Mile 9.6 to 17.4	 Fayette/Scott Counties Segment Length: 7.8
Impaired Use: Swimming (Nonsupport)	
Pollutant of Concern: Pathogens	
Suspected Sources: Urban Runoff/Storm Sewers, Agriculture (Grazing-related Sources)	
 (4) South Elkhorn Creek of Elkhorn Creek From River Mile 16.4 to 34.0	 Scott/Woodford Counties Segment Length: 17.6
Impaired Use: Swimming (Partial Support)	
Pollutant of Concern: Pathogens	
Suspected Sources: Agriculture, Urban Runoff/Storm Sewers, Municipal Point Sources	
 <u>Elkhorn Creek of Kentucky River</u> From River Mile 0.0 to 17.7	 Franklin County Segment Length: 17.7
Impaired Use: Swimming (Nonsupport)	
Pollutant of Concern: Pathogens	
Suspected Sources: Agriculture	

The 1998 303(d) Report showed this stream segment as being in partial support of the swimming designated use. This listing makes the 1998 303(d) listing no longer relevant. Data are currently being collected at five sites along the stream reach for TMDL development.

**Table 3(e). 2002 303(d) Report For Kentucky - Kentucky River Unit
2002 303(d) List**

-1st Priority Listings-

<u>Baughman Fork of Boone Creek</u>	Fayette County	
From River Mile 0.0 to 1.1	Segment Length:	1.1
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Nutrients, Organic Enrichment/Low DO	
Suspected Sources:	Municipal Point Sources	

The TMDL for nutrients and organic enrichment/low DO is approved. The listing should have been for the Unnamed Tributary to Baughman Fork at River Mile 2.6. See Kentucky River Unit – Approved TMDLs. Also see Kentucky River Unit – Modifications to the 1998 303(d) Report – 1st Priority Listings.

<u>Balls Fork of Troublesome Creek</u>	Knott County	
From River Mile 8.3 to 11.3	Segment Length:	3.0
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Siltation	
Suspected Sources:	Agriculture (Crop-related Sources - Nonirrigated Crop Production), Agriculture (Grazing-related Sources - Pasture Grazing – Riparian and/or Upland), Urban Runoff/Storm Sewers (Erosion and Sedimentation)	

A reevaluation of the assessment based on new metrics indicated that this stream is in nonsupport of the aquatic life use and not partial support (as was indicated in the 2000 305(b) Report).

<u>Benson Creek of the Kentucky River</u>	Franklin County	
From River Mile 6.7 to 13.4	Segment Length:	6.7
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Siltation, Habitat Alteration	
Suspected Sources:	Agriculture, Urban Runoff/Storm Sewers (Highway/Road/Bridge Runoff), Land Disposal (Onsite Wastewater Systems – Septic and/or Straight Pipes) Habitat Modification (Other than Hydromodification)	

The DOW is currently involved in collecting suspended sediment and stream morphology information on streams in the Benson Creek watershed. Initial indications are that the siltation is being produced near the headwaters of the stream. The banks in this location have been ‘blown out’ meaning that the banks are void of vegetative cover. There is no agricultural activity occurring in the watershed in this section or upstream of this section. It is suspected that the condition occurred as a result of intense rainfall in either 1997 (Feb-Mar) or 1998. A TMDL is therefore probably not warranted for this segment because this condition is the result of a natural occurrence, which will be mitigated through natural processes. Data continue to be collected.

**Table 3(e) --continued. 2002 303(d) Report For Kentucky - Kentucky River Unit
2002 303(d) List**

-1st Priority Listings-

<u>Big Willard Creek of North Fork Kentucky River</u>	Perry County
From River Mile 0.0 to 4.5	Segment Length: 4.5
Impaired Use:	Aquatic Life (Nonsupport)
Pollutant of Concern:	Siltation, Turbidity, Habitat Alteration, Flow Alterations, Total Dissolved Solids
Suspected Sources:	Silviculture (Harvesting, Restoration, and Residue Management), Resource Extraction (Surface, Subsurface, Abandoned, and Inactive Mining), Habitat Modification (Other than Hydromodification) - Removal of Riparian Vegetation and Bank Modification/Destabilization

<u>Boone Creek of Kentucky River</u>	Fayette County
From River Mile 7.4 to 12.6	Segment Length: 5.2
Impaired Use:	Swimming (Nonsupport), Aquatic Life (Partial Support)
Pollutant of Concern:	Pathogens, Nutrients
Suspected Sources:	Agriculture (Grazing-related Sources)

<u>Buck Run of Eagle Creek</u>	Owen County
From River Mile 0.0 to 4.9	Segment Length: 4.9
Impaired Use:	Aquatic Life (Nonsupport)
Pollutant of Concern:	Siltation, Noxious Aquatic Plants
Suspected Sources:	Agriculture (Grazing-related Sources – Pasture Grazing, Riparian and/or Upland)

The original assessment was made in August of 1998 and identified the entire reach as being impaired. A field reconnaissance of this site was conducted on September 18, 2001 to determine the extent of the impairment. The impairment is only in the lower end of the watershed, from river mile 0.0 to 0.9. However, this updated information was not included in the 2002 305(b) Report. Therefore, the entire stream segment will be shown as being impaired to be consistent with the 2000 305(b) Report.

<u>Buckhorn Creek of Troublesome Creek</u>	Breathitt County
From River Mile 0.0 to 2.3	Segment Length: 2.3
Impaired Use:	Aquatic Life (Nonsupport), Swimming (Partial Support)
Pollutant of Concern:	Siltation, Turbidity, Flow Alterations, Habitat Alteration (Other than Flow), Total Dissolved Solids, Pathogens
Suspected Sources:	Silviculture (Harvesting, Restoration, and Residue Management), Resource Extraction (Surface, Subsurface, Abandoned, and Inactive Mining), Habitat Modification (Other than Hydromodification) - Removal of Riparian Vegetation and Bank Modification/Destabilization, Land Disposal (Onsite Wastewater Systems – Septic Tanks and/or Straight Pipes)

**Table 3(e) --continued. 2002 303(d) Report For Kentucky - Kentucky River Unit
2002 303(d) List**

-1st Priority Listings-

<u>Cane Creek of North Fork Kentucky River</u>	Breathitt County
From River Mile 0.0 to 9.5	Segment Length: 9.5
Impaired Use:	Swimming (Nonsupport)
Pollutant of Concern:	Pathogens
Suspected Sources:	Land Disposal (Onsite Wastewater Systems – Septic Tanks and/or Straight Pipes), Municipal Point Sources

The approved TMDL, ‘Removing Fecal Pollution from the North Fork Kentucky River Basin’ includes this stream segment. See Kentucky River Unit – Modifications to the 1998 303 (d) Report, 1st Priority Listings. Also see Kentucky River Unit – Approved TMDLs - North Fork Kentucky River and Tributaries Pathogens TMDL.

<u>Cane Creek of Red River</u>	Powell County
From River Mile 0.0 to 3.1	Segment Length: 3.1
Impaired Use:	Swimming (Nonsupport)
Pollutant of Concern:	Pathogens
Suspected Sources:	Agriculture (Grazing-related Sources)

<u>Cane Run of North Elkhorn Creek</u>	Scott County
From River Mile 0.0 to 3.0	Segment Length: 3.0
Impaired Use:	Aquatic Life (Nonsupport)
Pollutant of Concern:	Siltation
Suspected Sources:	Agriculture (Grazing-related Sources – Pasture Grazing - Riparian and/or Upland), Agriculture (Crop-related Sources – Nonirrigated Crop Production), Hydromodification (Flow Altered by Bridge).

<u>Cane Run of North Elkhorn Creek</u>	Scott County
From River Mile 3.0 to 9.6	Segment Length: 6.6
Impaired Use:	Swimming (Nonsupport), Aquatic Life (Nonsupport)
Pollutant of Concern:	Pathogens, Nutrients, Siltation
Suspected Sources:	Municipal Point Sources (Package Plants – Small Flows), Land Disposal, Agriculture (Grazing-related Sources), Construction (Highway/Road/Bridge Construction)

<u>Cane Run of North Elkhorn Creek</u>	Fayette/Scott Counties
From River Mile 9.6 to 17.4	Segment Length: 7.8
Impaired Use:	Aquatic Life (Nonsupport), Swimming (Nonsupport)
Pollutant of Concern:	Organic Enrichment/Low DO, Pathogens
Suspected Sources:	Urban Runoff/Storm Sewers, Agriculture (Grazing-related Sources)

The 1998 303(d) Report listed the segment from 10.0 to 17.4 as being impaired. A Federal Fiscal Year 2001 319 Assessment Grant to develop the pathogens TMDL has been approved by all parties and data collection is being conducted this summer. The grant proposal was awarded to the Kentucky Water Resources Research Institute. See Kentucky River Unit – TMDLs Under Development – Town Branch/Wolf Run/ South Elkhorn Creek/Cane Run Pathogens TMDL.

**Table 3(e) --continued. 2002 303(d) Report For Kentucky - Kentucky River Unit
2002 303(d) List**

-1st Priority Listings-

<u>Carr Fork of North Fork Kentucky River</u>	Perry County	
From River Mile 0.0 to 8.9	Segment Length:	8.9
Impaired Use:	Swimming (Nonsupport)	
Pollutant of Concern:	Pathogens	
Suspected Sources:	Land Disposal (Onsite Wastewater Systems – Septic Tanks and/or Straight Pipes), Municipal Point Sources	

The approved TMDL, ‘Removing Fecal Pollution from the North Fork Kentucky River Basin’ includes this stream segment. See Kentucky River Unit – Modifications to the 1998 303 (d) Report, 1st Priority Listings. Also see Kentucky River Unit – Approved TMDLs - North Fork Kentucky River and Tributaries Pathogens TMDL.

<u>Clarks Run of Dix River</u>	Boyle County	
From River Mile 4.3 to 6.6	Segment Length:	2.3
Impaired Use:	Aquatic life (Nonsupport)	
Pollutant of Concern:	Pesticides, Organic Enrichment/Low DO	
Suspected Sources:	Urban Runoff/Storm Sewers, Municipal Point Sources (Major Municipal Point Sources – Dry or Wet Weather)	

<u>Dix River of Kentucky River</u>	Garrard County	
From River Mile 33.0 to 36.0	Segment Length:	3.0
Impaired Use:	Swimming (Nonsupport)	
Pollutant of Concern:	Pathogens	
Suspected Sources:	Agriculture	

This listing is from the 1998 303(d) Report.

<u>Eagle Creek of Kentucky River</u>	Owen/Gallatin/Grant Counties	
River Mile 14.4 to 27.3 (Two Mile Cr to Ten Mile Cr)	Segment Length:	12.9
Impaired Use:	Swimming (Nonsupport)	
Pollutant of Concern:	Pathogens	
Suspected Sources:	Agriculture	

Assessments were made throughout the Eagle Creek watershed in 1998. Eagle Creek, from River Mile 0.0 to 38.8, was listed as 2nd Priority in the 1998 303(d) Report for partial support of swimming (pathogens) and aquatic life (nutrients) uses based on data from the ambient water quality monitoring site at River Mile 21.6. That assessment is no longer relevant because of the new assessment information. See Kentucky River Unit – Modifications to the 1998 303(d) Report - 2nd Priority Listings. A 104(b)3 Grant through EPA Region 4 was awarded in June 2001 to the Tracy Farmer Center for the Environment to develop this TMDL. The project is titled; Diagnostic Watershed Model for Pathogen Speciation and Mitigation. The project will investigate the use a various techniques to identify the source of pathogen impairment in addition to developing the pathogens TMDL and is to be completed by October 2003. See Kentucky River Unit – TMDLs Under Development.

**Table 3(e) --continued. 2002 303(d) Report For Kentucky - Kentucky River Unit
2002 303(d) List**

-1st Priority Listings-

<u>East Hickman Creek of Hickman Creek</u>		Fayette County
From River Mile 4.2 to 10.2		Segment Length: 6.0
Impaired Use:	Swimming (Nonsupport), Aquatic life (Partial Support)	
Pollutant of Concern:	Pathogens, Nutrients	
Suspected Sources:	Urban Runoff/Storm Sewers, Agriculture (Grazing-related Sources)	

<u>East Hickman Creek of Hickman Creek</u>		Fayette County
From River Mile 12.6 to 14.0		Segment Length: 1.4
Impaired Use:	Swimming (Nonsupport)	
Pollutant of Concern:	Pathogens	
Suspected Sources:	Urban Runoff/Storm Sewers	

<u>Elkhorn Creek of Kentucky River</u>		Franklin County
From River Mile 0.0 to 17.8		Segment Length: 17.8
Impaired Use:	Swimming (Nonsupport)	
Pollutant of Concern:	Pathogens	
Suspected Sources:	Agriculture (Grazing-related Sources)	

The 1998 303(d) Report showed this stream segment as being in partial support of the swimming designated use. This listing makes the 1998 303(d) listing no longer relevant. Data are currently being collected at five sites along the stream reach for TMDL development. See Kentucky River Unit – TMDLs Under Development.

<u>Grapevine Creek of North Fork Kentucky River</u>		Perry County
From River Mile 0.0 to 1.1		Segment Length: 1.1
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Siltation, Turbidity, Flow Alterations, Habitat Alteration, Total Dissolved Solids	
Suspected Sources:	Silviculture (Harvesting, Restoration, and Residue Management), Resource Extraction (Surface, Subsurface, Abandoned, and Inactive Mining), Habitat Modification (Other than Hydromodification) - Removal of Riparian Vegetation and Bank Modification/Destabilization	

<u>Hanging Fork of Dix River</u>		Lincoln County
From Rile Mile 0.0 to 15.0		Segment Length: 15.0
Impaired Use:	Swimming (Nonsupport)	
Pollutant of Concern:	Pathogens	
Suspected Sources:	Agriculture (Grazing-related Sources), Land Disposal (Onsite Wastewater Systems – Septic Tanks and/or Straight Pipes)	

**Table 3(e) --continued. 2002 303(d) Report For Kentucky - Kentucky River Unit
2002 303(d) List**

-1st Priority Listings-

<u>Hardwick Creek of Red River</u>	Powell County	
From River Mile 0.0 to 3.2	Segment Length:	3.2
Impaired Use:	Swimming (Nonsupport)	
Pollutant of Concern:	Pathogens	
Suspected Sources:	Agriculture (Grazing-related Sources), Land Disposal (Onsite Wastewater Systems – Septic Tanks and/or Straight Pipes)	
<u>Hawes Fork of Quicksand Creek</u>	Breathitt County	
From River Mile 0.0 to 4.4	Segment Length:	4.4
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Siltation, Turbidity, Flow Alterations, Habitat Alteration	
Suspected Sources:	Silviculture (Harvesting, Restoration, and Residue Management), Resource Extraction (Surface, Subsurface, Abandoned, and Inactive Mining), Habitat Modification (Other than Hydromodification) - Removal of Riparian Vegetation and Bank Modification/Destabilization	
<u>Hunting Creek of Quicksand Creek</u>	Breathitt County	
From River Mile 0.0 to 2.6	Segment Length:	2.6
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Siltation, Turbidity, Flow Alterations, Habitat Alteration	
Suspected Sources:	Silviculture (Harvesting, Restoration, and Residue Management), Resource Extraction (Surface, Subsurface, Abandoned, and Inactive Mining), Habitat Modification (Other than Hydromodification) - Removal of Riparian Vegetation and Bank Modification/Destabilization	
<u>Judy Creek of Red River</u>	Powell County	
From River Mile 0.0 to 1.4	Segment Length:	1.4
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Unknown	
Suspected Sources:	Unknown	
<u>Kentucky River of Ohio River</u>	Madison/Fayette/Jessamine/Clark Counties	
From River Mile 150.2 to 190.8	Segment Length:	40.6
Impaired Use:	Swimming (Nonsupport)	
Pollutant of Concern:	Pathogens	
Suspected Sources:	Unknown	

**Table 3(e) --continued. 2002 303(d) Report For Kentucky - Kentucky River Unit
2002 303(d) List**

-1st Priority Listings-

<u>Laurel Creek of Goose Creek</u>	Clay County	
From River Mile 2.5 to 5.4	Segment Length:	2.9
Impaired Use:	Aquatic Life (Nonsupport), Swimming (Nonsupport)	
Pollutant of Concern:	Ammonia (Unionized), Suspended Solids, Organic Enrichment/Low DO, Pathogens, Nutrients	
Suspected Sources:	Municipal Point Sources (Package Plants – Small Flows)	

This listing was in the 1998 303(d) Report. This stream segment has been informally delisted for TSS, ammonia (unionized), pathogens, organic enrichment/low DO. See Kentucky River Unit – Delistings – 1st Priority Listings. A request to formally delist Laurel Creek from RM 2.5 to 5.4 for ammonia (unionized), suspended solids, pathogens, and organic enrichment/low DO will be submitted to EPA Region 4 with the 2002 303(d) Report. The latest assessment information indicates that the stream (from river mile 3.8 to 4.8) in this area now partially supports aquatic life and that the pollutant of concern is nutrients from agriculture. The listing for nutrients is therefore included with the 2nd Priority streams (Kentucky River Unit) in this report. See Kentucky River Unit – 2002 303(d) List – 2nd Priority Listings.

<u>Left Fork Millstone Creek of Millstone Creek</u>	Letcher County	
From River Mile 1.5 to 2.7	Segment Length:	1.2
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Siltation, Low pH	
Suspected Sources:	Resource Extraction	

<u>Long Fork of Buckhorn Creek</u>	Breathitt County	
From River Mile 0.0 to 4.6	Segment Length:	4.6
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Chlorides/TDS/Salinity	
Suspected Sources:	Resource Extraction	

<u>Lost Creek of Troublesome Creek</u>	Breathitt County	
From River Mile 3.8 to 10.2	Segment Length:	6.4
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Siltation, Turbidity, Flow Alterations, Habitat Alteration, Total Dissolved Solids	
Suspected Sources:	Silviculture (Harvesting, Restoration, and Residue Management), Resource Extraction (Surface, Subsurface, Abandoned, and Inactive Mining), Habitat Modification (Other than Hydromodification) - Removal of Riparian Vegetation and Bank Modification/Destabilization	

**Table 3(e) --continued. 2002 303(d) Report For Kentucky - Kentucky River Unit
2002 303(d) List**

-1st Priority Listings-

<u>Lotts Creek of North Fork Kentucky River</u>	Perry County	
From River Mile 1.2 to 6.0	Segment Length:	4.8
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Siltation, Flow Alterations, Habitat Alteration (Other than Flow), Turbidity	
Suspected Sources:	Silviculture (Harvesting, Restoration, and Residue Management), Resource Extraction (Surface Mining, Subsurface Mining, Abandoned Mining, and Inactive Mining), Habitat Modification (Other than Hydromodification) – Removal of Riparian Vegetation and Bank Modification/Destabilization	

<u>Lower Howard Creek of Kentucky River</u>	Clark County	
From River Mile 0.0 to 6.2	Segment Length:	6.2
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Nutrients, Organic Enrichment/Low DO	
Suspected Sources:	Unknown, Agriculture (Grazing-related Sources), Hydromodification (Upstream Impoundment)	

A reevaluation of the assessment was made and it was deemed that the lower end of the impaired segment should be at river mile 2.6. However, this information was not included in the 2002 305(b) Report. Therefore, the impaired segment will extend from river mile 0.0 to 6.2 to be consistent with the 2000 305(b) Report.

<u>Moseby Branch of Eagle Creek</u>	Owen County	
From River Mile 0.0 to 2.2	Segment Length:	2.2
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Flow Alterations, Habitat Alterations (Other than Flow)	
Suspected Sources:	Natural Sources, Habitat Modification (Other than Hydromodification) - Bank Modification/Destabilization	

This listing appeared in the 2000 305(b) Report. This impairment was caused by flooding from heavy spring rains. Because this impairment is the result of a naturally occurring event (flooding), a TMDL is not appropriate and will not be done.

<u>Muddy Creek of Kentucky River</u>	Madison County	
From River Mile 0.0 to 20.2	Segment Length:	20.2
Impaired Use:	Swimming (Nonsupport)	
Pollutant of Concern:	Pathogens	
Suspected Sources:	Agriculture (Grazing-related Sources)	

<u>North Elkhorn Creek of Elkhorn Creek</u>	Fayette County	
From River Mile 65.0 to 73.7	Segment Length:	8.7
Impaired Use:	Swimming (Nonsupport), Aquatic Life (Partial Support)	
Pollutant of Concern:	Pathogens, Habitat Alterations (Other than Flow)	
Suspected Sources:	Agriculture (Grazing-related Sources)	

**Table 3(e) --continued. 2002 303(d) Report For Kentucky - Kentucky River Unit
2002 303(d) List**

-1st Priority Listings-

<u>North Fork Kentucky River and Tributaries</u>	Letcher/Perry/Breathitt/Wolfe/Lee Counties
From River Mile (main stem) 0.0 to 162.6	Segment Length: 162.6
Impaired Use:	Swimming (Nonsupport)
Pollutant of Concern:	Pathogens
Suspected Sources:	Land Disposal (Onsite Wastewater Systems – Septic Tanks and/or Straight Pipes), Municipal Point Sources

The TMDL for pathogens for the North Fork Kentucky River and Tributaries is approved; ‘Removing Fecal Pollution from the North Fork Kentucky River Basin.’ See Kentucky River Unit – Approved TMDLs – North Fork Kentucky River and Tributaries.

<u>North Fork Kentucky River of Kentucky River</u>	Letcher County
From River Mile 142.6 to 147.7	Segment Length: 5.1
Impaired Use:	Aquatic Life (Nonsupport)
Pollutant of Concern:	Siltation
Suspected Sources:	Urban Runoff/Storm Sewers (Erosion and Sedimentation), Habitat Modification (Other than Hydromodification), Agriculture (Crop-related Sources - Nonirrigated Crop Production)

<u>North Fork Kentucky River of Kentucky River</u>	Letcher County
From River Mile 147.7 to 158.0	Segment Length: 10.3
Impaired Use:	Aquatic Life (Nonsupport)
Pollutant of Concern:	Siltation
Suspected Sources:	Urban Runoff/Storm Sewers, Construction, Silviculture (Harvesting, Restoration, and Residue Management), Agriculture (Crop-related Sources - Nonirrigated Crop Production), Agriculture (Grazing-related Sources - Pasture Grazing – Riparian and/or Upland)

<u>Potter Fork of Boone Fork</u>	Letcher County
From River Mile 0.0 to 4.4	Segment Length: 4.4
Impaired Use:	Aquatic Life (Nonsupport)
Pollutant of Concern:	Organic Enrichment/Low DO
Suspected Sources:	Land Disposal (Onsite Wastewater Systems – Septic Tanks and/or Straight Pipes)

<u>Quicksand Creek of North Fork Kentucky River</u>	Breathitt County
From River Mile 20.8 to 29.4	Segment Length: 8.6
Impaired Use:	Aquatic Life (Nonsupport)
Pollutant of Concern:	Siltation, Turbidity, Flow Alterations, Habitat Alteration, Total Dissolved Solids
Suspected Sources:	Silviculture (Harvesting, Restoration, and Residue Management), Resource Extraction (Surface, Subsurface, Abandoned, and Inactive Mining), Habitat Modification (Other than Hydromodification - Removal of Riparian Vegetation and Bank Modification/Destabilization)

**Table 3(e) --continued. 2002 303(d) Report For Kentucky - Kentucky River Unit
2002 303(d) List**

-1st Priority Listings-

<u>Rattlesnake Creek of Eagle Creek</u>	Grant County
From River Mile 0.0 to 1.2	Segment Length: 1.2
Impaired Use:	Aquatic Life (Nonsupport)
Pollutant of Concern:	Unknown
Suspected Sources:	Unknown

This listing appeared in the 2000 305(b) Report. A reevaluation of the assessment was made and it was deemed inappropriate to use fish to assess this habitat type (slick bedrock). Therefore, the assessment should be deemed inconclusive. However, this new information was not included in the 2002 305(b) Report. Therefore, this stream will be included here, in the 2002 303(d) Report to be consistent with the 2000 305(b) Report listing.

<u>Red Bird River of South Fork Kentucky River</u>	Clay County
From River Mile 0.0 to 15.0	Segment Length: 15.0
Impaired Use:	Swimming (Nonsupport)
Pollutant of Concern:	Pathogens
Suspected Sources:	Land Disposal (Onsite Wastewater Systems – Septic Tanks and/or Straight Pipes)

<u>Red River of Kentucky River</u>	Estill/Clark/Powell Counties
From River Mile 9.5 to 41.1	Segment Length: 31.6
Impaired Use:	Swimming (Nonsupport)
Pollutant of Concern:	Pathogens
Suspected Sources:	Municipal Point Sources, Agriculture, Land Disposal (Onsite Wastewater Systems – Septic Tanks and/or Straight Pipes)

This listing was in the 1998 303(d) Report. The latest available data from the KDOW show that this stream segment now fully supports the swimming designated use. A request to delist the stream segment as being impaired for the swimming use because of pathogens will be submitted to EPA Region 4 with the 2002 303(d) Report. See Kentucky River Unit – Delistings – 1st Priority Listings. However, citizen data indicate that a problem might still exist on this segment of the main stem of the Red River. Therefore, the stream segment will be included in Table 3(f), ‘Stream Segments Needing Additional Information Before Being 303(d) Listed.’

<u>Rockhouse Creek of North Fork Kentucky River</u>	Letcher County
From River Mile 0.0 to 3.6	Segment Length: 3.6
Impaired Use:	Swimming (Nonsupport), Aquatic Life (Partial Support)
Pollutant of Concern:	Pathogens, Siltation, Turbidity, Flow Alterations, Habitat Alteration, Total Dissolved Solids
Suspected Sources:	Land Disposal (Onsite Wastewater Systems – Septic Tanks and/or Straight Pipes), Silviculture (Harvesting, Restoration, and Residue Management), Resource Extraction (Surface, Subsurface, Abandoned, and Inactive Mining), Habitat Modification (Other than Hydromodification) - Removal of Riparian Vegetation and Bank Modification/Destabilization

**Table 3(e) --continued. 2002 303(d) Report For Kentucky - Kentucky River Unit
2002 303(d) List**

-1st Priority Listings-

<u>Sand Lick Fork of South Fork Red River</u>	Powell County
From River Mile 0.0 to 5.0	Segment Length: 5.0
Impaired Use:	Aquatic Life (Nonsupport)
Pollutant of Concern:	Salinity/TDS/Chlorides
Suspected Sources:	Resource Extraction (Petroleum Activities)

This listing was in the 1998 303(d) Report. The TMDL is approved. New assessment information shows that this stream segment fully supports the aquatic life use. A request to delist this stream segment will be submitted to EPA Region 4 with the 2002 303(d) Report. See Kentucky River Unit – Approved TMDLs. Also see Kentucky River Unit – Delistings – 1st Priority Listings.

<u>Silver Creek of Kentucky River</u>	Madison County
From River Mile 0.0 to 10.9	Segment Length: 10.9
Impaired Use:	Swimming (Partial Support)
Pollutant of Concern:	Pathogens
Suspected Sources:	Agriculture

<u>South Elkhorn Creek of Elkhorn Creek</u>	Woodford County
From River Mile 34.0 to 35.2	Segment Length: 1.2
Impaired Use:	Aquatic Life (Nonsupport)
Pollutant of Concern:	Siltation
Suspected Sources:	Habitat Modification (Other than Hydromodification), Hydromodification

This reach of South Elkhorn Creek is upstream of the confluence with Town Branch. The assessment information indicates that there has been Riparian Vegetation removal along the stream bank in this area.

<u>South Fork Red River of Middle Fork Red River</u>	Powell County
From River Mile 0.0 to 10.1	Segment Length: 10.1
Impaired Use:	Aquatic Life (Nonsupport)
Pollutant of Concern:	Salinity/TDS/Chlorides
Suspected Sources:	Resource Extraction (Petroleum Activities)

This listing was in the 1998 303(d) Report. The TMDL is approved. New assessment information shows that this stream segment fully supports the aquatic life use. A request to delist this stream segment will be submitted to EPA Region 4 with the 2002 303(d) Report. See Kentucky River Unit – Approved TMDLs. Also see Kentucky River Unit – Delistings – 1st Priority Listings.

**Table 3(e) --continued. 2002 303(d) Report For Kentucky - Kentucky River Unit
2002 303(d) List**

-1st Priority Listings-

<u>Spring Fork of Quicksand Creek</u>	Breathitt County
From River Mile 3.1. to 6.9	Segment Length: 3.8
Impaired Use:	Aquatic Life (Nonsupport)
Pollutant of Concern:	Siltation, Turbidity, Flow Alterations, Habitat Alteration, Total Dissolved Solids
Suspected Sources:	Silviculture (Harvesting, Restoration, and Residue Management), Resource Extraction (Surface, Subsurface, Abandoned, and Inactive Mining), Habitat Modification (Other than Hydromodification) - Removal of Riparian Vegetation and Bank Modification/Destabilization

<u>Stump Cave Branch of South Fork Red River</u>	Powell County
From River Mile 0.0 to 2.4	Segment Length: 2.4
Impaired Use:	Aquatic Life (Nonsupport)
Pollutant of Concern:	Salinity/TDS/Chlorides
Suspected Sources:	Resource Extraction (Petroleum Activities)

This stream was not listed in the 1998 303(d) report, but was included in the approved TMDL that included South Fork Red River and Sand Lick Fork. An assessment was not made for Stump Cave Branch in 1998, but the 1998 assessment information for South Fork Red River and Sand Lick Fork shows that these two stream segments fully support the aquatic life use. An assessment of Stump Cave Branch will be made during the next watershed cycle for the Kentucky River Unit (2003). See Kentucky River Unit – Approved TMDLs.

<u>Sulphur Creek of Drennon Creek</u>	Henry County
From River Mile 0.0 to 1.4	Segment Length: 1.4
Impaired Use:	Aquatic Life (Nonsupport)
Pollutant of Concern:	Siltation, Organic Enrichment/Low DO, Habitat Alteration
Suspected Sources:	Agriculture, Habitat Modification (Other than Hydromodification)

<u>Tate Creek of Kentucky River</u>	Madison County
From River Mile 0.0 to 6.5	Segment Length: 6.5
Impaired Use:	Aquatic Life (Nonsupport)
Pollutant of Concern:	Nutrients, Organic Enrichment/Low DO
Suspected Sources:	Municipal Point Sources (Major Municipal Point Sources), Agriculture (Crop-related Sources), Agriculture (Grazing-related Sources)

**Table 3(e) --continued. 2002 303(d) Report For Kentucky - Kentucky River Unit
2002 303(d) List**

-1st Priority Listings-

<u>Town Branch of South Elkhorn Creek</u>	Fayette County	
From River Mile 0.0 to 10.3	Segment Length:	10.3
Impaired Use:	Swimming (Nonsupport), Aquatic Life (Partial Support)	
Pollutant of Concern:	Pathogens, Nutrients, Organic Enrichment/Low DO	
Suspected Sources:	Agriculture (Grazing-related Sources) – RM 0.0 to 8.8, Municipal Point Sources - RM 0.0 to 10.3, Urban Runoff/Storm Sewers – RM 0.0 to 11.3	

This listing and the following listing supercedes the 1998 303(d) listing, which showed Town Branch as being in nonsupport of the aquatic life designated use. The TMDL is currently being developed for nutrients for Town Branch and for a portion of South Elkhorn Creek immediately below Town Branch. That TMDL has been submitted to EPA Region 4 for informal approval. See Kentucky River Unit - – TMDLs Under Development – Town Branch/South Elkhorn Creek Nutrient TMDL. A Federal Fiscal Year 2001 319 Assessment Grant to develop the pathogens TMDL has been approved by all parties and data collection is being conducted this summer. The grant proposal was awarded to the Kentucky Water Resources Research Institute. See Kentucky River Unit – TMDLs Under Development – Town Branch/Wolf Run/ South Elkhorn Creek/Cane Run Pathogens TMDL.

<u>Town Branch of South Elkhorn Creek</u>	Fayette County	
From River Mile 10.3 to 11.3	Segment Length:	1.0
Impaired Use:	Swimming (Nonsupport), Aquatic Life (Partial Support)	
Pollutant of Concern:	Pathogens, Nutrients, Organic Enrichment/Low DO, Flow Alterations	
Suspected Sources:	Agriculture (Grazing-related Sources) – RM 0.0 to 8.8, Municipal Point Sources - RM 0.0 to 10.3, Urban Runoff/Storm Sewers – RM 0.0 to 11.3	

This listing and the preceding listing supercedes the 1998 303(d) listing, which showed Town Branch as being in nonsupport of the aquatic life designated use. The TMDL is currently being developed for nutrients for Town Branch and for a portion of South Elkhorn Creek immediately below Town Branch. That TMDL has been submitted to EPA Region 4 for informal approval. See Kentucky River Unit - – TMDLs Under Development – Town Branch/South Elkhorn Creek Nutrient TMDL. A Federal Fiscal Year 2001 319 Assessment Grant to develop the pathogens TMDL has been approved by all parties and data collection is being conducted this summer. The grant proposal was awarded to the Kentucky Water Resources Research Institute. See Kentucky River Unit – TMDLs Under Development – Town Branch/Wolf Run/ South Elkhorn Creek/Cane Run Pathogens TMDL.

**Table 3(e) --continued. 2002 303(d) Report For Kentucky - Kentucky River Unit
2002 303(d) List**

-1st Priority Listings-

<u>Troublesome Creek of North Fork Kentucky River</u>	Breathitt/Perry/Knott Counties
From River Mile 0.0 to 49.5	Segment Length: 49.5
Impaired Use:	Swimming (Nonsupport)
Pollutant of Concern:	Pathogens
Suspected Sources:	Land Disposal (Onsite Wastewater Systems – Septic Tanks and/or Straight Pipes), Municipal Point Sources

This is the listing from the 1998 303(d) Report. The approved TMDL, 'Removing Fecal Pollution from the North Fork Kentucky River Basin' includes this stream segment. See Kentucky River Unit – Modifications to the 1998 303 (d) Report, 1st Priority Listings. Also see Kentucky River Unit – Approved TMDLs - North Fork Kentucky River and Tributaries Pathogens TMDL. A more complete assessment of Troublesome Creek is available, and the updated listings follow.

<u>Troublesome Creek of North Fork Kentucky River</u>	Breathitt/Perry/Knott Counties
From River Mile 0.0 to 25.2	Segment Length: 25.2
Impaired Use:	Swimming (Nonsupport)
Pollutant of Concern:	Pathogens
Suspected Sources:	Land Disposal (Onsite Wastewater Systems – Septic Tanks and/or Straight Pipes), Municipal Point Sources

This segment listing is based on the 1998 303(d) Report information (see previous listing) and more recent information. The approved TMDL, 'Removing Fecal Pollution from the North Fork Kentucky River Basin' includes this stream segment. See Kentucky River Unit – Modifications to the 1998 303 (d) Report, 1st Priority Listings. Also see Kentucky River Unit – Approved TMDLs - North Fork Kentucky River and Tributaries Pathogens TMDL.

<u>Troublesome Creek of North Fork Kentucky River</u>	Breathitt/Perry/Knott Counties
From River Mile 25.2 to 31.4	Segment Length: 6.2
Impaired Use:	Swimming (Nonsupport), Aquatic Life (Partial Support)
Pollutant of Concern:	Pathogens, Siltation, Turbidity, Flow Alterations, Habitat Alteration
Suspected Sources:	Land Disposal (Onsite Wastewater Systems – Septic Tanks and/or Straight Pipes), Municipal Point Sources, Silviculture (Harvesting, Restoration, and Residue Management), Resource Extraction (Surface, Subsurface, Abandoned, and Inactive Mining), Habitat Modification (Other than Hydromodification) - Removal of Riparian Vegetation and Bank Modification/Destabilization

This segment listing for swimming (due to pathogens) is based on the 1998 303(d) Report information and more recent information. The approved TMDL, 'Removing Fecal Pollution from the North Fork Kentucky River Basin' includes this stream segment. See Kentucky River Unit – Modifications to the 1998 303 (d) Report, 1st Priority Listings. Also see Kentucky River Unit – Approved TMDLs - North Fork Kentucky River and Tributaries Pathogens TMDL. The latest assessment information also shows that this stream segment only partially supports the aquatic life designated use.

**Table 3(e) --continued. 2002 303(d) Report For Kentucky - Kentucky River Unit
2002 303(d) List**

-1st Priority Listings-

<u>Troublesome Creek of North Fork Kentucky River</u>	Breathitt/Perry/Knott Counties
From River Mile 31.4 to 49.5	Segment Length: 18.1
Impaired Use:	Swimming (Nonsupport)
Pollutant of Concern:	Pathogens
Suspected Sources:	Land Disposal (Onsite Wastewater Systems – Septic Tanks and/or Straight Pipes), Municipal Point Sources

This segment listing for swimming (due to pathogens) is based on the 1998 303(d) Report information and more recent information. The approved TMDL, ‘Removing Fecal Pollution from the North Fork Kentucky River Basin’ includes this stream segment. See Kentucky River Unit – Modifications to the 1998 303 (d) Report, 1st Priority Listings. Also see Kentucky River Unit – Approved TMDLs - North Fork Kentucky River and Tributaries Pathogens TMDL.

<u>UT of Cane Run (River Mile 6.05)</u>	Scott/Fayette Counties
From River Mile 0.0 to 3.5	Segment Length: 3.5
Impaired Use:	Swimming (Nonsupport)
Pollutant of Concern:	Pathogens
Suspected Sources:	Municipal Point Sources (Package Plants – Small Flows), Agriculture (Grazing-related Sources)

<u>UT to N Br of Lulbegrad Cr (River Mile 2.6)</u>	Montgomery County
From River Mile 0.0 to 2.2	Segment Length: 2.2
Impaired Use:	Aquatic Life (Nonsupport)
Pollutant of Concern:	Unknown
Suspected Sources:	Unknown

<u>UT to Swift Camp Cr (River Mile 11.7)</u>	Wolfe County
From River Mile 0.0 to 1.5	Segment Length: 1.5
Impaired Use:	Aquatic Life (Nonsupport)
Pollutant of Concern:	Siltation
Suspected Sources:	Habitat Modification (Other than Hydromodification) - Removal of Riparian Vegetation, Urban Runoff/Storm Sewers (Erosion and Sedimentation), Land Disposal (Onsite Wastewater Systems – Septic Tanks and/or Straight Pipes)

<u>Wolf Run of Town Branch</u>	Fayette County
From River Mile 0.0 to 4.1	Segment Length: 4.1
Impaired Use:	Swimming (Nonsupport), Aquatic Life (Partial Support)
Pollutant of Concern:	Pathogens, Nutrients, Habitat Alterations (Other than Flow)
Suspected Sources:	Urban Runoff/Storm Sewers, Hydromodification (Channelization)

The listing for pathogens is from the 1998 303(d) Report. A Federal Fiscal Year 2001 319 Assessment Grant to develop the pathogens TMDL has been approved by all parties and data collection is being conducted this summer. The grant proposal was awarded to the Kentucky Water Resources Research Institute. See Kentucky River Unit – TMDLs Under Development – Town Branch/Wolf Run/ South Elkhorn Creek/Cane Run Pathogens TMDL.

**Table 3(e) --continued. 2002 303(d) Report For Kentucky - Kentucky River Unit
2002 303(d) List**

-2nd Priority Listings-

<u>Arnolds Creek of Ten Mile Creek</u>		Grant County
From River Mile 0.0 to 10.8		Segment Length: 10.8
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Siltation	
Suspected Sources:	Agriculture (Crop-related Sources, Nonirrigated Crop Production), Habitat Modification (Other than Hydromodification) - Bank Modification/Destabilization	

<u>Banta's Fork of Salt River of Six Mile Creek</u>		Henry County
From River Mile 0.0 to 6.2		Segment Length: 6.2
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Siltation, Habitat Alterations (Other than Flow)	
Suspected Sources:	Agriculture, Habitat Modification (Other than Hydromodification)	

<u>Baughman Fork of Boone Creek</u>		Fayette County
From River Mile 0.0 to 2.7		Segment Length: 2.7
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Nutrients, Organic Enrichment/Low DO	
Suspected Sources:	Agriculture (Grazing-related Sources, Pasture Grazing – Riparian and/or Upland), Municipal Point Sources (Package Plants - Small Flows)	

<u>Benson Creek of the Kentucky River</u>		Franklin County
From River Mile 0.0 to 4.6		Segment Length: 4.6
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Siltation, Habitat Alteration	
Suspected Sources:	Agriculture, Habitat Modification (Other than Hydromodification)	

The DOW is currently involved in collecting suspended sediment and stream morphology information on streams in the Benson Creek watershed

<u>Benson Creek of Kentucky River</u>		Franklin County
From River Mile 4.6 to 6.7		Segment Length: 2.1
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Nutrients, Siltation, Habitat Alteration (Other than Flow)	
Suspected Sources:	Agriculture, Urban Runoff/Storm Sewers (Highway/Road/Bridge Runoff), Land Disposal (Onsite Wastewater Systems – Septic Tanks and/or Straight Pipes) Habitat Modification (Other than Hydromodification)	

The DOW is currently involved in collecting suspended sediment and stream morphology information on streams in the Benson Creek watershed.

**Table 3(e) --continued. 2002 303(d) Report For Kentucky - Kentucky River Unit
2002 303(d) List**

-2nd Priority Listings-

<u>Big Caney Creek of Quicksand Creek</u>	Breathitt County	
From River Mile 0.3 to 8.0	Segment Length:	7.7
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Unknown, Total Dissolved Solids	
Suspected Sources:	Unknown	
<u>Big Twin Creek of Kentucky River</u>	Owen County	
From River Mile 0.0 to 3.8	Segment Length:	3.8
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Siltation, Habitat Alteration (Other than Flow)	
Suspected Sources:	Agriculture, Habitat Modification (Other than Hydromodification)	
<u>Boone Creek of Kentucky River</u>	Fayette/Clark Counties	
From River Mile 0.0 to 7.4	Segment Length:	7.4
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Nutrients	
Suspected Sources:	Agriculture (Grazing-related Sources), Municipal Point Sources (Package Plants - Small Flows)	
<u>Brush Creek of Red River</u>	Powell County	
From River Mile 0.0 to 6.6	Segment Length:	6.6
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Unknown	
Suspected Sources:	Unknown	
<u>Bull Creek of Collins Fork</u>	Knox County	
From River Mile 0.0 to 2.0	Segment Length:	2.0
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Siltation	
Suspected Sources:	Agriculture (Crop-Related Sources - Nonirrigated Crop Production)	
<u>Carr Fork of North Fork Kentucky River</u>	Perry County	
From River Mile 15.8 to 26.4	Segment Length:	10.6
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Siltation	
Suspected Sources:	Resource Extraction	

This listing is from the 1998 303(d) Report.

**Table 3(e) --continued. 2002 303(d) Report For Kentucky - Kentucky River Unit
2002 303(d) List**

-2nd Priority Listings-

<u>Cedar Creek of Kentucky River</u>		Owen County
From River Mile 2.2 to 6.7		Segment Length: 4.5
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Siltation, Habitat Alteration (Other than Flow), Organic Enrichment/Low DO	
Suspected Sources:	Agriculture, Habitat Modification (Other than Hydromodification) – Removal of Riparian Vegetation and Bank Modification/Destabilization, Construction (Highway/Road/Bridge Construction)	
 <u>Clarks Run of Dix River</u>		Boyle County
From River Mile 0.0 to 4.3		Segment Length: 4.3
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Organic Enrichment/Low DO	
Suspected Sources:	Urban Runoff/Storm Sewers, Municipal Point Sources (Major Municipal Point Sources)	
 <u>Collins Fork of Goose Creek</u>		Clay County
From River Mile 2.4 to 6.3		Segment Length: 3.9
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Siltation	
Suspected Sources:	Habitat Modification (Other than Hydromodification)	
 <u>Cope Fork of Frozen Creek</u>		Breathitt County
From River Mile 0.0 to 1.9		Segment Length: 1.9
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Siltation, Habitat Alteration (Other than Flow), Total Dissolved Solids	
Suspected Sources:	Agriculture (Crop-related Sources - Nonirrigated Crop Production), Agriculture (Grazing-related Sources - Pasture Grazing – Riparian and/or Upland), Silviculture, Habitat Modification (Other than Hydromodification) – Removal of Riparian Vegetation and Bank Modification/Destabilization, Hydromodification (Channelization), Resource Extraction (Surface Mining)	

**Table 3(e) --continued. 2002 303(d) Report For Kentucky - Kentucky River Unit
2002 303(d) List**

-2nd Priority Listings-

<u>Copper Creek of Dix River</u>	Lincoln/Rockcastle Counties
From River Mile 0.0 to 11.8	Segment Length: 11.8
Impaired Use:	Aquatic Life (Partial Support)
Pollutant of Concern:	Siltation
Suspected Sources:	Agriculture

In the 1998 303(d) Report Copper Creek was listed as 2nd Priority from RM 0.0 to 11.8 for siltation from agriculture based on 1994 data. The sampling locations were at RM 0.1 and 2.3. The assessment was carried to the headwaters. A more complete assessment of Copper Creek is now available, making this listing no longer relevant. The latest assessment shows that RM 0.0 to 1.5 is partially supporting aquatic life because of siltation from agriculture. RM 1.5 to 7.6 is fully supporting of aquatic life based on data from RM 2.3 and 4.4. The reach from RM 7.6 to 11.8 is considered to be Not Assessed. Therefore, the 2002 303(d) reflects this new information and replaces the listing in the 1998 303(d) Report. A request to (1) delist the stretch from 1.5 to 7.6 as not supporting aquatic life, and (2) define the stretch from 7.6 to 11.8 as Not Assessed has been submitted to EPA Region 4. See Kentucky River Unit – Delistings – 2nd Priority Listings. Also see Kentucky River Unit – Modifications to the 1998 303(d) Report – 2nd Priority Listings.

<u>Copper Creek of Dix River</u>	Lincoln/Rockcastle Counties
From River Mile 0.0 to 1.5	Segment Length: 1.5
Impaired Use:	Aquatic Life (Partial Support)
Pollutant of Concern:	Siltation
Suspected Sources:	Agriculture (Grazing-related Sources)

In the 1998 303(d) Report Copper Creek was listed as 2nd Priority, RM 0.0 to 11.8 for siltation based on 1994 data. The sampling locations were at RM 0.1 and 2.3. The assessment was carried to the headwaters. A more complete assessment of Copper Creek is now available and is reflected in this listing. The latest assessment shows that RM 0.0 to 1.5 is partially supporting aquatic life because of siltation from agriculture. RM 1.5 to 7.6 is fully supporting of aquatic life based on data from RM 2.3 and 4.4. The reach from RM 7.6 to 11.8 is considered to be Not Assessed. A request to (1) delist the stretch from 1.5 to 7.6 as not supporting aquatic life, and (2) define the stretch from 7.6 to 11.8 as Not Assessed has been submitted to EPA Region 4. See Kentucky River Unit – Delistings – 2nd Priority Listings. Also see Kentucky River Unit – Modifications to the 1998 303(d) Report – 2nd Priority Listings.

<u>Dry Run of North Elkhorn Creek</u>	Scott County
From River Mile 0.0 to 3.1	Segment Length: 3.1
Impaired Use:	Aquatic Life (Partial Support)
Pollutant of Concern:	Siltation, Nutrients, Cause Unknown
Suspected Sources:	Agriculture (Grazing-related Sources - Pasture Grazing – Riparian and/or Upland), Unknown

**Table 3(e) --continued. 2002 303(d) Report For Kentucky - Kentucky River Unit
2002 303(d) List**

-2nd Priority Listings-

Eagle Creek of the Kentucky River

Carroll/Gallatin/Owen/Grant Counties

From River Mile 0.0 to 38.8 Segment Length: 38.8
Impaired Use: Swimming (Partial Support), Aquatic Life (Partial Support)
Pollutant of Concern: Pathogens, Nutrients
Suspected Sources: Agriculture

This listing is from the 1998 303(d) Report. It was based solely on information from the ambient network site at RM 20.8 and the reach length should not have been extended this far upstream and downstream of the data collection location. A more complete assessment of the streams in the Eagle Creek watershed is now available, making this 1998 303(d) Report listing no longer relevant. The updated listings follow:

The latest aquatic life designated use assessment information is:

RM 0.0 to 10.2 fully supports the aquatic life designated use,
RM 10.2 to 14.4 not assessed for the aquatic life designated use,
RM 14.4 to 29.9 fully supports the aquatic life designated use,
RM 29.9 to 34.5 partially supports the aquatic life designated use,
RM 34.5 to 45.6 not assessed for the aquatic life designated use,
RM 45.6 to 48.6 fully supports the aquatic life designated use,
RM 48.6 to 55.9 partially supports the aquatic life designated use,
RM 55.9 to 66.3 not assessed for aquatic life designated use,
RM 66.3 to 72.3 fully supports the aquatic life designated use,
RM 72.3 to 75.8 not assessed for aquatic life designated use,
RM 75.8 to 81.3 fully supports the aquatic life designated use.

A request to delist the segment from RM 0.0 to 10.2 and RM 14.4 to 29.9 for aquatic life designated use because of nutrients will be submitted to EPA Region 4 with the 2002 303(d) Report.

A request to define the segment from RM 10.2 to 14.4 and 34.5 to 38.8 as not assessed will be submitted to EPA with the 2002 303(d) Report.

The latest swimming designated use assessment information is:

RM 14.4 to 27.3 is nonsupporting of the swimming designated use.

A request to modify the 1998 303(d) listing for pathogens as follows will be submitted to EPA with the 2002 303(d) Report:

RM 0.0 to 14.4 not assessed for the swimming designated use,
RM 14.4 to 27.3 not supporting the swimming designated use,
RM 27.3 to 38.8 not assessed for the swimming designated use.

See Kentucky River Unit – Modifications to the 1998 303(d) Report – 2nd Priority Listings Also see Kentucky River Unit – Delistings – 2nd Priority Listings. Also see Kentucky River Unit – 2002 303(d) List – 1st Priority Listings for the updated listings. Also see Kentucky River Unit – 2002 303(d) List – 2nd Priority Listings for the updated listings.

**Table 3(e) --continued. 2002 303(d) Report For Kentucky - Kentucky River Unit
2002 303(d) List**

-2nd Priority Listings-

<u>Eagle Creek of Kentucky River</u>	Owen/Gallatin/Grant Counties
From River Mile 29.9 to 34.5	Segment Length: 5.6
Impaired Use:	Aquatic Life (Partial Support)
Pollutant of Concern:	Nutrients, Siltation
Suspected Sources:	Agriculture (Grazing-related Sources), Agriculture (Crop-related Sources)

Assessments were made throughout the Eagle Creek watershed in 1998. Eagle Creek, from River Mile 0.0 to 38.8, was listed as 2nd Priority in the 1998 303(d) Report for partial support of swimming (pathogens) and aquatic life (nutrients) uses. The 1998 303(d) listing is no longer relevant.

<u>Eagle Creek of Kentucky River</u>	Owen/Gallatin/Grant Counties
From River Mile 48.6 to 55.9	Segment Length: 7.3
Impaired Use:	Aquatic Life (Partial Support)
Pollutant of Concern:	Nutrients, Siltation
Suspected Sources:	Agriculture (Grazing-related Sources), Agriculture (Crop-related Sources)

Assessments were made throughout the Eagle Creek watershed in 1998. Eagle Creek, from River Mile 0.0 to 38.8, was listed as 2nd Priority in the 1998 303(d) Report for partial support of swimming (pathogens) and aquatic life (nutrients) uses. The 1998 303(d) listing is no longer relevant.

<u>East Fork Otter Creek of Kentucky River</u>	Madison County
From River Mile 0.0 to 2.7	Segment Length: 2.7
Impaired Use:	Aquatic Life (Partial Support)
Pollutant of Concern:	Nutrients, Excessive Algal Growth/Chlorophyll <u>a</u>
Suspected Sources:	Agriculture (Crop-related Sources), Agriculture (Grazing-related Sources - Pasture Grazing – Riparian and/or Upland)

<u>Elk Creek of Eagle Creek</u>	Owen County
From River Mile 0.0 to 1.6	Segment Length: 1.6
Impaired Use:	Aquatic Life (Partial Support)
Pollutant of Concern:	Habitat Alteration (Other than Flow)
Suspected Sources:	Agriculture, Habitat Modification (Other than Hydromodification) – Removal of Riparian Vegetation

<u>Elkhorn Creek of Kentucky River</u>	Franklin County
From River Mile 0.0 to 17.8	Segment Length: 17.8
Impaired Use:	Swimming (Partial Support)
Pollutant of Concern:	Pathogens
Suspected Sources:	Agriculture

This listing was in the 1998 303(d) Report. New assessment data indicate that this same segment is now classified as being in nonsupport of the designated use of swimming, therefore this listing is no longer relevant. See Kentucky River Unit – 2002 303(d) List – 1st Priority Listings.

**Table 3(e) --continued. 2002 303(d) Report For Kentucky - Kentucky River Unit
2002 303(d) List**

-2nd Priority Listings-

<u>Flat Creek of Kentucky River</u>	Franklin County	
From River Mile 0.0 to 7.1	Segment Length:	7.1
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Siltation, Habitat Alteration (Other than Flow)	
Suspected Sources:	Agriculture, Habitat Modification (Other than Hydromodification)	
<u>Goose Creek of Benson Creek</u>	Shelby County	
From River Mile 0.0 to 1.8	Segment Length:	1.8
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Siltation, Habitat Alteration (Other than Flow), Unknown	
Suspected Sources:	Agriculture, Habitat Modification (Other than Hydromodification), Urban Runoff/Storm Sewers (Highway/Road/Bridge Runoff)	
<u>Goose Creek of Benson Creek</u>	Shelby County	
From River Mile 1.9 to 4.2	Segment Length:	2.3
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Habitat Alteration (Other than Flow)	
Suspected Sources:	Agriculture (Grazing-related Sources - Pasture Grazing – Riparian and/or Upland)	
<u>Goose Creek of South Fork Kentucky River</u>	Clay County	
From River Mile 0.0 to 9.3	Segment Length:	9.3
Impaired Use:	Swimming (Partial Support)	
Pollutant of Concern:	Pathogens	
Suspected Sources:	Land Disposal (Onsite Wastewater Systems – Septic Tanks and/or Straight Pipes)	
<u>Grassy Run of Eagle Creek</u>	Grant County	
From River Mile 0.0 to 6.4	Segment Length:	6.4
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Salinity/TDS/Chlorides	
Suspected Sources:	Unknown	

This listing appeared in the 2000 305(b) Report. A reevaluation of the assessment was made based on new metrics and the new assessment indicates that the stream fully supports the aquatic life use. However, this new information was not included in the 2002 305(b) Report. Therefore, this stream will be included here, in the 2002 303(d) to be consistent with the 2000 305(b) Report.

**Table 3(e) --continued. 2002 303(d) Report For Kentucky - Kentucky River Unit
2002 303(d) List**

-2nd Priority Listings-

<u>Griers Creek of Kentucky River</u>	Woodford County
From River Mile 0.0 to 3.4	Segment Length: 3.4
Impaired Use:	Aquatic Life (Partial Support)
Pollutant of Concern:	Siltation, Organic Enrichment/Low DO, Habitat Alteration (Other than Flow)
Suspected Sources:	Agriculture, Urban Runoff/Storm Sewers, Habitat Modification (Other than Hydromodification)

A reevaluation of the assessment was made and it was deemed more appropriate that the upper end of the impaired segment should be at river mile 2.5. However, this new information was not included in the 2002 305(b) Report. Therefore, the stream segment will be shown as being from river mile 0.0 to 3.4 to be consistent with the 2000 305(b) Report.

<u>Hammon's Fork of Collins Fork</u>	Knox County
From River Mile 0.0 to 1.9	Segment Length: 1.9
Impaired Use:	Aquatic Life (Partial Support)
Pollutant of Concern:	Siltation, Organic Enrichment/Low DO, Habitat Alteration (Other than Flow)
Suspected Sources:	Collection System Failure, Habitat Modification (Other than Hydromodification) – Bank Modification/Destabilization and Highway Maintenance and Runoff

<u>Hatton Creek of Red River</u>	Powell County
From River Mile 0.0. to 4.2	Segment Length: 4.2
Impaired Use:	Aquatic Life (Partial Support)
Pollutant of Concern:	Unknown
Suspected Sources:	Unknown

<u>Hell Creek of North Fork Kentucky River</u>	Lee County
From River Mile 0.0 to 3.5	Segment Length: 3.5
Impaired Use:	Aquatic Life (Partial Support)
Pollutant of Concern:	Habitat Alteration (Other than Flow), Total Dissolved Solids
Suspected Sources:	Silviculture (Silviculture Point Sources), Resource Extraction (Surface Mining, Petroleum Activities, and Inactive Mining)

<u>Hickman Creek of Kentucky River</u>	Jessamine County
From River Mile 0.0 to 25.0	Stream Segment: 25.0
Impaired Use:	Aquatic Life (Partial Support)
Pollutant of Concern:	Nutrients
Suspected Sources:	Agriculture (Grazing-related Sources), Urban Runoff/Storm Sewers

**Table 3(e) --continued. 2002 303(d) Report For Kentucky - Kentucky River Unit
2002 303(d) List**

-2nd Priority Listings-

<u>Holly Creek of North Fork Kentucky River</u>	Wolfe County
From River Mile 0.0 to 6.2	Segment Length: 6.2
Impaired Use:	Aquatic Life (Partial Support)
Pollutant of Concern:	Habitat Alterations (Other than Flow)
Suspected Sources:	Agriculture (Crop-related Sources – Nonirrigated Crop Production), Land Disposal (Inappropriate Waste Disposal/Wildcat Dumping), Habitat Modification (Other than Hydromodification) - Removal of Riparian Vegetation and Bank Modification/Destabilization

This listing appeared in the 2000 305(b) Report. A reevaluation of the assessment was made based on new metrics and the reevaluation indicates that the assessment should be deemed inconclusive. However, this new information was not included in the 2002 305(b) Report. Therefore, this stream will be included here, in the 2002 303(d) to be consistent with the 2000 305(b) Report.

<u>Horse Creek of Goose Creek</u>	Clay County
From River Mile 0.0 to 6.8	Segment Length: 6.8
Impaired Use:	Aquatic Life (Partial Support)
Pollutant of Concern:	Siltation
Suspected Sources:	Habitat Modification (Other than Hydromodification) - Removal of Riparian Vegetation and Bank Modification/Destabilization, Agriculture (Crop-related Sources - Nonirrigated Crop Production)

<u>Kentucky River of Ohio River</u>	Carroll/Henry/Owen Counties
From River Mile 10.8 to 51.8	Segment Length: 41.0
Impaired Use:	Swimming (Partial Support)
Pollutant of Concern:	Pathogens
Suspected Sources:	Unknown

<u>Kentucky River of Ohio River</u>	Madison, Fayette, Jessamine, Clark Counties
From River Mile 118.2 to 139.0	Segment Length: 20.8
Impaired Use:	Swimming (Partial Support)
Pollutant of Concern:	Pathogens
Suspected Sources:	Agriculture

This is the listing from the 1998 303(d) Report.

<u>Kentucky River of Ohio River</u>	Madison/Estill/Clark Counties
From River Mile 190.8 to 201.0	Segment Length: 10.2
Impaired Use:	Swimming (Partial Support)
Pollutant of Concern:	Pathogens
Suspected Sources:	Agriculture

This is the listing from the 1998 303(d) Report.

**Table 3(e) --continued. 2002 303(d) Report For Kentucky - Kentucky River Unit
2002 303(d) List**

-2nd Priority Listings-

<u>Lacey Creek of Red River</u>		Wolfe County	
From River Mile 0.0 to 1.8		Segment Length:	1.8
Impaired Use:	Aquatic Life (Partial Support)		
Pollutant of Concern:	Unknown		
Suspected Sources:	Unknown		
<u>Laurel Creek of Goose Creek</u>		Clay County	
From River Mile 3.8 to 4.8		Segment Length:	1.0
Impaired Use:	Aquatic Life (Partial Support)		
Pollutant of Concern:	Nutrients, Thermal Modifications		
Suspected Sources:	Agriculture (Crop-related Sources - Nonirrigated Crop Production), Agriculture (Grazing-related Sources - Pasture Grazing – Riparian and/or Upland).		

This assessment updates what was included in the 1998 303(d) Report. This stream segment (part of a longer stream segment listing in the 1998 303(d) Report) has been informally delisted for TSS, ammonia (unionized), pathogens, organic enrichment/low DO and a request to delist for those constituents will be submitted to EPA Region 4 with the 2002 303(d) Report. See Kentucky River Unit – Delistings – 1st Priority Listings.

<u>Left Fork Island Creek of Island Creek</u>		Owsley County	
From River Mile 0.0 to 5.0		Segment Length:	5.0
Impaired Use:	Aquatic Life (Partial Support)		
Pollutant of Concern:	Siltation, Exotic Species		
Suspected Sources:	Agriculture (Crop-related Sources - Nonirrigated Crop Production)		

Exotic species is considered pollution and not a pollutant. Therefore, a TMDL is not required for exotic species.

<u>Lick Creek of Eagle Creek</u>		Carroll County	
From River Mile 0.0 to 2.8		Segment Length:	2.8
Impaired Use:	Aquatic Life (Partial Support)		
Pollutant of Concern:	Siltation, Habitat Alterations (Other than Flow)		
Suspected Sources:	Agriculture (Grazing-related Sources – Pasture Grazing, Upland), Land Disposal (Inappropriate Waste Disposal/Wildcat Dumping), Hydromodification (Dredging)		

This listing appeared in the 2000 305(b) Report. A reevaluation of the assessment was made based on new metrics and the new assessment indicates that the stream fully supports (but threatened) the aquatic life use. However, this new information was not included in the 2002 305(b) Report. Therefore, this stream will be included here, in the 2002 303(d) Report to be consistent with the 2000 305(b) Report listing.

**Table 3(e) --continued. 2002 303(d) Report For Kentucky - Kentucky River Unit
2002 303(d) List**

-2nd Priority Listings-

<u>Line Fork of Defeated Creek</u>		Letcher County	
From River Mile 11.6 to 27.5		Segment Length:	15.9
Impaired Use:	Swimming (Partial Support)		
Pollutant of Concern:	Pathogens		
Suspected Sources:	Land Disposal (Onsite Wastewater Systems – Septic Tanks and/or Straight Pipes)		
 <u>Lower Buffalo Creek of South Fork Kentucky River</u>		Owsley County	
From River Mile 0.0 to 2.4		Segment Length:	2.4
Impaired Use:	Aquatic Life (Partial Support)		
Pollutant of Concern:	Siltation		
Suspected Sources:	Habitat Modification (Other than Hydromodification) - Removal of Riparian Vegetation		
 <u>Lulbeug Creek of Red River</u>		Clark/Powell Counties	
From River Mile 0.0 to 7.3		Segment Length:	7.3
Impaired Use:	Aquatic Life (Partial Support)		
Pollutant of Concern:	Siltation		
Suspected Sources:	Unknown		
 <u>Lytles Fork of Eagle Creek</u>		Scott County	
From River Mile 0.0 to 14.3		Segment Length:	14.3
Impaired Use:	Aquatic Life (Partial Support)		
Pollutant of Concern:	Habitat Alteration (Other than Flow)		
Suspected Sources:	Agriculture (Grazing-related Sources - Pasture Grazing – Riparian and/or Upland), Habitat Modification (Other than Hydromodification) - Removal of Riparian Vegetation, Natural Sources (Flooding)		
 <u>McConnell Run of North Fork Elkhorn Creek</u>		Scott County	
From River Mile 0.0 to 4.4		Segment Length:	4.4
Impaired Use:	Aquatic Life (Partial Support)		
Pollutant of Concern:	Nutrients, Siltation		
Suspected Sources:	Agriculture (Grazing-related Sources - Pasture Grazing – Riparian and/or Upland)		

**Table 3(e) --continued. 2002 303(d) Report For Kentucky - Kentucky River Unit
2002 303(d) List**

-2nd Priority Listings-

<u>Meadow Creek of South Fork Kentucky River</u>	Owsley County
From River Mile 0.0 to 3.7	Segment Length: 3.7
Impaired Use:	Aquatic Life (Partial Support)
Pollutant of Concern:	Siltation
Suspected Sources:	Agriculture (Grazing-related Sources – Pasture Grazing - Riparian and/or Upland)

This listing appeared in the 2000 305(b) Report. A reevaluation of the assessment was made based on new metrics and the reevaluation indicates that the assessment should be deemed inconclusive. However, this new information was not included in the 2002 305(b) Report. Therefore, this stream will be included here, in the 2002 303(d) Report to be consistent with the 2000 305(b) Report listing.

<u>Middle Fork Kentucky River</u>	Leslie County
From River Mile 71.9 to 74.8	Segment Length: 2.9
Impaired Use:	Aquatic Life (Partial Support), Swimming (Partial Support)
Pollutant of Concern:	Suspended Solids, Pathogens, and Organic Enrichment/Low DO
Suspected Sources:	Municipal Point Sources

This listing was in the 1998 303(d) Report. The reach of Middle Fork Kentucky River (Leslie County) from River Mile (RM) 71.9 to 74.8 is 2nd Priority in the Kentucky 1998 303(d) Report for being in nonsupport of the aquatic life and swimming designated uses because of suspended solids, organic enrichment/low DO, and pathogens. The initial listing in 1996 for these three pollutants was based on Discharge Monitoring Reports (DMRs) submitted by several wastewater treatment plants (WWTPs) and discussions with Division of Water (DOW) Regional Office personnel. This stream segment receives effluent from several small WWTPs, the City of Hyden WWTP, and there were some failed septic systems in the area.

Recent biological assessments (1998) for the stream reach RM 76.1 to 84.0 and RM 0.0 to 12.5 showed full support for the designated uses of aquatic life and fish consumption. In-stream water quality data from RM 66.9 and 8.3 showed full support of primary contact recreation (swimming use). As a result of high scores, the DOW has designated the Middle Fork of the Kentucky River as an Exceptional Water. Recent DMR data also show that the WWTPs are meeting permit limits for these constituents. In addition, construction has started on a new City of Hyden WWTP. The effluent currently being treated by the WWTPs in the area will be transported and treated by the new City of Hyden WWTP; scheduled to go on-line Spring 2002. Also, the Leslie Co. Health Dept. has stated that approximately 30 malfunctioning septic systems in the area around Hyden have been eliminated as part of the PRIDE (Personal Responsibility in a Desirable Environment) Program.

A request to delist Middle Fork Kentucky River for these three pollutants was made to EPA. On July 31, 2001, EPA concurred, and Middle Fork Kentucky River has been "informally" delisted for total suspended solids, organic enrichment/low DO, and pathogens. A request to formally delist Middle Fork Kentucky River from RM 71.9 to 74.8 for total suspended solids, organic enrichment/low DO, and pathogens will be submitted to EPA Region 4 with the 2002 303(d) Report. See Kentucky River Unit – Delistings – 2nd Priority Listings.

**Table 3(e) --continued. 2002 303(d) Report For Kentucky - Kentucky River Unit
2002 303(d) List**

-2nd Priority Listings-

<u>North Benson Creek of Benson Creek</u>	Franklin County
From River Mile 0.8 to 2.0	Segment Length: 1.2
Impaired Use:	Aquatic Life (Partial Support)
Pollutant of Concern:	Siltation, Organic Enrichment/Low DO, Habitat Alteration (Other than Flow)
Suspected Sources:	Agriculture, Construction, Urban Runoff/Storm Sewers (Highway/Road/Bridge Runoff)

<u>North Fork North Benson Creek</u>	Franklin County
From River Mile 0.0 to 2.2	Segment Length: 2.2
Impaired Use:	Aquatic Life (Partial Support)
Pollutant of Concern:	Siltation, Organic Enrichment/Low DO, Habitat Alteration (Other than Flow)
Suspected Sources:	Agriculture, Construction (Land Development, Habitat Modification (Other than Hydromodification) - Removal of Riparian Vegetation)

This listing appeared in the 2000 305(b) Report. A reevaluation of the assessment was made based on new metrics and the reevaluation indicates that the assessment should be deemed inconclusive. However, this new information was not included in the 2002 305(b) Report. Therefore, this stream will be included here, in the 2002 303(d) Report to be consistent with the 2000 305(b) Report listing.

<u>Otter Creek of Kentucky River</u>	Madison County
From River Mile 0.0 to 3.9	Segment Length: 3.9
Impaired Use:	Aquatic Life (Partial Support)
Pollutant of Concern:	Nutrients, Organic Enrichment/Low DO
Suspected Sources:	Municipal Point Sources (Major Municipal Point Sources), Agriculture (Crop-related Sources), Agriculture (Grazing-related Sources - Pasture Grazing – Riparian and/or Upland)

<u>Paint Lick Creek of Kentucky River</u>	Garrard/Madison Counties
From River Mile 0.0 to 7.5	Segment Length: 7.5
Impaired Use:	Swimming (Partial Support)
Pollutant of Concern:	Pathogens
Suspected Sources:	Agriculture (Grazing-related Sources)

<u>Plum Creek of Red River</u>	Powell County
From River Mile 0.0 to 2.9	Segment Length: 2.9
Impaired Use:	Aquatic Life (Partial Support)
Pollutant of Concern:	Unknown
Suspected Sources:	Unknown

**Table 3(e) --continued. 2002 303(d) Report For Kentucky - Kentucky River Unit
2002 303(d) List**

-2nd Priority Listings-

<u>Polls Creek of Cutshin Creek</u>	Leslie County
From River Mile 0.0 to 4.7	Segment Length: 4.7
Impaired Use: Aquatic Life (Partial Support)	
Pollutant of Concern: Unknown	
Suspected Sources: Unknown	
<u>Puncheon Camp Creek of Middle Fork Kentucky River</u>	Breathitt County
From River Mile 0.0 to 3.2	Segment Length: 3.2
Impaired Use: Aquatic Life (Partial Support)	
Pollutant of Concern: Unknown	
Suspected Sources: Unknown	
<u>Red River of Kentucky River</u>	Menifee/Wolfe Counties
From River Mile 59.9 to 94.2	Segment Length: 34.3
Impaired Use: Aquatic Life (Partial Support)	
Pollutant of Concern: Siltation, Nutrients	
Suspected Sources: Silviculture, Land Disposal, Habitat Modification (Other than Hydromodification) - Removal of Riparian Vegetation and Bank Modification/Destabilization, Unknown	
This listing was in the 1998 303(d) Report. New assessment information shows that this stream segment fully supports the aquatic life use. A request to delist this stream segment will be submitted to EPA Region 4 with the 2002 303(d) Report. See Kentucky River Unit – Delistings – 2 nd Priority Listings.	
<u>Richland Creek of Eagle Creek</u>	Owen County
From River Mile 0.0 to 0.8	Segment Length: 0.8
Impaired Use: Aquatic Life (Partial Support)	
Pollutant of Concern: Siltation, Flow Alterations	
Suspected Sources: Agriculture (Crop-related Sources – Specialty Crop Production - Tobacco), Natural Sources (Intense Rainfall-Flooding)	
<u>Sawdridge Creek of Cedar Creek</u>	Owen County
From River Mile 0.0 to 3.2	Segment Length: 3.2
Impaired Use: Aquatic Life (Partial Support)	
Pollutant of Concern: Siltation, Organic Enrichment/Low DO, Habitat Alteration (Other than Flow)	
Suspected Sources: Agriculture, Habitat Modification (Other than Hydromodification)	
<u>Sexton Creek of Goose Creek</u>	Clay County
From River Mile 9.1 to 16.1	Segment Length: 7.0
Impaired Use: Aquatic Life (Partial Support)	
Pollutant of Concern: Siltation, Low pH	
Suspected Sources: Agriculture (Crop-related Sources), Agriculture (Grazing-related Sources), Industrial Point Sources	

**Table 3(e) --continued. 2002 303(d) Report For Kentucky - Kentucky River Unit
2002 303(d) List**

-2nd Priority Listings-

<u>Silver Creek of Kentucky River</u>	Madison County
From River Mile 10.9 to 29.2	Segment Length: 18.3
Impaired Use:	Aquatic Life (Partial Support)
Pollutant of Concern:	Siltation
Suspected Sources:	Agriculture (Crop-related Sources – Nonirrigated Crop Production, Agriculture (Grazing-related Sources - Pasture Grazing – Riparian and/or Upland), Silviculture, Municipal Point Sources

This listing appeared in the 2000 305(b) Report. A reevaluation of the assessment was made based on new metrics and the reevaluation indicates that the assessment should not be used (therefore Not Assessed). However, this new information was not included in the 2002 305(b) Report. Therefore, this stream will be included here in the 2002 303(d) Report to be consistent with the 2000 305(b) Report listing.

<u>South Elkhorn Creek of Elkhorn Creek</u>	Scott/Woodford Counties
From River Mile 16.4 to 34.0	Segment Length: 17.6
Impaired Use:	Aquatic Life (Partial Support), Swimming (Partial Support)
Pollutant of Concern:	Nutrients, Organic Enrichment/Low DO, Pathogens, Pesticides
Suspected Sources:	Agriculture, Urban Runoff/Storm Sewers, Municipal Point Sources

This listing was included in the 1998 303(d) Report. The 1998 assessment information (and associated metrics) indicated that this reach fully supported the designated use of aquatic life (as reported in the 2000 305(b) Report to Congress on Water Quality). A request to delist this stream segment for nutrients, organic enrichment/low DO, and pesticides was submitted to EPA. See Kentucky River Unit – Delistings – 2nd Priority Listings. However, the metrics that the Water Quality Branch has been using to assess aquatic life use are being redefined based on ecological regions. As a result, this reach of South Elkhorn Creek has been changed from fully supporting the aquatic life designated use (as reported in the 2000 305(b) Report to Congress on Water Quality) to partially supporting the aquatic life designated use. The cause has been identified as nutrients. A TMDL is currently being developed for Town Branch and this section of South Elkhorn Creek for nutrients based on the 1998 303(d) listing. See Kentucky River Unit – TMDLs Under Development – Town Branch/South Elkhorn Creek Nutrients TMDL. A FFY2001 319 Assessment Grant proposal to develop a pathogens TMDL for Town Branch, Wolf Run, South Elkhorn Creek below Town Branch, and Cane Run in Fayette County has recently been accepted by all parties and data collection is being conducted this summer. See Kentucky River Unit – TMDLs Under Development – Town Branch/Wolf Run/ South Elkhorn Creek/Cane Run Pathogens TMDL. A request to formally delist South Elkhorn Creek from river mile 16.4 to 34.4 for organic enrichment/low DO and pesticides will be submitted to EPA Region 4 with the 2002 303(d) Report. The updated listing follows.

**Table 3(e) --continued. 2002 303(d) Report For Kentucky - Kentucky River Unit
2002 303(d) List**

-2nd Priority Listings-

<u>South Elkhorn Creek of Elkhorn Creek</u>	Scott/Woodford Counties
From River Mile 16.4 to 34.0	Segment Length: 17.6
Impaired Use:	Aquatic Life (Partial Support), Swimming (Partial Support)
Pollutant of Concern:	Nutrients, Pathogens
Suspected Sources:	Agriculture, Urban Runoff/Storm Sewers, Municipal Point Sources

This listing updates the listing that was included in the 1998 303(d) Report. The 1998 assessment information (and associated metrics) indicated that this reach fully supported the designated use of aquatic life (as reported in the 2000 305(b) Report to Congress on Water Quality). A request to delist this stream segment for nutrients, organic enrichment/low DO, and pesticides was submitted to EPA. See Kentucky River Unit – Delistings – 2nd Priority Listings. However, the metrics that the Water Quality Branch has been using to assess aquatic life use are being redefined based on ecological regions. As a result, this reach of South Elkhorn Creek has been changed from fully supporting the aquatic life designated use (as reported in the 2000 305(b) Report to Congress on Water Quality) to partially supporting the aquatic life designated use. The cause has been identified as nutrients. A TMDL is currently being developed for Town Branch and this section of South Elkhorn Creek for nutrients based on the 1998 303(d) listing. See Kentucky River Unit – TMDLs Under Development – Town Branch/South Elkhorn Creek Nutrients TMDL. A FFY2001 319 Assessment Grant proposal to develop a pathogens TMDL for Town Branch, Wolf Run, South Elkhorn Creek below Town Branch, and Cane Run in Fayette County has recently been accepted by all parties and data collection is being conducted this summer. See Kentucky River Unit – TMDLs Under Development – Town Branch/Wolf Run/ South Elkhorn Creek/Cane Run Pathogens TMDL. A request to formally delist South Elkhorn Creek from river mile 16.4 to 34.4 for organic enrichment/low DO and pesticides will be submitted to EPA Region 4 with the 2002 303(d) Report.

<u>South Elkhorn Creek of Elkhorn Creek</u>	Fayette County
From River Mile 39.9 to 48.0	Segment Length: 8.1
Impaired Use:	Aquatic Life (Partial Support)
Pollutant of Concern:	Unknown
Suspected Sources:	Unknown

<u>South Fork Quicksand Creek of Quicksand Creek</u>	Breathitt County
From River Mile 0.0 to 8.0	Segment Length: 8.0
Impaired Use:	Aquatic Life (Partial Support)
Pollutant of Concern:	Siltation, Total Dissolved Solids
Suspected Sources:	Agriculture (Crop-related Sources - Nonirrigated Crop Production), Agriculture (Grazing-related Sources - Pasture Grazing – Riparian and/or Upland), Habitat Modification (Other than Hydromodification)

<u>Station Camp Creek of Kentucky River</u>	Estill County
From River Mile 0.0 to 7.2	Segment Length: 7.2
Impaired Use:	Aquatic Life (Partial Support)
Pollutant of Concern:	Siltation
Suspected Sources:	Agriculture

**Table 3(e) --continued. 2002 303(d) Report For Kentucky - Kentucky River Unit
2002 303(d) List**

-2nd Priority Listings-

<u>Stevens Creek of Eagle Creek</u>	Owen County	
From River Mile 14.4 to 17.1	Segment Length:	2.7
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Siltation, Organic Enrichment/Low DO	
Suspected Sources:	Agriculture (Grazing-related Sources, Pasture Grazing – Riparian and/or Upland)	

<u>Swift Camp Creek of Red River</u>	Wolfe County	
From River Mile 0.0 to 13.6	Segment Length:	13.6
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Unknown	
Suspected Sources:	Unknown	

<u>Ten Mile Creek of Eagle Creek</u>	Grant County	
From River Mile 0.0 to 2.9	Segment Length:	2.9
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Unknown	
Suspected Sources:	Unknown	

<u>Three Forks Creek of Eagle Creek</u>	Grant/Owen Counties	
From River Mile 0.0 to 7.6	Segment Length:	7.6
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Siltation	
Suspected Sources:	Unknown	

<u>Two Mile Creek of Eagle Creek</u>	Owen County	
From River Mile 0.0 to 3.1	Segment Length:	3.1
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Flow Alterations	
Suspected Sources:	Natural Sources	

This listing appeared in the 2000 305(b) Report. This impairment was caused by flooding from heavy spring rains. Because this impairment is the result of a naturally occurring event (flooding), a TMDL is not appropriate and will not be done.

<u>Upper Devil Creek of North Fork Kentucky River</u>	Wolfe County	
From River Mile 0.0 to 1.0	Segment Length:	1.0
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Habitat Alterations (Other than Flow)	
Suspected Sources:	Silviculture, Resource Extraction (Abandoned Mining), Land Disposal (Inappropriate Waste Disposal/Wildcat Dumping)	

**Table 3(e) --continued. 2002 303(d) Report For Kentucky - Kentucky River Unit
2002 303(d) List**

-2nd Priority Listings-

<u>Upper Howard Creek of Kentucky River</u>		Clark County
From River Mile 0.0 to 3.2		Segment Length: 3.2
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Unknown	
Suspected Sources:	Unknown	
 <u>Upper Twin Creek of Middle Fork Kentucky River</u>		Breathitt County
From River Mile 0.0 to 3.6		Segment Length: 3.6
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Unknown	
Suspected Sources:	Unknown	
 <u>West Fork Mill Creek of Mill Creek</u>		Carroll County
From River Mile 0.0 to 1.0		Segment Length: 1.0
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Siltation, Habitat Alterations (Other than Flow)	
Suspected Sources:	Urban Runoff/Storm Sewers (Highway/Road/Bridge Runoff and Other Urban Runoff), Habitat Modification (Other than Hydromodification) - Removal of Riparian Vegetation and Bank Modification/Destabilization	
 <u>West Hickman Creek of Hickman Creek</u>		Jessamine/Fayette Counties
From River Mile 3.6 to 8.6		Segment Length: 5.0
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Siltation, Habitat Alteration (Non-flow)	
Suspected Sources:	Urban Runoff/Storm Sewers	

This listing is from the 1998 303(d) Report. A more complete assessment of the stream reach has been made and the new assessment information follows.

<u>West Hickman Creek of Hickman Creek</u>		Jessamine County
From River Mile 0.0 to 3.0		Segment Length: 3.0
Impaired Use:	Aquatic Life (Partial Support), Swimming (Partial Support)	
Pollutant of Concern:	Nutrients, Pathogens	
Suspected Sources:	Urban Runoff/Storm Sewers, Municipal Point Sources (Major Municipal Point Sources)	

The Lexington/West Hickman WWTP is located at the upstream end of this segment. As of August 2001, the Lexington/West Hickman WWTP has an effluent limit of 1.0 mg/L for total phosphorus as a monthly average for the period May through October. This should improve conditions in the stream with respect to nutrients.

**Table 3(e) --continued. 2002 303(d) Report For Kentucky - Kentucky River Unit
2002 303(d) List**

-2nd Priority Listings-

<u>West Hickman Creek of Hickman Creek</u>	Jessamine/Fayette County
From River Mile 3.0 to 8.6	Segment Length: 5.6
Impaired Use:	Aquatic Life (Partial Support)
Pollutant of Concern:	Nutrients, Siltation, Habitat Alteration (Non-flow)
Suspected Sources:	Urban Runoff/Storm Sewers

More recent information indicates that nutrients are a pollutant of concern.

<u>White Lick Creek of Paint Lick Creek</u>	Garrard County
From River Mile 0.0 to 2.8	Segment Length: 2.8
Impaired Use:	Aquatic Life (Partial Support)
Pollutant of Concern:	Suspended Solids
Suspected Sources:	Agriculture (Crop-related Sources - Nonirrigated Crop Production), Agriculture (Crop-related Sources - Specialty Crop Production – Tobacco)

<u>Wooten Creek of Cutshin Creek</u>	Leslie County
From River Mile 0.0 to 3.0	Segment Length: 3.0
Impaired Use:	Aquatic Life (Partial Support)
Pollutant of Concern:	Unknown
Suspected Sources:	Unknown

**Table 3(f). 2002 303(d) Report For Kentucky - Kentucky River Unit
Stream Segments Needing Additional Information Before Being 303(d) Listed**

<u>Cat Creek of Red River</u>	Powell County
From River Mile 0.0 to 6.6	Segment Length: 6.6

The assessment for aquatic life use was inconclusive. Additional information is needed. The stream will be revisited during the next monitoring cycle for the Kentucky River Unit, which is 2003-2004.

<u>Log Lick Creek</u>	Clark County
From River Mile 0.0 to 0.7	Segment Length: 0.7

The assessment for aquatic life use was inconclusive. Additional information is needed. The stream will be revisited during the next monitoring cycle for the Kentucky River Unit, which is 2003-2004.

<u>Lulbegrud Creek of Red River</u>	Montgomery County
From River Mile 16.9 to 22.2	Segment Length; 5.3

The assessment for aquatic life use was inconclusive. Additional information is needed. The stream will be revisited during the next monitoring cycle for the Kentucky River Unit, which is 2003-2004.

<u>Morris Creek of Red River</u>	Powell County
From River Mile 0.0 to 3.7	Segment Length: 3.7

The assessment for aquatic life use was inconclusive. Additional information is needed. The stream will be revisited during the next monitoring cycle for the Kentucky River Unit, which is 2003-2004.

<u>Red River of Kentucky River</u>	Estill/Powell Counties
From River Mile 9.5 to 41.1	Segment Length: 31.6

The latest available data from the KDOW show that this stream segment now fully supports the swimming designated use. A request to delist the stream segment as being impaired for the swimming use because of pathogens will be submitted to EPA Region 4 with the 2002 303(d) Report. However, citizen data indicate that a problem might still exist on this segment of the main stem of the Red River. Therefore, the stream segment will be included in Table 3(f), 'Stream Segments Needing Additional Information Before Being 303(d) Listed.'

<u>Red River of Kentucky River</u>	Estill/Clark/Powell Counties
From River Mile 10.3 to 17.9	Segment Length: 7.6

The assessment for aquatic life use was inconclusive. Additional information is needed. The stream will be revisited during the next monitoring cycle for the Kentucky River Unit, which is 2003-2004.

<u>Snow Creek of Lulbegrud Creek</u>	Powell County
From River Mile 0.0 to 5.6	Segment Length: 5.6

The assessment for aquatic life use was inconclusive. Additional information is needed. The stream will be revisited during the next monitoring cycle for the Kentucky River Unit, which is 2003-2004.

**Table 3(f). 2002 303(d) Report For Kentucky - Kentucky River Unit
Stream Segments Needing Additional Information Before Being 303(d) Listed**

Stillwater Creek of Red River
From River Mile 5.0 to 11.9

Wolfe County
Segment Length: 6.9

The assessment for aquatic life use was inconclusive. Additional information is needed. The stream will be revisited during the next monitoring cycle for the Kentucky River Unit, which is 2003-2004.

**Table 3(g) 2002 303(d) Report For Kentucky - Kentucky River Unit
Stream Segments That May Be Impaired Based Solely On Discharge Monitoring Reports
(DMRs).**

<u>Harts Fork of Hayes Fork</u> From River Mile 3.2 to 4.2 DMR information from several Industrial Point Sources indicates a possible aquatic life use impairment because of ammonia (un-ionized), pH, organic enrichment/Low DO, and suspended solids.	Madison County Segment Length: 1.0
<u>Lanes Run of North Elkhorn Creek</u> From River Mile 0.0 to 0.5 DMR information from a Municipal Point Source indicates a possible swimming use impairment because of pathogens.	Scott County Segment Length: 0.5
<u>Lee Branch of South Elkhorn Creek</u> From River Mile 0.0 to 1.0 DMR information from a Municipal Point Source indicates a possible swimming use impairment because of pathogens.	Woodford County Segment Length: 1.0
<u>Shallow Ford Creek of Tate Creek</u> From River Mile 5.9 to 6.9 DMR information from a Municipal Point Source indicates a possible aquatic life use impairment because of ammonia (un-ionized) and chlorine.	Madison County Segment Length: 1.0
<u>Streammill Branch of Clarks Creek</u> From River Mile 0.6 to 1.6 DMR information from a Municipal Point Source indicates a possible aquatic life use impairment because of ammonia (un-ionized).	Grant County Segment Length: 1.0
<u>Town Creek of Drennon Creek</u> From River Mile 2.5 to 3.5 DMR information from a Municipal Point Source indicates a possible aquatic life use impairment because of ammonia (un-ionized) and chlorine.	Henry County Segment Length: 1.0
<u>UT of Dry Run (River Mile 3.1)</u> From River Mile 1.5 to 2.5 DMR information from a Municipal Point Source (Package Plant – Small Flow) indicates a possible swimming use impairment because of pathogens.	Scott County Segment Length: 1.0
<u>UT of East Fork Clear Creek (River Mile 3.6)</u> From River Mile 2.8 to 3.8 DMR information from a Municipal Point Source (Package Plant – Small Flow) indicates a possible swimming use impairment because of pathogens.	Jessamine County Segment Length: 1.0

TABLE 4. 2002 303 (d) REPORT FOR KENTUCKY – SALT/LICKING RIVER UNIT

**Table 4(a). 2002 303 (d) Report For Kentucky – Salt/Licking River Unit
Modifications to the 1998 303(d) Report**

-1st Priority Listings-

<u>Banklick Creek of Licking River</u>	Kenton County	
From River Mile 0.0 to 19.0	Segment Length:	19.0
Impaired Use:	Aquatic Life (Partial Support), Swimming (Nonsupport)	
Pollutant of Concern:	Nutrients, Habitat Alteration, Organic Enrichment/Low DO, Pathogens	
Suspected Sources:	Municipal Point Sources, Urban Runoff/Storm Sewers, Construction, Combined Sewer Overflows	

This listing is from the 1998 303(d) Report. A more complete assessment of the stream makes this listing no longer relevant. The stream reach has been broken into 2 segments, RM 0.0 to 8.2 and 8.2 to 19.0. See Salt/Licking Unit – 2002 303(d) List – 1st Priority Listings for the updated listings.

<u>Beargrass Creek of Ohio River</u>	Jefferson County	
From River Mile 0.0 to 1.6	Segment Length:	1.6
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Metals (Undetermined as to Which Metals), Organic Enrichment/Low DO	
Suspected Sources:	Municipal Point Sources	

This listing is pulled forward from the 1998 303(d) Report. The reach should extend from RM 0.0 to 1.5. See Salt/Licking River Unit – 2002 303(d) List – 1st Priority Listings for the updated listing. Chemical water quality data were never collected at this site, so the source of the information for the metals listing is unknown, as is what metals are of concern. The metals listing should be considered suspect. See Salt/Licking River Unit – 2002 303(d) List – 1st Priority Listings.

<u>Fern Creek of Pond Creek</u>	Jefferson County	
From River Mile 0.0 to 7.5	Segment Length:	7.5
Impaired Use:	Swimming (Nonsupport), Aquatic Life (Partial Support)	
Pollutant of Concern:	Ammonia (Un-ionized), Nutrients, Organic Enrichment/Low DO, Pathogens	
Suspected Sources:	Industrial Point Sources, Municipal Point Sources, Urban Runoff/Storm Sewers, Land Disposal	

In the 1998 303(d) Report, this section was labeled as Fern Creek, but is more correctly designated as Fern Creek/Northern Ditch. Because the designation of the Pond Creek stream segments on the 1:24,000 USGS topographic maps is not well defined, the following designation will be used in this report, which is based on the 1981 U.S. Geological Survey Open-File Report Number 81-61, *Drainage Areas of Streams at Selected Locations in Kentucky*. Pond Creek will extend from the mouth to the confluence of Northern and Southern Ditches (River Mile 0.0 to 17.0). Northern Ditch and Fern Creek will be designated Fern Creek/Northern Ditch because the 1 - 24:000 USGS topographic map does not show a clear delineation between Northern Ditch (channelized section) and Fern Creek (natural stream section). Area residents and government agencies refer to the channelized section as Northern Ditch. See Salt/Licking River Unit – 2002 303(d) List – 1st Priority Listings – Fern Creek/Northern Ditch for the updated listing.

**Table 4(a) --continued. 2002 303 (d) Report For Kentucky – Salt/Licking River Unit
Modifications to the 1998 303(d) Report**

-1st Priority Listings-

<u>Fern Creek of Pond Creek</u>	Jefferson County
From River Mile 7.5 to 12.8	Segment Length: 5.3
Impaired Use:	Swimming (Nonsupport), Aquatic Life (Partial Support)
Pollutant of Concern:	Nutrients, Organic Enrichment/Low DO, Pathogens
Suspected Sources:	Municipal Point Sources, Urban Runoff/Storm Sewers, Land Disposal

In the 1998 303(d) Report, this section was labeled as Fern Creek, but is more correctly designated as Fern Creek/Northern Ditch. Because the designation of the Pond Creek stream segments on the 1:24,000 USGS topographic maps is not well defined, the following designation will be used in this report, which is based on the 1981 U.S. Geological Survey Open-File Report Number 81-61, *Drainage Areas of Streams at Selected Locations in Kentucky*. Pond Creek will extend from the mouth to the confluence of Northern and Southern Ditches (River Mile 0.0 to 17.0). Northern Ditch and Fern Creek will be designated Fern Creek/Northern Ditch because the 1 - 24:000 USGS topographic map does not show a clear delineation between Northern Ditch (channelized section) and Fern Creek (natural stream section). Area residents and government agencies refer to the channelized section as Northern Ditch. See Salt/Licking River Unit – 2002 303(d) List – 1st Priority Listings – Fern Creek/Northern Ditch for the updated listing.

<u>Goose Creek of Ohio River</u>	Jefferson County
From River Mile 0.0 to 11.7	Segment Length: 11.7
Impaired Use:	Aquatic Life (Partial Support), Swimming (Nonsupport)
Pollutant of Concern:	Organic Enrichment/Low DO, Pathogens
Suspected Sources:	Industrial Point Sources, Municipal Point Sources, Urban Runoff/Storm Sewers, Land Disposal

This is the listing in the 1998 303(d) Report. A more complete assessment has made this listing no longer relevant. The latest assessment information shows that for the stream reach from 0.0 to 3.2, the swimming use is now partially supported. Therefore, Goose Creek from RM 0.0 to 3.2 will be included with the 2nd Priority streams. See Salt/Licking River Unit – 2002 303(d) List – 2nd Priority Listings for the updated listing for RM 0.0 to 3.2. The reach from RM 3.2 to 11.7 remains nonsupporting of swimming and partially supporting of aquatic life. See Salt/Licking River Unit – 2002 303(d) List – 1st Priority Listings for the updated listing for RM 3.2 to 11.7.

**Table 4(a) --continued. 2002 303 (d) Report For Kentucky – Salt/Licking River Unit
Modifications to the 1998 303(d) Report**

-1st Priority Listings-

<u>Middle Fork Beargrass Creek of Beargrass Creek</u>	Jefferson County
From River Mile 0.0 to 15.2	Segment Length: 15.2
Impaired Use:	Swimming (Nonsupport)
Pollutant of Concern:	Metals, Organic Enrichment/Low DO
Suspected Sources:	Municipal Point Sources, Industrial Point Sources, Urban Runoff/Storm Sewers, Land Disposal, Combined Sewer Overflows, Sanitary Sewer Overflows

The impaired uses should have been swimming and aquatic life and pathogens should have been included as a pollutant of concern. A more complete assessment of the stream segments in the Middle Fork Beargrass Creek watershed is now available, making this listing no longer relevant. The latest assessment indicates that organic enrichment is no longer a pollutant of concern except for the lowest reach of Middle Fork Beargrass Creek (River Mile 0.0 to 2.3), which is impacted by CSO discharges and urban runoff, is low gradient because of channelization, and is mostly open to direct sunlight. A request to delist Middle Fork Beargrass Creek from RM 2.3 to 15.2 for organic enrichment/low DO will be submitted to EPA Region 4 with the 2002 303(d) Report. See Salt/Licking River Unit - Delistings – 1st Priority Listings. The most recent information shows that Middle Fork is no longer impaired by metals (but the data are limited). Middle Fork has also been shown to be in nonsupport of the swimming designated use because of pathogens. See Salt/Licking River Unit – 2002 303(d) Listings – 1st Priority Listings for the updated listings.

<u>Otter Creek of Ohio River</u>	Meade County
From River Mile 6.0 to 10.7	Segment Length: 4.7
Impaired Use:	Swimming (Nonsupport)
Pollutant of Concern:	Pathogens
Suspected Sources:	Municipal Point Sources, Urban Runoff/Storm Sewers, Land Disposal, Agriculture (Grazing-related Sources).

The stream segment from 6.0 to 10.7 was listed in the 1998 303(d) Report as being in nonsupport of the swimming designated use. The stream reach should have been from 0.0 to 10.7 instead of from 6.0 to 10.7. Subsequent data collection indicates that the stream segment is currently in partial support of the swimming designated use thereby making this listing no longer relevant. The new listing is therefore from RM 0.0 to 10.7, and is listed as a 2nd Priority reach. See Salt/Licking River Unit – 2002 303(d) Listings – 2nd Priority Listings for the updated listing.

<u>Pennsylvania Run of Floyds Fork</u>	Jefferson/Bullitt Counties
From River Mile 0.0 to 3.1	Segment Length: 3.1
Impaired Use:	Aquatic Life (Partial Support), Swimming (Nonsupport)
Pollutant of Concern:	Organic Enrichment/Low DO, Pathogens
Suspected Sources:	Municipal Point Sources, Urban Runoff/Storm Sewers, Land Disposal

This listing was in the 1998 303(d) Report. It is more appropriate to define the cause of the aquatic life impairment has being from nutrients and not organic enrichment/low DO. Therefore the change has been made. See Salt/Licking River Unit - 2002 303(d) List - 1st Priority Listings for the updated listing.

**Table 4(a) --continued. 2002 303 (d) Report For Kentucky – Salt/Licking River Unit
Modifications to the 1998 303(d) Report**

-1st Priority Listings-

<u>Pond Creek of Salt River</u>	Jefferson County	
From River Mile 0.0 to 17.0	Segment Length:	17.0
Impaired Use:	Aquatic Life (Nonsupport), Swimming (Nonsupport)	
Pollutant of Concern:	Organic Enrichment/Low DO, Metals, Pathogens	
Suspected Sources:	Municipal Point Sources, Urban Runoff/Storm Sewers, Land Disposal	

This listing was in the 1998 303(d) Report. A more complete assessment of the stream reach has been made, making this assessment is no longer relevant. See Salt/Licking River Unit – 2002 303(d) List – 1st Priority Listings, for the updated listings for Pond Creek.

<u>Slop Ditch of Southern Ditch</u>	Jefferson County	
From River Mile 0.0 to 3.5	Segment Length:	3.5
Impaired Use:	Aquatic Life (Partial Support), Swimming (Nonsupport)	
Pollutant of Concern:	Metals, Flow Alterations, Pathogens	
Suspected Sources:	Industrial Point Sources, Municipal Point Sources, Urban Runoff/Storm Sewers, Land Disposal	

The name of this stream segment has been changed from Slop Ditch to Wetwoods Creek. A bottom-land hardwood wetlands has been created at approximately RM 1.8 of the existing channel, which is to mitigate flooding and improve water quality of the stream below the wetlands. The flow has not yet been diverted through the wetlands.

<u>South Fork Beargrass Creek of Beargrass Creek</u>	Jefferson County	
From River Mile 0.0 to 14.6	Segment Length:	14.6
Impaired Use:	Aquatic Life (Nonsupport), Swimming (Nonsupport)	
Pollutant of Concern:	Organic Enrichment/Low DO, Pathogens	
Suspected Sources:	Combined Sewer Overflows, Sanitary Sewer Overflows, Urban Runoff/Storm Sewers, Land Disposal, Municipal Point Sources	

A more complete assessment of the stream segments in the South Fork Beargrass Creek watershed is now available, making this listing no longer relevant. See Salt/Licking River Unit – 2002 303(d) List – 1st Priority Listings, for the updated listings.

**Table 4(a) --continued. 2002 303 (d) Report For Kentucky – Salt/Licking River Unit
Modifications to the 1998 303(d) Report**

-2nd Priority Listings-

<u>Hinkston Creek of South Fork Licking River</u>	Montgomery County
From River Mile 63.0 to 65.9	Segment Length: 2.9
Impaired Use:	Aquatic Life (Partial Support)
Pollutant of Concern:	Nutrients, Unknown Toxicity
Suspected Sources:	Municipal Point Sources (Major Municipal Point Sources)

A more complete assessment of the stream segments in the Hinkston Creek watershed is now available, making this listing no longer relevant. The impaired reach extends from 51.5 to 65.9, and is now in nonsupport of aquatic life. See Salt/Licking River Unit – 2002 303(d) List – 1st Priority Listings, for the updated listing.

<u>Pond Creek of Ohio River</u>	Jefferson/Oldham Counties
From River Mile 0.0 to 1.5	Segment Length: 1.5
Impaired Use:	Aquatic Life (Partial Support)
Pollutant of Concern:	Nutrients, Chlorine
Suspected Sources:	Municipal Point Sources

This Pond Creek is entirely within Oldham County (but very close to the Jefferson/Oldham County boundary line). This listing will be changed to reflect that the stream segment is only in Oldham County. See Salt/Licking River Unit – 2002 303(d) List – 2nd Priority Listings, for the updated listing.

**Table 4(b). 2002 303 (d) Report For Kentucky – Salt/Licking River Unit
Delistings**

-1st Priority Listings-

Note: The stream/pollutant combinations listed below are only for the designated uses and pollutants of concern for which a delisting request has been made to EPA Region 4. The stream segment may have also been shown in the 1998 303(d) Report as being impaired for the same designated use because of other pollutants or as being impaired for other designated uses.

<u>Fourmile Creek of Ohio River</u>	Campbell County
From River Mile 8.4 to 9.4	Segment Length: 1.0
Impaired Use:	Aquatic Life (Nonsupport)
Pollutant of Concern:	Nutrients, Organic Enrichment/Low DO
Suspected Sources:	Urban Runoff/Storm Sewers

This listing is from the 1998 303(d) Report and was based on evaluated data from the Florence Regional Office. In 1999 a biological assessment of the stream reach at the downstream end indicated that the biological community rated ‘good,’ indicating that the stream fully supported the biological community. Nutrient data collection at the downstream end of the reach showed one elevated total phosphorus concentration value during one runoff event, but total phosphorus concentrations were not elevated during base flow conditions or smaller runoff events. Therefore, the stream reach has been reclassified as fully supporting the aquatic life use. A request to delist the stream segment for nutrients and organic enrichment/low DO will be submitted to EPA Region 4 with the 2002 303(d) Report. Additional data will be collected during the next sampling cycle, which is 2004-2005.

<u>Harrods Creek of the Ohio River</u>	Jefferson/Oldham Counties
From River Mile 3.2 to 4.0	Segment Length: 0.8
Impaired Use:	Aquatic Life (Nonsupport)
Pollutant of Concern:	Organic Enrichment/Low DO
Suspected Sources:	Municipal Point Sources (Package Plants – Small Flows)

The TMDL for organic enrichment/low DO for RM 0.0 to 4.0 is approved by EPA Region 4. See Salt/Licking River Unit – Approved TMDLs. MSD has taken over the operation and maintenance of 5 small WWTPs that discharge to the lower section of Harrods Creek and the discharge limits are consistently being met. The discharge from these 5 WWTPs will eventually be incorporated into MSD’s Regional Wastewater System. The very lower section of Harrods Creek (from 0.0 to about mile 3.2) is essentially a backwater embayment of the Ohio River (impounded by McAlpine Lock and Dam). This very lower section of Harrods Creek is therefore characterized by slow stream velocities and depths greater than for typical pool and riffle stream environments for streams of this size. The latest stream assessment indicates that Harrods Creek from RM 3.2 to 6.1 fully supports the aquatic life designated use. Therefore, a request to delist Harrods Creek for organic enrichment/low DO from RM 3.2 to 4.0 will be submitted to EPA Region 4 with the 2002 303(d) Report.

**Table 4(b) --continued. 2002 303 (d) Report For Kentucky – Salt/Licking River Unit
Delistings**

-1st Priority Listings-

<u>Little Goose Creek of Goose Creek</u>	Jefferson County	
From River Mile 0.0 to 8.7	Segment Length:	8.7
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Organic Enrichment/Low DO	
Suspected Sources:	Municipal Point Sources, Urban Runoff/Storm Sewers, Land Disposal	

This listing for organic enrichment/low DO was in the 1998 303(d) Report. The latest assessment shows that the stream fully supports the aquatic life designated use. A request to delist the stream for organic enrichment/low DO because it supports the aquatic life designated use will be submitted to EPA Region 4 with the 2002 303(d) Report.

Note: This reach is still impaired (now partial support, not nonsupport) for swimming because of pathogens. The listing for swimming will now be shown as partially supporting instead of nonsupporting. See Salt/Licking River Unit – 2002 303(d) List – 2nd Priority Listings, for the updated listing.

<u>Middle Fork Beargrass Creek of Beargrass Creek</u>	Jefferson County	
From River Mile 2.3 to 15.2	Segment Length:	12.9
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Organic Enrichment/Low DO	
Suspected Sources:	Municipal Point Sources, Industrial Point Sources, Urban Runoff/Storm Sewers, Land Disposal, Combined Sewer Overflows, Sanitary Sewer Overflows	

The 1998 303(d) Report listed RM 0.0 to 15.2 as being impaired for organic enrichment/low DO. A more complete assessment of the stream segments in the Middle Fork Beargrass Creek watershed is now available, making this listing no longer relevant. See Salt/Licking River Unit - Modifications to the 1998 303(d) Report – 1st Priority Listings. The latest assessment indicates that organic enrichment is no longer a pollutant of concern except for the lowest reach of Middle Fork Beargrass Creek (River Mile 0.0 to 2.3), which is impacted by CSO discharges and urban runoff, is low gradient because of channelization, and is mostly open to direct sunlight. A request to delist Middle Fork Beargrass Creek from RM 2.3 to 15.2 for organic enrichment/low DO will be submitted to EPA Region 4 with the 1998 303(d) Report.

Note: Middle Fork was also in nonsupport of aquatic life because of metals (1998 303(d) Report) and has also been shown to be in nonsupport of the swimming designated use because of pathogens. The most recent information shows that Middle Fork is no longer impaired by metals (but the data are limited. See Salt/Licking River Unit – 2002 303(d) Listings – 1st Priority Listings for the updated listings.

**Table 4(b) --continued. 2002 303 (d) Report For Kentucky – Salt/Licking River Unit
Delistings**

-2nd Priority Listings-

Note: The stream/pollutant combinations listed below are only for the designated uses and pollutants of concern for which a delisting request has been made to EPA Region 4. The stream segment may have also been shown in the 1998 303(d) Report as being impaired for the same designated use because of other pollutants or as being impaired for other designated uses.

<u>Buckhorn Creek of Rolling Fork</u>	Marion County
From River Mile 0.0 to 2.3	Segment Length: 2.3
Impaired Use:	Aquatic Life (Partial Support), Swimming (Partial Support)
Pollutant of Concern:	Low pH
Suspected Sources:	Construction (Highway/Road/Bridge)

This listing is from the 1998 303(d) Report. The latest available data show that this stream segment now fully supports the aquatic life and swimming designated uses based on recent field pH data (all pH values above 6.0) on Buckhorn Creek. A request was submitted to EPA to informally delist this stream segment. On April 9, 2001, EPA Region 4 concurred, and Buckhorn Creek has been informally delisted for low pH. A request to formally delist Buckhorn Creek for pH will be submitted to EPA Region 4 with the 2002 303(d) Report.

<u>Cedar Creek of Floyds Fork</u>	Jefferson/Bullitt Counties
From River Mile 0.0 to 15.3	Segment Length: 15.3
Impaired Use:	Swimming (Partial Support)
Pollutant of Concern:	Pathogens
Suspected Sources:	Municipal Point Sources, Urban Runoff/Storm Sewers, Land Disposal

The latest available data show that this stream segment now fully supports the swimming designated use based on recent field data. A request to delist this stream for pathogens will be submitted to EPA Region 4 with the 2002 303(d) Report.

<u>Licking River of Ohio River</u>	Morgan County
From River Mile 226.4 to 239.3	Segment Length: 12.9
Impaired Use:	Swimming (Partial Support)
Pollutant of Concern:	Pathogens
Suspected Sources:	Municipal Point Sources

This listing was in the 1998 303(d) Report. The most recent assessment information shows that this stream segment now fully supports the swimming designated use. A request to delist this stream segment for pathogens will be submitted to EPA Region 4 with the 2002 303(d) Report.

**Table 4(b) --continued. 2002 303 (d) Report For Kentucky – Salt/Licking River Unit
Delistings**

-2nd Priority Listings-

<u>Rolling Fork of Salt River</u>	Bullitt/Hardin/Nelson Counties
From River Mile 0.0 to 20.1	Segment Length: 20.1
Impaired Use:	Swimming (Partial Support)
Pollutant of Concern:	Pathogens
Suspected Sources:	Agriculture

This stream segment was listed in the 1998 303(d) Report. The latest assessment information shows that this stream reach now supports the swimming designated use. A request to delist this stream segment for pathogens will be submitted to EPA Region 4 with the 2002 303(d) Report.

<u>South Fork Licking River</u>	Pendleton/Harrison Counties
From River Mile 11.5 to 27.1	Segment Length: 15.6
Impaired Use:	Aquatic Life (Partial Support)
Pollutant of Concern:	Nutrients, Siltation
Suspected Sources:	Agriculture (Grazing-related Sources), Agriculture (Crop-related Sources)

This stream segment was listed in the 1998 303(d) Report. New assessment information shows that this stream reach fully supports aquatic life. A request to delist this stream will be submitted to EPA Region 4 with the 2002 303(d) Report.

<u>Southern Ditch of Pond Creek</u>	Jefferson County
From River Mile 0.0 to 5.5	Segment Length: 5.5
Impaired Use:	Aquatic Life (Partial Support)
Pollutant of Concern:	Organic Enrichment/Low DO
Suspected Sources:	Municipal Point Sources, Urban Runoff/Storm Sewers, Land Disposal

The listing was in the 1998 303(d) Report. The most recent information indicates that the aquatic life use is fully supported. A request to delist this stream segment as being impaired for aquatic life use because of organic enrichment/low DO will be submitted to EPA Region 4 with the 2002 303(d) Report.

**Table 4(c). 2002 303 (d) Report For Kentucky – Salt/Licking River Unit
Approved TMDLs**

(To view these documents, please access the KDOW's TMDL web page at <http://water.nr.state.ky.us/dow/tmdl.htm>. For a printed copy of the TMDL, please contact the KDOW.)

<u>Chenoweth Run of Floyds Fork</u>		Jefferson County
From River Mile 0.0 to 9.1		Segment Length: 9.1
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Nutrients, Noxious Aquatic Plants	
Suspected Sources:	Municipal Point Sources, Industrial Point Sources, Urban Runoff/Storm Sewers, Land Disposal, Agriculture (Grazing- related Sources)	

The TMDL for nutrients was approved in 1997. The Jeffersontown WWTP was given a total phosphorus limit of 1.0 mg/L starting in November 2000. Phosphorus monitoring at the Jeffersontown WWTP indicates values consistently around 0.5 mg/L. The TMDL also states that riparian zones are needed along the stream and the effective storm water management is also needed. The listing for aquatic life use shown here is carried forward from the 1998 303(d) Report because new biological data are not yet available. The Louisville and Jefferson County Metropolitan Sewer District continues to collect and compile information on the stream.

<u>Elijahs (and Gunpowder) Creek of Ohio River</u>		Boone County
Elijahs - From River Mile 0.0 to 5.2		Segment Length: 5.2
Gunpowder – From River Mile 15.7 to 18.9		Segment Length: 3.2
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Nonpriority Organics (De-icing Fluids)	
Suspected Sources:	Industrial Point Sources	

The TMDL for nonpriority organics is approved. Elijahs and Gunpowder Creeks are severely impacted by de-icing fluids used at the Cincinnati/Northern Kentucky International Airport. Headwater portions of these streams are located on airport property. The streams then flow through rapidly developing areas prior to discharging to the Ohio River. Local public and media had expressed concern about these conditions, especially since the airport was undergoing significant expansion at the time. This TMDL project focused on studying the impact the deicing fluids are having upon aquatic life, the reductions needed to restore the aquatic life use to these streams, and working with the airport to bring about the needed reductions. Water quality modeling was used to establish effluent limits that would be protective of water quality. These limits were incorporated into a new discharge permit for the airport and went into effect April 1, 1997. Fines for past violations were levied against the airport, and additional control measures were required through enforcement action that culminated in an Agreed Order with the airport, filed March 28, 1997. The airport is still having difficulty meeting the permit limits for 5-day Biochemical Oxygen Demand (BOD), but efforts continue by the airport to come into compliance. An aeration system has been installed on Elijahs Creek and the BOD values have been decreasing with time. Quarterly meetings are held between Airport officials, SD #1, and the KDOW. The airport has installed de-icing pads where planes are sprayed and the excess drains to a pit. This material goes to a SD #1 treatment facility. Plans are underway to recycle the fluid that goes to the pit. The airport also uses sweeper trucks to capture deicing fluid shed from planes while taxiing.

**Table 4(c) --continued. 2002 303 (d) Report For Kentucky – Salt/Licking River Unit
Approved TMDLs**

<u>Fleming Creek Watershed of Licking River</u>	Fleming/Nicholas Counties
From River Mile 0.0 to 39.2	Segment Length: 39.2
and includes 10 tributaries	
Impaired Use:	Swimming (Nonsupport)
Pollutant of Concern:	Pathogens
Suspected Sources:	Agriculture (Intensive Animal Feeding Operations and Grazing-related Sources), Municipal Point Sources

The TMDL for pathogens is approved.

The stream segments included in the TMDL are:

Allison Creek	River Mile 0.0 to 4.7
Craintown Branch	River Mile 0.0 to 3.5
Doty Creek	River Mile 0.0 to 4.0
Fleming Creek	River Mile 0.0 to 39.2
Sleepy Run	River Mile 0.0 to 2.8
Town Branch	River Mile 0.0 to 4.0
Wilson Run	River Mile 0.0 to 5.5
and 4 other stream segments that were not included on the 1998 303(d) list for pathogens:	
Logan Run	River Mile 0.0 to 2.3
Cassidy Creek	River Mile 0.0 to 3.9
Poplar Creek	River Mile 0.0 to 3.1
UT to Fleming Creek at RM 4.28	River Mile 0.0 to 2.2

<u>Floyds Fork Watershed of Salt River</u>	Jefferson/Bullitt Counties
From River Mile 0.0 to 67.0	Segment Length: 67.0
Impaired Use:	Aquatic Life (Nonsupport)
Pollutant of Concern:	Organic Enrichment/Low DO
Suspected Sources:	Municipal Point Sources (Package Plants – Small Flows), Urban Runoff/Storm Sewers, Agriculture

The TMDL for organic/enrichment/low DO is approved. For a printed copy of the TMDL, please contact the KDOW. MSD has acquired a number of small WWTPs throughout the watershed, which MSD now operates and maintains, and the MSD Floyds Fork Regional WWTP became operational in the summer of 2001. Sewer lines are planned to be run from the areas currently being serviced by the small WWTPs to the Floyds Fork Regional WWTP. As these connections are made, the small WWTPs will be taken out of service. This will improve water quality throughout the watershed because small WWTPs are difficult to maintain and will work less efficiently than the new Floyds Fork Regional WWTP. The Floyds Fork Regional WWTP has a phosphorus limit of 1.0 mg/L, which is a significant reduction compared to the small WWTPs that currently operate in the watershed. The discharge from the small WWTPs generally contains 2.5 to 4.0 mg/L of phosphorus. Phosphorus is used by the algae for growth; too much algae in the stream results in degraded water quality and low stream DO values, which can result in fish kills.

**Table 4(c) --continued. 2002 303 (d) Report For Kentucky – Salt/Licking River Unit
Approved TMDLs**

<u>Gunpowder (and Elijahs) Creek of Ohio River</u>	Boone County	
Gunpowder – From River Mile 15.7 to 18.9	Segment Length:	3.2
Elijahs - From River Mile 0.0 to 5.2	Segment Length:	5.2
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Nonpriority Organics (De-icing Fluids)	
Suspected Sources:	Industrial Point Sources	

The TMDL for nonpriority organics is approved. Gunpowder and Elijahs Creeks are severely impacted by de-icing fluids used at the Cincinnati/Northern Kentucky International Airport. Headwater portions of these streams are located on airport property. The streams then flow through rapidly developing areas prior to discharging to the Ohio River. Local public and media had expressed concern about these conditions, especially since the airport was undergoing significant expansion at the time. This TMDL project focused on studying the impact the deicing fluids are having upon aquatic life, the reductions needed to restore the aquatic life use to these streams, and working with the airport to bring about the needed reductions. Water quality modeling was used to establish effluent limits that would be protective of water quality. These limits were incorporated into a new discharge permit for the airport and went into effect April 1, 1997. Fines for past violations were levied against the airport, and additional control measures were required through enforcement action that culminated in an Agreed Order with the airport, filed March 28, 1997. The airport is still having difficulty meeting the permit limits for 5-day Biochemical Oxygen Demand (BOD), but efforts continue by the airport to come into compliance. An aeration system has been installed on Elijahs Creek and the BOD values have been decreasing with time. Quarterly meetings are held between Airport officials, SD #1, and the KDOW. The airport has installed de-icing pads where planes are sprayed and the excess drains to a pit. This material goes to a SD #1 treatment facility. Plans are underway to recycle the fluid that goes to the pit. The airport also uses sweeper trucks to capture deicing fluid shed from planes while taxiing.

<u>Harrods Creek of the Ohio River</u>	Jefferson/Oldham Counties	
From River Mile 0.0 to 4.0	Segment Length:	4.0
Impaired Use:	Aquatic Life	
Pollutant of Concern:	Organic Enrichment/Low DO	
Suspected Sources:	Municipal Point Sources (Package Plants – Small Flows)	

The TMDL for organic/enrichment/low DO is approved. MSD is operating and maintaining 5 small WWTPs that discharge to the lower section of Harrods Creek. This section of Harrods Creek is essentially a backwater embayment of the Ohio River. This section of Harrods Creek is therefore characterized by slow stream velocities and depths greater than for typical pool and riffle stream environments. This results in low DO values and the condition can be exacerbated by the discharges from the small WWTPs if the WWTPs are not in compliance. The discharge from these 5 WWTPs will eventually be incorporated into MSD's Regional Wastewater System. The latest assessment indicates that the reach from RM 3.2 to 4.0 fully supports the aquatic life designated use. A request to delist that portion of Harrods Creek (RM 3.2 to 4.0) as being impaired for aquatic life will be submitted to EPA Region 4 with the 2002 303(d) Report. See Salt/Licking River Unit – Delistings – 1st Priority Listings.

**Table 4(d). 2002 303 (d) Report For Kentucky – Salt/Licking River Unit
TMDLs Under Development**

Brooks Run Watershed Nutrient, Pathogens, and Organic Enrichment/Low DO TMDL

Bullitt County	From RM 0.0 to 6.1	Segment Length:	6.1
Impaired Use:	Aquatic Life (Nonsupport), Swimming (Nonsupport)		
Pollutant of Concern:	Nutrients, Organic Enrichment/Low DO, Pathogens		
Sources:	Municipal Point Sources (Package Plants – Small Flows)		

This listing (except for nutrients) is from the 1998 303(d) Report. The TMDL for nutrients, organic enrichment/low DO, and pathogens has been submitted to EPA Region 4 for formal approval. A Bullitt County Sanitation Board has been established and the County has purchased 3 of the small package WWTPs that had some of the poorest records. The development of the Sanitation Board and the purchase of a number of WWTPs in the watershed are huge first steps in the regionalization of wastewater treatment in the area. The area has seen tremendous growth in recent years and this growth is projected to continue. The area is just south of Louisville and Jefferson County.

Fleming Creek Watershed Nutrient and Organic Enrichment/Low DO TMDL

The TMDLs for nutrients and/or organic enrichment/low DO is currently under development by an EPA contractor using EPA Region 4 FFY2000 104(b)3 set-aside funds

(1) Allison Creek of Fleming Creek		Fleming County	
From River Mile 0.0 to 4.7		Segment Length:	4.7
Impaired Use:	Aquatic Life (Nonsupport)		
Pollutant of Concern:	Nutrients (Phosphorus), Organic Enrichment/Low DO, Noxious Aquatic Plants		
Suspected Sources:	Agriculture (Intensive Animal Feeding Operations and Grazing-related Sources)		

A TMDL specifically for noxious aquatic plants is not required (because this is deemed pollution) unless it can be tied into another pollutant cause. In this case, noxious aquatic plants are tied to nutrients. Therefore, the TMDL for nutrients will provide the reductions necessary to remediate the noxious aquatic plants problem.

(2) Craintown Branch of Fleming Creek		Fleming County	
From River Mile 0.0 to 3.5		Segment Length:	3.5
Impaired Use:	Aquatic Life (Partial Support)		
Pollutant of Concern:	Nutrients (Phosphorus), Noxious Aquatic Plants		
Suspected Sources:	Agriculture (Intensive Animal Feeding Operations and Grazing-related Sources)		

A TMDL specifically for noxious aquatic plants is not required (because this is deemed pollution) unless it can be tied into another pollutant cause. In this case, noxious aquatic plants are tied to nutrients. Therefore, the TMDL for nutrients will provide the reductions necessary to remediate the noxious aquatic plants problem.

**Table 4(d) --continued. 2002 303 (d) Report For Kentucky – Salt/Licking River Unit
TMDLs Under Development**

(3) Fleming Creek of Licking River	Fleming County	
From River Mile 0.0 to 39.2	Segment Length:	39.2
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Nutrients (Phosphorus), Organic Enrichment/Low DO	
Suspected Sources:	Agriculture (Intensive Animal Feeding Operations and Grazing-related Sources), Municipal Point Sources	

<u>Mussin Branch of Moore Creek</u>	Marion County	
From River Mile 0.0 to 1.7	Segment Length:	1.7
Impaired Use:	Swimming (Nonsupport), Aquatic Life (Nonsupport)	
Pollutant of Concern:	pH	
Suspected Sources:	Construction (Highway/Road/Bridge Construction)	

This stream was listed in the 1998 303(d) Report as partially supporting aquatic life and swimming, but is now considered to be in nonsupport. A pH value of 2.7 and 2.9 was recorded during low-flow periods, prompting the change. Disturbed shale from road construction activities has resulted in low pH in this stream. The KY Transportation Cabinet has been contacted concerning this problem. Data collection and TMDL development are currently being done using EPA Region 4 104(b)3 funds.

<u>UT of Rolling Fork at River Mile 94.6</u>	Marion County	
From River Mile 0.0 to 0.6	Segment Length:	0.6
Impaired Use:	Swimming (Nonsupport), Aquatic Life (Nonsupport)	
Pollutant of Concern:	pH	
Suspected Sources:	Construction (Highway/Road/Bridge Construction)	

This stream was listed in the 1998 303(d) Report as partially supporting aquatic life and swimming, but is now considered to be in nonsupport. A pH value of 4.6 was recorded during a low-flow period, prompting the change. Disturbed shale from road construction activities has resulted in low pH in this stream. The KY Transportation Cabinet has been contacted concerning this problem. Data collection and TMDL development are currently being done using EPA Region 4 104(b)3 funds.

**Table 4(e). 2002 303 (d) Report For Kentucky – Salt/Licking River Unit
2002 303(d) List**

-1st Priority Listings-

Basin: Licking River

<u>Allison Creek of Fleming Creek</u>	Fleming County	
From River Mile 0.0 to 4.7	Segment Length:	4.7
Impaired Use:	Aquatic Life (Nonsupport), Swimming (Nonsupport)	
Pollutant of Concern:	Nutrients (Phosphorus), Organic enrichment/Low DO, Pathogens, Noxious Aquatic Plants	
Suspected Sources:	Agriculture (Intensive Animal Feeding Operations and Grazing-related Sources)	

This listing is from the 1998 303(d) Report. The TMDL for pathogens is approved. See Salt/Licking River Unit – Approved TMDLs – Fleming Creek Watershed. The TMDL for nutrients and/or organic enrichment/low DO is currently under development using EPA Region 4 FFY2000 104(b)3 set-aside funds. A TMDL specifically for noxious aquatic plants is not required (because this is deemed pollution) unless it can be tied into another pollutant cause. In this case, noxious aquatic plants are tied to nutrients. Therefore, the TMDL for nutrients will provide the reductions necessary to remediate the noxious aquatic plants problem. See Salt/Licking River Unit – TMDLs Under Development – Fleming Creek Watershed.

<u>Banklick Creek of Licking River</u>	Kenton County	
From River Mile 0.0 to 19.0	Segment Length:	19.0
Impaired Use:	Aquatic Life (Nonsupport), Swimming (Nonsupport)	
Pollutant of Concern:	Nutrients, Habitat Alteration, Organic Enrichment/Low DO, Pathogens	
Suspected Sources:	Municipal Point Sources, Urban Runoff/Storm Sewers, Construction, Combined Sewer Overflows	

This listing is from the 1998 303(d) Report. A more complete assessment of the stream has made this listing no longer relevant. The stream reach has been broken into 2 segments, RM 0.0 to 8.2 and RM 8.2 to 19.0. The updated information follows.

<u>Banklick Creek of Licking River</u>	Kenton County	
From River Mile 0.0 to 8.2	Segment Length:	8.2
Impaired Use:	Aquatic Life (Nonsupport), Swimming (Nonsupport)	
Pollutant of Concern:	Nutrients, Siltation, Habitat Alteration, Organic Enrichment/Low DO, Pathogens	
Suspected Sources:	Municipal Point Sources, Urban Runoff/Storm Sewers, Construction, Combined Sewer Overflows	

This listing and the following listing supersede what was in the 1998 303(d) Report. See Salt/Licking River Unit – Modifications to the 1998 303(d) Report – 1st Priority Listings. Some data collection has been done by KDOW personnel. A comprehensive water-quality study has been initiated by Sanitation District #1. Runoff event samples were scheduled to be collected starting fall 2002. Upgrades to the Lakeview Pump Station (river mile 3.8) have been made by SD#1.

**Table 4(e) --continued. 2002 303 (d) Report For Kentucky – Salt/Licking River Unit
2002 303(d) List**

-1st Priority Listings-

<u>Banklick Creek of Licking River</u>	Kenton County
From River Mile 8.2 to 19.0	Segment Length: 10.8
Impaired Use:	Aquatic Life (Nonsupport), Swimming (Nonsupport)
Pollutant of Concern:	Nutrients, Habitat Alteration, Organic Enrichment/Low DO, Pathogens
Suspected Sources:	Municipal Point Sources, Urban Runoff/Storm Sewers, Construction, Agriculture

This listing and the preceding listing supersede what was in the 1998 303(d) Report. See Salt/Licking River Unit – Modifications to the 1998 303(d) Report – 1st Priority Listings. Some data collection has been done by KDOW personnel. A comprehensive water-quality study has also been initiated by Sanitation District #1. Runoff event samples are scheduled to be collected starting fall 2002. Approximately 75 homes with failing septic systems have been incorporated into the SD#1 network, and approximately 20 manhole covers have been installed with watertight lids.

<u>Burning Fork of Licking River</u>	Magoffin County
From River Mile 0.0 to 2.9	Segment Length: 2.9
Impaired Use:	Swimming (Nonsupport)
Pollutant of Concern:	Pathogens
Suspected Sources:	Land Disposal (Onsite Wastewater Systems – Septic Tanks and/or Straight Pipes)

<u>Cassidy Creek of Fleming Creek</u>	Fleming County
From River Mile 0.0 to 3.9	Segment Length: 3.9
Impaired Use:	Swimming (Nonsupport)
Pollutant of Concern:	Pathogens
Suspected Sources:	Agriculture (Intensive Animal Feeding Operations and Grazing-related Sources)

This listing was not in the 1998 303(d) Report. However, upon a review of the pathogens data for the Fleming Creek watershed, this stream segment was included as part of the Fleming Creek Watershed pathogens TMDL. The TMDL for pathogens is approved. See Salt/Licking River Unit – Approved TMDLs – Fleming Creek Watershed.

<u>Cooper Run of Stoner Creek</u>	Bourbon County
From River Mile 0.0 to 10.1	Segment Length: 10.1
Impaired Use:	Aquatic Life (Nonsupport)
Pollutant of Concern:	Organic Enrichment/Low DO, Nutrients
Suspected Sources:	Agriculture (Grazing-related Sources)

**Table 4(e) --continued. 2002 303 (d) Report For Kentucky – Salt/Licking River Unit
2002 303(d) List**

-1st Priority Listings-

<u>Craintown Branch of Fleming Creek</u>	Fleming County
From River Mile 0.0 to 3.5	Segment Length: 3.5
Impaired Use:	Aquatic Life (Partial Support), Swimming (Nonsupport)
Pollutant of Concern:	Nutrients (Phosphorus), Pathogens, Noxious Aquatic Plants
Suspected Sources:	Agriculture (Intensive Animal Feeding Operations and Grazing-related Sources)

This listing is from the 1998 303(d) Report. The TMDL for pathogens is approved. See Salt/Licking River Unit – Approved TMDLs – Fleming Creek Watershed. The TMDL for nutrients and/or organic enrichment/low DO is currently under development using EPA Region 4 FFY2000 104(b)3 set-aside funds. A TMDL specifically for noxious aquatic plants is not required (because this is deemed pollution) unless it can be tied into another pollutant cause. In this case, noxious aquatic plants are tied to nutrients.

Therefore, the nutrient TMDL will provide the reductions necessary to remediate the noxious aquatic plants problem. See Salt/Licking River Unit – TMDLs Under Development – Fleming Creek Watershed.

<u>Crooked Creek of Licking River</u>	Nicholas County
From River Mile 0.0 to 9.1	Segment Length: 9.1
Impaired Use:	Swimming (Nonsupport)
Pollutant of Concern:	Pathogens
Suspected Sources:	Unknown

<u>Doty Creek of Fleming Creek</u>	Fleming County
From River Mile 0.0 to 4.0	Segment Length: 4.0
Impaired Use:	Aquatic Life (Nonsupport), Swimming (Nonsupport)
Pollutant of Concern:	Organic Enrichment/Low DO, Pathogens
Suspected Sources:	Agriculture (Grazing-related Sources, Pasture Grazing - Riparian and/or Upland), Agriculture (Intensive Animal Feeding Operations and Grazing-related Sources)

This listing is from the 1998 303(d) Report. The listing for organic enrichment/low DO is based on evaluated data. The TMDL for pathogens is approved. See Salt/Licking River Unit - Approved TMDLs – Fleming Creek Watershed.

<u>Elk Fork of Licking River</u>	Morgan County
From River Mile 4.9 to 10.5	Segment Length: 5.6
Impaired Use:	Aquatic Life (Nonsupport)
Pollutant of Concern:	Siltation, Turbidity, Flow Alterations, Habitat Alteration (Other than Flow)
Suspected Sources:	Silviculture (Harvesting, Restoration, and Residue Management), Resource Extraction (Surface, Subsurface, Abandoned, and Inactive Mining), Habitat Modification (Other than Hydromodification) - Removal of Riparian Vegetation and Bank Modification/Destabilization

**Table 4(e) --continued. 2002 303 (d) Report For Kentucky – Salt/Licking River Unit
2002 303(d) List**

-1st Priority Listings-

<u>Flat Creek of Licking River</u>	Bath County	
From River Mile 0.0 to 0.9	Segment Length:	0.9
Impaired Use:	Swimming (Nonsupport)	
Pollutant of Concern:	Pathogens	
Suspected Sources:	Unknown	
<u>Flat Run of Stoner Creek</u>	Bourbon County	
From River Mile 0.0 to 2.2	Segment Length:	2.2
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Siltation, Organic Enrichment/Low DO, Nutrients	
Suspected Sources:	Agriculture (Grazing-related Sources)	
<u>Fleming Creek of Licking River</u>	Fleming/Nicholas Counties	
From River Mile 0.0 to 39.2	Segment Length:	39.2
Impaired Use:	Swimming (Nonsupport), Aquatic Life (Nonsupport)	
Pollutant of Concern:	Pathogens, Nutrients (Phosphorus), Organic Enrichment/Low DO	
Suspected Sources:	Agriculture (Intensive Animal Feeding Operations and Grazing-related Sources)	
This listing is from the 1998 303(d) Report. The TMDL for pathogens is approved. See Salt/Licking River Unit – Approved TMDLs – Fleming Creek Watershed. The TMDL for nutrients and organic enrichment/low DO is currently under development using EPA Region 4 FFY2000 104(b)3 set-aside funds. See Salt/Licking River Unit – TMDLs Under Development -Fleming Creek Watershed.		
<u>Fox Creek of Licking River</u>	Fleming County	
From River Mile 20.1 to 22.7	Segment Length:	2.6
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Siltation, Organic Enrichment/Low DO	
Suspected Sources:	Silviculture (Harvesting, Restoration, and Residue Management), Hydromodification (Dredging)	
<u>Hinkston Creek of South Fork Licking River</u>	Bourbon County	
From River Mile 41.8 to 49.1	Segment Length:	7.3
Impaired Use:	Swimming (Nonsupport), Aquatic Life (Partial Support)	
Pollutant of Concern:	Siltation, Pathogens	
Suspected Sources:	Agriculture	
<u>Hinkston Creek of South Fork Licking River</u>	Montgomery County	
From River Mile 51.5 to 65.9	Segment Length:	14.4
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Siltation, Organic Enrichment/Low DO, Nutrients	
Suspected Sources:	Agriculture (Grazing-related Sources)	

**Table 4(e) --continued. 2002 303 (d) Report For Kentucky – Salt/Licking River Unit
2002 303(d) List**

-1st Priority Listings-

<u>Houston Creek of Stoner Creek</u>	Bourbon County	
From River Mile 0.0 to 9.0	Segment Length:	9.0
Impaired Use:	Swimming (Nonsupport)	
Pollutant of Concern:	Pathogens	
Suspected Sources:	Unknown	

<u>Johnson Creek of Licking River</u>	Magoffin County	
From River Mile 0.0 to 3.1	Segment Length:	3.1
Impaired Use:	Swimming (Nonsupport)	
Pollutant of Concern:	Pathogens	
Suspected Sources:	Unknown	

<u>Johnson Creek of Licking River</u>	Robertson County	
From River Mile 0.0 to 3.3	Segment Length:	3.3
Impaired Use:	Swimming (Nonsupport)	
Pollutant of Concern:	Pathogens	
Suspected Sources:	Unknown	

<u>Licking River of Ohio River</u>	Campbell County	
From River Mile 0.0 to 4.6	Segment Length:	4.6
Impaired Use:	Swimming (Nonsupport)	
Pollutant of Concern:	Pathogens	
Suspected Sources:	Combined Sewer Overflows, Urban Runoff/Storm Sewers	

This listing is from the 1998 303(d) Report. New assessment information has resulted in this assessment being changed from nonsupport to partial support for the swimming use. Because of concerns expressed during the comment period, this segment will remain First Priority. The updated listing follows.

<u>Licking River of Ohio River</u>	Campbell/Kenton Counties	
From River Mile 0.0 to 4.6	Segment Length:	4.6
Impaired Use:	Swimming (Partial Support), Aquatic Life (Partial Support)	
Pollutant of Concern:	Pathogens, Organic Enrichment/Low DO	
Suspected Sources:	Combined Sewer Overflows, Urban Runoff/Storm Sewers	

This stream segment was listed in the 1998 303(d) Report for nonsupport of the swimming designated use and new assessment information has resulted in this assessment being changed from nonsupport to partial support for the swimming use. Partial support of the aquatic life use as been added to the listing for the stream segment.

**Table 4(e) --continued. 2002 303 (d) Report For Kentucky – Salt/Licking River Unit
2002 303(d) List**

-1st Priority Listings-

<u>Licking River of Ohio River</u>	Magoffin County
From River Mile 293.3 to 301.1	Segment Length: 7.8
Impaired Use:	Aquatic Life (Nonsupport)
Pollutant of Concern:	Siltation
Suspected Sources:	Collection System Failure

This listing is from the 1998 303(d) Report. New assessment information has resulted in this assessment being changed from nonsupport to fully supporting for the aquatic life use, but another assessment is warranted. See Salt/Licking River Unit - 2002 303(d) List - Stream Segments Needing Additional Information Before Being 303(d) Listed.

<u>Little Stoner Creek of Stoner Creek</u>	Clark County
From River Mile 0.0 to 5.0	Segment Length: 5.0
Impaired Use:	Swimming (Nonsupport)
Pollutant of Concern:	Pathogens
Suspected Sources:	Unknown

<u>Logan Run of Fleming Creek</u>	Fleming County
From River Mile 0.0 to 2.3	Segment Length: 2.3
Impaired Use:	Aquatic Life (Nonsupport), Swimming (Nonsupport)
Pollutant of Concern:	Organic Enrichment/Low DO, Pathogens
Suspected Sources:	Agriculture (Intensive Animal Feeding Operations and Grazing-related Sources)

This aquatic life listing is from the 1998 303(d) Report. The listing for pathogens was not in the 1998 303(d) Report. However, upon a review of the pathogens data for the Fleming Creek watershed, this stream segment was included as part of the Fleming Creek Watershed Pathogens TMDL. The TMDL for pathogens is approved. See Salt/Licking River Unit – Approved TMDLs – Fleming Creek Watershed.

<u>Middle Fork Licking River of Licking River</u>	Magoffin County
From River Mile 0.0 to 2.5	Segment Length: 2.5
Impaired Use:	Swimming (Nonsupport)
Pollutant of Concern:	Pathogens
Suspected Sources:	Agriculture, Land Disposal (Onsite Wastewater Systems – Septic Tanks and/or Straight Pipes)

<u>North Fork Licking River of Licking River</u>	Bracken/Mason Counties
From River Mile 18.1 to 51.7	Segment Length: 33.6
Impaired Use:	Aquatic Life (Nonsupport), Swimming (Nonsupport)
Pollutant of Concern:	Siltation, Pathogens
Suspected Sources:	Agriculture

**Table 4(e) --continued. 2002 303 (d) Report For Kentucky – Salt/Licking River Unit
2002 303(d) List**

-1st Priority Listings-

<u>Phillips Creek of Licking River</u>	Campbell County	
From River Mile 0.0 to 5.3	Segment Length:	5.3
Impaired Use:	Swimming (Nonsupport)	
Pollutant of Concern:	Pathogens	
Suspected Sources:	Unknown	
<u>Poplar Creek of Fleming Creek</u>	Fleming County	
From River Mile 0.0 to 3.1	Segment Length:	3.1
Impaired Use:	Swimming (Nonsupport)	
Pollutant of Concern:	Pathogens	
Suspected Sources:	Agriculture (Intensive Animal Feeding Operations and Grazing-related Sources)	
This listing was not in the 1998 303(d) Report. However, upon a review of the pathogens data for the Fleming Creek watershed, this stream segment was included as part of the Fleming Creek Watershed pathogens TMDL. The TMDL for pathogens is approved. See Salt/Licking River Unit – Approved TMDLs – Fleming Creek Watershed.		
<u>Prickly Ash of Slate Creek</u>	Bath County	
From River Mile 0.0 to 3.1	Segment Length:	3.1
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Nutrients	
Suspected Sources:	Agriculture	
<u>Puncheon Camp Creek of Licking River</u>	Magoffin County	
From River Mile 0.0 to 1.1	Segment Length:	1.1
Impaired Use:	Swimming (Nonsupport)	
Pollutant of Concern:	Pathogens	
Suspected Sources:	Unknown	
<u>Scrubgrass Creek of Cassidy Creek</u>	Nicholas County	
From River Mile 0.0 to 1.6	Segment Length:	1.6
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Unknown	
Suspected Sources:	Unknown	
<u>Slate Creek of Licking River</u>	Bath County	
From River Mile 0.0 to 7.0	Segment Length:	7.0
Impaired Use:	Swimming (Nonsupport)	
Pollutant of Concern:	Pathogens	
Suspected Sources:	Unknown	

**Table 4(e) --continued. 2002 303 (d) Report For Kentucky – Salt/Licking River Unit
2002 303(d) List**

-1st Priority Listings-

<u>Sleepy Run of Fleming Creek</u>	Fleming County	
From River Mile 0.0 to 2.8	Segment Length:	2.8
Impaired Use:	Swimming (Nonsupport)	
Pollutant of Concern:	Pathogens	
Suspected Sources:	Agriculture (Intensive Animal Feeding Operations and Grazing-related Sources)	

This listing is from the 1998 303(d) Report. The TMDL for pathogens is approved. See Salt/Licking River Unit – Approved TMDLs – Fleming Creek Watershed.

<u>Stoner Creek of South Fork Licking River</u>	Bourbon County	
From River Mile 5.5 to 15.0	Segment Length:	9.5
Impaired Use:	Swimming (Nonsupport)	
Pollutant of Concern:	Pathogens	
Suspected Sources:	Unknown	

<u>Stony Creek of Licking River</u>	Nicholas County	
From River Mile 0.0 to 3.0	Segment Length:	3.0
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Unknown	
Suspected Sources:	Unknown	

<u>Straight Creek of Elk Fork</u>	Morgan County	
From River Mile 0.0 to 1.8	Segment Length:	1.8
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Siltation, Turbidity, Flow Alterations, Habitat Alteration (Other than Flow)	
Suspected Sources:	Silviculture (Harvesting, Restoration, and Residue Management), Resource Extraction (Surface, Subsurface, Abandoned, and Inactive Mining), Habitat Modification (Other than Hydromodification) - Removal of Riparian Vegetation and Bank Modification/Destabilization	

<u>Strodes Creek of Stoner Creek</u>	Bourbon County	
From River Mile 2.7 to 19.3	Segment Length:	16.6
Impaired Use:	Aquatic Life (Partial Support), Swimming (Nonsupport)	
Pollutant of Concern:	Nutrients, Organic Enrichment/Low DO, Siltation, Pathogens	
Suspected Sources:	Municipal Point Sources, Agriculture, Construction, Urban Runoff/Storm Sewers, Habitat Modification (Other than Hydromodification)	

**Table 4(e) --continued. 2002 303 (d) Report For Kentucky – Salt/Licking River Unit
2002 303(d) List**

-1st Priority Listings-

<u>Threemile Creek of Licking River</u>	Campbell County	
From River Mile 0.0 to 4.7	Segment Length:	4.7
Impaired Use:	Aquatic Life (Nonsupport), Swimming (Nonsupport)	
Pollutant of Concern:	Nutrients, Organic Enrichment/Low DO, Pathogens	
Suspected Sources:	Unknown, Collection System Failure	

This listing is from the 1998 303(d) Report. The stream continues to be under a swimming advisory. Several improvements have been made by SD#1 in selected areas in the watershed, including the unnamed tributary at river mile 0.5 of Threemile Creek. Twenty-five homes that had failing septic systems were put on SD#1's sanitary system. The most recent fecal coliform data shows improving in-stream values.

<u>Town Branch of Fleming Creek</u>	Fleming County	
From River Mile 0.0 to 4.0	Segment Length:	4.0
Impaired Use:	Swimming (Nonsupport)	
Pollutant of Concern:	Pathogens	
Suspected Sources:	Agriculture (Intensive Animal Feeding Operation and Grazing-related Sources), Municipal Point Sources	

This listing is from the 1998 303(d) Report. The TMDL for pathogens is approved. See Salt/Licking River Unit – Approved TMDLs - Fleming Creek Watershed.

<u>Townsend Creek of South Fork Licking River</u>	Harrison/Bourbon Counties	
From River Mile 0.0 to 4.8	Segment Length:	4.8
Impaired Use:	Swimming (Nonsupport)	
Pollutant of Concern:	Pathogens	
Suspected Sources:	Unknown	

<u>Triplett Creek of Licking River</u>	Rowan County	
From River Mile 5.8 to 12.0	Segment Length:	6.2
Impaired Use:	Swimming (Nonsupport), Aquatic Life (Partial Support)	
Pollutant of Concern:	Pathogens, Unknown	
Suspected Sources:	Unknown, Unknown	

<u>UT of Fleming Creek (River Mile 4.28)</u>	Fleming County	
From River Mile 0.0 to 2.2	Segment Length:	2.2
Impaired Use:	Swimming (Nonsupport)	
Pollutant of Concern:	Pathogens	
Suspected Sources:	Agriculture (Intensive Animal Feeding Operations and Grazing-related Sources)	

This listing was not in the 1998 303(d) Report. However, upon a review of the pathogens data for the Fleming Creek watershed, this stream segment was included as part of the Fleming Creek Watershed pathogens TMDL. The TMDL for pathogens is approved. See Salt/Licking River Unit – Approved TMDLs – Fleming Creek Watershed.

**Table 4(e) --continued. 2002 303 (d) Report For Kentucky – Salt/Licking River Unit
2002 303(d) List**

-1st Priority Listings-

<u>Williams Creek of Elk Fork</u>	Morgan County	
From River Mile 0.0 to 5.3	Segment Length:	5.3
Impaired Use:	Swimming (Nonsupport)	
Pollutant of Concern:	Pathogens	
Suspected Sources:	Unknown	
<u>Wilson Run of Fleming Creek</u>	Fleming County	
From River Mile 0.0 to 5.1	Segment Length:	5.1
Impaired Use:	Swimming (Nonsupport)	
Pollutant of Concern:	Pathogens	
Suspected Sources:	Agriculture (Intensive Animal Feeding Operations and Grazing-related Sources)	

Basin: Ohio River

This listing is from the 1998 303(d) Report. The TMDL for pathogens is approved. See Salt/Licking River Unit – Approved TMDLs - Fleming Creek Watershed.

<u>Beargrass Creek of Ohio River</u>	Jefferson County	
From River Mile 0.0 to 1.5	Segment Length:	1.5
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Metals, Organic Enrichment/Low DO	
Suspected Sources:	Municipal Point Sources, Combined Sewer Overflows, Urban Runoff/Storm Sewers	

This listing is pulled forward from the 1998 303(d) Report. The reach should extend from RM 0.0 to 1.5. See Salt/Licking River Unit – Modifications to the 1998 303(d) Report – 1st Priority Listings The 1996 303(d) listing was based on fish data only and should be considered evaluated. The metals listing should be considered suspect. Chemical water quality data were never collected at this site, so the source of the information for the metals listing is unknown, as is what metals are of concern. However, in 1998 Middle Fork Beargrass Creek (upstream of this segment) was also listed for metals; therefore, this listing for metals was carried forward. The most recent information shows that Middle Fork is no longer impaired by metals (but the data are limited), and that South Fork Beargrass Creek (which is also upstream of the Beargrass Creek segment) is impaired by metals (cadmium). As a result, the listing for metals for Beargrass Creek (river mile 0.0 to 1.5) is again carried forward. The previous metals violations on Middle Fork and the current metals violation on South Fork are for cadmium, based on the Louisville and Jefferson County Metropolitan Sewer District (MSD) water-quality data and information. However, the MSD report containing the metals data states that the cadmium values that MSD reports should be used with caution. The organic enrichment/low DO listing was based on evaluated data, and some DO data collection has just recently been done. As stated previously, there is no chemical quality data available at this site and MSD has no plans to initiate monitoring for metals on this reach. The organic enrichment/low DO listing is being carried forward to this (the 2002) 303(d) Report.

**Table 4(e) --continued. 2002 303 (d) Report For Kentucky – Salt/Licking River Unit
2002 303(d) List**

-1st Priority Listings-

<u>Brush Creek of Twelve Mile Creek</u>	Campbell County	
From River Mile 0.0 to 1.6	Segment Length:	1.6
Impaired Use:	Aquatic Life (Nonsupport), Swimming (Nonsupport)	
Pollutant of Concern:	Organic Enrichment/Low DO, Pathogens	
Suspected Sources:	Municipal Point Sources (Major Municipal Point Sources)	

The aquatic life nonsupport listing is from the 1998 303(d) Report. The swimming nonsupport listing is based on data collected during the summer of 1999. Both pollutants are the result of bypasses of sewage and discharge of sewage sludge to the stream from the Alexandria WWTP. Sanitation District #1 (SD#1) now operates the Alexandria WWTP which discharges at RM 1.6. This stream segment was listed in the 1998 303(d) Report because of operational problems at the WWTP (sewage sludge released to the stream) based on information from the KDOW Florence Regional Office. A study has been conducted by SD#1 to define problem areas within the collection system and treatment system. As a result, the Alexandria WWTP will be expanded to collect excess flow during wet weather events and will become the Eastern Regional WWTP in SD#1's network. The discharge will go to the Ohio River. The expansion is to be completed in 2005. Upon completion of the expansion, Brush Creek will no longer receive any discharge from the Alexandria WWTP. At that time, a request to delist Brush Creek for organic enrichment/low DO will be submitted to EPA Region 4. A stream assessment conducted in 1999 showed full support of the aquatic life use and 24-hour DO data collected in the stream reach during low-flow conditions indicated no violations of the DO standard. However, the possibility of sludge in the stream until the discharge to the stream is removed warrants the continued listing of organic enrichment/low DO as a pollutant of concern. With respect to pathogens, follow-up monitoring would need to be conducted to determine if a swimming impairment exists.

<u>Cabin Creek of Ohio River</u>	Mason/Lewis Counties	
From River Mile 3.6 to 11.3	Segment Length:	7.7
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Siltation, Habitat Alteration (Other than Flow)	
Suspected Sources:	Agriculture (Crop-related Sources – Nonirrigated Crop Production), Agriculture (Intensive Animal Feeding Operations and Grazing-related Sources), Habitat Modification (Other than Hydromodification)	

This listing is from the 1998 303(d) Report.

<u>Doe Run of Ohio River</u>	Meade County	
From River Mile 4.1 to 7.9	Segment Length:	3.8
Impaired Use:	Swimming (Nonsupport)	
Pollutant of Concern:	Pathogens	
Suspected Sources:	Unknown	

**Table 4(e) --continued. 2002 303 (d) Report For Kentucky – Salt/Licking River Unit
2002 303(d) List**

-1st Priority Listings-

<u>Elijahs Creek of Ohio River</u>	Boone County
From River Mile 0.0 to 5.2	Segment Length: 5.2
Impaired Use:	Aquatic Life (Nonsupport)
Pollutant of Concern:	Nonpriority Organics (De-icing Fluids)
Suspected Sources:	Industrial Point Sources

This listing is from the 1998 303(d) Report. The TMDL for nonpriority organics is approved and includes both Elijahs and Gunpowder Creeks. Elijahs and Gunpowder Creeks are severely impacted by de-icing fluids used at the Cincinnati/Northern Kentucky International Airport. The headwaters of these streams are located on airport property. The streams then flow through rapidly developing areas prior to discharging to the Ohio River. Local public and media had expressed concern about these conditions, especially since the airport was undergoing significant expansion at the time. This TMDL project focused on studying the impact the deicing fluids are having upon aquatic life, the reductions needed to restore the aquatic life use to these streams, and working with the airport to bring about the needed reductions. Water quality modeling was used to establish effluent limits that would be protective of water quality. These limits were incorporated into a new discharge permit for the airport and went into effect April 1, 1997. Fines for past violations were levied against the airport, and additional control measures were required through enforcement action that culminated in an Agreed Order with the airport, filed March 28, 1997. The airport is still having difficulty meeting the permit limits for 5-day Biochemical Oxygen Demand (BOD), but efforts continue by the airport to come into compliance. An aeration system has been installed on Elijahs Creek and the BOD values have been decreasing with time. Quarterly meetings are held between Airport officials, SD #1, and the KDOW. The airport has installed de-icing pads where planes are sprayed and the excess drains to a pit. This material goes to a SD #1 treatment facility. Plans are underway to recycle the fluid that goes to the pit. The airport also uses sweeper trucks to capture deicing fluid shed from planes while taxiing. See Salt/Licking River Unit – Approved TMDLs.

<u>Fourmile Creek of Ohio River</u>	Campbell County
From River Mile 0.0 to 8.3	Segment Length: 8.3
Impaired Use:	Swimming (Nonsupport)
Pollutant of Concern:	Pathogens
Suspected Sources:	Municipal Point Sources, Collection System Failure, Sanitary Sewer Overflows

The listing in the 1998 303(d) Report was only for the reach from 0.0 to 0.2. Based on additional fecal coliform sampling (1999), the impaired reach has been extended to 8.3 (to just below the Reilly Road Pump Station). Sanitation District #1 plans to remove the Reilly Road Pump Station #1 in 2004. There have been problems with the pump station, which is located at river mile 8.3. The Reilly Road Pump Station #2 (approximately river mile 7.5) will be upgraded. Near the mouth of Fourmile Creek the force main has been replaced at the Silver Grove Pump Station.

**Table 4(e) --continued. 2002 303 (d) Report For Kentucky – Salt/Licking River Unit
2002 303(d) List**

-1st Priority Listings-

<u>Fourmile Creek of Ohio River</u>	Campbell County	
From River Mile 8.4 to 9.4	Segment Length:	1.0
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Nutrients, Organic Enrichment/Low DO	
Suspected Sources:	Urban Runoff/Storm Sewers	

This listing is from the 1998 303(d) Report and was based on evaluated data from the Florence Regional Office. In 1999 a biological assessment of the stream reach at the downstream end indicated that the biological community rated ‘good,’ indicating that the stream fully supported the biological community. Nutrient data collection at the downstream end of the reach showed one elevated total phosphorus concentration value during one runoff event, but total phosphorus concentrations were not elevated during base flow conditions or smaller runoff events. Therefore, the stream reach has been reclassified as fully supporting the aquatic life use. A request to delist the stream segment for nutrients and organic enrichment/low DO will be submitted to EPA Region 4 with the 2002 303(d) Report, and the stream will be placed on the list with those for which additional information should be collected. See Salt/Licking River Unit – Delistings – 1st Priority Listings. Additional data will be collected during the next sampling cycle, which is 2004-2005.

<u>Goose Creek of Ohio River</u>	Jefferson County	
From River Mile 0.0 to 11.7	Segment Length:	11.7
Impaired Use:	Aquatic Life (Partial Support), Swimming (Nonsupport)	
Pollutant of Concern:	Organic Enrichment/Low DO, Pathogens	
Suspected Sources:	Industrial Point Sources, Municipal Point Sources, Urban Runoff/Storm Sewers, Land Disposal	

This is the listing in the 1998 303(d) Report. A more complete assessment has made this listing no longer relevant. The latest assessment information shows that for the stream reach from 0.0 to 3.2, the swimming use is now partially supported. Therefore, Goose Creek from RM 0.0 to 3.2 will be included with the 2nd Priority streams. See Salt/Licking River Unit – 2002 303(d) List – 2nd Priority Listings for the updated listing for RM 0.0 to 3.2. The reach from RM 3.2 to 11.7 remains in nonsupport of swimming and partially supporting of aquatic life. That listing follows.

<u>Goose Creek of Ohio River</u>	Jefferson County	
From River Mile 3.2 to 11.7	Segment Length:	8.5
Impaired Use:	Swimming (Nonsupport), Aquatic Life (Partial Support)	
Pollutant of Concern:	Organic Enrichment/Low DO, Pathogens, Metals (Cadmium)	
Suspected Sources:	Industrial Point Sources, Municipal Point Sources, Urban Runoff/Storm Sewers, Land Disposal	

This listing supersedes the 1998 303(d) Report listing. See Salt/Licking River Unit - Modifications to the 1998 303(d) Report - 1st Priority Listings. The listing is based on Louisville and Jefferson County MSD data. For the water quality data from MSD, it is noted that the cadmium metals data should be used with caution.

**Table 4(e) --continued. 2002 303 (d) Report For Kentucky – Salt/Licking River Unit
2002 303(d) List**

-1st Priority Listings-

<u>Gunpowder Creek of Ohio River</u>	Boone County
From River Mile 0.0 to 15.0	Segment Length: 15.0
Impaired Use:	Aquatic Life (Nonsupport)
Pollutant of Concern:	Siltation
Suspected Sources:	Construction (Land Development)

<u>Gunpowder Creek of Ohio River</u>	Boone County
From River Mile 15.7 to 18.9	Segment Length: 3.2
Impaired Use:	Aquatic Life (Nonsupport)
Pollutant of Concern:	Nonpriority Organics (De-icing Fluids)
Suspected Sources:	Industrial Point Sources

This listing is from the 1998 303(d) Report. The TMDL for nonpriority organics is approved and includes both Elijahs and Gunpowder Creeks. Elijahs and Gunpowder Creeks are severely impacted by de-icing fluids used at the Cincinnati/Northern Kentucky International Airport. The headwaters of these streams are located on airport property. The streams then flow through rapidly developing areas prior to discharging to the Ohio River. Local public and media had expressed concern about these conditions, especially since the airport was undergoing significant expansion at the time. This TMDL project focused on studying the impact the deicing fluids are having upon aquatic life, the reductions needed to restore the aquatic life use to these streams, and working with the airport to bring about the needed reductions. Water quality modeling was used to establish effluent limits that would be protective of water quality. These limits were incorporated into a new discharge permit for the airport and went into effect April 1, 1997. Fines for past violations were levied against the airport, and additional control measures were required through enforcement action that culminated in an Agreed Order with the airport, filed March 28, 1997. The airport is still having difficulty meeting the permit limits for 5-day Biochemical Oxygen Demand (BOD), but efforts continue by the airport to come into compliance. An aeration system has been installed on Elijahs Creek and the BOD values have been decreasing with time. Quarterly meetings are held between Airport officials, SD #1, and the KDOW. The airport has installed de-icing pads where planes are sprayed and the excess drains to a pit. This material goes to an SD #1 treatment facility. Plans are underway to recycle the fluid that goes to the pit. The airport also uses sweeper trucks to capture deicing fluid shed from planes while taxiing. See Salt/Licking River Unit – Approved TMDLs.

<u>Gunpowder Creek of Ohio River</u>	Boone County
From River Mile 15.0 to 16.6	Segment Length: 1.6
Impaired Use:	Aquatic Life (Nonsupport)
Pollutant of Concern:	Nutrients, Siltation, Organic Enrichment/Low DO
Suspected Sources:	Agriculture, Construction (Land Development), Urban Runoff/Storm Sewers (Other Urban Runoff – Nonpermitted), Urban Runoff/Storm Sewers (Highway/Road/Bridge Runoff), Habitat Modification (Other than Hydromodification) – Removal of Riparian Vegetation and Bank Modification/Destabilization

This is a more recent assessment and incorporates some of the reach that was included in the previous listing, which was only for nonpriority organics.

**Table 4(e) --continued. 2002 303 (d) Report For Kentucky – Salt/Licking River Unit
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-1st Priority Listings-

<u>Hardins Creek of Sinking Creek</u>	Breckinridge County
From River Mile 0.0 to 5.0	Segment Length: 5.0
Impaired Use:	Aquatic Life (Nonsupport)
Pollutant of Concern:	Siltation, Organic Enrichment/Low DO, Nutrients
Suspected Sources:	Agriculture (Crop-related Sources - Nonirrigated Crop Production), Agriculture (Grazing-related Sources - Pasture Grazing - Riparian)

<u>Hardy Creek of Little Kentucky River</u>	Trimble County
From River Mile 0.0 to 1.4	Segment Length: 1.4
Impaired Use:	Aquatic Life (Nonsupport)
Pollutant of Concern:	Nutrients, Organic Enrichment/Low DO, Habitat Alterations (Other than Flow)
Suspected Sources:	Agriculture (Crop-related Sources), Agriculture (Grazing-related Sources), Urban Runoff/Storm Sewers (Highway/Road/Bridge Runoff), Habitat Modification (Other than Hydromodification) – Removal of Riparian Vegetation and Bank Modification/Destabilization)

<u>Harrods Creek of the Ohio River</u>	Jefferson/Oldham Counties
From River Mile 0.0 to 4.0	Segment Length: 4.0
Impaired Use:	Aquatic Life (Nonsupport)
Pollutant of Concern:	Organic Enrichment/Low DO
Suspected Sources:	Municipal Point Sources (Package Plants – Small Flows)

The TMDL for organic/enrichment/low DO is approved. See Salt/Licking River Unit – Approved TMDLs. MSD has taken over the operation and maintenance of 5 small WWTPs that discharge to the lower section of Harrods Creek and the discharge limits are consistently being met. The discharge from these 5 WWTPs will eventually be incorporated into MSD’s Regional Wastewater System. The very lower section of Harrods Creek (from 0.0 to about mile 1.3) is essentially a backwater embayment of the Ohio River (impounded by McAlpine Lock and Dam). This very lower section of Harrods Creek is therefore characterized by slow stream velocities and depths greater than for typical pool and riffle stream environments for streams of this size. The latest stream assessment indicates that Harrods Creek from RM 3.2 to 6.1 fully supports the aquatic life designated use. Therefore, a request to delist Harrods Creek for organic enrichment/low DO from RM 3.2 to 4.0 will be submitted to EPA Region 4 with the 2002 303(d) Report. See Salt/Licking River Unit – Delistings – 1st Priority Listings. The updated listing follows.

<u>Harrods Creek of the Ohio River</u>	Jefferson/Oldham Counties
From River Mile 0.0 to 3.2	Segment Length: 3.2
Impaired Use:	Aquatic Life (Nonsupport)
Pollutant of Concern:	Organic Enrichment/Low DO
Suspected Sources:	Municipal Point Sources (Package Plants – Small Flows)

The TMDL for organic/enrichment/low DO is approved. See Salt/Licking River Unit – Approved TMDLs.

**Table 4(e) --continued. 2002 303 (d) Report For Kentucky – Salt/Licking River Unit
2002 303(d) List**

-1st Priority Listings-

<u>Hite Creek of Ohio River</u>	Jefferson County	
From River Mile 0.0 to 5.5	Segment Length:	5.5
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Unknown Toxicity	
Suspected Sources:	Municipal Point Sources	

This listing is from the 1998 303(d) Report. Even though the Hite Creek WWTP has complied with meeting toxicity levels, a stream assessment will need to be done to determine if the stream supports the aquatic life use. The 303(d) Listing was based on both the toxicity testing and an in-stream aquatic life use assessment. A stream assessment is planned for 2004 - 2005.

<u>Little Goose Creek of Goose Creek</u>	Jefferson County	
From River Mile 0.0 to 8.7	Segment Length:	8.7
Impaired Use:	Aquatic Life (Partial Support), Swimming (Nonsupport)	
Pollutant of Concern:	Organic Enrichment/Low DO, Pathogens	
Suspected Sources:	Municipal Point Sources, Urban Runoff/Storm Sewers, Land Disposal	

This listing was in the 1998 303(d) Report. The latest assessment shows that the stream fully supports the aquatic life designated use, but is still impaired for swimming because of pathogens. A request to delist the stream because it supports the aquatic life designated use will be submitted to EPA Region 4 with the 2002 303(d) Report. See Salt/Licking River Unit – Delistings – 1st Priority Listings.

<u>Locust Creek of Ohio River</u>	Bracken County	
From River Mile 0.0 to 4.1	Segment Length:	4.1
Impaired Use:	Swimming (Nonsupport)	
Pollutant of Concern:	Pathogens	
Suspected Sources:	Unknown	

<u>Locust Creek of Ohio River</u>	Bracken County	
From River Mile 4.1 to 12.2	Segment Length:	8.1
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Unknown	
Suspected Sources:	Unknown	

**Table 4(e) --continued. 2002 303 (d) Report For Kentucky – Salt/Licking River Unit
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-1st Priority Listings-

<u>Middle Fork Beargrass Creek of Beargrass Creek</u>	Jefferson County
From River Mile 0.0 to 15.2	Segment Length: 15.2
Impaired Use:	Swimming (Nonsupport)
Pollutant of Concern:	Metals, Organic Enrichment/Low DO
Suspected Sources:	Industrial Point Sources, Municipal Point Sources, Urban Runoff/Storm Sewers, Land Disposal

This is the listing in the 1998 303(d) Report. The impaired uses should have been swimming and aquatic life and pathogens should have been included as a pollutant of concern. A more complete assessment of the stream segments in the Middle Fork Beargrass Creek watershed is now available, making this listing no longer relevant. See Salt/Licking River Unit - Modifications to the 1998 303(d) Report – 1st Priority Listings. The latest assessments indicate that organic enrichment is no longer a pollutant of concern except for the lowest reach of Middle Fork Beargrass Creek (River Mile 0.0 to 2.3) which is impacted by CSO discharges and urban runoff, is low gradient because of channelization, and is mostly open to direct sunlight. A request to delist Middle Fork Beargrass Creek from RM 2.3 to 15.2 for organic enrichment/low DO will be submitted to EPA Region 4 with the 2002 303(d) Report. See Salt/Licking River Unit - Delistings – 1st Priority Listings. The most recent information also shows that Middle Fork is no longer impaired by metals (but the data are limited). Middle Fork has also been shown to be in nonsupport of the swimming designated use. The updated 1st Priority listings follow.

<u>Middle Fork Beargrass Creek of Beargrass Creek</u>	Jefferson County
From River Mile 0.0 to 2.3	Segment Length: 2.3
Impaired Use:	Aquatic Life (Nonsupport), Swimming (Nonsupport)
Pollutant of Concern:	Organic Enrichment/Low DO, Habitat Alteration, Metals (Cadmium), Pathogens
Suspected Sources:	Combined Sewer Overflows, Urban Runoff/Storm Sewers, Hydromodification (Channelization)

This listing and the following listing supersede what was included in the 1998 303(d) Report. The most recent information shows that Middle Fork is no longer impaired by metals, but the data are limited.

<u>Middle Fork Beargrass Creek of Beargrass Creek</u>	Jefferson County
From River Mile 2.3 to 15.2	Segment Length: 12.9
Impaired Use:	Swimming (Nonsupport), Aquatic Life (Partial Support)
Pollutant of Concern:	Pathogens, Metals (Cadmium)
Suspected Sources:	Industrial Point Sources, Municipal Point Sources, Urban Runoff/Storm Sewers, Land Disposal, Combined Sewer Overflows, Sanitary Sewer Overflows

This listing and the preceding listing supersede what was included in the 1998 303(d) Report. The aquatic life impairment is based on metals (cadmium). The data is from MSD, and the MSD report states that the cadmium data should be used with caution. Samples taken during the assessment period indicated no metals impairment, but the number of samples was limited. Therefore, the aquatic life impairment because of metals is carried forward from the 1998 303(d) Report.

**Table 4(e) --continued. 2002 303 (d) Report For Kentucky – Salt/Licking River Unit
2002 303(d) List**

-1st Priority Listings-

<u>Mill Creek of Ohio River</u>	Jefferson County
From River Mile 0.0 to 9.7	Segment Length: 9.7
Impaired Use:	Swimming (Nonsupport), Aquatic Life (Nonsupport)
Pollutant of Concern:	Pathogens, Siltation, Organic Enrichment/Low DO, Habitat Alterations (Other than Flow)
Suspected Sources:	Industrial Point Sources, Municipal Point Sources, Urban Runoff/Storm Sewers, Land Disposal

This listing was in the 1998 303(d) Report.

<u>Mill Creek Cutoff of Ohio River</u>	Jefferson County
From River Mile 0.0 to 6.5	Segment Length: 6.5
Impaired Use:	Swimming (Nonsupport)
Pollutant of Concern:	Pathogens
Suspected Sources:	Municipal Point Sources, Urban Runoff/Storm Sewers, Land Disposal

This listing was in the 1998 303(d) Report.

<u>Muddy Fork of Beargrass Creek</u>	Jefferson County
From River Mile 0.0 to 6.9	Segment Length: 6.9
Impaired Use:	Swimming (Nonsupport)
Pollutant of Concern:	Pathogens
Suspected Sources:	Industrial Point Sources, Municipal Point Sources, Urban Runoff/Storm Sewers, Land Disposal

This stream segment was listed as 2nd Priority for pathogens in the 1998 303(d) Report. Subsequent data shows that the stream is in nonsupport of the swimming designated use.

<u>Otter Creek of Ohio River</u>	Meade County
From River Mile 6.0 to 10.7	Segment Length: 4.7
Impaired Use:	Swimming (Nonsupport)
Pollutant of Concern:	Pathogens
Suspected Sources:	Municipal Point Sources, Urban Runoff/Storm Sewers, Land Disposal, Agriculture (Grazing-related Sources)

This listing is in the 1998 303(d) Report. Subsequent data collection indicates that the stream segment is in partial support of the swimming designated use, making this 1st Priority listing no longer relevant. See Salt/Licking River Unit - 2002 303(d) List - 2nd Priority Listings for the updated listing. The stream reach should have been from 0.0 to 10.7 instead of from 6.0 to 10.7. See Salt/Licking River Unit - Modifications to the 1998 303(d) Report - 1st Priority Listings.

**Table 4(e) --continued. 2002 303 (d) Report For Kentucky – Salt/Licking River Unit
2002 303(d) List**

-1st Priority Listings-

<u>Sinking Creek of Ohio River</u>	Breckinridge County
From River Mile 8.9 to 15.6	Segment Length: 6.7
Impaired Use:	Swimming (Nonsupport), Aquatic Life (Partial Support)
Pollutant of Concern:	Pathogens, Siltation, Nutrients, Organic Enrichment/Low DO
Suspected Sources:	Municipal Point Sources, Agriculture, Habitat Modification (Other than Hydromodification)

<u>Snag Creek of Ohio River</u>	Bracken County
From River Mile 0.5 to 5.5	Segment Length: 5.0
Impaired Use:	Swimming (Nonsupport)
Pollutant of Concern:	Pathogens
Suspected Sources:	Unknown

<u>South Fork Beargrass Creek of Beargrass Creek</u>	Jefferson County
From River Mile 0.0 to 14.6	Segment Length: 14.6
Impaired Use:	Aquatic Life (Nonsupport), Swimming (Nonsupport)
Pollutant of Concern:	Organic Enrichment/Low DO, Pathogens
Suspected Sources:	Municipal Point Sources, Urban Runoff/Storm Sewers, Land Disposal, Combined Sewer Overflows, Sanitary Sewer Overflows

This listing is from the 1998 303(d) Report. A more complete assessment of the stream segments in the South Fork Beargrass Creek watershed is now available, making this listing no longer relevant. See Salt/Licking River Unit - Modifications to the 1998 303(d) Report - 1st Priority Listings. The updated listings follow. The latest assessment information shows that the listing for organic enrichment/low DO no longer applies to the entire reach. Nutrient and DO values appear to be adequate to sustain aquatic life, however there remain CSO and SSO inputs to the stream system. The most upstream CSO is at river mile 6.1. Work has recently been undertaken by MSD to modify the CSO outlet to collect solids and use radiation to kill pathogens in the discharge.

<u>South Fork Beargrass Creek of Beargrass Creek</u>	Jefferson County
From River Mile 0.0 to 2.7	Segment Length: 2.7
Impaired Use:	Aquatic Life (Partial Support), Swimming (Nonsupport)
Pollutant of Concern:	Metals (Cadmium), Pathogens, Organic Enrichment/Low DO
Suspected Sources:	Municipal Point Sources, Urban Runoff/Storm Sewers, Land Disposal, Combined Sewer Overflows, Sanitary Sewer Overflows

The MSD data report states that the cadmium data should be used with caution. Additional monitoring data are needed for cadmium.

<u>South Fork Beargrass Creek of Beargrass Creek</u>	Jefferson County
From River Mile 2.7 to 14.6	Segment Length: 11.9
Impaired Use:	Swimming (Nonsupport), Aquatic Life (Partial Support)
Pollutant of Concern:	Pathogens, Organic Enrichment/Low DO
Suspected Sources:	Municipal Point Sources, Urban Runoff/Storm Sewers, Land Disposal, Combined Sewer Overflows, Sanitary Sewer Overflows

**Table 4(e) --continued. 2002 303 (d) Report For Kentucky – Salt/Licking River Unit
2002 303(d) List**

-1st Priority Listings-

<u>South Fork Gunpowder Creek</u>	Boone County
From River Mile 0.0 to 2.0	Segment Length: 2.0
Impaired Use:	Aquatic Life (Nonsupport)
Pollutant of Concern:	Siltation, Turbidity, Organic Enrichment/Low DO
Suspected Sources:	Agriculture, Construction (Land Development), Urban Runoff/Storm Sewers (Erosion and Sedimentation), Municipal Point Sources (Package Plants – Small Flows)

<u>South Fork Gunpowder Creek</u>	Boone County
From River Mile 4.1 to 6.8	Segment Length: 2.7
Impaired Use:	Swimming (Nonsupport)
Pollutant of Concern:	Pathogens
Suspected Sources:	Unknown

<u>UT to Pond Creek (River Mile 1.5) of Ohio River</u>	Oldham County
From River Mile 0.0 to 0.5	Segment Length: 0.5
Impaired Use:	Aquatic Life (Nonsupport)
Pollutant of Concern:	Chlorine, Nutrients, Organic Enrichment/Low DO
Suspected Sources:	Municipal Point Source (Package Plants, Small Flows)

Pond Creek below the UT was listed in the 1998 303(d) Report as partially supporting aquatic life. See Pond Creek of Ohio River (Oldham County), Salt/Licking River Unit – 2nd Priority Listings. That stream segment (and now this stream segment) was listed because of impairment attributed to the River Bluffs WWTP. The listing was based on an in-stream biological assessment and the DMRs from the WWTP. The DMRs indicated that the limits for chlorine and ammonia were being met for most of 1999 and part of 2000, but were not being met for part of 2000 and most of 2001. Early indications are that limits are once again being met for these parameters so far in 2002. Biological monitoring in the Salt/Licking River Basin watershed is scheduled for Spring/Summer 2004.

<u>Woolper Creek of Ohio River</u>	Boone County
From River Mile 2.8 to 7.2	Segment Length: 4.4
Impaired Use:	Swimming (Nonsupport)
Pollutant of Concern:	Pathogens
Suspected Sources:	Urban Runoff/Storm Sewers

The segment is outside SD#1's service area, but the upstream end of the segment is at the confluence with Allen Fork, which is listed as impaired. Allen Fork is in SD#1's service area. The Allen Fork listing contains information on remediation activities in the Allen Fork watershed. See Salt/Licking River Unit – 2002 303(d) List – 2nd Priority Listings.

**Table 4(e) --continued. 2002 303 (d) Report For Kentucky – Salt/Licking River Unit
2002 303(d) List**

-1st Priority Listings-

<u>Woolper Creek of Ohio River</u>	Boone Creek	
From River Mile 11.5 to 13.6	Segment Length:	2.1
Impaired Use:	Aquatic Life (Nonsupport), Swimming (Nonsupport)	
Pollutant of Concern:	Nutrients, Organic Enrichment/Low DO, Habitat Alterations (Other than Flow), Suspended Solids, Pathogens	
Suspected Sources:	Construction, Urban Runoff/Storm Sewers, Municipal Point Sources (Package Plants - Small Flows), Land Disposal, Hydromodification	

This listing for nonsupport of aquatic life is from the 1998 303(d) Report. Fecal coliform monitoring (1999) has shown that this reach is also in nonsupport of the swimming use. More recently, approximately 50 homes with failing septic systems have been incorporated into SD#1's sanitary sewer network. The entire upper part of the watershed should be sewered by summer 2004. A package WWTP at river mile 11.8 has also recently been eliminated and the flow incorporated into SD#1's sanitary sewer system.

Basin: Salt River

<u>Big South Fork of Rolling Fork</u>	Marion County	
From River Mile 0.0 to 12.4	Segment Length:	12.4
Impaired Use:	Swimming (Nonsupport)	
Pollutant of Concern:	Pathogens	
Suspected Sources:	Agriculture (Grazing-related Sources)	

<u>(Blue) Spring Ditch of Northern Ditch</u>	Jefferson County	
From River Mile 0.0 to 2.7	Segment Length:	2.7
Impaired Use:	Swimming (Nonsupport), Aquatic Life (Nonsupport)	
Pollutant of Concern:	Pathogens, Metals (Cadmium and Zinc).	
Suspected Sources:	Municipal Point Sources, Industrial Point Sources, Urban Runoff/Storm Sewers, Land Disposal	

The listing in the 1998 303(d) Report was 'Spring Ditch' and was for pathogens. The USGS 1:24,000 topographic map lists the stream as 'Blue Spring Ditch.' The listing for metals is based on more recent assessment information from MSD. The MSD data report states that the cadmium data should be used with caution. Additional monitoring data are needed for cadmium.

<u>Brooks Run of Floyds Fork</u>	Bullitt County	
From River Mile 0.0 to 6.1	Segment Length:	6.1
Impaired Use:	Swimming (Nonsupport), Aquatic Life (Partial Support)	
Pollutant of Concern:	Pathogens, Organic Enrichment/Low DO, Nutrients	
Suspected Sources:	Municipal Point Sources (Package Plants – Small Flows)	

This listing (except for nutrients) is from the 1998 303(d) Report. The TMDL for pathogens, organic enrichment/low DO, and nutrients has been submitted to EPA Region 4 for formal approval. See Salt/Licking Unit – TMDLs Under Development. A Bullitt County Sanitation Board has been established and the County has purchased 3 of the small package WWTPs that had some of the poorest

**Table 4(e) --continued. 2002 303 (d) Report For Kentucky – Salt/Licking River Unit
2002 303(d) List**

-1st Priority Listings-

records. The development of the Sanitation Board and the purchase of a number of WWTPs in the watershed are huge first steps in the regionalization of wastewater treatment in the area. The area has seen tremendous growth in recent years and this growth is projected to continue. The area is just south of Louisville and Jefferson County.

<u>Chaplain River of Beech Fork</u>	Mercer County
From River Mile 63.0 to 69.7	Segment Length: 6.7
Impaired Use:	Aquatic Life (Nonsupport)
Pollutant of Concern:	Unknown
Suspected Sources:	Unknown

<u>Chenoweth Run of Floyds Fork</u>	Jefferson County
From River Mile 0.0 to 5.2	Segment Length: 5.2
Impaired Use:	Aquatic Life (Partial Support), Swimming (Nonsupport)
Pollutant of Concern:	Nutrients, Noxious Aquatic Plants, Pathogens
Suspected Sources:	Municipal Point Sources, Industrial Point Sources, Agriculture (Grazing-related Sources), Urban Runoff/Storm Sewers, Land Disposal

The TMDL for nutrients was approved by EPA Region 4 in 1997. The Jeffersontown WWTP was given a total phosphorus limit of 1.0 mg/L starting in November 2000. Phosphorus monitoring at the Jeffersontown WWTP indicates values consistently around 0.5 mg/L. The TMDL also states that riparian zones are needed along the stream and the effective storm water management is also needed. The Louisville and Jefferson County Metropolitan Sewer District continues to collect and compile information on the stream. See Salt/Licking River Unit – Approved TMDLs.

<u>Chenoweth Run of Floyds Fork</u>	Jefferson County
From River Mile 5.3 to 9.1	Segment Length: 3.8
Impaired Use:	Swimming (Nonsupport)
Pollutant of Concern:	Pathogens
Suspected Sources:	Municipal Point Sources, Industrial Point Sources, Urban Runoff/Storm Sewers, Land Disposal

<u>Clear Creek of Bullskin Creek</u>	Shelby County
From River Mile 0.0 to 11.0	Segment Length: 11.0
Impaired Use:	Aquatic Life (Nonsupport)
Pollutant of Concern:	Siltation, Organic Enrichment/Low DO
Suspected Sources:	Urban Runoff/Storm Sewers, Agriculture (Crop-related Sources), Agriculture (Grazing-related Sources)

**Table 4(e) --continued. 2002 303 (d) Report For Kentucky – Salt/Licking River Unit
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-1st Priority Listings-

<u>Clear Creek of Rolling Fork</u>	Hardin County	
From River Mile 0.0 to 4.4	Segment Length:	4.4
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Unknown	
Suspected Sources:	Unknown	
<u>Crooked Creek of Rolling Fork</u>	Bullitt County	
From River Mile 5.6 to 12.8	Segment Length:	7.2
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Unknown	
Suspected Sources:	Unknown	
<u>Curry’s Fork of Floyds Fork</u>	Oldham County	
From River Mile 0.0 to 4.8	Segment Length:	4.8
Impaired Use:	Aquatic Life (Partial Support), Swimming (Nonsupport)	
Pollutant of Concern:	Nutrients, Siltation, Organic Enrichment/Low DO, Habitat Alteration (Other than Flow), Pathogens	
Suspected Sources:	Municipal Point Sources, Urban Runoff/Storm Sewers, Agriculture, Construction, Habitat Modification (Other than Hydromodification)	
<u>East Fork of Beech Fork</u>	Washington County	
From River Mile 0.0 to 1.8	Segment Length:	1.8
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Unknown	
Suspected Sources:	Unknown	
<u>Fern Creek/Northern Ditch of Pond Creek</u>	Jefferson County	
From River Mile 0.0 to 7.5	Segment Length:	7.5
Impaired Use:	Swimming (Nonsupport), Aquatic Life (Partial Support),	
Pollutant of Concern:	Ammonia (unionized), Nutrients, Organic Enrichment/Low DO, Pathogens	
Suspected Sources:	Industrial Point Sources, Municipal Point Sources, Urban Runoff/Storm Sewers, Land Disposal	

This section was labeled as Fern Creek, but is more correctly designated as Fern Creek/Northern Ditch. Because the designation of the Pond Creek stream segments on the 1:24,000 USGS topographic maps is not well defined, the following designation will be used in this report, which is based on the 1981 U.S. Geological Survey Open-File Report Number 81-61, *Drainage Areas of Streams at Selected Locations in Kentucky*. Pond Creek will extend from the mouth to the confluence of Northern and Southern Ditches (River Mile 0.0 to 17.0). Northern Ditch and Fern Creek will be designated Fern Creek/Northern Ditch because the 1 - 24:000 USGS topographic map does not show a clear delineation between Northern Ditch (channelized section) and Fern Creek (natural stream section). Area residents and government agencies refer to the channelized section as Northern Ditch. See Salt/Licking River Unit - Modifications to the 1998 303(d) Report - 1st Priority Listings (Fern Creek).

**Table 4(e) --continued. 2002 303 (d) Report For Kentucky – Salt/Licking River Unit
2002 303(d) List**

-1st Priority Listings-

<u>Fern Creek/Northern Ditch of Pond Creek</u>	Jefferson County
From River Mile 7.5 to 12.8	Segment Length: 5.3
Impaired Use:	Swimming (Nonsupport), Aquatic Life (Nonsupport),
Pollutant of Concern:	Metals (Cadmium), Organic Enrichment/Low DO, Pathogens, Nutrients
Suspected Sources:	Municipal Point Sources, Urban Runoff/Storm Sewers, Land Disposal

This listing (except for metals) was in the 1998 303(d) Report. This section was labeled as Fern Creek, but is more correctly designated as Fern Creek/Northern Ditch. Because the designation of the Pond Creek stream segments on the 1:24,000 USGS topographic maps is not well defined, the following designation will be used in this report, which is based on the 1981 U.S. Geological Survey Open-File Report Number 81-61, *Drainage Areas of Streams at Selected Locations in Kentucky*. Pond Creek will extend from the mouth to the confluence of Northern and Southern Ditches (River Mile 0.0 to 17.0). Northern Ditch and Fern Creek will be designated Fern Creek/Northern Ditch because the 1 - 24:000 USGS topographic map does not show a clear delineation between Northern Ditch (channelized section) and Fern Creek (natural stream section). Area residents and government agencies refer to the channelized section as Northern Ditch. See Salt/Licking River Unit - Modifications to the 1998 303(d) Report - 1st Priority Listings (Fern Creek). The MSD data report states that the cadmium data should be used with caution. Additional monitoring data are needed for cadmium.

<u>Floyds Fork Watershed of Salt River</u>	Jefferson/Bullitt Counties
From River Mile 0.0 to 67.0	Segment Length: 67.0
Impaired Use:	Aquatic Life (Nonsupport)
Pollutant of Concern:	Organic Enrichment/Low DO
Suspected Sources:	Municipal Point Sources (Package Plants – Small Flows), Urban Runoff/Storm Sewers, Agriculture

The TMDL for organic/enrichment/low DO is approved. See Salt/Licking River Unit – Approved TMDLs. For a printed copy of the TMDL, please contact the KDOW. MSD has acquired a number of small WWTPs throughout the watershed, which MSD now operates and maintains, and the MSD Floyds Fork Regional WWTP became operational in the summer of 2001. Sewer lines are planned to be run from the areas currently being serviced by the small WWTPs to the Floyds Fork Regional WWTP. As these connections are made, the small WWTPs will be taken out of service. This will improve water quality throughout the watershed because small WWTPs are difficult to maintain and will work less efficiently than the new Floyds Fork Regional WWTP. The Floyds Fork Regional WWTP has a phosphorus limit of 1.0 mg/L, which is a significant reduction compared to the small WWTPs that currently operate in the watershed. The discharge from the small WWTPs generally contains 2.5 to 4.0 mg/L of phosphorus. Phosphorus is used by the algae for growth; too much algae in the stream results in degraded water quality and low stream DO values, which can result in fish kills.

**Table 4(e) --continued. 2002 303 (d) Report For Kentucky – Salt/Licking River Unit
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-1st Priority Listings-

<u>Floyds Fork of Salt River</u>	Jefferson County	
From River Mile 11.6 to 21.6	Segment Length:	10.0
Impaired Use:	Swimming (Nonsupport), Aquatic Life (Nonsupport)	
Pollutant of Concern:	Pathogens, Nutrients, Organic Enrichment/Low DO	
Suspected Sources:	Municipal Point Sources (Package Plants – Small Flows), Urban Runoff/Storm Sewers, Agriculture	

This listing is based on the 2000 Assessment Data. The TMDL for organic enrichment/low DO for the reach from river mile 0.0 to 67 is approved. See Salt/Licking River Unit – Approved TMDLs. The latest assessment information indicates that the reach from river mile 3.7 to 7.5 fully supports the aquatic life and swimming designated uses.

<u>Floyds Fork of Salt River</u>	Jefferson County	
From River Mile 31.3 to 34.1	Segment Length:	2.8
Impaired Use:	Swimming (Nonsupport), Aquatic Life (Partial Support)	
Pollutant of Concern:	Pathogens, Siltation	
Suspected Sources:	Agriculture, Construction (Land Development)	

This listing is based on the 2000 Assessment Data. A TMDL for organic enrichment/low DO is approved. See Salt/Licking River Unit – Approved TMDLs.

<u>Jeptha Creek of Guist Creek</u>	Shelby County	
From River Mile 0.0 to 0.7	Segment Length:	0.7
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Siltation, Organic Enrichment/Low DO	
Suspected Sources:	Agriculture (Crop-related Sources), Agriculture (Grazing-related Sources)	

<u>Long Lick Creek of Salt River</u>	Bullitt County	
From River Mile 0.0 to 10.5	Segment Length:	10.5
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Siltation	
Suspected Sources:	Silviculture (Logging Road Construction/Maintenance), Habitat Modification (Other than Hydromodification) - Removal of Riparian Vegetation	

**Table 4(e) --continued. 2002 303 (d) Report For Kentucky – Salt/Licking River Unit
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-1st Priority Listings-

<u>Long Run of Floyds Fork</u>	Jefferson County
From River Mile 0.0 to 9.5	Segment Length: 9.5
Impaired Use:	Swimming (Nonsupport)
Pollutant of Concern:	Pathogens
Suspected Sources:	Municipal Point Sources, Agriculture (Grazing-related Sources), Urban Runoff/Storm Sewers, Land Disposal

This listing is in the 1998 303(d) Report. There is insufficient data to make an updated assessment, therefore the listing is being carried forward.

<u>Mill Creek of Salt River</u>	Hardin County
From River Mile 6.0 to 7.0	Segment Length: 1.0
Impaired Use:	Aquatic Life (Nonsupport), Fish Consumption (Nonsupport)
Pollutant of Concern:	Metals, Metals (Mercury)
Suspected Sources:	Municipal Point Sources (Major Municipal Point Sources).

The listing for aquatic life was in the 1998 303(d) Report. It is based on DMR data from Fort Knox. New information indicates that fish consumption use is also impaired because of mercury. The permit requires in-stream monitoring upstream and downstream of the discharge location to define the contribution of mercury from the area. A streamflow gaging station has been installed to monitor streamflow.

<u>Mussin Branch of Moore Creek</u>	Marion County
From River Mile 0.0 to 1.7	Segment Length: 1.7
Impaired Use:	Swimming (Nonsupport), Aquatic Life (Nonsupport)
Pollutant of Concern:	pH
Suspected Sources:	Construction (Highway/Road/Bridge Construction)

This stream was listed in the 1998 303(d) Report as partially supporting aquatic life and swimming, but is now considered to be in nonsupport. A pH value of 2.7 and 2.9 was recorded during low-flow periods, prompting the change. Disturbed shale from road construction activities has resulted in low pH in this stream. The KY Transportation Cabinet has been contacted concerning this problem. Data collection and TMDL development are currently being done using EPA Region 4 104(b)3 funds. See Salt/Licking River Unit – TMDLs Under Development.

<u>Pennsylvania Run of Floyds Fork</u>	Jefferson/Bullitt Counties
From River Mile 0.0 to 3.1	Segment Length: 3.1
Impaired Use:	Aquatic Life (Partial Support), Swimming (Nonsupport)
Pollutant of Concern:	Nutrients, Pathogens
Suspected Sources:	Municipal Point Sources, Urban Runoff/Storm Sewers, Land Disposal

This listing was in the 1998 303(d) Report but aquatic life was indicated as being impaired by organic enrichment/low DO. It is more appropriate to define the cause of the aquatic life impairment has being from nutrients and not organic enrichment/low DO. Therefore the change has been made. See Salt/Licking River Unit - Modifications to the 1998 303(d) Report - 1st Priority Listings.

**Table 4(e) --continued. 2002 303 (d) Report For Kentucky – Salt/Licking River Unit
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-1st Priority Listings-

<u>Pond Creek of Salt River</u>	Jefferson County	
From River Mile 0.0 to 17.0	Segment Length:	17.0
Impaired Use:	Aquatic Life (Nonsupport), Swimming (Nonsupport)	
Pollutant of Concern:	Organic Enrichment/Low DO, Metals, Pathogens	
Suspected Sources:	Municipal Point Sources, Urban Runoff/Storm Sewers, Land Disposal	

This listing was in the 1998 303(d) Report.

<u>Pope Lick Creek of Floyds Fork</u>	Jefferson County	
From River Mile 2.0 to 5.2	Segment Length:	3.2
Impaired Use:	Swimming (Nonsupport)	
Pollutant of Concern:	Pathogens	
Suspected Sources:	Municipal Point Sources, Urban Runoff/Storm Sewers, Land Disposal	

<u>Salt River of Ohio River</u>	Bullitt County	
From River Mile 11.4 to 25.2	Segment Length:	13.8
Impaired Use:	Swimming (Nonsupport)	
Pollutant of Concern:	Pathogens	
Suspected Sources:	Agriculture, Land Disposal (Onsite Wastewater Systems – Septic Tanks)	

This listing is from the 1998 303(d) Report.

<u>Salt River of Ohio River</u>	Anderson County	
From River Mile 78.0 to 88.5	Segment Length:	10.5
Impaired Use:	Swimming (Nonsupport), Fish Consumption (Partial Support)	
Pollutant of Concern:	Pathogens, Metals (Mercury)	
Suspected Sources:	Agriculture, Atmospheric Deposition	

This listing is from the 1998 303(d) Report.

<u>Slop Ditch of Southern Ditch</u>	Jefferson County	
From River Mile 0.0 to 3.5	Segment Length:	3.5
Impaired Use:	Aquatic Life (Partial Support), Swimming (Nonsupport)	
Pollutant of Concern:	Metals, Flow Alterations, Pathogens	
Suspected Sources:	Industrial Point Sources, Municipal Point Sources, Urban Runoff/Storm Sewers, Land Disposal	

The name of this stream segment has been changed from Slop Ditch to Wetwoods Creek. A bottom-land hardwood wetlands has been created at approximately RM 1.8 of the existing channel, which is to mitigate flooding and improve water quality of the stream below the wetlands. The flow has not yet been diverted through the wetlands.

**Table 4(e) --continued. 2002 303 (d) Report For Kentucky – Salt/Licking River Unit
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-1st Priority Listings-

<u>Southern Ditch of Pond Creek</u>	Jefferson County	
From River Mile 0.0 to 5.5	Segment Length:	5.5
Impaired Use:	Swimming (Nonsupport)	
Pollutant of Concern:	Pathogens	
Suspected Sources:	Municipal Point Sources, Urban Runoff/Storm Sewers, Land Disposal	

The stream was listed in the 1998 303(d) Report as being in partial support of both aquatic life and swimming because of organic enrichment/low DO and pathogens. This listing is based on more recent information and makes the 1998 listing no longer relevant. The aquatic life use is now determined to be fully supporting, so a request will be made to EPA Region 4 to delist this stream segment as being impaired for aquatic life use because of organic enrichment/low DO. See Salt/Licking River Unit – Delistings – 2nd Priority Listings.

<u>Spring (Blue Spring) Ditch of Northern Ditch</u>	Jefferson County	
From River Mile 0.0 to 2.7	Segment Length:	2.7
Impaired Use:	Swimming (Nonsupport), Aquatic Life (Nonsupport)	
Pollutant of Concern:	Pathogens, Metals (Cadmium and Zinc).	
Suspected Sources:	Municipal Point Sources, Industrial Point Sources, Urban Runoff/Storm Sewers, Land Disposal	

The listing for pathogens was in the 1998 303(d) Report. The USGS 1:24,000 topographic map lists the stream as ‘Blue Spring Ditch.’ The listing for metals is based on more recent assessment information from MSD. The MSD data report states that the cadmium data should be used with caution. Additional monitoring data are needed for cadmium.

<u>UT of Brooks Run (River Mile 4.1)</u>	Bullitt County	
From River Mile 0.0 to 2.0	Segment Length:	2.0
Impaired Use:	Swimming (Nonsupport), Aquatic Life (Nonsupport)	
Pollutant of Concern:	Pathogens, Organic Enrichment/Low DO, Nutrients	
Suspected Sources:	Municipal Point Sources (Package Plants – Small Flows)	

The TMDL for pathogens, organic enrichment/low DO, and nutrients has been submitted to EPA Region 4 for formal approval. See Salt/Licking Unit – TMDLs Under Development. A Bullitt County Sanitation Board has been established and the County has purchased three (3) of the small package WWTPs that had some of the poorest records. The development of the Sanitation Board and the purchase of a number of WWTPs in the watershed are huge first steps in the regionalization of wastewater treatment in the area. The area has seen tremendous growth in recent years and this growth is projected to continue. The area is just south of Louisville and Jefferson County.

**Table 4(e) --continued. 2002 303 (d) Report For Kentucky – Salt/Licking River Unit
2002 303(d) List**

-1st Priority Listings-

<u>UT of Rolling Fork (River Mile 94.6)</u>	Marion County	
From River Mile 0.0 to 0.6	Segment Length:	0.6
Impaired Use:	Swimming (Nonsupport), Aquatic Life (Nonsupport)	
Pollutant of Concern:	pH	
Suspected Sources:	Construction (Highway/Road/Bridge Construction)	

This stream was listed in the 1998 303(d) Report as partially supporting aquatic life and swimming, but is now considered to be in nonsupport. A pH value of 4.6 was recorded during a low-flow period, prompting the change. Disturbed shale from road construction activities has resulted in low pH in this stream. The KY Transportation Cabinet has been contacted concerning this problem. Data collection and TMDL development are currently being done using EPA Region 4 104(b)3 funds. See Salt/Licking River Unit – TMDLs Under Development.

<u>Wetwoods Creek of Southern Ditch</u>	Jefferson County	
From River Mile 0.0 to 3.5	Segment Length:	3.5
Impaired Use:	Aquatic Life (Partial Support), Swimming (Nonsupport)	
Pollutant of Concern:	Metals, Flow Alterations, Pathogens	
Suspected Sources:	Industrial Point Sources, Municipal Point Sources, Urban Runoff/Storm Sewers, Land Disposal	

The name of this stream segment has been changed from Slop Ditch to Wetwoods Creek. A bottom-land hardwood wetlands has been created at approximately RM 1.8 of the existing channel, which is to mitigate flooding and improve water quality of the stream below the wetlands. The flow has not yet been diverted through the wetlands.

**Table 4(e) --continued. 2002 303 (d) Report For Kentucky – Salt/Licking River Unit
2002 303(d) List**

-2nd Priority Listings-

Basin: Licking River

<u>Beaver Creek of Licking River</u>		Menifee County
From River Mile 10.0 to 14.4		Segment Length: 4.4
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Siltation	
Suspected Sources:	Agriculture (Crop-related Sources - Nonirrigated Crop Production), Agriculture (Grazing-related Sources - Pasture Grazing - Riparian)	
 <u>Blacks Creek of Hinkston Creek</u>		 Bourbon County
From River Mile 0.0 to 3.4		Segment Length: 3.4
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Siltation, Organic Enrichment/Low DO, Nutrients	
Suspected Sources:	Agriculture (Grazing-related Sources)	
 <u>Boone Creek of Hinkston Creek</u>		 Bourbon County
From River Mile 0.0 to 5.0		Segment Length: 5.0
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Siltation, Organic Enrichment/Low DO	
Suspected Sources:	Agriculture (Grazing-related Sources)	
 <u>Caney Creek of Licking River</u>		 Morgan County
From River Mile 0.0 to 4.2		Segment Length: 4.2
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Siltation, Turbidity, Flow Alterations, Habitat Alteration (Other than Flow)	
Suspected Sources:	Silviculture (Harvesting, Restoration, and Residue Management), Resource Extraction (Surface, Subsurface, Abandoned, and Inactive Mining), Habitat Modification (Other than Hydromodification) - Removal of Riparian Vegetation and Bank Modification/Destabilization	
 <u>Christy Creek of Triplett Creek</u>		 Rowan County
From River Mile 0.0 to 4.3		Segment Length: 4.3
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Siltation, Unknown	
Suspected Sources:	Urban runoff/Storm Sewers (Nonindustrial Permitted), Agriculture (Crop- related Sources - Nonirrigated Crop Production)	
 <u>Dry Creek of Triplett Creek</u>		 Rowan County
From River Mile 0.0 to 0.5		Segment Length: 0.5
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Nutrients, Siltation	
Suspected Sources:	Urban Runoff/Storm Sewers (Other Urban Runoff), Urban Runoff/Storm Sewers (Highway/Road/Bridge Runoff)	

**Table 4(e) --continued. 2002 303 (d) Report For Kentucky – Salt/Licking River Unit
2002 303(d) List**

-2nd Priority Listings-

<u>Elk Fork of Licking River</u>	Morgan County	
From River Mile 0.0 to 4.9	Segment Length:	4.9
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Siltation, Flow Alterations, Habitat Alterations (Other than Flow)	
Suspected Sources:	Agriculture, Silviculture, Hydromodification, Habitat Modification (Other than Hydromodification)	
<u>Elk Fork of Licking River</u>	Morgan County	
From River Mile 12.6 to 14.7	Segment Length:	2.1
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Siltation, Turbidity, Flow Alterations, Habitat Alteration (Other than Flow)	
Suspected Sources:	Silviculture (Harvesting, Restoration, and Residue Management), Resource Extraction (Surface, Subsurface, Abandoned, and Inactive Mining), Habitat Modification (Other than Hydromodification) - Removal of Riparian Vegetation and Bank Modification/Destabilization)	
<u>Fox Creek of Licking River</u>	Fleming County	
From River Mile 0.0 to 8.8	Segment Length:	8.8
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Siltation	
Suspected Sources:	Agriculture (Grazing-related Sources - Pasture Grazing – Riparian and/or Upland)	
<u>Grassy Lick Creek of Hinkston Creek</u>	Montgomery County	
From River Mile 0.0 to 4.5	Segment Length:	4.5
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Siltation, Organic Enrichment/Low DO	
Suspected Sources:	Agriculture (Grazing-related Sources)	
<u>Hinkston Creek of South Fork Licking River</u>	Bourbon County	
From River Mile 0.0 to 12.4	Segment Length:	12.4
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Siltation, Nutrients	
Suspected Sources:	Agriculture	
<u>Hinkston Creek of South Fork Licking River</u>	Bourbon County	
From River Mile 20.8 to 31.0	Segment Length:	10.2
Impaired Use:	Swimming (Partial Support)	
Pollutant of Concern:	Pathogens	
Suspected Sources:	Agriculture (Grazing-related Sources)	

**Table 4(e) --continued. 2002 303 (d) Report For Kentucky – Salt/Licking River Unit
2002 303(d) List**

-2nd Priority Listings-

<u>Hinkston Creek of South Fork Licking River</u>		Montgomery County
From River Mile 63.0 to 65.9		Segment Length: 2.9
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Nutrients, Unknown Toxicity	
Suspected Sources:	Municipal Point Sources (Major Municipal Point Sources)	

This listing appeared in the 1998 303(d) Report. A more complete assessment of the stream segments in the Hinkston Creek watershed is now available, making this listing no longer relevant. See Salt/Licking River Unit - Modifications to the 1998 303(d) Report - 2nd Priority Listings. The latest assessment information shows that this stream segment is in nonsupport of the aquatic life use and that the reach extends from RM 51.5 to 65.9. See Salt/Licking River Unit – 2002 303(d) List – 1st Priority Listings for the updated listing.

<u>Houston Creek of Stoner Creek</u>		Bourbon County
From River Mile 9.0 to 12.7		Segment Length: 3.7
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Nutrients	
Suspected Sources:	Recreation or Tourism Activities – Other than Boating (Golf Course)	

<u>Left Fork White Oak Creek of Licking River</u>		Morgan/Magoffin Counties
From River Mile 0.0 to 1.8		Segment Length: 1.8
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Siltation, Flow Alterations, Habitat Alterations (Other than Flow), Turbidity	
Suspected Sources:	Silviculture (Harvesting, Restoration, and Residue Management), Resource Extraction (Surface Mining, Subsurface Mining, Abandoned Mining, and Inactive Mining), Habitat Modification (Other than Hydromodification) – Removal of Riparian Vegetation and Bank Modification/Destabilization)	

<u>Licking River of Ohio River</u>		Campbell/Kenton Counties
From River Mile 4.6 to 14.5		Segment Length: 9.9
Impaired Use:	Swimming (Partial Support)	
Pollutant of Concern:	Pathogens	
Suspected Sources:	Unknown	

<u>Licking River of Ohio River</u>		Morgan County
From River Mile 226.4 to 239.3		Segment Length: 12.9
Impaired Use:	Swimming (Partial Support)	
Pollutant of Concern:	Pathogens	
Suspected Sources:	Municipal Point Sources	

This listing was in the 1998 303(d) Report. The most recent assessment information shows that this stream segment now fully supports the swimming use. A request to delist this stream segment for pathogens will be submitted to EPA Region 4 with the 2002 303(d) Report. See Salt/Licking River Unit - Delistings – 2nd Priority Listings.

**Table 4(e) --continued. 2002 303 (d) Report For Kentucky – Salt/Licking River Unit
2002 303(d) List**

-2nd Priority Listings-

<u>Licking River of Ohio River</u>	Magoffin County
From River Mile 263.1 to 269.5	Segment Length: 6.4
Impaired Use:	Aquatic Life (Partial Support)
Pollutant of Concern:	Organic Enrichment/Low DO
Suspected Sources:	Unknown

This listing appeared in the 1998 303(d) Report. It is below the City of Salyersville. A more recent assessment appears immediately following this one. However, the assessment is suspect and a reassessment of this reach is warranted before any further action is taken. The reach will be reassessed in 2004. See Salt/Licking River Unit - 2002 303(d) List - Stream Segments Needing Additional Information Before Being 303(d) Listed.

<u>Licking River of Ohio River</u>	Magoffin County
From River Mile 263.1 to 269.5	Segment Length: 6.4
Impaired Use:	Aquatic Life (Partial Support)
Pollutant of Concern:	Siltation, Flow Alterations, Habitat Alterations (Other than Flow), Turbidity
Suspected Sources:	Silviculture (Harvesting, Restoration, and Residue Management), Resource Extraction (Surface Mining, Subsurface Mining, Abandoned Mining, and Inactive Mining), Habitat Modification (Other than Hydromodification) - Removal of Riparian Vegetation and Bank Modification/Destabilization)

This segment was listed in the 1998 303(d) Report as being in partial support of aquatic life because of organic enrichment/low DO only. The above information is based on a more recent assessment, but the listing of cause and sources is suspect. Therefore, a reassessment of this reach is warranted before any further action is taken. The reach will be reassessed in 2004. See Salt/Licking River Unit - 2002 303(d) List - Stream Segments Needing Additional Information Before Being 303(d) Listed.

<u>Licking River of Ohio River</u>	Magoffin County
From River Mile 269.5 to 293.3	Segment Length: 23.8
Impaired Use:	Aquatic Life (Partial Support)
Pollutant of Concern:	Siltation
Suspected Sources:	Resource Extraction

This listing was in the 1998 303(d) Report. An assessment was made in 1999, but was deemed to be inconclusive as to whether the stream now fully supports the aquatic life use. The stream will be included here as it was shown in the 1998 303(d) Report and the stream will be reassessed in 2004.

<u>Locust Creek of Licking River</u>	Fleming County
From River Mile 5.7 to 11.7	Segment Length: 6.0
Impaired Use:	Aquatic Life (Partial Support)
Pollutant of Concern:	Unknown
Suspected Sources:	Unknown

**Table 4(e) --continued. 2002 303 (d) Report For Kentucky – Salt/Licking River Unit
2002 303(d) List**

-2nd Priority Listings-

<u>Salt Lick Creek of Licking River</u>	Bath County
From River Mile 3.0 to 8.0	Segment Length: 5.0
Impaired Use:	Aquatic Life (Partial Support)
Pollutant of Concern:	Siltation
Suspected Sources:	Agriculture (Crop-related Sources - Nonirrigated Crop Production), Agriculture (Grazing-related Sources - Pasture Grazing - Riparian)

<u>South Fork Licking River</u>	Pendleton/Harrison Counties
From River Mile 11.5 to 27.1	Segment Length: 15.6
Impaired Use:	Aquatic Life (Partial Support)
Pollutant of Concern:	Nutrients, Siltation
Suspected Sources:	Agriculture (Grazing-related Sources), Agriculture (Crop-related Sources)

This stream segment was listed in the 1998 303(d) Report. New assessment information shows that this stream reach fully supports aquatic life. A request to delist this stream will be submitted to EPA Region 4 with the 2002 303(d) Report. See Salt/Licking River Unit – Delistings – 2nd Priority Listings.

<u>Trace Fork of Licking River</u>	Magoffin County
From River Mile 0.0 to 3.1	Segment Length: 3.1
Impaired Use:	Aquatic Life (Partial Support)
Pollutant of Concern:	Siltation, Turbidity, Flow Alterations, Habitat Alteration (Other than Flow), Total Dissolved Solids
Suspected Sources:	Silviculture (Harvesting, Restoration, and Residue Management), Resource Extraction (Surface, Subsurface, Abandoned, and Inactive Mining), Habitat Modification (Other than Hydromodification) - Removal of Riparian Vegetation and Bank Modification/Destabilization

Basin: Ohio River

<u>Allan Fork of Woolper Creek</u>	Boone County
From River Mile 2.0 to 4.6	Segment Length: 2.6
Impaired Use:	Aquatic Life (Partial Support)
Pollutant of Concern:	Nutrients, Siltation, Habitat Alteration
Suspected Sources:	Urban Runoff/Storm Sewers, Habitat Modification (Other than Hydromodification).

This listing was in the 1998 303(d) Report and was based on evaluated information from the KDOW Florence Regional Office. More recently, approximately 160 homes (in Burlington) with failing septic systems are now on SD#1's sanitary sewer system. The existing pump station at river mile 2.5 has been upgraded. A small WWTP has been eliminated (Rosetta Drive) and the flow goes to the SD#1 sanitary sewer system (at river mile 3.7 of Allan Fork).

**Table 4(e) --continued. 2002 303 (d) Report For Kentucky – Salt/Licking River Unit
2002 303(d) List**

-2nd Priority Listings-

<u>Big Bone Creek of Ohio River</u>	Boone County
From River Mile 4.1 to 4.9	Segment Length: 0.8
Impaired Use:	Aquatic Life (Partial Support)
Pollutant of Concern:	Nutrients, Siltation, Organic Enrichment/Low DO, Habitat Alterations (Other than Flow)
Suspected Sources:	Agriculture (Crop-related Sources), Agriculture (Grazing-related Sources), Urban Runoff/Storm Sewers, Habitat Modification (Other than Hydromodification) – Removal of Riparian Vegetation and Bank Modification/Destabilization

<u>Dry Creek of Ohio River</u>	Gallatin County
From River Mile 1.1 to 3.0	Segment Length: 1.9
Impaired Use:	Aquatic Life (Nonsupport)
Pollutant of Concern:	Siltation, Organic Enrichment/Low DO
Suspected Sources:	Agriculture (Grazing-related Sources), Agriculture (Crop-related Sources), Urban Runoff/Storm Sewers (Highway/Road/Bridge Runoff)

<u>Dry Creek of Ohio River</u>	Boone/Kenton Counties
From River Mile 0.2 to 7.0	Segment Length: 6.8
Impaired Use:	Aquatic Life (Partial Support)
Pollutant of Concern:	Nutrients, Organic Enrichment/Low DO
Suspected Sources:	Municipal Point Sources, Agriculture, Urban runoff/Storm Sewers, Hydromodification

This listing was based on a biological assessment in 1999. Sanitation District #1 has replace or lined approximately 10,000 linear feet of gravity sewer pipe (from approximately river mile 3.1 to 5.0), refurbished 50 manholes and replaced 1000 feet of sanitary pipe. Sanitation District #1 has also replaced approximately 2,000 feet of force main (deteriorating pipe) from approximately river mile 6.0 to 6.5.

<u>Goose Creek of Ohio River</u>	Jefferson County
From River Mile 0.0 to 3.2	Segment Length: 3.2
Impaired Use:	Aquatic Life (Partial Support), Swimming (Partial Support)
Pollutant of Concern:	Organic Enrichment/Low DO, Metals (Cadmium), Pathogens
Suspected Sources:	Industrial Point Sources, Municipal Point Sources, Urban Runoff/Storm Sewers, Land Disposal

This listing supersedes the 1998 303(d) Report listing. See Salt/Licking River Unit - Modifications to the 1998 303(d) Report - 1st Priority Listings. The listing is based on Louisville and Jefferson County MSD data. For the water quality data from MSD, it is noted that the cadmium metals data should be used with caution.

**Table 4(e) --continued. 2002 303 (d) Report For Kentucky – Salt/Licking River Unit
2002 303(d) List**

-2nd Priority Listings-

<u>Goose Creek of Locust Creek</u>	Bracken County	
From River Mile 0.0 to 1.9	Segment Length:	1.9
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Unknown	
Suspected Sources:	Natural Causes	

This assessment was conducted during drought conditions and should be considered suspect. The assessment needs to be done again during the next watershed cycle (2004-05).

<u>Gunpowder Creek of Ohio River</u>	Boone County	
From River Mile 18.9 to 21.6	Segment Length:	2.7
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Unknown	
Suspected Sources:	Urban Runoff/Storm Sewers	

This listing is from the 1998 303(d) Report. No new assessment information is available, therefore the listing has been pulled forward to this 303(d) Report.

<u>Lick Run Creek of Ohio River</u>	Breckinridge County	
From River Mile 0.0 to 3.5	Segment Length:	3.5
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Siltation, Organic Enrichment/Low DO	
Suspected Sources:	Agriculture (Crop-related Sources - Nonirrigated Crop Production), Agriculture (Grazing-related Sources - Pasture Grazing - Riparian)	

<u>Little Kentucky River of Ohio River</u>	Henry County	
From River Mile 21.0 to 27.0	Segment Length:	6.0
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Nutrients, Siltation, Organic Enrichment/Low DO	
Suspected Sources:	Agriculture (Crop-related Sources), Agriculture (Grazing-related Sources)	

<u>Mill Creek Branch of Mill Creek</u>	Hardin County	
From River Mile 0.0 to 0.7	Segment Length:	0.7
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Organic Enrichment/Low DO, Ammonia (Un-ionized)	
Suspected Sources:	Municipal Point Sources (Package Plants – Small Flows)	

This listing was in the 1998 303(d) Report. An assessment of the DMR data from the WWTP that is discharging to the stream prompted the listing. The data continues to show significant noncompliance for ammonia, although BOD and DO have been within permit limits. Because of the continued ammonia violations, the listing will remain as is. There is no in-stream data. A Notice of Violation was issued on June 22, 2001 based on an inspection of May 31, 2001. Enforcement actions are continuing. Discussions have also been held with the City of Elizabethtown concerning the possibility of Elizabethtown incorporating this facility into their sewage treatment network.

**Table 4(e) --continued. 2002 303 (d) Report For Kentucky – Salt/Licking River Unit
2002 303(d) List**

-2nd Priority Listings-

<u>Muddy Fork of Beargrass Creek</u>	Jefferson County
From River Mile 0.0 to 6.9	Segment Length: 6.9
Impaired Use:	Swimming (Partial Support)
Pollutant of Concern:	Pathogens
Suspected Sources:	Industrial Point Sources, Municipal Point Sources, Urban Runoff/Storm Sewers, Land Disposal

This listing is from the 1998 303(d) Report. Subsequent data shows that the stream is in nonsupport of the swimming designated use making this listing no longer relevant. See Salt/Licking River Unit - 2002 303(d) List - 1st Priority Listings.

<u>Otter Creek of Ohio River</u>	Meade County
From River Mile 0.0 to 10.7	Segment Length: 10.7
Impaired Use:	Swimming (Partial Support)
Pollutant of Concern:	Pathogens
Suspected Sources:	Municipal Point Sources, Urban Runoff/Storm Sewers, Land Disposal, Agriculture (Grazing-related Sources).

This is the updated listing for Otter Creek. The stream segment from 6.0 to 10.7 was listed in the 1998 303(d) Report as being in nonsupport of the swimming designated use. The stream reach should have been from 0.0 to 10.7 instead of from 6.0 to 10.7. See Salt/Licking River Unit - Modifications to the 1998 303(d) Report - 1st Priority Listings. Subsequent data collection indicates that the stream segment is in partial support of the swimming designated use instead of nonsupport.

<u>Pond Creek of Ohio River</u>	Oldham County
From River Mile 0.0 to 1.5	Segment Length: 1.5
Impaired Use:	Aquatic Life (Partial Support)
Pollutant of Concern:	Nutrients, Chlorine
Suspected Sources:	Municipal Point Sources

This listing is in the 1998 303(d) Report. The 1998 listing showed the stream segment as being in both Jefferson and Oldham Counties. It is only in Oldham County. See Salt/Licking River Unit – Modifications to the 1998 303(d) Report – 2nd Priority Listings. The stream segment was listed because of impairment attributed to the River Bluffs WWTP. The listing was based on an in-stream biological assessment and the DMRs. The DMRs indicated that the limits for chlorine and ammonia were being met for most of 1999 and part of 2000, but were not being met for part of 2000 and most of 2001. Early indications are that limits are once again being met for these parameters so far in 2002. Also, see UT to Pond Creek – 2002 303(d) List - 1st Priority Listing. Biological monitoring in the Salt/Licking River Basin watershed is scheduled for spring/summer 2004.

**Table 4(e) --continued. 2002 303 (d) Report For Kentucky – Salt/Licking River Unit
2002 303(d) List**

-2nd Priority Listings-

Basin: Salt River

<u>Beech Fork of Rolling Fork</u>	Nelson/Washington Counties
From River Mile 39.5 to 49.7	Segment Length: 10.2
Impaired Use:	Swimming (Partial Support)
Pollutant of Concern:	Pathogens
Suspected Sources:	Agriculture

This listing was in the 1998 303(d) Report.

<u>Buckhorn Creek of Rolling Fork</u>	Marion County
From River Mile 0.0 to 2.3	Segment Length: 2.3
Impaired Use:	Aquatic Life (Partial Support), Swimming (Partial Support)
Pollutant of Concern:	Low pH
Suspected Sources:	Construction (Highway/Road/Bridge)

This listing is from the 1998 303(d) Report. The latest available data show that this stream segment now fully supports the aquatic life and swimming designated use based on recent field pH data (all pH values above 6.0) on Buckhorn Creek. A request was submitted to EPA to informally delist this stream segment. On April 9, 2001, EPA Region 4 concurred, and Buckhorn Creek has been informally delisted for low pH. See Salt/Licking River Unit – Delistings – 2nd Priority Listings. A request to formally delist Buckhorn Creek for pH will be submitted to EPA Region 4 with the 2002 303(d) Report.

<u>Bullitt Lick Creek of Salt River</u>	Bullitt County
From River Mile 0.0 to 2.3	Segment Length: 2.3
Impaired Use:	Aquatic Life (Partial Support)
Pollutant of Concern:	Siltation, Turbidity
Suspected Sources:	Urban Runoff/Storm Sewers (Erosion and Sedimentation), Construction (Land Development), Habitat Modification (Other than Hydromodification) - Removal of Riparian Vegetation

<u>Cartwright Creek of Beech Fork</u>	Washington County
From River Mile 0.0 to 6.6	Segment Length: 6.6
Impaired Use:	Aquatic Life (Partial Support)
Pollutant of Concern:	Nutrients, Siltation, Organic Enrichment/Low DO, Habitat Alterations (Other than Flow), Pathogens, Excessive Algal Growth/Chlorophyll_a
Suspected Sources:	Agriculture, Habitat Modification (Other than Hydromodification) - Removal of Riparian Vegetation)

<u>Cartwright Creek of Beech Fork</u>	Washington County
From River Mile 6.6 to 12.6	Segment Length: 6.0
Impaired Use:	Aquatic Life (Partial Support)
Pollutant of Concern:	Unknown
Suspected Sources:	Unknown

**Table 4(e) --continued. 2002 303 (d) Report For Kentucky – Salt/Licking River Unit
2002 303(d) List**

-2nd Priority Listings-

<u>Cedar Creek of Floyds Fork</u>	Jefferson/Bullitt Counties
From River Mile 0.0 to 15.3	Segment Length: 15.3
Impaired Use:	Swimming (Partial Support)
Pollutant of Concern:	Pathogens
Suspected Sources:	Municipal Point Sources, Urban runoff/Storm Sewers, Land Disposal

This listing was in the 1998 303(d) Report. The latest available data show that this stream segment now fully supports the swimming designated use based on recent field data. A request to delist this stream for pathogens will be submitted to EPA Region 4 with the 2002 303(d) Report. See Salt/Licking River Unit – Delistings – 2nd Priority Listings.

<u>Cox Creek of Salt River</u>	Nelson/Bullitt Counties
From River Mile 11.2 to 15.5	Segment Length: 4.3
Impaired Use:	Aquatic Life (Partial Support)
Pollutant of Concern:	Nutrients, Excessive Algal Growth/Chlorophyll_a
Suspected Sources:	Agriculture (Intensive Animal Feeding Operations, and Grazing-related Sources)

<u>Floyds Fork of Salt River</u>	Jefferson County
From River Mile 24.2 to 31.2	Segment Length: 7.0
Impaired Use:	Aquatic Life (Partial Support)
Pollutant of Concern:	Siltation
Suspected Sources:	Agriculture, Construction (Land Development)

This listing is based on the 2000 Assessment Data.

<u>Guist Creek of Brashears Creek</u>	Shelby County
From River Mile 15.4 to 27.6	Segment Length: 12.2
Impaired Use:	Aquatic Life (Partial Support)
Pollutant of Concern:	Siltation, Organic Enrichment/Low DO, Flow Alterations
Suspected Sources:	Agriculture (Crop-related Sources), Agriculture (Grazing-related Sources), Urban Runoff/Storm Sewers, Hydromodification (Upstream Impoundment)

<u>Jones Creek of North Rolling Fork</u>	Marion County
From River Mile 0.0 to 3.9	Segment Length: 3.9
Impaired Use:	Aquatic Life (Partial Support)
Pollutant of Concern:	Unknown
Suspected Sources:	Unknown

**Table 4(e) --continued. 2002 303 (d) Report For Kentucky – Salt/Licking River Unit
2002 303(d) List**

-2nd Priority Listings-

<u>Mussin Branch of Moore Creek</u>	Marion County
From River Mile 0.0 to 1.7	Segment Length: 1.7
Impaired Use:	Aquatic Life (Partial Support)
Pollutant of Concern:	pH
Suspected Sources:	Construction (Highway/Road/Bridge Construction)

This listing is in the 1998 303(d) Report as being in partial support of aquatic life and swimming uses, but is now in nonsupport of both, making this listing no longer relevant. A pH value of 2.7 and 2.9 was recorded during low-flow periods, prompting the change. Disturbed shale from road construction activities has resulted in low pH in this stream. The KY Transportation Cabinet has been contacted concerning this problem. See Salt/Licking River Unit – 2002 303(d) List - 1st Priority Listings. Data collection and TMDL development are currently being done using EPA Region 4 104(b)3 funds.

<u>Road Run of Cartwright Creek</u>	Washington County
From River Mile 0.0 to 3.4	Segment Length: 3.4
Impaired Use:	Aquatic Life (Partial Support)
Pollutant of Concern:	Unknown
Suspected Sources:	Unknown

<u>Rolling Fork of Salt River</u>	Bullitt/Hardin/Nelson Counties
From River Mile 0.0 to 20.1	Segment Length: 20.1
Impaired Use:	Swimming (Partial Support)
Pollutant of Concern:	Pathogens
Suspected Sources:	Agriculture

This stream segment was listed in the 1998 303(d) Report. The latest assessment information shows that this stream reach now supports the swimming designated use. A request to delist this stream segment for pathogens will be submitted to EPA Region 4 with the 2002 303(d) Report. See Salt/Licking River Unit – Delistings - 2nd Priority Listings.

<u>Southern Ditch of Pond Creek</u>	Jefferson County
From River Mile 0.0 to 5.5	Segment Length: 5.5
Impaired Use:	Swimming (Partial Support), Aquatic Life (Partial Support)
Pollutant of Concern:	Pathogens, Organic Enrichment/Low DO
Suspected Sources:	Municipal Point Sources, Urban Runoff/Storm Sewers, Land Disposal

The listing was in the 1998 303(d) Report. More recent information makes this listing no longer relevant. The most recent information indicates that the aquatic life use is fully supported. A request to delist this stream segment as being impaired for aquatic life use because of organic enrichment/low DO will be submitted to EPA Region 4 with the 2002 303(d) Report. See Salt/Licking River Unit – Delistings – 2nd Priority Listings. The more recent information also indicates that the stream segment is in nonsupport of the swimming use, so the listing becomes 1st Priority. See Salt/Licking River Unit - 2002 303(d) List – 1st Priority Listings for the updated listing.

**Table 4(e) --continued. 2002 303 (d) Report For Kentucky – Salt/Licking River Unit
2002 303(d) List**

-2nd Priority Listings-

<u>UT of Rolling Fork (River Mile 94.6)</u>	Marion County
From River Mile 0.0 to 0.6	Segment Length: 0.6
Impaired Use:	Swimming (Partial Support), Aquatic Life (partial support)
Pollutant of Concern:	pH
Suspected Sources:	Construction (Highway/Road/Bridge Construction)

This stream was listed in the 1998 303(d) Report as partially supporting aquatic life and swimming, but is now in nonsupport of both. A pH value of 4.6 was recorded during a low-flow period, prompting the change. Disturbed shale from road construction activities has resulted in low pH in this stream. The KY Transportation Cabinet has been contacted concerning this problem. See Salt/Licking River Unit – 2002 303(d) List - 1st Priority Listings. Data collection and TMDL development are currently being done using EPA Region 4 104(b)3 funds.

**Table 4(f). 2002 303 (d) Report For Kentucky – Salt/Licking River Unit
Stream Segments Needing Additional Information Before Being 303(d) Listed**

Basin: Licking River

<u>Cassidy Creek of Licking River</u> From River Mile 0.5 to 5.0	Nicholas County Segment Length: 4.5
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The assessment for aquatic life use was inconclusive. Additional information is needed. The stream will be revisited during the next monitoring cycle for the Salt/Licking River Unit, which is 2004-2005.

<u>Hillsboro Branch of Locust Creek</u> From River Mile 0.0 to 4.7	Fleming Creek Segment Length: 4.7
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The assessment for aquatic life use was inconclusive. Additional information is needed. The stream will be revisited during the next monitoring cycle for the Salt/Licking River Unit, which is 2004-2005.

<u>Hutchison Creek of Houston Creek</u> From River Mile 0.0 to 5.4	Bourbon County Segment Length: 5.4
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The assessment for aquatic life use was inconclusive. Additional information is needed. The stream will be revisited during the next monitoring cycle for the Salt/Licking River Unit, which is 2004-2005.

<u>Johnson Creek of Licking River</u> From River Mile 0.0 to 3.1	Magoffin County Segment Length: 3.1
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The assessment for aquatic life use was inconclusive. Additional information is needed. The stream will be revisited during the next monitoring cycle for the Salt/Licking River Unit, which is 2004-2005.

<u>Johnson Creek of Licking River</u> From River Mile 0.0 to 3.3	Robertson County Segment Length: 3.3
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The assessment for aquatic life use was inconclusive. Additional information is needed. The stream will be revisited during the next monitoring cycle for the Salt/Licking River Unit, which is 2004-2005.

<u>Lick Creek of Licking River</u> From River Mile 0.0 to 2.2	Magoffin County Segment Length: 2.2
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The assessment for aquatic life use was inconclusive. Additional information is needed. The stream will be revisited during the next monitoring cycle for the Salt/Licking River Unit, which is 2004-2005.

<u>Licking River of Ohio River</u> From River Mile 247.8 to 255.7	Magoffin County Segment Length: 7.9
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The assessment was inconclusive. Additional information is needed. The stream will be revisited during the next monitoring cycle for the Salt/Licking River Unit, which is 2004-2005.

**Table 4(f) --continued. 2002 303 (d) Report For Kentucky – Salt/Licking River Unit
Stream Segments Needing Additional Information Before Being 303(d) Listed**

Basin: Licking River

<u>Licking River of Ohio River</u>	Magoffin County
From River Mile 263.1 to 269.5	Segment Length: 6.4
Impaired Use:	Aquatic Life (Partial Support)
Pollutant of Concern:	Siltation, Flow Alterations, Habitat Alterations (Other than Flow), Turbidity
Suspected Sources:	Silviculture (Harvesting, Restoration, and Residue Management), Resource Extraction (Surface Mining, Subsurface Mining, Abandoned Mining, Inactive Mining), Habitat Modification – other than hydromodification (Removal of Riparian Vegetation, and Bank Modification/Destabilization).

This segment was listed in the 1998 303(d) Report as being in partial support of aquatic life because of organic enrichment/low DO only. The above information is based on a more recent assessment, but the listing of cause and sources is suspect. Therefore, a reassessment of this reach is warranted before any further action is taken. The reach will be reassessed in 2004 – 2005.

<u>Licking River of Ohio River</u>	Magoffin County
From River Mile 293.3 to 301.1	Segment Length: 7.8
Impaired Use:	Aquatic Life (fully supporting)
Pollutant of Concern:	Siltation, Flow Alterations, Habitat Alterations (Other than Flow), Turbidity
Suspected Sources:	Silviculture (Harvesting, Restoration, and Residue Management), Resource Extraction (Surface Mining, Subsurface Mining, Abandoned Mining, Inactive Mining), Habitat Modification – other than hydromodification (Removal of Riparian Vegetation, and Bank Modification/Destabilization).

This segment was listed in the 1998 303(d) Report as being in nonsupport of aquatic life because of siltation only. The latest assessment information shows fully supporting of aquatic life. The assessment is suspect and continued monitoring is warranted. The stream will be revisited during the next monitoring cycle for the Salt/Licking River Unit, which is 2004-2005.

<u>Oakley Creek of Licking River</u>	Magoffin County
From River Mile 0.0 to 0.9	Segment Length: 0.9

The assessment for aquatic life use was inconclusive. Additional information is needed. The stream will be revisited during the next monitoring cycle for the Salt/Licking River Unit, which is 2004-2005.

<u>Rockhouse Creek of Licking River</u>	Morgan County
From River Mile 0.0 to 4.6	Segment Length: 4.6

The assessment for aquatic life use was inconclusive. Additional information is needed. The stream will be revisited during the next monitoring cycle for the Salt/Licking River Unit, which is 2004-2005.

<u>Rock Lick of Fox Creek</u>	Fleming County
From River Mile 0.0 to 0.8	Segment Length: 0.8

The assessment for aquatic life use was inconclusive. Additional information is needed. The stream will be revisited during the next monitoring cycle for the Salt/Licking River Unit, which is 2004-2005.

**Table 4(f) --continued. 2002 303 (d) Report For Kentucky – Salt/Licking River Unit
Stream Segments Needing Additional Information Before Being 303(d) Listed**

State Road Fork of Licking River
From River Mile 0.0 to 1.1

Magoffin County
Segment Length: 1.1

The assessment for aquatic life use was inconclusive. Additional information is needed. The stream will be revisited during the next monitoring cycle for the Salt/Licking River Unit, which is 2004-2005.

Stoner Creek of South Fork Licking River
From River Mile 60.5 to 72.2

Bourbon/Clark Counties
Segment Length: 11.7

The assessment for aquatic life use was inconclusive. Additional information is needed. The stream will be revisited during the next monitoring cycle for the Salt/Licking River Unit, which is 2004-2005.

Williams Creek of Elk Fork
From River Mile 0.0 to 5.3

Morgan County
Segment Length: 5.3

The assessment for aquatic life use was inconclusive. Additional information is needed. The stream will be revisited during the next monitoring cycle for the Salt/Licking River Unit, which is 2004-2005.

Basin: Ohio River

Briery Branch of Ohio River
From River Mile 0.0 to 2.3

Lewis County
Segment Length: 2.3

The assessment for aquatic life use was inconclusive. Additional information is needed. The stream will be revisited during the next monitoring cycle for the Salt/Licking River Unit, which is 2004-2005.

Craigs Creek of Ohio River
From River Mile 2.9 to 6.7

Gallatin County
Segment Length: 3.8

The assessment for aquatic life use was inconclusive. Additional information is needed. The stream will be revisited during the next monitoring cycle for the Salt/Licking River Unit, which is 2004-2005.

McCools Creek of Ohio River
From River Mile 0.0 to 6.7

Carroll County
Segment Length: 6.7

The assessment for aquatic life use was inconclusive. Additional information is needed. The stream will be revisited during the next monitoring cycle for the Salt/Licking River Unit, which is 2004-2005.

McCoys Fork of Mudlick Creek
From River Mile 0.0 to 2.2

Boone County
Segment Length: 2.2

The assessment for aquatic life use was inconclusive. Additional information is needed. The stream will be revisited during the next monitoring cycle for the Salt/Licking River Unit, which is 2004-2005.

**Table 4(f) --continued. 2002 303 (d) Report For Kentucky – Salt/Licking River Unit
Stream Segments Needing Additional Information Before Being 303(d) Listed**

Mudlick Creek of Ohio River
From River Mile 6.0 to 11.3

Boone County
Segment Length: 5.3

The assessment for aquatic life use was inconclusive. Additional information is needed. The stream will be revisited during the next monitoring cycle for the Salt/Licking River Unit, which is 2004-2005.

White Sulphur Creek of Little Kentucky River
From River Mile 0.0 to 3.9

Henry County
Segment Length: 3.9

The assessment for aquatic life use was inconclusive. Additional information is needed. The stream will be revisited during the next monitoring cycle for the Salt/Licking River Unit, which is 2004-2005.

Wolf Creek of Ohio River
From River Mile 0.0 to 8.7

Meade County
Segment Length: 8.7

The assessment for aquatic life use was inconclusive. Additional information is needed. The stream will be revisited during the next monitoring cycle for the Salt/Licking River Unit, which is 2004-2005.

Basin: Salt River

Hammond Creek of Salt River
From River Mile 0.0 to 5.2

Anderson County
Segment Length: 5.2

The assessment for aquatic life use was inconclusive. Additional information is needed. The stream will be revisited during the next monitoring cycle for the Salt/Licking River Unit, which is 2004-2005.

**Table 4(g). 2002 303(d) Report For Kentucky – Salt/Licking River Unit
Stream Segments That May Be Impaired Based Solely On Discharge Monitoring Reports
(DMRs).**

Basin: Ohio River

UT of Carmon Creek (River Mile 2.4)
From River Mile 0.9 to 1.9

Trimble/Henry Counties
Segment Length: 1.0

DMR information from a Municipal Point Source (Minor Municipal Point Source) indicates a possible aquatic life use impairment because of chlorine.

**TABLE 5. 2002 303(d) REPORT FOR KENTUCKY –
TENNESSEE/MISSISSIPPI/CUMBERLAND RIVER UNIT**

**Table 5(a). 2002 303(d) Report For Kentucky – Tennessee/Mississippi/Cumberland River Unit
Modifications to the 1998 303(d) Report**

-1st Priority Listings-

More comprehensive assessment information has made several of the 1998 303(d) Report listings no longer relevant. This is the case more so for this watershed unit than either the Kentucky or the Salt/Licking River watershed units. This is mostly because there were more 1998 303(d) Report listings in non-urban areas in this watershed unit than in either the Kentucky or the Salt/Licking Unit. The following is a list of selected 1998 303(d) Report listings for which there is appreciably more current assessment information. This new information has been incorporated into the existing (1998) 303(d) stream/pollutant listings. In many cases, the 1998 303(d) stream listings were for fairly long stretches of stream, but based only on limited data (usually one location). The new information might have identified different pollutants of concern along subsections of a 1998 303(d) listed stream. This requires that the stream be broken into subreaches, resulting in multiple listings for what was one listing in the 1998 303(d) Report. The listings with the most significant modifications were 1st Priority listings. They include:

- Clover Fork
- Cumberland River (Main Stem)
- Little Laurel River
- Little River
- Mayfield Creek
- Poor Fork

The only other change to the 1998 303(d) Report is that the for the Poor Fork, no listings should have included Letcher County.

**Table 5(a) --continued. 2002 303(d) Report For Kentucky – Tennessee/Mississippi/Cumberland
River Unit
Modifications to the 1998 303(d) Report**

-2nd Priority Listings-

<u>Big Lily Creek of Cumberland River (Lake Cumberland)</u>	Russell County
From River Mile 4.7 to 9.1	Segment Length: 4.4
Impaired Use:	Aquatic Life (Partial Support), Fish Consumption (Partial Support)
Pollutant of Concern:	Organic Enrichment/Low DO
Suspected Source:	Unknown

This listing is from the 1998 303(d) Report. The listing for fish consumption is an error. The assessment based on 1995 data indicated full support of aquatic life use and fish consumption. However, EPA Region 4 requested that the stream remain on the 303(d) list as being impaired for aquatic life use until another assessment could be made. Therefore, the stream listing in the 1998 303(d) Report should have been for aquatic life only, because of organic enrichment/ low DO. An impairment for fish consumption should not have been included with the 1998 303(d) Report. A request to delist Big Lily Creek as being impaired for fish consumption will be submitted to EPA Region 4 with the 2002 303(d) list. See Tennessee/Mississippi/Cumberland River Unit—Delistings—2nd Priority Listings.

<u>Mayfield Creek of Mississippi River</u>	Carlisle/Ballard Counties
From River Mile 13.5 to 40.8	Segment length: 27.3
Impaired Use:	Aquatic Life (Partial Support)
Pollutant of Concern:	Siltation, Habitat Alterations (Other Than Flow)
Suspected Source:	Agriculture, Hydromodification (Channelization)

A more complete assessment of this reach has made this listing no longer relevant. See Tennessee/Mississippi/Cumberland River Unit-2002 303(d) List-1st Priority Listings. Also see Tennessee/Mississippi/Cumberland River Unit - 2002 303(d) List-2nd Priority Listings.

<u>Yellow Creek of Cumberland River</u>	Bell County
From River Mile 0.0 to 18.5	Segment Length: 18.5
Impaired Use:	Aquatic Life (Partial Support)
Pollutant of Concern:	Nutrients, Siltation, Habitat Alterations (Other than Flow)
Suspected Source:	Urban Runoff/Storm Sewers

A more complete assessment of this reach has made this listing no longer relevant. See Tennessee/Mississippi/Cumberland River Unit – 2002 303(d) List – 2nd Priority Listings for the updated listings. Also see Tennessee/Mississippi/Cumberland River Unit – Delistings – 2nd Priority Listings.

**Table 5(b). 2002 303(d) Report For Kentucky – Tennessee/Mississippi/Cumberland River Unit
Delistings**

-1st Priority Listings-

Note: The stream/pollutant combinations listed below are only for the designated uses and pollutants of concern for which a delisting request has been made to EPA Region 4. The stream segment may have also been shown in the 1998 303(d) Report as being impaired for the same designated use because of other pollutants or as being impaired for other designated uses.

<u>Buck Creek of Clear Fork</u>	Whitley County	
From River Mile 1.4 to 2.8	Segment Length:	1.4
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Siltation, Habitat Alterations (Other than Flow), Turbidity	
Suspected Source:	Resource Extraction	

This listing is from the 1998 303(d) Report. The latest assessment date indicates that the stream now fully supports the aquatic life use. A request to delist this segment of Buck Creek as being impaired for the aquatic life use because of siltation, Habitat Alterations (other than flow), and turbidity will be submitted to EPA Region 4 with the 2002 303(d) Report.

<u>Clarks River of Tennessee River</u>	Calloway County	
From River Mile 48.4 to 50.9	Segment Length:	2.5
Impaired Use:	Aquatic Life (Nonsupport), Swimming (Nonsupport)	
Pollutant of Concern:	Organic Enrichment/Low DO, Siltation, Nutrients, Pathogens	
Suspected Sources:	Municipal Point Sources, Agriculture (Crop-related Sources)	

This listing is a subsection of the listing for River Mile 48.4 to 59.2 from the 1998 303(d) Report. More recent information indicates that this stream segment now fully supports the aquatic life and swimming uses. A request to delist this stream segment as being impaired for aquatic life and swimming use because of organic enrichment/low DO, siltation, nutrients, and pathogens will be submitted to EPA Region 4 with the 2002 303(d) Report.

<u>Little River of Cumberland River (Lake Barkley)</u>	Trigg County	
From River Mile 23.6 to 33.1	Segment Length:	9.5
Impaired Use:	Swimming (Nonsupport)	
Pollutant of Concern:	Pathogens	
Suspected Sources:	Agriculture	

The reach from RM 23.6 to 61.0 was listed in the 1998 303(d) Report as not supporting the swimming use because of pathogens. Recent data show that the swimming use is fully supported for the reach from RM 23.6 to 33.1. A request to delist the stream segment from RM 23.6 to 33.1 as being impaired for the swimming use because of pathogens will be submitted to EPA Region 4 with the 2002 303(d) Report.

**Table 5(b) --continued. 2002 303(d) Report For Kentucky – Tennessee/Mississippi/Cumberland
River Unit
Delistings**

-1st Priority Listings-

<u>Massac Creek of Ohio River</u>	McCracken County	
From River Mile 0.0 to 10.0	Segment Length:	10.0
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Organic Enrichment/Low DO, Nutrients	
Suspected Source:	Municipal Point Sources (Package Plant - Small Flows)	

This listing is from the 1998 303(d) Report. This listing was based on DMRs from small WWTPs in the watershed. Most of the WWTPs have shown significant improvements (one is currently under enforcement action) and data collected on Massac Creek indicates that the main stem of Massac Creek is no longer impaired for aquatic life use because of organic enrichment/Low DO and nutrients. A request to delist Massac Creek as being impaired for aquatic life because of organic enrichment/low DO and nutrients was submitted to EPA Region 4. EPA Region 4 concurred and Massac Creek was informally delisted as being impaired for aquatic life use because of organic enrichment/low DO and nutrients. A request to formally delist Massac Creek as being impaired for aquatic life use because of organic enrichment/low DO and nutrients will be submitted to EPA Region 4 with the 2002 303(d) Report.

<u>Whitley Branch of Little Laurel River</u>	Laurel County	
From River Mile 0.0 to 1.0	Segment Length:	1.0
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Chlorine	
Suspected Sources:	Municipal Point Sources (Major Municipal Point Sources)	

This listing is from the 1998 303(d) Report. The listing was based on DMRs from the London WWTP. The WWTP has been meeting the permitted chlorine limit and a request to delist Whitley Branch as being impaired for aquatic life use because of chlorine was submitted to EPA Region 4. EPA Region 4 concurred and this segment of Whitley Branch was informally delisted as being impaired for aquatic life use because of chlorine. A request to formally delist this segment of Whitley Branch will be submitted to EPA Region 4 with the 2002 303(d) Report.

**Table 5(b) --continued. 2002 303(d) Report For Kentucky – Tennessee/Mississippi/Cumberland
River Unit
Delistings**

-2nd Priority Listings-

Note: The stream/pollutant combinations listed below are only for the designated uses and pollutants of concern for which a delisting request has been made to EPA Region 4. The stream segment may have also been shown in the 1998 303(d) Report as being impaired for the same designated use because of other pollutants or as being impaired for other designated uses.

<u>Beechy Creek of Blood River</u>	Calloway County
From River Mile 0.0 to 2.9	Segment Length: 2.9
Impaired Use:	Aquatic Life (Partial Support)
Pollutant of Concern:	Unknown
Suspected Source:	Unknown

This is a listing from 1998 303(d) Report. More recent assessment information indicates that this stream segment now fully supports the aquatic life use. A request to delist this stream segment as being impaired for aquatic life use will be submitted to EPA Region with the 2002 303(d) Report.

<u>Big Lily Creek of Cumberland River (Lake Cumberland)</u>	Russell County
From River Mile 4.7 to 9.1	Segment Length: 4.4
Impaired Use:	Aquatic Life (Partial Support), Fish Consumption (Partial Support)
Pollutant of Concern:	Organic Enrichment/Low DO
Suspected Source:	Unknown

This listing is from the 1998 303(d) Report. The listing for fish consumption is an error. The assessment based on 1995 date indicated full support of aquatic life use and fish consumption. However, EPA Region 4 requested that the stream remain on the 303(d) list as being impaired for aquatic life use until another assessment could be made. Therefore, the stream listing in the 1998 303(d) Report should have been for aquatic life only, because of organic enrichment/ low DO. An impairment for fish consumption should not have been included with the 1998 303(d) listing. A request to delist Big Lily Creek as being impaired as being impaired for fish consumption will be submitted to EPA Region 4 with the 2002 303(d) list. See Tennessee/Mississippi/Cumberland River Unit - Modifications to the 1998 303(d) Report - 2nd Priority Listings. The latest assessment information, based on data collected in June 2000, also indicates that Big Lily Creek from 4.7 to 11.0 fully supports the aquatic life designated use. A request to delist Big Lily Creek as being impaired for aquatic life use will be submitted to EPA Region 4 with the 2002 303(d) Report.

**Table 5(b) --continued. 2002 303(d) Report For Kentucky – Tennessee/Mississippi/Cumberland
River Unit
Delistings**

-2nd Priority Listings-

<u>Central Creek of Truman Creek</u>	Carlisle County	
From River Mile 0.0 to 0.4	Segment Length:	0.4
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Chlorine	
Suspected Source:	Municipal Point Sources	

This listing is from the 1998 303(d) Report and was based on DMRs from the Bardwell WWTP. The plant no longer discharges to Central Creek as of January 2000. The flow now goes to the Carlisle County Regional WWTP. A request to delist Central Creek as being impaired for aquatic life use because of chlorine was submitted to EPA Region 4, which concurred with the request, and approved informal delisting. A request to formally delist Central Creek as being impaired for aquatic life use because of chlorine will be submitted with the 1998 303(d) Report.

<u>Yellow Creek of Cumberland River</u>	Bell County	
From River Mile 8.9 to 18.5	Segment Length:	9.6
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Nutrients, Siltation, Habitat Alterations (Other than Flow)	
Suspected Source:	Urban Runoff/Storm Sewers	

This segment was listed in the 1998 303(d) Report. A more complete assessment shows that this segment now fully supports the aquatic life use. A request to delist this segment as being impaired for aquatic life use because of nutrients, siltation, and Habitat Alterations will be submitted to EPA Region 4 with the 2002 303(d) Report. See Tennessee/Mississippi/Cumberland River Unit – 2002 303(d) List – 2nd Priority Listings for the updated listings. Also see Tennessee/Mississippi/Cumberland River Unit – Modifications to the 1998 303(d) Report - 2nd Priority Listings.

**Table 5(c). 2002 303(d) Report For Kentucky – Tennessee/Mississippi/Cumberland River Unit
Approved TMDLs**

(To view these documents, please access the KDOW's TMDL web page at <http://water.nr.state.ky.us/dow/tmdl.htm>. For a printed copy of the TMDL, please contact the KDOW.)

Upper Cumberland River Watershed Pathogens TMDL

The stream segments listed below are included in the EPA Region 4 approved TMDL, *Removing Fecal Pollution from the Upper Cumberland River Basin*. They are all categorized as follows:

Impaired Use: Swimming (Nonsupport)
 Pollutant of Concern: Pathogens
 Suspected Source: Land Disposal (Onsite Wastewater Systems - Septic Tanks and/or Straight Pipes), Municipal Point Sources

(1) Bailey Creek of Clover Fork From River Mile 0.0 to 2.5	Harlan County Segment Length: 2.5
(2) Catron Creek of Martins Fork From River Mile 0.0 to 8.5	Harlan County Segment Length: 8.5
(3) Clover Fork of Poor Fork From River Mile 0.0 to 34.5	Harlan County Segment Length: 34.5
(4) Cloverlick Creek of Poor Fork From River Mile 0.0 to 5.0	Harlan County Segment Length: 5.0
(5) Cumberland River of Tennessee River From River Mile 684.9 to 694.2	Harlan County Segment Length: 9.3
(6) Cumberland River of Tennessee River From River Mile 650.6 to 654.5	Bell County Segment Length: 3.9
(7) Greasy Creek of Cumberland River From River Mile 0.0 to 11.4	Bell County Segment Length: 11.4
(8) Left Fork Straight Creek From River Mile 0.0 to 13.0	Bell County Segment Length: 13.0
(9) Looney Creek of Poor Fork From River Mile 0.0 to 5.5	Harlan County Segment Length: 5.5
(10) Martins Fork of Cumberland River From River Mile 0.0 to 7.1	Harlan County Segment Length: 7.1
(11) Martins Fork of Cumberland River From River Mile 7.1 to 10.1	Harlan County Segment Length: 3.0
(12) Poor Fork of Cumberland River From River Mile 0.0 to 25.1	Harlan/Letcher Counties Segment Length: 25.1
(13) Puckett Creek of Cumberland River From River Mile 0.0 to 10.0	Harlan/Bell Counties Segment Length: 10.0
(14) Richland Creek of Cumberland River From River Mile 0.0 to 19.6	Knox County Segment Length: 19.6
(15) Straight Creek of Cumberland River From River Mile 0.0 to 23.5	Harlan/Bell Counties Segment Length: 23.5
(16) Yocum Creek of Clover Fork From River Mile 0.0 to 6.5	Harlan County Segment Length: 6.5

**Table 5(c) --continued. 2002 303(d) Report For Kentucky – Tennessee/Mississippi/Cumberland
River Unit
Approved TMDLs**

<u>Little Bayou Creek of Bayou Creek</u>	McCracken County
From River mile 0.0 to 6.5	Segment Length: 6.5
Impaired Use:	Fish Consumption (Nonsupport)
Pollutant of Concern:	PCB's
Suspected Sources:	Industrial Point Sources, Hydromodification

This listing is from the 1998 303(d) Report. The TMDL for PCBs has been approved by EPA Region 4.

**Table 5(d). 2002 303(d) Report For Kentucky – Tennessee/Mississippi/Cumberland River Unit
TMDLs Under Development**

<u>Bucks Branch of Jellico Creek</u>	Whitley/McCreary Counties
From River Mile 0.0 to 2.3	Segment Length: 2.3
Impaired Use:	Aquatic Life (Nonsupport), Swimming (Nonsupport)
Pollutant of Concern:	Low pH
Suspected Sources:	Resource Extraction (Acid Mine Drainage)

This listing is from the 1998 303(d) Report. The TMDL for low pH is currently under development using EPA Region 4 FFY2001 104(b)3 grant funds.

<u>Cane Branch of Middle Fork (Beaver Creek)</u>	McCreary County
From River Mile 0.0 to 2.0	Segment Length: 2.0
Impaired Use:	Aquatic Life (Nonsupport), Swimming (Nonsupport)
Pollutant of Concern:	Low pH
Suspected Sources:	Resource Extraction (Acid Mine Drainage)

This listing is from the 1998 303(d) Report. The TMDL for low pH is currently under development using EPA Region 4 FFY2001 104(b)3 grant funds.

<u>Copperas Fork of Cooper Creek</u>	McCreary County
From River Mile 0.0 to 3.8	Segment Length: 3.8
Impaired Use:	Aquatic Life (Nonsupport), Swimming (Nonsupport)
Pollutant of Concern:	Low pH
Suspected Sources:	Resource Extraction (Acid Mine Drainage).

This listing is from the 1998 303(d) Report. The TMDL for low pH is currently under development using EPA Region 4 FFY2001 104(b)3 grant funds.

**Table 5(d) --continued. 2002 303(d) Report For Kentucky – Tennessee/Mississippi/Cumberland
River Unit
TMDLs Under Development**

<u>Rock Creek of South Fork Cumberland River</u>	McCreary County	
From River mile 0.0 to 4.1	Segment Length:	4.1
Impaired Use:	Aquatic Life (Nonsupport), Swimming (Nonsupport)	
Pollutant of Concern:	Low pH	
Suspected Sources:	Resource Extraction (Acid Mine Drainage).	

This listing is from the 1998 303(d) Report. The TMDL for low pH is currently under development using EPA Region 4 FFY2001 104(b)3 grant funds.

<u>Ryans Creek of Jellico Creek</u>	McCreary/ Whitley County	
From River Mile 0.0 to 5.3	Segment Length:	5.3
Impaired Use:	Aquatic Life (Nonsupport), Swimming (Nonsupport)	
Pollutant of Concern:	Low pH	
Suspected Source:	Resource Extraction (Acid Mine Drainage).	

This listing is from the 1998 303(d) Report. The TMDL for low pH is currently under development using EPA Region 4 FFY2001 104(b)3 grant funds.

<u>Wildcat Branch of Cumberland River</u>	Pulaski County	
From River Mile 0.0 to 2.1	Segment Length:	2.1
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Low pH	
Suspected Source:	Resource Extraction (Acid Mine Drainage)	

This listing is from the 1998 303(d) Report. The TMDL for low pH is currently under development using EPA Region 4 FFY2001 104(b)3 grant funds.

**Table 5(e). 2002 303(d) Report For Kentucky – Tennessee/Mississippi/Cumberland River Unit
2002 303(d) List**

-1st Priority Listings-

Basin: Lower Cumberland

<u>Claylick Creek of Cumberland River</u> From River mile 2.0 to 4.8 Impaired Use: Swimming (Nonsupport) Pollutant of Concern: Pathogens Suspected Source: Agriculture	Crittenden/Livingston County Segment Length: 2.8
<u>Dry Creek of Cumberland River (Lake Barkley)</u> From River Mile 4.9 to 7.4 Impaired Use: Aquatic Life (Nonsupport) Pollutant of Concern: Unknown Suspected Source: Unknown	Trigg County Segment Length: 2.5
<u>Dry Fork Creek of Noah's Spring Branch</u> From River mile 5.0 to 5.8 Impaired uses: Aquatic Life (Nonsupport) Pollutant of Concern: Siltation Suspected Source: Unknown	Christian County Segment Length: 0.8
<u>Eddy Creek of Cumberland River (Lake Barkley)</u> From River Mile 11.9 to 14.1 Impaired Uses: Swimming (Nonsupport) Pollutant of Concern: Pathogens Suspected Source: Unknown	Lyon County Segment Length: 2.2
<u>Elk Fork of Red River</u> From River Mile 22.0 to 29.0 Impaired Use: Aquatic Life (Nonsupport) Pollutant of Concern: Unknown Toxicity, Organic Enrichment/Low DO Suspected Source: Municipal Point Sources (Minor Municipal Point Sources)	Todd County Segment Length: 7.0
<u>Ferguson Creek of Cumberland River</u> From River Mile 0.0 to 1.1 Impaired Use: Swimming (Nonsupport) Pollutant of Concern: Pathogens Suspected Source: Unknown	Livingston County Segment Length: 1.1
<u>Hickory Creek of Cumberland River</u> From River Mile 0.0 to 3.8 Impaired Uses: Swimming (Nonsupport) Pollutant of Concern: Pathogens Suspected Source: Unknown	Livingston County Segment Length: 3.8

**Table 5(e) --continued. 2002 303(d) Report For Kentucky – Tennessee/Mississippi/Cumberland River Unit
2002 303(d) List**

-1st Priority Listings-

<u>Little River of Cumberland River (Lake Barkley)</u>	Trigg County	
From River Mile 20.4 to 23.6	Segment Length:	3.2
Impaired Uses:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Flow Alterations	
Suspected Sources:	Hydromodification (Dam Construction, Flow Regulations/Modification)	

<u>Little River of Cumberland River (Lake Barkley)</u>	Trigg County	
From River Mile 23.6 to 61.0	Segment Length:	37.4
Impaired Use:	Aquatic Life (Partial Support), Swimming (Nonsupport)	
Pollutant of Concern:	Nutrients, Siltation, Pathogens	
Suspected Sources:	Agriculture (Crop-related Sources), Municipal Point Sources	

This listing is from the 1998 303(d) Report. More recent assessment information has made this listing no longer relevant. The updated listings follow except for the stream segment from RM 23.6 to 33.1 and the stream segment from RM 34.4 to 48.4. For the stream segment from RM 23.6 to 33.1, recent data show that the swimming use is now fully supported. A request to delist the stream segment from RM 23.6 to 33.1 will be submitted to EPA Region 4 with the 2002 303(d) Report. See Tennessee/Mississippi/Cumberland River Unit – Delistings – 1st Priority. The updated 303(d) listing for the stream segment from RM 23.6 to 33.1 is now a 2nd Priority Listing. See Tennessee/Mississippi/Cumberland River Unit – 2002 303(d) Listings – 2nd Priority Listings. The stream segment from RM 34.4 to 48.4 has also been included under the 2nd Priority listings because the swimming use is now classified as partially supporting that use instead of being in nonsupport. See Tennessee/Mississippi/Cumberland River Unit – 2002 303(d) Listings – 2nd Priority Listings.

<u>Little River of Cumberland River (Lake Barkley)</u>	Trigg County	
From River Mile 33.1 to 34.4	Segment Length:	1.3
Impaired Use:	Aquatic Life (Nonsupport), Swimming (Partial Support)	
Pollutant of Concern:	Habitat Alterations (Other than Flow), Nutrients, Siltation, Pathogens	
Suspected Source:	Habitat Modification (Other than Hydromodification), Agriculture	

This listing is part of an update to the 1998 303(d) listing for the stream segment from RM 23.6 to 61.0 (the preceding listing). See the following listings for the Little River as well as listings for the Little River contained with the 2nd Priority Listings.

<u>Little River of Cumberland River (Lake Barkley)</u>	Christian County	
From River Mile 48.4 to 61.0	Segment Length:	12.6
Impaired Use:	Aquatic Life (Nonsupport), Swimming (Nonsupport)	
Pollutant of Concern:	Habitat Alterations (Other than Flow), Siltation, Nutrients, Pathogens	
Suspected Source:	Agriculture (Crop-related Sources), Municipal Point Sources	

This listing is part of an update to the 1998 303(d) listing for the stream segment from RM 23.6 to 61.0 (the preceding listing). See the preceding and following listings for the Little River as well as listings for the Little River contained with the 2nd Priority Listings.

**Table 5(e) --continued. 2002 303(d) Report For Kentucky – Tennessee/Mississippi/Cumberland
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-1st Priority Listings-

<u>Livingston Creek of Cumberland River</u>		Crittenden/Lyon Counties
From River mile 4.6 to 7.0		Segment Length: 2.4
Impaired Use:	Aquatic Life (Nonsupport), Swimming (Nonsupport)	
Pollutant of Concern:	Pathogens, Unknown	
Suspected Source:	Unknown, Unknown	
 <u>Long Pond Branch of Muddy Fork Little River</u>		 Trigg County
From River Mile 2.7 to 3.1		Segment Length: 0.4
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Siltation	
Suspected Source:	Unknown	
 <u>Muddy Fork Little River of Little River</u>		 Trigg County
From River Mile 14.5 to 26.6		Segment Length: 12.1
Impaired Uses:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Unknown	
Suspected Source:	Unknown	
 <u>North Fork Little River of Little River</u>		 Christian County
From River Mile 0.0 to 0.3		Segment Length: 0.3
Impaired Uses:	Aquatic Life (Nonsupport), Swimming (Partial Support)	
Pollutant of Concern:	Habitat Alterations (Other than Flow), Nutrients, Siltation, Pathogens	
Suspected Source:	Municipal Point Sources, Agriculture, Urban Runoff/Storm Sewers	
 <u>North Fork Little River of Little River</u>		 Christian County
From River Mile 6.9 to 11.6		Segment Length: 4.7
Impaired Uses:	Aquatic Life (Nonsupport), Swimming (Nonsupport)	
Pollutant of Concern:	Unknown Toxicity, Nutrients, Siltation, Pathogens	
Suspected Source:	Municipal Point Sources, Agriculture, Urban Runoff/Storm Sewers	
 <u>North Fork Little River of Little River</u>		 Christian County
From River Mile 11.6 to 12.3		Segment Length: 0.7
Impaired Uses:	Aquatic Life (Nonsupport), Swimming (Nonsupport)	
Pollutant of Concern:	Flow Alterations, Habitat Alterations (Other than Flow), Pathogens	
Suspected Source:	Habitat Modification (Other than Hydromodification), Hydromodification (Channelization), Unknown	
 <u>North Fork Little River of Little River</u>		 Christian County
From River Mile 12.3 to 18.6		Segment Length: 6.3
Impaired Uses:	Swimming (Nonsupport)	
Pollutant of Concern:	Pathogens	
Suspected Source:	Unknown	

**Table 5(e) --continued. 2002 303(d) Report For Kentucky – Tennessee/Mississippi/Cumberland
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-1st Priority Listings-

<u>Pleasant Grove Creek of Red River</u>	Logan County	
From River Mile 0.0 to 2.2	Segment Length:	2.2
Impaired Use:	Aquatic Life (Partial Support), Swimming (Nonsupport)	
Pollutant of Concern:	Nutrients, Pathogens	
Suspected Source:	Agriculture (Grazing-related Sources), Land Disposal (Onsite Wastewater Systems - Septic Tanks), Unknown	
<u>Richland Creek of Cumberland River</u>	Livingston County	
From River Mile 0.6 to 5.3	Segment Length:	4.7
Impaired Use:	Swimming (Nonsupport)	
Pollutant of Concern:	Pathogens	
Suspected Source:	Unknown	
<u>Sandy Creek of Cumberland River</u>	Livingston County	
From River Mile 0.0 to 2.3	Segment Length:	2.3
Impaired Use:	Swimming (Nonsupport)	
Pollutant of Concern:	Pathogens	
Suspected Source:	Unknown	
<u>Sinking Fork of Little River</u>	Christian County	
From River Mile 13.6 to 16.6	Segment Length:	3.0
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Organic Enrichment/Low DO, Habitat Alterations (Other than Flow)	
Suspected Source:	Habitat Modification (Other than Hydromodification) - Removal of Riparian Vegetation	
<u>Skinframe Creek of Livingston Creek</u>	Lyon County	
From River Mile 0.0 to 4.8	Segment Length:	4.8
Impaired Use:	Swimming (Nonsupport), Aquatic Life (Partial Support)	
Pollutant of Concern:	Pathogens, Unknown	
Suspected Source:	Unknown, Unknown	
<u>Skinner Creek of Casey Creek</u>	Trigg County	
From River mile 0.0 to 5.8	Segment Length:	5.8
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Unknown	
Suspected Source:	Unknown	
<u>South Fork Little River of Little River</u>	Christian County	
From River Mile 0.0 to 10.5	Segment Length:	10.5
Impaired Use:	Swimming (Nonsupport), Aquatic Life (Nonsupport)	
Pollutant of Concern:	Pathogens, Siltation, Nutrients	
Suspected Source:	Agriculture, Urban Runoff/Storm Sewers	

**Table 5(e) --continued. 2002 303(d) Report For Kentucky – Tennessee/Mississippi/Cumberland
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-1st Priority Listings-

<u>South Fork Little River of Little River</u>		Christian County
From River Mile 10.5 to 19.9		Segment Length: 9.4
Impaired Use:	Swimming (Nonsupport), Aquatic Life (Partial Support)	
Pollutant of Concern:	Pathogens, Siltation, Nutrients	
Suspected Source:	Agriculture	
<u>South Fork Little River of Little River</u>		Christian County
From River Mile 20.9 to 25.4		Segment Length: 4.5
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Unknown	
Suspected Source:	Unknown	
<u>Spring Creek of Livingston Creek</u>		Lyon County
From River Mile 3.0 to 3.7		Segment Length: 0.7
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Habitat Alterations (Other than Flow)	
Suspected Source:	Habitat Modification (Other than Hydromodification) - Removal of Riparian Vegetation	
<u>Sugar Creek of Muddy Fork Little River</u>		Christian County
From River mile 1.0 to 1.4		Segment Length: 0.4
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Siltation, Habitat Alterations (Other than Flow)	
Suspected Source:	Agriculture	

Basin: Mississippi River

<u>Bayou de Chien of Mississippi River</u>		Graves/Hickman Counties
From River Mile 14.0 to 25.9		Segment Length: 11.9
Impaired Use:	Swimming (Nonsupport)	
Pollutant of Concern:	Pathogens	
Suspected Sources:	Agriculture	

This listing is from the 1998 303(d) Report.

<u>Caldwell Creek of Terrapin Creek</u>		Graves County
From River Mile 0.0 to 3.1		Segment Length: 3.1
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Siltation, Flow Alterations, Habitat Alterations (Other than Flow)	
Suspected Source:	Agriculture (Crop-related Production - Nonirrigated Crop Production), Hydromodification (Channelization), Habitat Modification (Other than Hydromodification) - Removal of Riparian Vegetation	

**Table 5(e) --continued. 2002 303(d) Report For Kentucky – Tennessee/Mississippi/Cumberland
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-1st Priority Listings-

<u>Cane Creek of Bayou de Chien</u>	Hickman County	
From River Mile 0.0 to 5.4	Segment Length:	5.4
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Siltation, Organic Enrichment/Low DO, Habitat Alterations (Other than Flow)	
Suspected Source:	Agriculture (Crop-related Sources - Nonirrigated Crop Production), Habitat Modification (Other than Hydromodification) - Removal of Riparian Vegetation	

This listing is designated First Priority at the request of the U.S. Fish and Wildlife Service because of the presence of one or more federally threatened or endangered species in this reach.

<u>Central Creek of Truman Creek</u>	Carlisle County	
From River Mile 0.8 to 2.5	Segment Length:	1.7
Impaired Use:	Swimming (Nonsupport)	
Pollutant of Concern:	Pathogens	
Suspected Source:	Unknown	

<u>Cooley Creek of Mayfield Creek</u>	Graves County	
From River Mile 0.7 to 2.3	Segment Length:	1.6
Impaired Use:	Swimming (Nonsupport)	
Pollutant of Concern:	Pathogens	
Suspected Source:	Industrial Point Sources (Minor Industrial Point Sources)	

<u>Gilbert Creek of Mayfield Creek</u>	Graves County	
From River Mile 1.8 to 3.5	Segment Length:	1.7
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Siltation, Habitat Alterations (Other than Flow)	
Suspected Source:	Habitat Modification (Other than Hydromodification) - Removal of Riparian Vegetation	

<u>Hazel Creek of wetland ponds (Axe Lake)</u>	Ballard County	
From River Mile 0.0 to 3.7	Segment Length:	3.7
Impaired Uses:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Siltation, Organic Enrichment/Low DO, Habitat Alterations (Other than Flow)	
Suspected Source:	Hydromodifications (Channelization)	

<u>Knob Creek of Blackamore Creek</u>	Graves County	
From River Mile 1.1 to 2.2	Segment Length:	1.1
Impaired Uses:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Siltation	
Suspected Source:	Agriculture (Crop-related Sources)	

**Table 5(e) --continued. 2002 303(d) Report For Kentucky – Tennessee/Mississippi/Cumberland
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-1st Priority Listings-

<u>Little Bayou de Chien of Bayou de Chien</u>		Fulton County	
From River Mile 10.1 to 12.3		Segment Length:	2.2
Impaired Use:	Aquatic Life (Nonsupport)		
Pollutant of Concern:	Siltation, Habitat Alterations (Other than Flow)		
Suspected Source:	Agriculture (Crop-related Sources), Habitat Modification (Other than Hydromodification)		
 <u>Little Creek of Obion Creek</u>		Carlisle County	
From River Mile 0.0 to 10.1		Segment Length:	10.1
Impaired Use:	Aquatic Life (Nonsupport)		
Pollutant of Concern:	Siltation, Flow Alterations, Habitat Alterations (Other than Flow)		
Suspected Source:	Hydromodification (Channelization), Habitat Modification (Other than Hydromodification) - Removal of Riparian Vegetation		
 <u>Little Cypress Creek of Obion Creek</u>		Graves County	
From River Mile 0.0 to 2.0		Segment Length:	2.0
Impaired Use:	Aquatic Life (Nonsupport)		
Pollutant of Concern:	Siltation		
Suspected Source:	Unknown		
 <u>Mayfield Creek of Mississippi River</u>		Carlisle County	
From River Mile 8.2 to 13.5		Segment Length:	5.3
Impaired Use:	Aquatic Life (Nonsupport), Swimming (Nonsupport)		
Pollutant of Concern:	Habitat Alterations (Other than Flow), Siltation, Pathogens, Metals (Iron, Zinc, Copper)		
Suspected Sources:	Agriculture, Hydromodification (Channelization), Unknown		

This listing is from the 1998 303(d) Report except for the addition of metals as a pollutant of concern.

**Table 5(e) --continued. 2002 303(d) Report For Kentucky – Tennessee/Mississippi/Cumberland
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-1st Priority Listings-

<u>Mayfield Creek of Mississippi River</u>	Carlisle County
From River Mile 13.5 to 14.8	Segment Length: 1.2
Impaired Use:	Aquatic Life (Nonsupport)
Pollutant of Concern:	Siltation, Habitat Alterations (Other than Flow)
Suspected Source:	Agriculture

This stream segment was part of a longer stream segment (RM13.5 to 40.8) listed in the 1998 303(d) Report as being in partial support of the aquatic life designated use. More recent assessment information is available, making the 1998 303(d) Report listing for Mayfield Creek from RM 13.5 to 40.8 no longer relevant. This listing and the following listing are updates to the 1998 listing. For additional updates to the 1998 303(d) listings for Mayfield Creek (RM 13.5 to 40.8), also see Tennessee/Mississippi/Cumberland River Unit – 2002 303(d) List – 2nd Priority Listings.

<u>Mayfield Creek of Mississippi River</u>	Graves County
From River Mile 34.9 to 37.6	Segment Length: 2.7
Impaired Use:	Aquatic Life (Nonsupport)
Pollutant of Concern:	Metals (Copper), Habitat Alterations (Other than Flow), Siltation
Suspected Sources:	Unknown, Agriculture, Hydromodification (Channelization)

This stream segment was part of a longer stream segment (RM 13.5 to 40.8) listed in the 1998 303(d) Report as being in partial support of the aquatic life designated use. More recent assessment information is available, making the 1998 303(d) Report listing for Mayfield Creek from RM 13.5 to 40.8 no longer relevant. Metals has been added as a pollutant of concern. This listing and the previous listing are updates to the 1998 303(d) Report listing. For additional updates to the 1998 303(d) listings for Mayfield Creek (RM 13.5 to 40.8), also see Tennessee/Mississippi/Cumberland River Unit – 2002 303(d) List – 2nd Priority Listings.

<u>Mayfield Creek of Mississippi River</u>	Calloway County
From River Mile 57.7 to 59.8	Segment Length: 2.1
Impaired Use:	Aquatic Life (Nonsupport)
Pollutant of Concern:	Siltation
Suspected Source:	Agriculture (Crop-related Sources)

<u>Mud Creek of Bayou de Chien</u>	Fulton County
From River Mile 0.0 to 6.4	Segment Length: 6.4
Impaired Use:	Aquatic Life (Nonsupport)
Pollutant of Concern:	Siltation, Flow Alterations, Habitat Alterations (Other than Flow)
Suspected Source:	Agriculture (Crop-related Sources - Nonirrigated Crop Production), Hydromodification (Channelization), Habitat Modification (Other than Hydromodification) - Removal of Riparian Vegetation

**Table 5(e) --continued. 2002 303(d) Report For Kentucky – Tennessee/Mississippi/Cumberland
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-1st Priority Listings-

<u>Obion Creek of Mississippi River</u>		Fulton County
From River Mile 1.3 to 15.8		Segment Length: 14.5
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Siltation, Flow Alterations, Habitat Alterations (Other than Flow), Metals (Iron)	
Suspected Source:	Agriculture (Crop-related Sources - Nonirrigated Crop Production), Hydromodification (Channelization and Flow Regulations/Modifications), Habitat Modification (Other than Hydromodification) - Removal of Riparian Vegetation	

<u>Obion Creek of Mississippi River</u>		Hickman County
From River Mile 38.6 to 42.0		Segment Length: 3.4
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Habitat Alterations (Other than Flow)	
Suspected Sources:	Hydromodification (Channelization)	

<u>Opossum Creek of Obion Creek</u>		Graves County
From River Mile 0.0 to 2.2		Segment Length: 2.2
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Siltation, Flow Alterations, Habitat Alterations (Other than Flow)	
Suspected Sources:	Hydromodification (Channelization)	

<u>Shawnee Creek Slough of Mississippi River</u>		Ballard County
From River Mile 0.0 to 3.0		Segment Length: 3.0
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Metals (Iron)	
Suspected Source:	Unknown	

The pollutant of concern is metals (iron), but is more correctly tied to siltation.

<u>South Fork Bayou de Chien of Bayou de Chien</u>		Graves County
From River Mile 2.0 to 7.2		Segment Length: 5.2
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Siltation	
Suspected Source:	Agriculture (Crop-related Sources)	

This stream segment is an OSRW and contains one or more federally threatened and endangered species.

**Table 5(e) --continued. 2002 303(d) Report For Kentucky – Tennessee/Mississippi/Cumberland
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-1st Priority Listings-

<u>UT of Mayfield Creek (River Mile 24.0)</u>	McCracken County	
From River Mile 0.0 to 1.0	Segment Length:	1.0
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Siltation, Habitat Alterations (Other than Flow)	
Suspected Source:	Agriculture	
<u>UT of Mayfield Creek (River Mile 25.6)</u>	Graves County	
From River mile 1.1 to 3.5	Segment Length:	2.4
Impaired Source:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Siltation, Habitat Alterations (Other than Flow)	
Suspected Source:	Habitat Modification (Other than Hydromodification) - Removal of Riparian Vegetation, Agriculture	
<u>UT of Obion Creek (River Mile 16.3)</u>	Hickman County	
From River Mile 1.6 to 2.2	Segment Length:	0.6
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Flow Alterations, Habitat Alterations (Other than Flow)	
Suspected Source:	Habitat Modification (Other than Hydromodification) - Removal of Riparian Vegetation and Bank Modification/Destabilization, Hydromodification (Channelization)	

Basin: Ohio River

<u>Bayou Creek of Ohio River</u>	McCracken County	
From River Mile 0.0 to 6.5	Segment Length:	6.5
Impaired Use:	Aquatic Life (Nonsupport), Swimming (Nonsupport)	
Pollutant of Concern:	Mercury, Radiation, Thermal Modification, pH, Metals	
Suspected Sources:	Industrial Point Sources, Land Disposal	

This listing is from the 1998 303(d) Report. The listing for swimming as being an impaired use was not shown in the 1998 303(d) Report listing, but should have been because of pH being a pollutant of concern. A compilation of available data is being conducted through a grant from the Department of Energy.

<u>Clanton Creek of Humphrey Creek</u>	Ballard County	
From River Mile 0.0 to 4.9	Segment Length:	4.9
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Siltation, Nutrients, Flow Alterations, Habitat Alterations (Other than Flow)	
Suspected Source:	Agriculture (Crop-related Sources - Nonirrigated Crop Production), Hydromodification (Channelization), Habitat Modification (Other than Hydromodification) - Removal of Riparian Vegetation	

**Table 5(e) --continued. 2002 303(d) Report For Kentucky – Tennessee/Mississippi/Cumberland
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-1st Priority Listings-

<u>Little Bayou Creek of Bayou Creek</u>	McCracken County
From River mile 0.0 to 6.5	Segment Length: 6.5
Impaired Use:	Aquatic Life (Nonsupport) Fish Consumption (Nonsupport)
Pollutant of Concern:	PCB's, Metals, Radiation
Suspected Sources:	Industrial Point Sources, Land Disposal

This listing is from the 1998 303(d) Report. The TMDL for PCBs has been approved by EPA Region 4. See Tennessee/Mississippi/Cumberland River Unit – Approved TMDLs. A compilation of available data on Little Bayou Creek is being conducted through a grant from the Department of Energy.

<u>Massac Creek of Ohio River</u>	McCracken County
From River Mile 0.0 to 10.0	Segment Length: 10.0
Impaired Use:	Aquatic Life (Nonsupport)
Pollutant of Concern:	Organic Enrichment/Low DO, Nutrients
Suspected Source:	Municipal Point Sources (Package Plant - Small Flows)

This listing is from the 1998 303(d) Report. This listing was based on DMRs from small WWTPs in the watershed. Most of the WWTPs have shown significant improvements (one is currently under enforcement action) and data collected on Massac Creek indicates that the main stem of Massac Creek is no longer impaired for aquatic life use because of organic enrichment/Low DO and nutrients. A request to delist Massac Creek as being impaired for aquatic life because of organic enrichment/low DO and nutrients was submitted to EPA Region 4. EPA Region 4 concurred and Massac Creek was informally delisted as being impaired for aquatic life use because of organic enrichment/low DO and nutrients. A request to formally delist Massac Creek as being impaired for aquatic life use because of organic enrichment/low DO and nutrients will be submitted to EPA Region 4 with the 2002 303(d) Report. See Tennessee/Mississippi/Cumberland River Unit – Delistings – 1st Priority.

Basin: Tennessee River

<u>Angle Creek of Little Cyress Creek</u>	Marshall County
From River Mile 0.0 to 0.7	Segment Length: 0.7
Impaired Use:	Swimming (Nonsupport), Aquatic life (Partial Support)
Pollutant of Concern:	Pathogens, Unknown
Suspected Source:	Unknown, Unknown

<u>Bear Creek of Tennessee River (Kentucky Lake)</u>	Marshall County
From River Mile 3.1 to 6.3	Segment Length: 3.2
Impaired Use:	Swimming (Nonsupport)
Pollutant of Concern:	Pathogens
Suspected Source:	Land Disposal (Onsite Wastewater Systems - Septic Tanks), Municipal Point Sources (Package Plants - Small Flows)

**Table 5(e) --continued. 2002 303(d) Report For Kentucky – Tennessee/Mississippi/Cumberland
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-1st Priority Listings-

<u>Bee Creek of Clarks River</u>	Calloway County	
From River Mile 0.0 to 1.8	Segment Length:	1.8
Impaired Use:	Swimming (Nonsupport)	
Pollutant of Concern:	Pathogens	
Suspected Source:	Unknown	

<u>Blizzard Pond of West Fork Clarks River</u>	McCracken County	
From River Mile 0.0 to 3.7	Segment Length:	3.7
Impaired Use:	Swimming (Nonsupport)	
Pollutant of Concern:	Pathogens	
Suspected Source:	Unknown	

<u>Champion Creek of Island Creek</u>	McCracken County	
From River Mile 0.0 to 1.5	Segment Length:	1.5
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Unknown	
Suspected Source:	Unknown	

This segment was listed in the 1998 303(d) Report as being in partial support of the aquatic life use. More recent assessment information indicates that this segment is now in nonsupport of the aquatic life use.

<u>Clarks River of Tennessee River</u>	Calloway County	
From River Mile 48.4 to 59.2	Segment Length:	10.8
Impaired Use:	Aquatic Life (Nonsupport), Swimming (Nonsupport)	
Pollutant of Concern:	Organic Enrichment/ Low DO, Siltation, Nutrients, Pathogens	
Suspected Sources:	Municipal Point Sources, Agriculture (Crop-related Sources)	

This listing is from the 1998 303(d) Report. More recent information indicates that a subsection of this stream segment (RM 48.4 to 50.9) now fully supports the aquatic life and swimming uses. A request to delist the stream segment from RM 48.4 to 50.9 as being impaired for aquatic life and swimming use because of organic enrichment/low DO, siltation, nutrients, and pathogens will be submitted to EPA Region 4 with the 2002 303(d) Report. See Tennessee/Mississippi/Cumberland River Unit – Delistings - 1st Priority Listings. The updated listing follows.

**Table 5(e) --continued. 2002 303(d) Report For Kentucky – Tennessee/Mississippi/Cumberland
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-1st Priority Listings-

<u>Clarks River of Tennessee River</u>	Calloway County	
From River Mile 50.9 to 59.2	Segment Length:	8.3
Impaired Use:	Aquatic Life (Partial Support), Swimming (Nonsupport)	
Pollutant of Concern:	Organic Enrichment/Low DO, Siltation, Nutrients, Pathogens	
Suspected Sources:	Municipal Point Sources, Agriculture (Crop-related Sources)	

This listing supersedes the listing that was in the 1998 303(d) Report for River Mile 48.4 to 59.2 (the preceding listing). More recent information indicates that the stream segment from RM 48.4 to 50.9 now fully supports the aquatic life and swimming uses. A request to delist the segment from RM 48.4 to 50.9 as being impaired for aquatic life and swimming use because of organic enrichment/low DO, siltation, nutrients, and pathogens will be submitted to EPA Region 4 with the 2002 303(d) Report. See Tennessee/Mississippi/Cumberland River Unit – Delistings - 1st Priority Listings. Also, the aquatic life use has been upgraded to partial support for the segment from river mile 50.9 to 59.2 based on more recent information.

<u>Clayton Creek of Clarks River</u>	Calloway County	
From River Mile 3.3 to 7.1	Segment Length:	3.8
Impaired Use:	Swimming (Nonsupport)	
Pollutant of Concern:	Pathogens	
Suspected Source:	Unknown	

<u>Cypress Creek of Tennessee River</u>	Marshall County	
From River Mile 6.3 to 7.7	Segment Length:	1.4
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Habitat Alterations (Other than Flow), Siltation, Organic Enrichment/Low DO	
Suspected Source:	Habitat Modification (Other than Hydromodification) - Removal of Riparian Vegetation	

<u>Cypress Creek of Tennessee River</u>	Marshall County	
From River Mile 7.7 to 9.7	Segment Length:	2.0
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Unknown	
Suspected Source:	Unknown	

<u>Damon Creek of West Fork Clarks River</u>	Calloway County	
From River Mile 0.0 to 1.8	Segment Length:	1.8
Impaired Use:	Aquatic Life (Nonsupport), Swimming (Nonsupport)	
Pollutant of Concern:	Unknown, Pathogens	
Suspected source:	Agriculture (Intense Animal Feeding Operation and Grazing-related Sources)	

**Table 5(e) --continued. 2002 303(d) Report For Kentucky – Tennessee/Mississippi/Cumberland
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-1st Priority Listings-

<u>Island Creek of Tennessee River</u>	McCracken County	
From River Mile 0.0 to 5.5	Segment Length:	5.5
Impaired Uses:	Swimming (Nonsupport), Aquatic Life (Partial Support)	
Pollutant of Concern:	Pathogens, Unknown	
Suspected Source:	Unknown, Unknown	

The listing for aquatic life impairment is a subsection of the listing from the 1998 303(d) Report, which extends from RM 0.0 to 10.3. See Tennessee/Mississippi/Cumberland River Unit – 2002 303(d) Listings – 2nd Priority Listings.

<u>Little Cypress Creek of Cypress Creek</u>	Marshall County	
From River Mile 0.0 to 3.4	Segment Length:	3.4
Impaired Use:	Aquatic Life (Nonsupport), Swimming (Partial Support)	
Pollutant of Concern:	Unknown, Pathogens	
Suspected Source:	Unknown, Unknown	

<u>Little Cypress Creek of Cypress Creek</u>	Marshall County	
From River Mile 3.4 to 6.0	Segment Length:	2.6
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Unknown	
Suspected Source:	Unknown	

<u>Middle Fork Clarks River of Clarks River</u>	Calloway County	
From River Mile 0.0 to 2.7	Segment Length:	2.7
Impaired Use:	Aquatic Life (Partial Support), Swimming (Nonsupport)	
Pollutant of Concern:	Siltation, Organic Enrichment/Low DO, Pathogens	
Suspected Source:	Agriculture, Unknown	

<u>Middle Fork Creek of Clarks River</u>	Marshall County	
From River Mile 0.2 to 6.6	Segment Length:	6.4
Impaired Use:	Swimming (Nonsupport), Aquatic Life (Partial Support)	
Pollutant of Concern:	Pathogens, Unknown	
Suspected Source:	Unknown, Unknown	

<u>UT to Old Beaver Dam Slough (River Mile 0.4)</u>	Marshall County	
From River Mile 0.0 to 0.5	Segment Length:	0.5
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Habitat Alterations (Other than Flow)	
Suspected Source:	Urban Runoff/Storm Sewers	

**Table 5(d) --continued. 2002 303(d) Report For Kentucky – Tennessee/Mississippi/Cumberland
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-1st Priority Listings-

<u>West Fork of Clarks River</u>	Graves County	
From River Mile 12.8 to 16.8	Segment Length:	4.0
Impaired Use:	Swimming (Nonsupport)	
Pollutant of Concern:	Pathogens	
Suspected Source:	Unknown	

Basin: Upper Cumberland

<u>Bailey Creek of Clover Fork</u>	Harlan County	
From River Mile 0.0 to 2.5	Segment Length:	2.5
Impaired Use:	Swimming (Nonsupport)	
Pollutant of Concern:	Pathogens	
Suspected Source:	Land Disposal (Onsite Wastewater Systems - Septic Tanks and/or Straight Pipes)	

This listing was in the 1998 303(d) Report. The TMDL, *Removing Fecal Pollution from the Upper Cumberland River Basin*, has been approved by EPA Region 4. See Tennessee/Mississippi/Cumberland River Unit – Approved TMDLs – Upper Cumberland Watershed Pathogens TMDL.

<u>Bear Creek of South Fork Cumberland River</u>	McCreary County	
From River Mile 0.0 to 3.2	Segment Length:	3.2
Impaired Use:	Aquatic Life (Nonsupport), Swimming (Nonsupport)	
Pollutant of Concern:	Low pH	
Suspected Source:	Resource Extraction (Surface and Subsurface Mining)	

This listing is from the 1998 303(d) Report.

<u>Beck's Creek of Jellico Creek</u>	Whitley County	
From River Mile 0.0 to 3.5	Segment Length:	3.5
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Unknown	
Suspected Source:	Unknown	

This listing is the result of extirpation of *phoxinus cumberlandensis* (blackside dace) from the stream segment since November 1975.

<u>Big Indian Creek of Cumberland River</u>	Knox County	
From River Mile 0.0 to 5.1	Segment Length:	5.1
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Siltation	
Suspected Source:	Agriculture (Crop-related Sources - Nonirrigated Crop Production), Construction (Land Development)	

**Table 5(e) --continued. 2002 303(d) Report For Kentucky – Tennessee/Mississippi/Cumberland
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-1st Priority Listings-

<u>Brush Creek of Cumberland River</u>	Knox County
From River Mile 0.0 to 2.8	Segment Length: 2.8
Impaired Use:	Aquatic Life (Nonsupport)
Pollutant of Concern:	Siltation, Flow Alterations, Habitat Alterations (Other than Flow), Turbidity
Suspected Source:	Silviculture (Harvesting, Restoration, and Residue Management), Resource Extraction (Surface Mining, Subsurface Mining, Abandoned Mining, and Inactive Mining), Habitat Modification (Other than Hydromodification) - Removal of Riparian Vegetation and Bank Modification/Destabilization

<u>Brush Creek of Roundstone Creek</u>	Rockcastle County
From River Mile 1.1 to 7.5	Segment length: 6.4
Impaired Use:	Swimming (Nonsupport)
Pollutant of Concern:	Pathogens
Suspected Sources:	Agriculture, Land Disposal (Onsite Wastewater System – Septic Tanks and/or Straight Pipes)

This listing is from the 1998 303(d) Report.

<u>Buck Creek of Clear Fork</u>	Whitley County
From River Mile 1.4 to 2.8	Segment Length: 1.4
Impaired Use:	Aquatic Life (Nonsupport)
Pollutant of Concern:	Siltation, Habitat Alterations (Other than Flow), Turbidity
Suspected Source:	Resource Extraction

This listing is from the 1998 303(d) Report. The latest assessment date indicates that the stream now fully supports the aquatic life use. A request to delist this segment of Bush Creek as being impaired for the aquatic life use because of siltation, Habitat Alterations (other than flow), and turbidity will be submitted to EPA Region 4 with the 2002 303(d) Report. See Tennessee/Mississippi/Cumberland River Unit – Delistings – 1st Priority Listings.

<u>Buck Creek of Cumberland River</u>	Pulaski County
From River Mile 44.9 to 45.4	Segment Length: 0.5
Impaired Use:	Fish Consumption (Partial Support)
Pollutant of Concern:	Metals (Mercury)
Suspected Sources:	Atmospheric Deposition

This listing is designated First Priority at the request of the U.S. Fish and Wildlife Service because of the presence of one or more federally threatened and endangered species in this reach, which is designated an OSRW.

**Table 5(e) --continued. 2002 303(d) Report For Kentucky – Tennessee/Mississippi/Cumberland River Unit
2002 303(d) List**

-1st Priority Listings-

<u>Bucks Branch of Jellico Creek</u>	Whitley/McCreary Counties
From River Mile 0.0 to 2.3	Segment Length: 2.3
Impaired Use:	Aquatic Life (Nonsupport), Swimming (Nonsupport)
Pollutant of Concern:	Low pH
Suspected Sources:	Resource Extraction (Acid Mine Drainage)

This listing is from the 1998 303(d) Report. The TMDL for pH is currently being developed. See Tennessee/Mississippi/Cumberland River Unit - TMDLs Under Development.

<u>Cane Branch of Middle Fork (Beaver Creek)</u>	McCreary County
From River Mile 0.0 to 2.0	Segment Length: 2.0
Impaired Use:	Aquatic Life (Nonsupport), Swimming (Nonsupport)
Pollutant of Concern:	Low pH
Suspected Sources:	Resource Extraction (Acid Mine Drainage)

This listing is from the 1998 303(d) Report. The TMDL for pH is currently being developed. See Tennessee/Mississippi/Cumberland River Unit - TMDLs Under Development.

<u>Catron Creek of Martins Fork</u>	Harlan County
From River Mile 0.0 to 8.5	Segment Length: 8.5
Impaired Use:	Swimming (Nonsupport)
Pollutant of Concern:	Pathogens
Suspected Source:	Land Disposal (Onsite Wastewater Systems - Septic Tanks and/or Straight Pipes)

This listing was in the 1998 303(d) Report. The TMDL, *Removing Fecal Pollution from the Upper Cumberland River Basin*, has been approved by EPA Region 4. See Tennessee/Mississippi/Cumberland River Unit – Approved TMDLs – Upper Cumberland Watershed Pathogens TMDL.

<u>Clover Fork of Cumberland River</u>	Harlan County
From River mile 0.0 to 29.1	Segment Length: 29.1
Impaired Use:	Swimming (Nonsupport)
Pollutant of Concern:	Pathogens
Suspected Source:	Land Disposal (Onsite Wastewater Systems - Septic Tanks and/or Straight Pipes)

The segment from 0.0 to 34.5 was listed in the 1998 303(d) Report. This stream segment and the following 2 listings (for pathogens) are covered under the pathogens TMDL, *Removing Fecal Pollution from the Upper Cumberland River Basin*, which has been approved by EPA Region 4. See Tennessee/Mississippi/Cumberland River Unit – Approved TMDLs – Upper Cumberland Watershed Pathogens TMDL.

**Table 5(e) --continued. 2002 303(d) Report For Kentucky – Tennessee/Mississippi/Cumberland
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-1st Priority Listings-

<u>Clover Fork of Cumberland River</u>	Harlan County
From River mile 29.1 to 30.3	Segment Length: 1.2
Impaired Use:	Swimming (Nonsupport), Aquatic Life (Partial Support)
Pollutant of Concern:	Pathogens, Siltation
Suspected Source:	Land Disposal (Onsite Wastewater Systems - Septic Tanks and/or Straight Pipes), Resource Extraction

The segment from 0.0 to 34.5 was listed in the 1998 303(d) Report. This stream segment (for pathogens), the preceding listing, and the following listing are covered under the pathogens TMDL, *Removing Fecal Pollution from the Upper Cumberland River Basin*, which has been approved by EPA Region 4. See Tennessee/Mississippi/Cumberland River Unit – Approved TMDLs – Upper Cumberland Watershed Pathogens TMDL.

<u>Clover Fork of Cumberland River</u>	Harlan County
From River mile 30.3 to 34.5	Segment Length: 4.2
Impaired Use:	Swimming (Nonsupport)
Pollutant of Concern:	Pathogens
Suspected Source:	Land Disposal (Onsite Wastewater Systems - Septic Tanks and/or Straight Pipes)

The segment from 0.0 to 34.5 was listed in the 1998 303(d) Report. This stream segment and the preceding 2 stream listings (for pathogens) are covered under the pathogens TMDL, *Removing Fecal Pollution from the Upper Cumberland River Basin*, has been approved by EPA Region 4. See Tennessee/Mississippi/Cumberland River Unit – Approved TMDLs – Upper Cumberland Watershed Pathogens TMDL.

<u>Cloverlick Creek of Poor Fork</u>	Harlan County
From River Mile 0.0 to 5.0	Segment Length: 5.0
Impaired Use:	Aquatic Life (Nonsupport), Swimming (Nonsupport)
Pollutant of Concern:	Habitat Alterations (Other than Flow), Suspended Solids, Pathogens
Suspected Source:	Resource Extraction, Land Disposal (Onsite Wastewater Systems - Septic Tanks and/or Straight Pipes)

This listing is from the 1998 303(d) Report. The pathogens TMDL, *Removing Fecal Pollution from the Upper Cumberland River Basin*, has been approved by EPA Region 4. See Tennessee/Mississippi/Cumberland River Unit – Approved TMDLs – Upper Cumberland Watershed Pathogens TMDL.

**Table 5(e) --continued. 2002 303(d) Report For Kentucky – Tennessee/Mississippi/Cumberland
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-1st Priority Listings-

<u>Copperas Fork of Cooper Creek</u>	McCreary County
From River Mile 0.0 to 3.8	Segment Length: 3.8
Impaired Use:	Aquatic Life (Nonsupport), Swimming (Nonsupport)
Pollutant of Concern:	Low pH
Suspected Sources:	Resource Extraction (Acid Mine Drainage).

This listing is from the 1998 303(d) Report. The TMDL for pH is currently being developed using EPA Region 4 104(b)3 grant funds. See Tennessee/Mississippi/Cumberland River Unit - TMDLs Under Development.

<u>Cumberland River of the Ohio River</u>	Bell County
From River Mile 649.6 to 650.6	Segment Length: 1.0
Impaired Use:	Swimming (Nonsupport)
Pollutant of Concern:	Pathogens
Suspected Source:	Municipal Point Sources, Land Disposal (Onsite Wastewater Systems - Septic Tanks and/or Straight Pipes), Collection System Failure

This is a new segment defined from more recent sampling.

<u>Cumberland River of the Ohio River</u>	Bell County
From River Mile 650.6 to 654.5	Segment Length: 3.9
Impaired Use:	Swimming (Nonsupport)
Pollutant of Concern:	Pathogens
Suspected Source:	Municipal Point Sources, Land Disposal (Onsite Wastewater Systems - Septic Tanks and/or Straight Pipes), Collection System Failure

This listing was in the 1998 303(d) Report. The TMDL, *Removing Fecal Pollution from the Upper Cumberland River Basin*, has been approved by EPA Region 4. See Tennessee/Mississippi/Cumberland River Unit – Approved TMDLs – Upper Cumberland Watershed Pathogens TMDL

<u>Cumberland River of the Ohio River</u>	Harlan County
From River Mile 684.9 to 694.2	Segment Length: 9.3
Impaired Use:	Swimming (Nonsupport)
Pollutant of Concern:	Pathogens
Suspected Source:	Municipal Point Sources, Land Disposal (Onsite Wastewater Systems - Septic Tanks and/or Straight Pipes), Collection System Failure

This listing was in the 1998 303(d) Report. The TMDL, *Removing Fecal Pollution from the Upper Cumberland River Basin*, has been approved by EPA Region 4. See Tennessee/Mississippi/Cumberland River Unit – Approved TMDLs – Upper Cumberland Watershed Pathogens TMDL.

**Table 5(e) --continued. 2002 303(d) Report For Kentucky – Tennessee/Mississippi/Cumberland
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-1st Priority Listings-

<u>Elk Spring Creek of Beaver Creek</u>	Wayne County	
From River Mile 0.0 to 7.8	Segment Length:	7.8
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Unknown	
Suspected Source:	Unknown	
<u>Ewing Creek of Cumberland River</u>	Harlan County	
From River Mile 0.0 to 2.7	Segment Length:	2.7
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Siltation, Habitat Alterations (Other than Flow)	
Suspected Source:	Urban Runoff/Storm Sewers (Erosion and Sedimentation), Resource Extraction (Surface Mining)	
<u>Ferris Fork Creek of Marrowbone Creek</u>	Cumberland County	
From River Mile 0.0 to 1.2	Segment Length:	1.2
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Siltation, Habitat Alterations (Other than Flow)	
Suspected Source:	Habitat Modification (Other than Hydromodification) - Removal of Riparian Vegetation, Agriculture (Grazing-related Sources)	
<u>Jenneys Branch of Laurel Creek</u>	McCreary County	
From River Mile 0.0 to 3.4	Segment Length:	3.4
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Siltation	
Suspected Source:	Silviculture	

This listing is designated First Priority at the request of the U.S. Fish and Wildlife Service because of the presence of one or more federally threatened and endangered species in this reach, which is designated an OSRW.

<u>Laurel Fork of Clear Fork</u>	Whitley County	
From River Mile 10.3 to 13.9	Segment Length:	3.6
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Siltation	
Suspected Source:	Agriculture (Crop-related Sources - Nonirrigated Crop Production), Silviculture (Harvesting, Restoration, Residue Management)	

This stream segment is an OSRW and contains one or more federally threatened and endangered species.

**Table 5(e) --continued. 2002 303(d) Report For Kentucky – Tennessee/Mississippi/Cumberland
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-1st Priority Listings-

<u>Laurel River of Cumberland River</u>	Laurel County	
From River Mile 0.0 to 2.3	Segment Length:	2.3
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Flow Alterations, Habitat Alterations (Other than Flow)	
Suspected Sources:	Hydromodification (Upstream Impoundment)	

A TMDL is not required because this is impairment is defined as being caused by pollution and not a pollutant.

<u>Laurel River of Cumberland River</u>	Laurel County	
From River Mile 24.9 to 27.9	Segment Length:	3.0
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Flow Alterations	
Suspected Sources:	Hydromodification (Upstream Impoundment)	

A TMDL is not required because this is impairment is defined as being caused by pollution and not a pollutant.

<u>Laurel River of Cumberland River</u>	Laurel County	
From River Mile 36.6 to 46.3	Segment Length:	9.7
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Nutrients, Siltation	
Suspected Sources:	Agriculture (Crop-related Sources, Nonirrigated Crop Production), Agriculture (Grazing-related source, Pasture Grazing-riparian and/or Upland), Agriculture (Intense Animal Feeding Operations), Resource Extraction (Surface Mining)	

<u>Left Fork of Straight Creek</u>	Bell County	
From River mile 0.0 to 13.0	Segment Length:	13.0
Impaired Use:	Swimming (Nonsupport), Aquatic Life (Nonsupport)	
Pollutant of Concern:	Pathogens, Suspended Solids, Low pH	
Suspected Sources:	Municipal Point Sources (Package Plants – Small Flows), Resource Extraction	

This listing is from the 1998 303(d) Report. This listing was in the 1998 303(d) Report. The TMDL, *Removing Fecal Pollution from the Upper Cumberland River Basin*, has been approved by EPA Region 4. See Tennessee/Mississippi/Cumberland River Unit – Approved TMDLs – Upper Cumberland Watershed Pathogens TMDL.

**Table 5(e) --continued. 2002 303(d) Report For Kentucky – Tennessee/Mississippi/Cumberland
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-1st Priority Listings-

<u>Little Clear Creek of Clear Creek</u>	Bell County
From River Mile 0.0 to 10.4	Segment Length: 10.4
Impaired Use:	Aquatic Life (Partial Support), Swimming (Partial Support)
Pollutant of Concern:	pH, Habitat Alterations (Other than Flow), Suspended Solids
Suspected Source:	Resource Extraction, Silviculture

This listing is from the 1998 303(d) Report. This listing has been changed to First Priority as a result of the extirpation of *phoxinus cumberlandensis* (blackside dace) from the stream since November 1975.

<u>Little Laurel River of Laurel River</u>	Laurel County
From River Mile 0.0 to 8.3	Segment Length: 8.3
Impaired Use:	Aquatic Life (Nonsupport)
Pollutant of Concern:	Nutrients
Suspected Source:	Municipal Point Source (Major Municipal Point Sources)

<u>Little Laurel River of Laurel River</u>	Laurel County
From River Mile 8.3 to 12.4	Segment Length: 4.1
Impaired Use:	Swimming (Nonsupport), Aquatic Life (Nonsupport)
Pollutant of Concern:	Pathogens, Organic Enrichment/Low DO, Siltation, Habitat Alterations (Other than Flow)
Suspected Source:	Construction (Land Development), Municipal Point Sources, Agriculture

This listing for pathogens is from the 1998 303(d) Report.

<u>Little Laurel River of Laurel River</u>	Laurel County
From River Mile 12.4 to 14.6	Segment Length: 2.2
Impaired Use:	Swimming (Nonsupport), Aquatic Life (Nonsupport)
Pollutant of Concern:	Pathogens, Nutrients, Organic Enrichment/Low DO
Suspected Sources:	Municipal Point Sources, Agriculture

This listing is from the 1998 303(d) Report.

<u>Little Laurel River of Laurel River</u>	Laurel County
From River Mile 14.6 to 22.8	Segment Length: 8.2
Impaired Use:	Swimming (Nonsupport)
Pollutant of Concern:	Pathogens
Suspected Sources:	Agriculture (Grazing-related Sources)

This listing is from the 1998 303(d) Report.

**Table 5(e) --continued. 2002 303(d) Report For Kentucky – Tennessee/Mississippi/Cumberland
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-1st Priority Listings-

<u>Little South Fork of South Fork Cumberland River</u>		Wayne/McCreary Counties
From River Mile 0.0 to 4.1		Segment Length: 4.1
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Siltation	
Suspected Sources:	Resource Extraction	

This listing is the result of extirpation of *phoxinus cumberlandensis* (blackside dace) from the stream since November 1975.

<u>Looney Creek of Poor Fork</u>		Harlan County
From River Mile 0.0 to 5.5		Segment Length: 5.5
Impaired Use:	Swimming (Nonsupport)	
Pollutant of Concern:	Pathogens	
Suspected Source:	Land Disposal (Onsite Wastewater Systems - Septic Tanks and/or Straight Pipes)	

This listing was in the 1998 303(d) Report. The TMDL, *Removing Fecal Pollution from the Upper Cumberland River Basin*, has been approved by EPA Region 4. See Tennessee/Mississippi/Cumberland River Unit – Approved TMDLs – Upper Cumberland Watershed Pathogens TMDL.

<u>Lynn Camp Creek of Laurel River</u>		Laurel/Knox/Whitley Counties
From River Mile 0.0 to 4.5		Segment Length: 4.5
Impaired Use:	Aquatic Life (Nonsupport), Swimming (Nonsupport)	
Pollutant of Concern:	Habitat Alterations (Other than Flow), Oil and Grease, Suspended Solids, Pathogens	
Suspected Sources:	Unknown, Spills (Accidental), Urban Runoff/Storm Sewers, Habitat Modification (Other than Hydromodification)	

This listing is from the 1998 303(d) Report.

<u>Marsh Creek of Cumberland River</u>		McCreary County
From River Mile 13.3 to 16.3		Segment Length: 3.0
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Siltation	
Suspected Source:	Silviculture	

This stream segment is an OSRW and contains one or more federally threatened and endangered species.

**Table 5(e) --continued. 2002 303(d) Report For Kentucky – Tennessee/Mississippi/Cumberland
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-1st Priority Listings-

<u>Marsh Creek of Cumberland River</u>	McCreary County	
From River Mile 18.7 to 24.0	Segment Length:	5.3
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Siltation, Habitat Alterations (Other than Flow)	
Suspected Sources:	Resource Extraction, Agriculture	

This listing is from the 1998 303(d) Report. This stream segment is an OSRW and contains one or more federally threatened and endangered species.

<u>Martins Fork of Clover Fork</u>	Harlan County	
From River Mile 0.0 to 10.1	Segment Length:	10.1
Impaired Use:	Swimming (Nonsupport)	
Pollutant of Concern:	Pathogens	
Suspected Source:	Municipal Point Sources, Land Disposal (Onsite Wastewater Systems – Septic Tanks and/or Straight Pipes)	

This listing is from the 1998 303(d) Report. It is actually the combinations of 2 listings from the 1998 303(d) Report (RM 0.0 to 7.1 and RM 7.1 to 10.1). The TMDL, *Removing Fecal Pollution from the Upper Cumberland River Basin*, has been approved by EPA Region 4. See Tennessee/Mississippi/Cumberland River Unit – Approved TMDLs – Upper Cumberland Watershed Pathogens TMDL.

<u>Martins Fork of Clover Fork</u>	Harlan County	
From River Mile 18.0 to 27.4	Segment Length:	9.4
Impaired Use:	Aquatic Life (Nonsupport), Swimming (Nonsupport)	
Pollutant of Concern:	Low pH	
Suspected Sources:	Resource Extraction	

This listing is from the 1998 303(d) Report. A recent biological assessment shows that this segment now fully supports aquatic life use. However, no pH data have been collected. Therefore, this listing has been carried forward from the 1998 303(d) Report.

<u>Mitchell Creek of Sinking Creek</u>	Laurel County	
From River Mile 0.0 to 3.6	Segment Length:	3.6
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Unknown	
Suspected Source:	Unknown	

**Table 5(e) --continued. 2002 303(d) Report For Kentucky – Tennessee/Mississippi/Cumberland River Unit
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-1st Priority Listings-

<u>Poor Fork of Cumberland River</u>		Harlan County	
From River Mile 0.0 to 25.1		Segment Length:	25.1
Impaired Use:	Swimming (Nonsupport)		
Pollutant of Concern:	Pathogens		
Suspected Source:	Land Disposal (Onsite Wastewater Systems - Septic Tanks and/or Straight Pipes), Municipal Point Sources (Minor Municipal Point Sources), Municipal Point Sources (Package Plants – Small Flows)		

This listing was on the 1998 303(d) Report. The TMDL, *Removing Fecal Pollution from the Upper Cumberland River Basin*, has been approved by EPA Region 4. See Tennessee/Mississippi/Cumberland River Unit – Approved TMDLs – Upper Cumberland Watershed Pathogens TMDL. A more complete assessment of the Poor Fork Watershed is now available, which updates this listing. The updated listings follow.

<u>Poor Fork of Cumberland River</u>		Harlan County	
From River Mile 0.0 to 14.9		Segment Length:	14.9
Impaired Use:	Swimming (Nonsupport)		
Pollutant of Concern:	Pathogens		
Suspected Source:	Land Disposal (Onsite Wastewater Systems - Septic Tanks and/or Straight Pipes), Municipal Point Sources (Minor Municipal Point Sources), Municipal Point Sources (Package Plants – Small Flows)		

This listing was part of the 1998 303(d) Report listing shown above (RM 0.0 to 25.1). More recent assessment information has resulted in updating that listing. This entry and the following 2 entries update the 1998 303(d) Report entry for Poor Fork (RM 0.0 to 25.1). The pathogens TMDL, *Removing Fecal Pollution from the Upper Cumberland River Basin*, has been approved by EPA Region 4. See Tennessee/Mississippi/Cumberland River Unit – Approved TMDLs – Upper Cumberland Watershed Pathogens TMDL.

<u>Poor Fork of Cumberland River</u>		Harlan County	
From River Mile 14.9 to 16.3		Segment Length:	1.4
Impaired Use:	Swimming (Nonsupport), Aquatic Life (Partial Support)		
Pollutant of Concern:	Pathogens, Siltation		
Suspected Source:	Land Disposal (Onsite Wastewater Systems - Septic Tanks and/or Straight Pipes), Municipal Point Sources (Minor Municipal Point Sources), Municipal Point Sources (Package Plants – Small Flows), Construction		

This listing was part of the 1998 303(d) Report listing shown above (RM 0.0 to 25.1). More recent assessment information has resulted in updating that listing. The listing shown here for swimming because of pathogens was taken from the 1998 303(d) Report listing. This entry, the preceding entry, and the following entry update the 1998 303(d) Report entry for Poor Fork (RM 0.0 to 25.1). The pathogens TMDL, *Removing Fecal Pollution from the Upper Cumberland River Basin*, has been approved by EPA Region 4. See Tennessee/Mississippi/Cumberland River Unit – Approved TMDLs – Upper Cumberland Watershed Pathogens TMDL.

**Table 5(e) --continued. 2002 303(d) Report For Kentucky – Tennessee/Mississippi/Cumberland River Unit
2002 303(d) List**

-1st Priority Listings-

<u>Poor Fork of Cumberland River</u>		Harlan County	
From River Mile 16.3 to 25.1		Segment Length:	8.8
Impaired Use:	Swimming (Nonsupport)		
Pollutant of Concern:	Pathogens		
Suspected Source:	Land Disposal (Onsite Wastewater Systems - Septic Tanks and/or Straight Pipes), Municipal Point Sources (Minor Municipal Point Sources), Municipal Point Sources (Package Plants – Small Flows)		

This listing was part of the 1998 303(d) Report listing shown above (RM 0.0 to 25.1). More recent assessment information has resulted in updating that listing. This entry and the 2 preceding entries update the 1998 303(d) Report entry for Poor Fork (RM 0.0 to 25.1). The pathogens TMDL, *Removing Fecal Pollution from the Upper Cumberland River Basin*, has been approved by EPA Region 4. See Tennessee/Mississippi/Cumberland River Unit – Approved TMDLs – Upper Cumberland Watershed Pathogens TMDL.

<u>Poor Fork of Cumberland River</u>		Harlan County	
From River Mile 25.1 to 27.5		Segment Length:	2.4
Impaired Use:	Swimming (Nonsupport)		
Pollutant of Concern:	Pathogens		
Suspected Source:	Land Disposal (Onsite Wastewater Systems - Septic Tanks and/or Straight Pipes), Municipal Point Sources (Minor Municipal Point Sources), Municipal Point Sources (Package Plants – Small Flows)		

<u>Richland Creek of Cumberland River</u>		Knox County	
From River Mile 0.0 to 6.2		Segment Length:	6.2
Impaired Use:	Aquatic Life (Nonsupport), Swimming (Partial Support)		
Pollutant of Concern:	Siltation, Organic Enrichment/Low DO, Pathogens		
Suspected Source:	Resource Extraction (Surface Mining), Construction (Highway/Road/Bridge Construction), Construction (Land Development), Unknown		

The listing for pathogens is from the 1998 303(d) Report. It was part of a longer segment (RM 0.0 to 19.6). The pathogens TMDL, *Removing Fecal Pollution from the Upper Cumberland River Basin*, has been approved by EPA Region 4. See Tennessee/Mississippi/Cumberland River Unit – Approved TMDLs – Upper Cumberland Watershed Pathogens TMDL.

**Table 5(e) --continued. 2002 303(d) Report For Kentucky – Tennessee/Mississippi/Cumberland
River Unit
2002 303(d) List**

-1st Priority Listings-

<u>Richland Creek of Cumberland River</u>	Knox County
From River Mile 6.2 to 19.6	Segment Length: 19.6
Impaired Use:	Swimming (Partial Support)
Pollutant of Concern:	Pathogens
Suspected Source:	Unknown

This is the updated listing for pathogens from the 1998 303(d) Report (part of a longer segment from river mile 0.0 to 19.6. See the preceding listing. The pathogens TMDL, *Removing Fecal Pollution from the Upper Cumberland River Basin*, has been approved by EPA Region 4. See Tennessee/Mississippi/Cumberland River Unit – Approved TMDLs – Upper Cumberland Watershed Pathogens TMDL. The section from RM 0.0 to 6.2 has been assessed as not supporting the aquatic life use. See Tennessee/Mississippi/Cumberland River Unit – 2002 303(d) List – 1st Priority Listings. This segment was upgraded to First Priority at the request of the U.S. Fish and Wildlife Service because of the presence of one or more federally threatened and endangered species in the reach.

<u>Roaring Paunch Creek of South Fork Cumberland River</u>	McCreary County
From River Mile 0.0 to 15.6	Segment Length: 15.6
Impaired Use:	Aquatic Life (Nonsupport), Swimming (Nonsupport)
Pollutant of Concern:	Low pH
Suspected Sources:	Resource Extraction (Acid Mine Drainage)

This listing is from the 1998 303(d) Report. The latest assessment information shows that the stream fully supports the aquatic life use. However, no recent pH data are available.

<u>Rock Creek of South Fork Cumberland River</u>	McCreary County
From River mile 0.0 to 4.1	Segment Length: 4.1
Impaired Use:	Aquatic Life (Nonsupport), Swimming (Nonsupport)
Pollutant of Concern:	Low pH
Suspected Sources:	Resource Extraction (Acid Mine Drainage)

This listing is from the 1998 303(d) Report. The latest assessment information indicates that the stream reach has improved to partially supporting of the aquatic life and swimming uses. This is a result of the intensive remediation effort that is taking place in the White Oak Creek watershed, which drains to Rock Creek at RM 4.1. This listing is therefore no longer relevant. See Tennessee/Mississippi/Cumberland River Unit – 2002 303(d) List – 2nd Priority Listings. The TMDL for pH is currently being developed. See Tennessee/Mississippi/Cumberland River Unit - TMDLs Under Development.

**Table 5(e) --continued. 2002 303(d) Report For Kentucky – Tennessee/Mississippi/Cumberland
River Unit
2002 303(d) List**

-1st Priority Listings-

<u>Roundstone Creek of Rockcastle River</u>	Rockcastle County
From River Mile 16.9 to 23.7	Segment Length: 6.8
Impaired Use:	Aquatic Life (Partial Support)
Pollutant of Concern:	Organic Enrichment/Low DO, Habitat Alterations (Other than Flow) Flow Alterations
Suspected Source:	Agriculture (Grazing-related Sources), Hydromodification (Channelization), Habitat Modification (Other than Hydromodification)

This listing is designated First Priority at the request of the U.S. Fish and Wildlife Service because of the presence of one or more federally threatened and endangered species in this reach, which is designated an OSRW.

<u>Ryans Creek of Jellico Creek</u>	McCreary/Whitley Counties
From River Mile 0.0 to 5.3	Segment Length: 5.3
Impaired Use:	Aquatic Life (Nonsupport), Swimming (Nonsupport)
Pollutant of Concern:	Low pH, Suspended Solids
Suspected Source:	Resource Extraction (Acid Mine Drainage)

This listing is from the 1998 303(d) Report. The TMDL for pH is currently being developed. See Tennessee/Mississippi/Cumberland River Unit - TMDLs Under Development.

<u>Sims Fork of Left Fork Straight Creek</u>	Bell County
From River Mile 0.0 to 5.2	Segment Length: 5.2
Impaired Use:	Aquatic Life (Nonsupport)
Pollutant of Concern:	Unknown
Suspected Source:	Unknown

This stream segment is an OSRW and contains one or more federally threatened and endangered species.

<u>South Fork Rockcastle River of Rockcastle River</u>	Laurel County
From River Mile 20.8 to 21.5	Segment Length: 0.7
Impaired Use:	Aquatic Life (Nonsupport)
Pollutant of Concern:	Siltation, Habitat Alterations (Other than Flow)
Suspected Source:	Agriculture (Crop-related Sources), Habitat Modification (Other than Hydromodification) - Removal of Riparian Vegetation

<u>Stony Fork of Bennetts Fork</u>	Bell County
From River Mile 0.0 to 5.2	Segment Length: 5.2
Impaired Use:	Aquatic Life (Nonsupport)
Pollutant of Concern:	Siltation, Flow Alterations, Habitat Alterations (Other than Flow), Turbidity
Suspected Source:	Silviculture (Harvesting, Restoration, and Residue Management), Habitat Modification (Other than Hydromodification) - Removal of Riparian Vegetation and Bank Modification/Destabilization

**Table 5(e) --continued. 2002 303(d) Report For Kentucky – Tennessee/Mississippi/Cumberland River Unit
2002 303(d) List**

-1st Priority Listings-

<u>Stoney Fork of Straight Creek</u>	Bell County	
From River Mile 0.0 to 2.4	Segment Length:	2.4
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Siltation, Flow Alterations, Habitat Alterations (Other than Flow), Turbidity	
Suspected Source:	Silviculture (Harvesting, Restoration, and Residue Management), Habitat Modification (Other than Hydromodification) - Removal of Riparian Vegetation and Bank Modification/Destabilization, Resource Extraction (Surface, Subsurface, Abandoned, and Inactive Mining)	

<u>Straight Creek of Cumberland River</u>	Bell/Harlan Counties	
From River Mile 0.0 to 23.5	Segment Length:	23.5
Impaired Use:	Swimming (Nonsupport)	
Pollutant of Concern:	Pathogens	
Suspected Source:	Land Disposal (Onsite Wastewater Systems - Septic Tanks and/or Straight Pipes)	

This listing was in the 1998 303(d) Report. The TMDL, *Removing Fecal Pollution from the Upper Cumberland River Basin*, has been approved by EPA Region 4. See Tennessee/Mississippi/Cumberland River Unit – Approved TMDLs – Upper Cumberland Watershed Pathogens TMDL. Please see the updated listings that follow.

<u>Straight Creek of Cumberland River</u>	Bell County	
From River Mile 0.0 to 1.7	Segment Length:	1.7
Impaired Use:	Swimming (Nonsupport), Aquatic Life (Partial Support)	
Pollutant of Concern:	Pathogens, Siltation	
Suspected Source:	Land Disposal (Onsite Wastewater Systems - Septic Tanks and/or Straight Pipes), Resource Extraction	

The listing for swimming impairment because of pathogens was in the 1998 303(d) Report. The TMDL, *Removing Fecal Pollution from the Upper Cumberland River Basin*, has been approved by EPA Region 4. See Tennessee/Mississippi/Cumberland River Unit – Approved TMDLs – Upper Cumberland Watershed Pathogens TMDL. The aquatic life listing is from the extirpation of *phoxinus cumberlandensis* (blackside dace) from the stream since November 1975.

<u>Straight Creek of Cumberland River</u>	Bell/Harlan Counties	
From River Mile 1.7 to 23.5	Segment Length:	21.8
Impaired Use:	Swimming (Nonsupport)	
Pollutant of Concern:	Pathogens	
Suspected Source:	Land Disposal (Onsite Wastewater Systems - Septic Tanks and/or Straight Pipes)	

This listing was in the 1998 303(d) Report. The TMDL, *Removing Fecal Pollution from the Upper Cumberland River Basin*, has been approved by EPA Region 4. See Tennessee/Mississippi/Cumberland River Unit – Approved TMDLs – Upper Cumberland Watershed Pathogens TMDL.

**Table 5(e) --continued. 2002 303(d) Report For Kentucky – Tennessee/Mississippi/Cumberland
River Unit
2002 303(d) List**

-1st Priority Listings-

<u>UT of Jennys Branch (River Mile 3.4)</u>	McCreary County
From River Mile 0.0 to 1.1	Segment Length: 1.1
Impaired Use:	Aquatic Life (Nonsupport)
Pollutant of Concern:	Siltation, Nutrients
Suspected Source:	Urban runoff/Storm Sewers (Erosion and Sedimentation), Land Disposal (Onsite Wastewater System - Septic Tanks and/or Straight Pipes)

<u>UT of Little Laurel River (River Mile 15.8)</u>	Laurel County
From River Mile 0.0 to 1.4	Segment Length: 1.4
Impaired Use:	Aquatic Life (Nonsupport)
Pollutant of Concern:	Siltation, Habitat Alterations (Other than Flow)
Suspected Source:	Habitat Modification (Other than Hydromodification) - Removal of Riparian Vegetation

<u>White Oak Creek of Sinking Creek</u>	Laurel County
From River Mile 0.0 to 1.0	Segment Length: 1.0
Impaired Use:	Aquatic Life (Nonsupport)
Pollutant of Concern:	Siltation, Suspended Solids, Turbidity
Suspected Source:	Agriculture (Crop-related Sources - Nonirrigated Crop Production), Agriculture (Grazing-related Source - Pasture Grazing - Riparian and/or Upland), Urban Runoff/Storm Sewers (Erosion and Sedimentation)

<u>Whitley Branch of Little Laurel River</u>	Laurel County
From River Mile 0.0 to 1.0	Segment Length: 1.0
Impaired Use:	Aquatic Life (Nonsupport), Swimming (Nonsupport)
Pollutant of Concern:	Chlorine, Pathogens
Suspected Sources:	Municipal Point Sources, Collection System Failure

This listing is from the 1998 303(d) Report. The listing for chlorine was based on DMRs from the London WWTP. The London WWTP corrected the problem and consistently met limits for chlorine. A request to delist this segment of Whitley Branch as being impaired for aquatic life because of chlorine was submitted to EPA Region 4. EPA Region 4 concurred, and this segment of Whitley Branch was informally delisted as being impaired for aquatic life use because of chlorine. A request to formally delist Whitley Branch for chlorine will be submitted to EPA Region 4 with the 2002 303(d) Report. See Tennessee/Mississippi/Cumberland River Unit - Delistings - 1st Priority Listings. New assessment information has resulted in the updating of this listing. See the following listing.

<u>Whitley Branch of Little Laurel River</u>	Laurel County
From River Mile 0.0 to 1.0	Segment Length: 1.0
Impaired Use:	Aquatic Life (Nonsupport), Swimming (Nonsupport)
Pollutant of Concern:	Nutrients, Organic Enrichment/Low DO, Pathogens
Suspected Sources:	Municipal Point Sources, Collection System Failure

This listing updates the 1998 303(d) listing (see the previous listing).

**Table 5(e) --continued. 2002 303(d) Report For Kentucky – Tennessee/Mississippi/Cumberland
River Unit
2002 303(d) List**

-1st Priority Listings-

<u>Whitley Branch of Little Laurel River</u>	Laurel County	
From River Mile 1.0 to 2.5	Segment Length:	1.5
Impaired Use:	Swimming (Nonsupport)	
Pollutant of Concern:	Pathogens	
Suspected Sources:	Collection System Failure	

This listing is from the 1998 303(d) Report.

<u>Wildcat Branch of Cumberland River</u>	Pulaski County	
From River Mile 0.0 to 2.1	Segment Length:	2.1
Impaired Use:	Aquatic Life (Nonsupport), Swimming (Nonsupport)	
Pollutant of Concern:	Low pH	
Suspected Source:	Resource Extraction (Acid Mine Drainage)	

This listing is from the 1998 303(d) Report. The TMDL for pH is currently being developed. See Tennessee/Mississippi/Cumberland River Unit - TMDLs Under Development.

<u>Wolf Creek of Clear Fork</u>	Whitley County	
From River Mile 0.0 to 1.8	Segment Length:	1.8
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Siltation	
Suspected Source:	Agriculture (Crop-related Sources - Nonirrigated Crop Production) Resource Extraction (Surface Mining)	

<u>Yocum Creek of Clover Fork</u>	Harlan County	
From River Mile 0.0 to 6.5	Segment Length:	6.5
Impaired Use:	Swimming (Nonsupport)	
Pollutant of Concern:	Pathogens	
Suspected Source:	Land Disposal (Onsite Wastewater Systems - Septic Tanks and/or Straight Pipes)	

This listing was in the 1998 303(d) Report. The TMDL, *Removing Fecal Pollution from the Upper Cumberland River Basin*, has been approved by EPA Region 4. See Tennessee/Mississippi/Cumberland River Unit - Approved TMDLs - Upper Cumberland Watershed Pathogens TMDL.

**Table 5(e) --continued. 2002 303(d) Report For Kentucky – Tennessee/Mississippi/Cumberland
River Unit
2002 303(d) List**

-2nd Priority Listings-

Basin: Lower Cumberland

<u>Casey Creek of Little River</u>	Trigg County	
From River Mile 0.0 to 3.6	Segment Length:	3.6
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Siltation	
Suspected Source:	Sources Outside State Jurisdiction or Borders	
<u>Donaldson Creek of Cumberland Creek</u>	Trigg County	
From River Mile 9.6 to 14.2	Segment Length:	4.6
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Habitat Alterations (Other than Flow)	
Suspected Source:	Resource Extraction (Dredge Mining)	
<u>Dry Creek of Eddy Creek</u>	Caldwell County	
From River Mile 0.0 to 3.5	Segment Length:	3.5
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Unknown	
Suspected Source:	Unknown	
<u>Eddy Creek of Cumberland River (Lake Barkley)</u>	Caldwell County	
From River Mile 16.9 to 19.7	Segment Length:	2.8
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Unknown	
Suspected Source:	Unknown	
<u>Ferguson Creek of Cumberland River</u>	Livingston County	
From River Mile 1.1 to 2.2	Segment Length:	1.1
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Unknown	
Suspected Source:	Unknown	
<u>Kenady Creek of Muddy Fork</u>	Trigg County	
From River Mile 0.0 to 3.9	Segment Length:	3.9
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Unknown	
Suspected Source:	Unknown	

**Table 5(e) --continued. 2002 303(d) Report For Kentucky – Tennessee/Mississippi/Cumberland
River Unit
2002 303(d) List**

-2nd Priority Listings-

<u>Little River of Cumberland River (Lake Barkley)</u>	Trigg County
From River Mile 23.6 to 33.1	Segment Length: 9.5
Impaired Use:	Aquatic Life (Partial Support), Fish Consumption (Partial Support)
Pollutant of Concern:	Nutrients, Siltation, Metals (Iron), Metals (Mercury)
Suspected Sources:	Agriculture (Crop-related Sources)

This listing updates what was contained in the 1998 303(d) Report. Fish Consumption has been added as an impaired use because of mercury. Iron was added as a pollutant of concern, but is more correctly tied to siltation. Recent data show that the swimming use is fully supported. A request to delist the stream segment from RM 23.6 to 33.1 as being impaired for the swimming use because of pathogens will be submitted to EPA Region 4 with the 2002 303(d) Report. See Tennessee/Mississippi/Cumberland River Unit – Delistings – 1st Priority. Also, see the following listing and other Little River listings in the 1st Priority Listings.

<u>Little River of Cumberland River (Lake Barkley)</u>	Trigg/Christian Counties
From River Mile 34.4 to 48.4	Segment Length: 14.0
Impaired Use:	Aquatic Life (Partial Support), Swimming (Partial Support)
Pollutant of Concern:	Nutrients, Siltation, Pathogens
Suspected Sources:	Agriculture (Crop-related Sources), Municipal Point Sources

This listing updates what was contained in the 1998 303(d) Report. See the preceding listing for additional information and see the other Little River listings in the 1st Priority Listings.

<u>Livingston Creek of Cumberland River</u>	Crittenden County
From River Mile 11.6 to 15.4	Segment Length: 3.8
Impaired Use:	Aquatic Life (Partial Support)
Pollutant of Concern:	Unknown
Suspected Source:	Unknown

<u>Lower Branch of North Fork Little River</u>	Christian County
From River Mile 3.7 to 9.2	Segment Length: 5.5
Impaired Use:	Aquatic Life (Partial Support)
Pollutant of Concern:	Unknown
Suspected Source:	Unknown

<u>North Fork Little River of Little River</u>	Christian County
From River Mile 0.3 to 6.9	Segment Length: 6.6
Impaired Use:	Aquatic Life (Partial Support), Swimming (Partial Support)
Pollutant of Concern:	Nutrients, Siltation, Pathogens
Suspected Source:	Municipal Point Sources, Agriculture, Urban Runoff/Storm Sewers

**Table 5(e) --continued. 2002 303(d) Report For Kentucky – Tennessee/Mississippi/Cumberland
River Unit
2002 303(d) List**

-2nd Priority Listings-

<u>Red River of Cumberland River</u>	Logan County	
From River Mile 50.1 to 54.2	Segment Length:	4.1
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Unknown	
Suspected Source:	Unknown	

<u>Red River of Cumberland River</u>	Logan County	
From River Mile 73.5 to 80.5	Segment Length:	7.0
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Unknown	
Suspected Source:	Unknown	

<u>Sinking Fork of Little River</u>	Trigg County	
From River Mile 2.2 to 5.6	Segment Length:	3.4
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Unknown	
Suspected Source:	Unknown	

<u>Sugar Creek of Cumberland River</u>	Livingston County	
From River mile 2.1 to 6.7	Segment Length:	4.6
Impaired Use:	Swimming (Partial Support)	
Pollutant of Concern:	Pathogens	
Suspected Source:	Unknown	

<u>Upper Branch North Fork Little River</u>	Christian County	
From River Mile 0.0 to 2.7	Segment Length:	2.7
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Unknown	
Suspected Source:	Unknown	

Basin: Mississippi River

<u>Brush Creek of Obion Creek</u>	Graves County	
From River Mile 0.0 to 8.3	Segment Length:	8.3
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Siltation	
Suspected Source:	Agriculture, Hydromodification (Channelization and Dredging)	

**Table 5(e) --continued. 2002 303(d) Report For Kentucky – Tennessee/Mississippi/Cumberland
River Unit
2002 303(d) List**

-2nd Priority Listings-

<u>Brush Creek of Obion Creek</u>		Hickman County	
From River Mile 0.0 to 6.0		Segment Length:	6.0
Impaired Use:	Aquatic Life (Partial Support)		
Pollutant of Concern:	Siltation, Flow Alterations, Habitat Alterations (Other than Flow), Excessive Algal Growth/ Chlorophyll_a		
Suspected Source:	Agriculture (Crop-related Sources - Nonirrigated Crop Production), Hydromodification (Channelization), Habitat Modification (Other than Hydromodification) - Removal of Riparian Vegetation		

<u>Cane Creek of Shawnee Creek</u>		Ballard County	
From River Mile 0.0 to 3.8		Segment Length:	3.8
Impaired Use:	Aquatic Life (Partial Support)		
Pollutant of Concern:	Organic Enrichment/Low DO		
Suspected Source:	Unknown		

<u>Central Creek of Truman Creek</u>		Carlisle County	
From River Mile 0.0 to 0.4		Segment Length:	0.4
Impaired Use:	Aquatic Life (Partial Support)		
Pollutant of Concern:	Chlorine		
Suspected Source:	Municipal Point Sources		

This listing is from the 1998 303(d) Report and was based on DMRs from the Bardwell WWTP. The plant no longer discharges to Central Creek as of January 2000. The flow now goes to the Carlisle County Regional WWTP. A request to delist Central Creek as being impaired for aquatic life use because of chlorine was submitted to EPA Region 4, which concurred with the request, and approved informal delisting. A request to formally delist Central Creek as being impaired for aquatic life use because of chlorine will be submitted to EPA Region 4 with the 2002 303(d) Report. See Tennessee/Mississippi/Cumberland River Unit - Delistings - 2nd Priority Listings.

<u>Goose Creek of Wilson Creek</u>		Graves County	
From River Mile 0.0 to 4.4		Segment Length:	4.4
Impaired Use:	Aquatic Life (Partial Support)		
Pollutant of Concern:	Siltation, Habitat Alterations (Other than Flow), Flow Alterations		
Suspected Source:	Hydromodification (Channelization), Habitat Modification (Other than Hydromodification) - Removal of Riparian Vegetation		

<u>Hurricane Creek of Obion Creek</u>		Carlisle County	
From River Mile 0.0 to 3.7		Segment Length:	3.7
Impaired Use:	Aquatic Life (Partial Support)		
Pollutant of Concern:	Siltation, Flow Alterations, Habitat Alterations (Other than Flow)		
Suspected Source:	Agriculture (Crop-related Sources - Nonirrigated Crop Production), Hydromodification (Channelization), Habitat Modification (Other than Hydromodification) - Removal of Riparian Vegetation		

**Table 5(e) --continued. 2002 303(d) Report For Kentucky – Tennessee/Mississippi/Cumberland
River Unit
2002 303(d) List**

-2nd Priority Listings-

Little Bayou de Chien of Bayou de Chien Hickman County
From River Mile 0.0 to 2.1 Segment Length: 2.1
Impaired Use: Aquatic Life (Partial Support)
Pollutant of Concern: Siltation
Suspected Source: Agriculture, Habitat Modification (Other than Hydromodification) -
Removal of Riparian Vegetation

Little Mud Creek of Bayou de Chien Fulton County
From River Mile 0.0 to 1.8 Segment Length: 1.8
Impaired Use: Aquatic Life (Partial Support)
Pollutant of Concern: Siltation, Organic Enrichment/Low DO
Suspected Source: Agriculture (Crop-related Sources - Nonirrigated Crop Production)

Mayfield Creek of Mississippi River Carlisle/Ballard Counties
From River Mile 0.0 to 3.4 Segment Length: 3.4
Impaired Use: Aquatic Life (Partial Support)
Pollutant of Concern: Habitat Alterations (Other than Flow), Flow Alterations
Suspected Source: Unknown

Mayfield Creek of Mississippi River Carlisle/McCracken/Ballard Counties
From River Mile 13.5 to 40.8 Segment Length: 27.3
Impaired Use: Aquatic Life (Partial Support)
Pollutant of Concern: Habitat Alterations (Other than Flow), Siltation
Suspected Source: Agriculture, Hydromodification (Channelization)

This listing is from the 1998 303(d) Report. More recent assessment information is available, making this listing no longer relevant. The following Mayfield Creek entries are updates to this listing. Additional updates to this listing are located in the 1st Priority listings. See Tennessee/Mississippi/Cumberland River Unit – 2002 303(d) List – 1st Priority Listings.

Mayfield Creek of Mississippi River Carlisle County
From River Mile 14.8 to 17.4 Segment Length: 2.6
Impaired Use: Aquatic Life (Partial Support)
Pollutant of Concern: Siltation, Habitat Alterations (Other than Flow)
Suspected Source: Agriculture

This stream segment was part of a longer stream segment (RM 13.5 to 40.8) listed in the 1998 303(d) Report as being in partial support of the aquatic life designated use. More recent assessment information is available, making the 1998 303(d) Report listing for Mayfield Creek from RM 13.5 to 40.8 no longer relevant. This listing and the following listings are updates to the 1998 listing. For additional updates to the 1998 303(d) listings for Mayfield Creek (RM 13.5 to 40.8), also see Tennessee/Mississippi/Cumberland River Unit - 2002 303(d) List - 1st Priority Listings.

**Table 5(e) --continued. 2002 303(d) Report For Kentucky – Tennessee/Mississippi/Cumberland River Unit
2002 303(d) List**

-2nd Priority Listings-

<u>Mayfield Creek of Mississippi River</u>	McCracken County
From River Mile 17.4 to 32.9	Segment Length: 15.5
Impaired Use:	Aquatic Life (Partial Support)
Pollutant of Concern:	Siltation, Flow Alterations, Habitat Alterations (Other than Fflow)
Suspected Source:	Hydromodification (Channelization), Habitat Modification (Other than Hydromodification) - Removal of Riparian Vegetation

This listing is an update to the 1998 303(d) Report listing for Mayfield Creek from RM 13.5 to 40.8. More recent assessment information is available, making the 1998 303(d) Report listing no longer relevant. This entry and the preceding and following Mayfield Creek entries are updates to the 1998 303(d) Report listing for Mayfield Creek from RM 13.5 to 40.8. Additional updates to the 1998 303(d) Report entry for Mayfield Creek (RM 13.5 to 40.8) are located in the 1st Priority listings. See Tennessee/Mississippi/Cumberland River Unit – 2002 303(d) List – 1st Priority Listings.

<u>Mayfield Creek of Mississippi River</u>	Graves County
From River Mile 32.9 to 34.9	Segment Length: 2.0
Impaired Use:	Aquatic Life (Partial Support)
Pollutant of Concern:	Siltation, Habitat Alterations (Other than Flow)
Suspected Source:	Hydromodification (Channelization), Habitat Modification (Other than Hydromodification) - Removal of Riparian Vegetation

This listing is an update to the 1998 303(d) Report listing for Mayfield Creek from RM 13.5 to 40.8. More recent assessment information is available, making the 1998 303(d) Report listing no longer relevant. This entry and the following and preceding Mayfield Creek entries are updates to the 1998 303(d) Report listing for Mayfield Creek from RM 13.5 to 40.8. Additional updates to the 1998 303(d) Report entry for Mayfield Creek (RM 13.5 to 40.8) are located in the 1st Priority listings. See Tennessee/Mississippi/Cumberland River Unit – 2002 303(d) List – 1st Priority Listings.

<u>Mayfield Creek of Mississippi River</u>	Graves County
From River Mile 37.6 to 40.8	Segment Length: 3.2
Impaired Use:	Aquatic Life (Partial Support)
Pollutant of Concern:	Siltation, Habitat Alterations (Other than Flow)
Suspected Source:	Hydromodification (Channelization), Habitat Modification (Other than Hydromodification) - Removal of Riparian Vegetation

This listing is an update to the 1998 303(d) Report listing for Mayfield Creek from RM 13.5 to 40.8. More recent assessment information is available, making the 1998 303(d) Report listing no longer relevant. This entry and the preceding Mayfield Creek entries are updates to the 1998 303(d) Report listing for Mayfield Creek from RM 13.5 to 40.8. Additional updates to the 1998 303(d) Report entry for Mayfield Creek (RM 13.5 to 40.8) are located in the 1st Priority listings. See Tennessee/Mississippi/Cumberland River Unit - 2002 303(d) List - 1st Priority Listings.

**Table 5(e) --continued. 2002 303(d) Report For Kentucky – Tennessee/Mississippi/Cumberland
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-2nd Priority Listings-

<u>Obion Creek of Mississippi River</u>		Hickman/Graves Counties
From River Mile 42.0 to 46.7		Segment Length: 4.7
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Siltation, Habitat Alterations (Other than Flow)	
Suspected Source:	Agriculture (Crop-related Sources), Hydromodification (Channelization)	

<u>Obion Creek of Mississippi River</u>		Graves County
From River Mile 46.7 to 56.0		Segment Length: 9.3
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Siltation	
Suspected Source:	Agriculture	

This listing is from the 1998 303(d) Report.

<u>Running Slough of Obion River (Reelfoot Lake)</u>		Fulton County
From River Mile 0.0 to 15.3		Segment Length: 15.3
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Siltation, Turbidity	
Suspected Source:	Agriculture (Crop-related Sources)	

<u>Shawnee Creek of Mississippi River</u>		Ballard County
From River Mile 8.9 to 17.9		Segment Length: 9.0
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Siltation	
Suspected Source:	Agriculture, Habitat Modification (Other than Hydromodification) - Removal of Riparian Vegetation, Hydromodification (Channelization)	

Basin: Ohio River

<u>Humphrey Creek of Ohio River</u>		Ballard County
From River Mile 0.0 to 3.4		Segment Length: 3.4
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Habitat Alterations (Other than Flow)	
Suspected Source:	Habitat Modification (Other than Hydromodification)	

<u>Humphrey Creek of Ohio River</u>		Ballard County
From River Mile 3.4 to 11.0		Segment Length: 7.6
Impaired Use:	Swimming (Partial Support)	
Pollutant of Concern:	Pathogens	
Suspected Source:	Unknown	

**Table 5(e) --continued. 2002 303(d) Report For Kentucky – Tennessee/Mississippi/Cumberland
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-2nd Priority Listings-

<u>Massac Creek of Ohio River</u>	McCracken County
From River Mile 3.6 to 4.2	Segment Length: 0.6
Impaired Use:	Aquatic Life (Partial Support)
Pollutant of Concern:	Siltation , Habitat Alterations (Other than Flow)
Suspected Source:	Urban Runoff/ Storm Sewers (Highway/Road/Bridge Runoff - Erosion and Sedimentation), Resource Extraction (Dredge Mining), Habitat Modification (Other than Hydromodification) - Removal of Riparian Vegetation

<u>UT of Massac Creek (River Mile 5.2)</u>	McCracken County
From River Mile 0.0 to 0.4	Segment Length: 0.4
Impaired Use:	Aquatic Life (Partial Support), Swimming (Partial Support)
Pollutant of Concern:	Organic Enrichment/Low DO, Ammonia (Un-ionized), Suspended Solids
Suspected Source:	Municipal Point Source (Package Plant - Small Flows)

<u>UT of Massac Creek (River Mile 7.0)</u>	McCracken County
From River Mile 0.0 to 0.7	Segment Length: 0.7
Impaired Use:	Aquatic Life (Partial Support), Swimming (Partial Support)
Pollutant of Concern:	Organic Enrichment/Low DO, Ammonia (Un-ionized), Suspended Solids
Suspected Source:	Municipal Point Source (Package Plant - Small Flows)

Basin: Tennessee River

<u>Beechy Creek of Blood River</u>	Calloway County
From River Mile 0.0 to 2.9	Segment Length: 2.9
Impaired Use:	Aquatic Life (Partial Support)
Pollutant of Concern:	Unknown
Suspected Source:	Unknown

This is a listing from 1998 303(d) Report. More recent assessment information indicates that this stream segment now fully supports the aquatic life use. A request to delist this stream segment as being impaired for aquatic life use will be submitted to EPA Region with the 2002 303(d) Report. See Tennessee/Mississippi/Cumberland River Unit - Delistings - 2nd Priority Listings.

<u>Camp Creek of West Fork Clarks River</u>	McCracken County
From River Mile 0.0 to 5.4	Segment Length: 5.4
Impaired Use:	Swimming (Partial Support), Aquatic Life (Partial Support)
Pollutant of Concern:	Pathogens, Unknown
Suspected Source:	Unknown, Unknown

**Table 5(e) --continued. 2002 303(d) Report For Kentucky – Tennessee/Mississippi/Cumberland
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-2nd Priority Listings-

<u>Champion Creek of Island Creek</u>	McCracken County	
From River Mile 0.0 to 1.5	Segment Length:	1.5
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Unknown	
Suspected Source:	Unknown	

This listing is from the 1998 303(d) Report. More recent assessment information indicates that this segment is now in nonsupport of the aquatic life use, making this listing no longer relevant. See Tennessee/Mississippi/Cumberland River Unit – 2002 303(d) List – 1st Priority Listings for the updated listing.

<u>Chestnut Creek of Clarks River</u>	Marshall County	
From River Mile 0.0 to 3.0	Segment Length:	3.0
Impaired Use:	Swimming (Partial Support), Aquatic Life (Partial Support)	
Pollutant of Concern:	Pathogens, Unknown	
Suspected Source:	Unknown, Unknown	

<u>Clarks River of Tennessee River</u>	McCracken County	
From River Mile 5.0 to 12.7	Segment Length:	7.7
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Unknown	
Suspected Source:	Unknown	

<u>Clarks River of Tennessee River</u>	Calloway County	
From River Mile 59.2 to 61.9	Segment Length:	2.7
Impaired Use:	Swimming (Partial Support), Aquatic Life (Partial Support)	
Pollutant of Concern:	Pathogens, Unknown	
Suspected Source:	Unknown, Unknown	

<u>Clayton Creek of Clarks River</u>	Calloway County	
From River Mile 0.8 to 3.3	Segment Length:	2.5
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Unknown	
Suspected Source:	Unknown	

<u>Guess Creek of Tennessee River</u>	Livingston County	
From River Mile 0.0 to 2.6	Segment Length:	2.6
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Unknown	
Suspected Source:	Unknown	

**Table 5(e) --continued. 2002 303(d) Report For Kentucky – Tennessee/Mississippi/Cumberland
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-2nd Priority Listings-

<u>Island Creek of Tennessee River</u>	McCracken County
From River Mile 0.0 to 10.3	Segment Length: 10.3
Impaired Use: Aquatic Life (Partial Support)	
Pollutant of Concern: Unknown	
Suspected Source: Unknown	

This listing is from the 1998 303(d) Report. New assessment information shows that the segment from RM 0.0 to 5.5 is nonsupporting of the swimming use because of pathogens and still partially supporting of the aquatic life use from an unknown cause. See Tennessee/Mississippi/Cumberland River Unit - 2002 303(d) List - 1st Priority Listings. Also see below for the updated 2nd Priority listings.

<u>Island Creek of Tennessee River</u>	McCracken County
From River Mile 5.5 to 10.3	Segment Length: 4.8
Impaired Use: Aquatic Life (Partial Support)	
Pollutant of Concern: Unknown	
Suspected Source: Unknown	

This listing is a subset of the 1998 303(d) Report listing and updates the 1998 303(d) Report listing. See the preceding entry.

<u>Jonathan Creek of Tennessee River (Kentucky Lake)</u>	Calloway/Marshall County
From River Mile 6.2 to 18.0	Segment Length: 11.8
Impaired Use: Aquatic Life (Partial Support)	
Pollutant of Concern: Unknown	
Suspected Source: Unknown	

This listing is from the 1998 303(d) Report.

<u>Middle Fork Clarks River of Clarks River</u>	Calloway County
From River Mile 2.7 to 4.9	Segment Length: 2.2
Impaired Use: Aquatic Life (Partial Support)	
Pollutant of Concern: Organic Enrichment/Low DO, Siltation	
Suspected Source: Agriculture	

<u>Reeves Branch of Sugar Creek</u>	Marshall County
From River Mile 0.0 to 0.3	Segment Length: 0.3
Impaired Use: Aquatic Life (Partial Support)	
Pollutant of Concern: Unknown	
Suspected Source: Unknown	

**Table 5(e) --continued. 2002 303(d) Report For Kentucky – Tennessee/Mississippi/Cumberland
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-2nd Priority Listings-

<u>Spring Creek of West Fork Clarks River</u>		Graves County
From River Mile 0.0 to 1.8		Segment Length: 1.8
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Unknown	
Suspected Source:	Unknown	

<u>Tennessee River of Ohio River</u>		Marshall County
From River Mile 21.1 to 22.4		Segment Length:
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Flow Alterations	
Suspected Source:	Hydromodification (Upstream Impoundment)	

The impairment is a result of fish kills related to conditions downstream from the dam. This is considered pollution and is therefore not a TMDL issue.

<u>West Fork of Clarks River</u>		Graves County
From River Mile 2.6 to 10.1		Segment Length: 7.5
Impaired Use:	Swimming (Partial Support)	
Pollutant of Concern:	Pathogens	
Suspected Source:	Unknown	

<u>West Fork of Clarks River</u>		Marshall County
From River Mile 19.7 to 22.7		Segment Length: 3.0
Impaired Use:	Fish Consumption (Partial Support)	
Pollutant of Concern:	Metals (Mercury)	
Suspected Source:	Unknown	

<u>West Fork of Clarks River</u>		Calloway County
From River Mile 22.7 to 27.3		Segment Length: 4.6
Impaired Use:	Swimming (Partial Support)	
Pollutant of Concern:	Pathogens	
Suspected Source:	Unknown	

<u>West Fork of Clarks River</u>		Calloway County
From River Mile 33.1 to 37.2		Segment Length: 4.1
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Unknown	
Suspected Source:	Unknown	

<u>West Fork of Clarks River (old channel)</u>		Graves County
From River mile 0.0 to 13.8		Segment Length: 13.8
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Unknown	
Suspected Source:	Unknown	

**Table 5(e) --continued. 2002 303(d) Report For Kentucky – Tennessee/Mississippi/Cumberland
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-2nd Priority Listings-

Basin: Upper Cumberland

<u>Bennetts Fork of Yellow Creek Bypass</u>	Bell County	
From River Mile 0.0 to 7.5	Segment Length:	7.5
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Unknown	
Suspected Source:	Unknown	

<u>Big Lily Creek of Cumberland River (Lake Cumberland)</u>	Russell County	
From River Mile 4.7 to 9.1	Segment Length:	4.4
Impaired Use:	Aquatic Life (Partial Support), Fish Consumption (Partial Support)	
Pollutant of Concern:	Organic Enrichment/Low DO	
Suspected Source:	Unknown	

This listing is from the 1998 303(d) Report. The listing for fish consumption is an error. The assessment based on 1995 date indicated full support of aquatic life use and fish consumption. However, EPA Region 4 requested that the stream remain on the 303(d) list as being impaired for aquatic life use until another assessment could be made. Therefore, the stream listing in the 1998 303(d) Report should have been for aquatic life only, because of organic enrichment/ low DO. An impairment for fish consumption should not have been included with the 1998 303(d) listing. A request to delist Big Lily Creek as being impaired as being impaired for fish consumption will be submitted to EPA Region 4 with the 2002 303(d) list. See Tennessee/Mississippi/Cumberland River Unit - Modifications to the 1998 303(d) Report - 2nd Priority. Also see Tennessee/Mississippi/Cumberland River Unit - Delistings - 2nd Priority. The latest assessment information, based on data collected in June 2000, also indicates that Big Lily Creek from 4.7 to 11.0 fully supports the aquatic life designated use. A request to delist Big Lily Creek as being impaired for aquatic life use will be submitted to EPA Region 4 with the 2002 303(d) Report. See Tennessee/Mississippi/Cumberland River Unit - Delistings - 2nd Priority.

<u>Big Renox Creek of Cumberland River</u>	Cumberland County	
From River Mile 0.0 to 5.8	Segment Length:	5.8
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Unknown	
Suspected Source:	Unknown	

<u>Briary Creek of Buck Creek</u>	Pulaski County	
From River Mile 0.0 to 4.4	Segment Length:	4.4
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Siltation	
Suspected Source:	Agriculture (Crop-related Sources - Nonirrigated Crop Production), Resource Extraction (Dredge Mining), Recreation and Tourism Activities (All Terrain Vehicles)	

**Table 5(e) --continued. 2002 303(d) Report For Kentucky – Tennessee/Mississippi/Cumberland
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-2nd Priority Listings-

<u>Cranks Creek of Martins Fork</u>	Harlan County	
From River Mile 1.9 to 2.5	Segment Length:	0.6
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Flow Alterations	
Suspected Source:	Hydromodification (Upstream Impoundment)	

A TMDL is not required because this impairment is defined as being caused by pollution and not a pollutant.

<u>Crocus Creek of Cumberland River</u>	Cumberland/Adair County	
From River Mile 4.8 to 16.9	Segment Length:	12.1
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Siltation, Habitat Alterations (Other than Flow)	
Suspected Source:	Agriculture, Habitat Modification (Other than Hydromodification) - Removal of Riparian Vegetation and Bank Modification/Destabilization	

<u>Crooked Creek of Roundstone Creek</u>	Rockcastle County	
From River Mile 1.0 to 6.4	Segment Length:	5.4
Impaired Use:	Swimming (Partial Support)	
Pollutant of Concern:	Pathogens	
Suspected Source:	Agriculture, Land Disposal (Onsite Wastewater Systems – Septic Tanks and/or Straight Pipes)	

This listing is from the 1998 303(d) Report.

<u>Cumberland River of Ohio River</u>	Harlan County	
From River Mile 660.1 to 666.7	Segment Length:	6.6
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Metals (Iron)	
Suspected Source:	Unknown	

The pollutant of concern is metals (iron), but is more correctly tied to siltation.

<u>East Fork Lynn Camp Creek of Lynn Camp Creek</u>	Knox/Whitley Counties	
From River Mile 0.0 to 4.5	Segment Length:	4.5
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Siltation	
Suspected Source:	Construction (Land Development)	

<u>Gilmore Creek of Crab Orchard Creek</u>	Lincoln/Pulaski County	
From River Mile 0.0 to 4.7	Segment Length:	4.7
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Habitat Alterations (Other than Flow), Siltation	
Suspected Source:	Resource Extraction (Dredge Mining)	

**Table 5(e) --continued. 2002 303(d) Report For Kentucky – Tennessee/Mississippi/Cumberland
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-2nd Priority Listings-

<u>Goodin Creek of Cumberland River</u>		Knox County
From River Mile 2.1 to 2.3		Segment Length: 0.2
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Siltation, Flow Alterations	
Suspected Source:	Habitat Alterations (Other than Hydromodification) - Removal of Riparian Vegetation, Hydromodification (Upstream Impoundment)	

<u>Greasy Creek of Cumberland River</u>		Bell County
From River Mile 0.0 to 11.4		Segment Length: 11.4
Impaired Use:	Swimming (Partial Support)	
Pollutant of Concern:	Pathogens	
Suspected Sources:	Land Disposal (Onsite Wastewater Systems - Septic Tanks and/or Straight Pipes)	

This listing is from the 1998 303(d) Report. The pathogens TMDL, *Removing Fecal Pollution from the Upper Cumberland River Basin*, has been approved by EPA Region 4. See Tennessee/Mississippi/Cumberland River Unit - Approved TMDLs - Upper Cumberland Watershed Pathogens TMDL.

<u>Hatchell Branch of Eagle Creek</u>		McCreary County
From River Mile 0.0 to 1.0		Segment Length: 1.0
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Siltation	
Suspected Source:	Silviculture	

<u>Indian Creek of Buck Creek</u>		Pulaski County
From River Mile 0.0 to 4.1		Segment Length: 4.1
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Siltation, Habitat Alterations (Other than Flow)	
Suspected Source:	Resource Extraction (Dredge Mining)	

**Table 5(e) --continued. 2002 303(d) Report For Kentucky – Tennessee/Mississippi/Cumberland
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-2nd Priority Listings-

<u>Little Poplar Creek of Cumberland River</u>		Knox County
From River Mile 0.0 to 2.8		Segment Length: 2.8
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Siltation	
Suspected Source:	Agriculture (Crop-related Sources - Nonirrigated Crop Production), Agriculture (Grazing-related Sources - Pasture Grazing - Upland), Construction (Land Development)	
 <u>Lynn Camp Creek of Laurel River</u>		 Knox/Whitley Counties
From River Mile 4.6 to 10.7		Segment Length: 6.1
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Siltation, Organic Enrichment/Low DO	
Suspected Source:	Agriculture (Crop-related Sources - Nonirrigated Crop Production), Agriculture (Grazing-related Sources - Pasture Grazing - Upland), Construction (Highway/Roads/Bridge Construction), Construction (Land Development), Urban Runoff/Storm Sewers (Erosion and Sedimentation)	
 <u>Marrowbone Creek of Cumberland Creek</u>		 Cumberland County
From River Mile 0.0 to 2.8		Segment Length: 2.8
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Habitat Alterations (Other than Flow)	
Suspected Source:	Habitat Modification (Other than Hydromodification) - Removal of Riparian Vegetation	
 <u>Martins Fork of Cumberland River</u>		 Harlan County
From River Mile 10.1 to 17.0		Segment Length: 6.9
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Unknown	
Suspected Source:	Unknown	
 <u>Meadow Creek of Cumberland River</u>		 Whitley/Knox Counties
From River Mile 0.0 to 6.8		Segment Length: 6.8
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Siltation	
Suspected Source:	Agriculture (Crop-related Sources - Nonirrigated Crop Production), Agriculture (Grazing-related Sources - Pasture Grazing-Upland), Resource Extraction (Surface Mining)	

**Table 5(e) --continued. 2002 303(d) Report For Kentucky – Tennessee/Mississippi/Cumberland
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-2nd Priority Listings-

<u>Middle Fork of Richland Creek</u>		Knox County
From River Mile 0.0 to 1.2		Segment Length: 1.2
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Siltation	
Suspected Source:	Resource Extraction (Surface Mining), Construction (Highway/Road/Bridge Construction and Land Development), Agriculture (Crop-related Sources – Nonirrigated Crop Production)	

<u>Mud Creek of Clear Fork</u>		Whitley County
From River Mile 0.0 to 5.1		Segment Length: 5.1
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Siltation	
Suspected Source:	Construction (Highway/Road/Bridge Construction and Land Development), Agriculture (Crop-related Sources – Nonirrigated Crop Production)	

<u>Pitman Creek of Cumberland River</u>		Pulaski County
From River Mile 4.0 to 5.7		Segment Length: 1.7
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Unknown Toxicity	
Suspected Source:	Municipal Point Sources (Major Municipal Point Sources)	

This listing is from the 1998 303(d) Report.

<u>Puckett Creek of Poor Fork</u>		Bell County
From River Mile 0.0 to 10.0		Segment Length: 10.0
Impaired Use:	Swimming (Partial Support)	
Pollutant of Concern:	Pathogens	
Suspected Source:	Land Disposal (Onsite Wastewater Systems - Septic Tanks and/or Straight Pipes)	

This listing was in the 1998 303(d) Report. The TMDL, *Removing Fecal Pollution from the Upper Cumberland River Basin*, has been approved by EPA Region 4. See Tennessee/Mississippi/Cumberland River Unit - Approved TMDLs - Upper Cumberland Watershed Pathogens TMDL.

<u>Raccoon Creek of South Fork Rockcastle River</u>		Laurel County
From River Mile 0.0 to 2.7		Segment Length: 2.7
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Organic Enrichment/Low DO, Habitat Alterations (Other than Flow)	
Suspected Source:	Agriculture (Crop-related Sources), Agriculture (Grazing-related Sources), Silviculture, Resource Extraction	

**Table 5(e) --continued. 2002 303(d) Report For Kentucky – Tennessee/Mississippi/Cumberland River Unit
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-2nd Priority Listings-

<u>Renfro Creek of Roundstone Creek</u>	Rockcastle County	
From River Mile 0.0 to 3.0	Segment Length:	3.0
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Siltation, Organic Enrichment/Low DO, Noxious Aquatic Plants	
Suspected Source:	Municipal Point Source (Package Plants - Small Flows), Urban Runoff/Storm Sewers, Hydromodification (Upstream Impoundment)	

<u>Richland Creek of Cumberland River</u>	Knox County	
From River Mile 0.0 to 19.6	Segment Length:	19.6
Impaired Use:	Swimming (Partial Support)	
Pollutant of Concern:	Pathogens	
Suspected Source:	Unknown	

The listing is from the 1998 303(d) Report. The pathogens TMDL, *Removing Fecal Pollution from the Upper Cumberland River Basin*, has been approved by EPA Region 4. See Tennessee/Mississippi/Cumberland River Unit – Approved TMDLs – Upper Cumberland Watershed Pathogens TMDL. The listing for Richland Creek has been updated. The section from RM 0.0 to 6.2 has been assessed as not supporting the aquatic life use in addition to partially supporting the swimming use. The segment from RM 6.2 to 19.6 partially supports the swimming use but has been moved to First Priority at the request of the U.S. Fish and Wildlife Service because of the presence of one or more federally threatened or endangered species in the reach. See Tennessee/Mississippi/Cumberland River Unit – 2002 303(d) List – 1st Priority Listings.

<u>Rock Creek of South Fork Cumberland River</u>	McCreary County	
From River mile 0.0 to 4.1	Segment Length:	4.1
Impaired Use:	Aquatic Life (Partial Support), Swimming (Partial Support)	
Pollutant of Concern:	Low pH	
Suspected Sources:	Resource Extraction (Acid Mine Drainage)	

This listing updates the 1998 303(d) Report listing which showed nonsupport for the aquatic life and swimming designated uses because of low pH. The latest assessment information indicates that the stream reach has improved to partially supporting of the aquatic life and swimming uses. This is a result of the intensive remediation effort that is taking place in the White Oak Creek watershed, which drains to Rock Creek at RM 4.1. The TMDL for pH is currently being developed. See Tennessee/Mississippi/Cumberland River Unit - TMDLs Under Development.

<u>Rock Creek of South Fork Cumberland River</u>	McCreary County	
From River Mile 16.6 to 21.9	Segment Length:	5.3
Impaired Use:	Fish Consumption (Partial Support)	
Pollutant of Concern:	Mercury	
Suspected Source:	Unknown	

**Table 5(e) --continued. 2002 303(d) Report For Kentucky – Tennessee/Mississippi/Cumberland
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-2nd Priority Listings-

<u>Sam Branch of Fishing Creek</u>		Pulaski County	
From River Mile 0.0 to 0.5		Segment Length:	0.5
Impaired Source:	Aquatic Life (Partial Support)		
Pollutant of Concern:	Siltation		
Suspected Source:	Habitat Modification (Other than Hydromodification) - Removal of Riparian Vegetation, Agriculture		
 <u>Skegg Creek of Rockcastle River</u>		Rockcastle County	
From River Mile 0.0 to 3.2		Segment Length:	3.2
Impaired Use:	Aquatic Life (Partial Support)		
Pollutant of Concern:	Siltation, Organic Enrichment/Low DO		
Suspected Source:	Agriculture (Crop-related Sources - Nonirrigated Crop Production), Resource Extraction (Surface Mining), Urban Runoff/Storm Sewers (Nonindustrial Permitted)		
 <u>South Fork of Rockcastle River</u>		Laurel County	
From River Mile 21.5 to 25.5		Segment Length:	4.0
Impaired Use:	Aquatic Life (Partial Support)		
Pollutant of Concern:	Siltation, Organic Enrichment/Low DO, Flow Alterations, Habitat Alterations (Other than Flow)		
Suspected Source:	Agriculture (Crop-related Sources), Agriculture (Grazing-related Sources), Hydromodification (Channelization), Habitat Modification (Other than Hydromodification) - Removal of Riparian Vegetation and Bank Modification/Destabilization		
 <u>Stinking Creek of Cumberland River</u>		Knox County	
From River Mile 0.0 to 2.1		Segment Length:	2.1
Impaired Use:	Aquatic Life (Partial Support)		
Pollutant of Concern:	Siltation, pH, Habitat Alterations (Other than Flow), Oil and Grease		
Suspected Source:	Agriculture (Crop-related Sources - Nonirrigated Crop Production), Resource Extraction (Surface and Abandoned Mining, Petroleum Activities), Hydromodification (Channelization)		

**Table 5(e) --continued. 2002 303(d) Report For Kentucky – Tennessee/Mississippi/Cumberland
River Unit
2002 303(d) List**

-2nd Priority Listings-

<u>Yellow Creek of Cumberland River</u>	Bell County	
From River Mile 0.0 to 18.5	Segment Length:	18.5
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Nutrients, Siltation, Habitat Alterations (Other than Flow)	
Suspected Source:	Urban Runoff/Storm Sewers	

This listing is from the 1998 303(d) Report. A more complete assessment of this reach has made this listing no longer relevant. See Tennessee/Mississippi/Cumberland River Unit - Modifications to the 1998 303(d) List - 2nd Priority Listings. Also see Tennessee/Mississippi/Cumberland River Unit - Delistings - 2nd Priority Listings. The listing of the impaired segment follows, which is from 0.0 to 8.9. The latest assessment information shows that Yellow Creek from 8.9 to 18.5 now fully supports the aquatic life use. A request to delist Yellow Creek from RM 8.9 to 18.5 as being impaired for aquatic life use because of nutrients, siltation, and habitat alterations will be submitted to EPA Region 4 with the 2002 303(d) Report. See Tennessee/Mississippi/Cumberland River Unit - Delistings - 2nd Priority Listings.

<u>Yellow Creek of Cumberland River</u>	Bell County	
From River Mile 0.0 to 0.8	Segment Length:	0.8
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Nutrients, Siltation, Habitat Alterations (Other than Flow), TDS/Chlorides/Salinity	
Suspected Source:	Urban Runoff/Storm Sewers	

This listing is from the 1998 303(d) Report except for the addition of TDS/Chlorides/Salinity as a pollutant of concern. This listing was part of the longer stream segment from RM 0.0 to 18.5 (see the preceding listing). The latest assessment information shows that Yellow Creek from 8.9 to 18.5 now fully supports the aquatic life use. A request to delist Yellow Creek from RM 8.9 to 18.5 as being impaired for aquatic life use because of nutrients, siltation, and habitat alterations will be submitted to EPA Region 4 with the 2002 303(d) Report. See Tennessee/Mississippi/Cumberland River Unit - Delistings - 2nd Priority Listings.

**Table 5(e) --continued. 2002 303(d) Report For Kentucky – Tennessee/Mississippi/Cumberland
River Unit
2002 303(d) List**

-2nd Priority Listings-

Yellow Creek of Cumberland River
From River Mile 0.8 to 8.9

Bell County
Segment Length: 8.1

Impaired Use: Aquatic Life (Partial Support)
Pollutant of Concern: Nutrients, Siltation, Habitat Alterations (Other than Flow)
Suspected Source: Urban Runoff/Storm Sewers

This listing is from the 1998 303(d) Report. This listing was part of the longer stream segment from RM 0.0 to 18.5 (see the preceding listing). The latest assessment information shows that Yellow Creek from 8.9 to 18.5 now fully supports the aquatic life use. A request to delist Yellow Creek from RM 8.9 to 18.5 as being impaired for aquatic life use because of nutrients, siltation, and habitat alterations will be submitted to EPA Region 4 with the 2002 303(d) Report. See Tennessee/Mississippi/Cumberland River Unit - Delistings - 2nd Priority Listings.

Table 5(f). 2002 303(d) Report For Kentucky – Tennessee/Mississippi/Cumberland River Unit Stream Segments Needing Additional Information Before Being 303(d) Listed

Basin: Lower Cumberland

<u>Claylick Creek of Cumberland River</u> From River Mile 4.8 to 10.6	Crittenden County Segment Length: 5.8
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The assessment for aquatic life use was inconclusive. Additional information is needed. The stream will be revisited during the next monitoring cycle for the Tennessee/Mississippi/Cumberland River Unit, which is 2005-06.

<u>Dry Creek of Eddy</u> From River Mile 0.0 to 3.5	Caldwell County Segment Length: 3.5
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The assessment for swimming use was inconclusive. Additional information is needed. The stream will be revisited during the next monitoring cycle for the Tennessee/Mississippi/Cumberland River Unit, which is 2005-06.

<u>Eddy Creek of Cumberland River</u> From River Mile 16.9 to 19.7	Caldwell County Segment Length: 2.8
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The assessment for swimming use was inconclusive. Additional information is needed. The stream will be revisited during the next monitoring cycle for the Tennessee/Mississippi/Cumberland River Unit, which is 2005-06.

<u>Kenady Creek of Muddy Fork</u> From River Mile 0.0 to 3.9	Trigg County Segment Length: 3.9
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The assessment for swimming use was inconclusive. Additional information is needed. The stream will be revisited during the next monitoring cycle for the Tennessee/Mississippi/Cumberland River Unit, which is 2005-06.

<u>Red River of Cumberland River</u> From River Mile 65.0 to 73.5	Logan County Segment Length: 8.5
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The assessment for aquatic life use was inconclusive. Additional information is needed. The stream will be revisited during the next monitoring cycle for the Tennessee/Mississippi/Cumberland River Unit, which is 2005-06.

<u>Richland Creek of Cumberland River</u> From River Mile 0.6 to 5.3	Livingston County Segment Length: 4.7
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The assessment for aquatic life use was inconclusive. Additional information is needed. The stream will be revisited during the next monitoring cycle for the Tennessee/Mississippi/Cumberland River Unit, which is 2005-06.

<u>Sandy Creek of Cumberland River</u> From River Mile 0.0 to 2.3	Livingston County Segment Length: 2.3
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**Table 5(f) --continued. 2002 303(d) Report For Kentucky – Tennessee/Mississippi/Cumberland River Unit
Stream Segments Needing Additional Information Before Being 303(d) Listed**

The assessment for swimming use was inconclusive. Additional information is needed. The stream will be revisited during the next monitoring cycle for the Tennessee/Mississippi/Cumberland River Unit, which is 2005-06.

<u>South Fork of Red River</u>	Logan County	
From River Mile 0.0 to 5.3	Segment Length:	5.3

The assessment for aquatic life use was inconclusive. Additional information is needed. The stream will be revisited during the next monitoring cycle for the Tennessee/Mississippi/Cumberland River Unit, which is 2005-06.

Basin: Mississippi River

<u>Key Creek of Mayfield Creek</u>	Graves County	
From River Mile 0.0 to 1.8	Segment Length:	1.8

The assessment for aquatic life use was inconclusive. Additional information is needed. The stream will be revisited during the next monitoring cycle for the Tennessee/Mississippi/Cumberland River Unit, which is 2005-06.

<u>Lick Creek of Wilson Creek</u>	Ballard County	
From River Mile 0.0 to 2.2	Segment Length:	2.2

The assessment for aquatic life use was inconclusive. Additional information is needed. The stream will be revisited during the next monitoring cycle for the Tennessee/Mississippi/Cumberland River Unit, which is 2005-06.

<u>Sugar Creek of Mayfield Creek</u>	Ballard County	
From River Mile 0.0 to 1.4	Segment Length:	1.4

The assessment for aquatic life use was inconclusive. Additional information is needed. The stream will be revisited during the next monitoring cycle for the Tennessee/Mississippi/Cumberland River Unit, which is 2005-06.

Basin: Ohio River

<u>Newton's Creek of Ohio River</u>	McCracken County	
From River Mile 0.0 to 7.1	Segment Length:	7.1

The assessment for aquatic life use was inconclusive. Additional information is needed. The stream will be revisited during the next monitoring cycle for the Tennessee/Mississippi/Cumberland River Unit, which is 2005-06.

**Table 5(f) --continued. 2002 303(d) Report For Kentucky – Tennessee/Mississippi/Cumberland River Unit
Stream Segments Needing Additional Information Before Being 303(d) Listed**

Basin: Tennessee River

<u>Blizzard Pond of West Fork Clarks River</u> From River Mile 0.0 to 3.7	McCracken County Segment Length: 3.7
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The assessment for aquatic life use was inconclusive. Additional information is needed. The stream will be revisited during the next monitoring cycle for the Tennessee/Mississippi/Cumberland River Unit, which is 2005-06.

<u>Clear Creek of Jonathon Creek</u> From River Mile 1.7 to 2.7	Marshall County Segment Length: 1.0
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The assessment for aquatic life use was inconclusive. Additional information is needed. The stream will be revisited during the next monitoring cycle for the Tennessee/Mississippi/Cumberland River Unit, which is 2005-06.

<u>Duncan Creek of West Fork Clarks River</u> From River Mile 0.0 to 2.5	Marshall County Segment Length: 2.5
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The assessment for swimming use was inconclusive. Additional information is needed. The stream will be revisited during the next monitoring cycle for the Tennessee/Mississippi/Cumberland River Unit, which is 2005-06.

Basin: Upper Cumberland

<u>Bear Creek of Cumberland River</u> From River Mile 0.0 to 2.8	Cumberland County Segment Length: 2.8
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The assessment for aquatic life use was inconclusive. Additional information is needed. The stream will be revisited during the next monitoring cycle for the Tennessee/Mississippi/Cumberland River Unit, which is 2005-06.

<u>Big Clifty Creek of Fishing Creek</u> From River Mile 1.1 to 4.9	Pulaski County Segment Length: 3.8
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The assessment for aquatic life use was inconclusive. Additional information is needed. The stream will be revisited during the next monitoring cycle for the Tennessee/Mississippi/Cumberland River Unit, which is 2005-06.

<u>Blake Fork of Walls Creek</u> From River Mile 0.0 to 4.6	Whitley County Segment Length: 4.6
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The assessment for aquatic life use was inconclusive. Additional information is needed. The stream will be revisited during the next monitoring cycle for the Tennessee/Mississippi/Cumberland River Unit, which is 2005-06.

Table 5(f) --continued. 2002 303(d) Report For Kentucky – Tennessee/Mississippi/Cumberland River Unit
Stream Segments Needing Additional Information Before Being 303(d) Listed

Greasy Creek of Cumberland River
 From River Mile 0.0 to 3.7

Bell County
 Segment Length: 3.7

The assessment for aquatic life use was inconclusive. Additional information is needed. The stream will be revisited during the next monitoring cycle for the Tennessee/Mississippi/Cumberland River Unit, which is 2005-06.

Horse Lick Creek of Rockcastle River
 From River Mile 0.0 to 12.2

Jackson County
 Segment Length: 12.2

The assessment for aquatic life use was inconclusive. Additional information is needed. The stream will be revisited during the next monitoring cycle for the Tennessee/Mississippi/Cumberland River Unit, which is 2005-06.

Kettle Creek of Cumberland River
 From River Mile 0.0 to 6.8

Monroe County
 Segment Length: 6.8

The assessment for aquatic life use was inconclusive. Additional information is needed. The stream will be revisited during the next monitoring cycle for the Tennessee/Mississippi/Cumberland River Unit, which is 2005-06.

Little South Fork Cumberland River
 From River Mile 14.9 to 16.3

McCreary/Wayne Counties
 Segment Length: 1.4

The assessment for aquatic life use was inconclusive. Additional information is needed. The stream will be revisited during the next monitoring cycle for the Tennessee/Mississippi/Cumberland River Unit, which is 2005-06.

**Table 5(g). 2002 303(d) Report For Kentucky – Tennessee/Mississippi/Cumberland River Unit
Stream Segments That May Be Impaired Based Solely On Discharge Monitoring Reports
(DMRs).**

Basin: Lower Cumberland River

<u>Hammond Creek of Cumberland River</u>	Lyon County
From River Mile 2.0 to 2.2	Segment Length: 0.2

DMR information from a Municipal Point Source indicates a possible swimming use impairment because of pathogens and a possible aquatic life use impairment because of ammonia (un-ionized), chlorine, organic enrichment/Low DO, and suspended solids.

Basin: Mississippi River

<u>Cane Creek of Obion Creek</u>	Graves County
From River Mile 3.2 to 4.0	Segment Length: 0.8

DMR information from a Municipal Point Source (Minor Municipal Point Source) indicates a possible swimming impairment because of pathogens and a possible aquatic life use impairment because of ammonia (un-ionized), organic enrichment/Low DO, and chlorine.

<u>Long Creek of Hurricane Creek</u>	Carlisle County
From River Mile 0.0 to 0.8	Segment Length: 0.8

DMR information from a Municipal Point Source (Minor Municipal Point Source) indicates a possible swimming use impairment because of pathogens and a possible aquatic life use impairment because of ammonia (un-ionized), organic enrichment/Low DO, chlorine, and suspended solids.

<u>Shawnee Creek of Mississippi River</u>	Ballard County
From River Mile 7.9 to 8.9	Segment Length: 1.0

DMR information from a Municipal Point Source (Minor Municipal Point Source) indicates a possible swimming use impairment because of pathogens and a possible aquatic life use impairment because of ammonia (un-ionized), organic enrichment/Low DO, and chlorine.

<u>Torian Creek of Mayfield Creek</u>	Graves County
From River Mile 0.0 to 0.8	Segment Length: 0.8

DMR information from a Municipal Point Source (Package Plant – Small Flow) indicates a possible swimming use impairment because of pathogens and a possible aquatic life use impairment because of ammonia (un-ionized).

<u>Truman Creek of Mayfield Creek</u>	Carlisle County
From River Mile 2.0 to 3.0	Segment Length: 1.0

DMR information from a Municipal Point Source (Minor Municipal Point Source) indicates a possible swimming use impairment because of pathogens and a possible aquatic life use impairment because of ammonia (un-ionized) and organic enrichment/Low DO.

**Table 5(g) – continued. 2002 303(d) Report For Kentucky – Tennessee/Mississippi/Cumberland River Unit
Stream Segments That May Be Impaired Based Solely On Discharge Monitoring Reports (DMRs).**

Basin: Ohio River

Humphrey Creek of Ohio River Ballard County
From River Mile 11.0 to 12.2 Segment Length: 1.2
DMR information from a Municipal Point Source (Minor Municipal Point Source) indicates a possible swimming use impairment because of pathogens and a possible aquatic life use impairment because of organic enrichment/Low DO and suspended solids.

UT of Humphrey Branch (River Mile 1.6) Ballard County
From River Mile 0.0 to 1.3 Segment Length: 1.3
DMR information from a Municipal Point Source (Minor Municipal Point Source) indicates a possible swimming use impairment because of pathogens.

UT of West Fork Massac Creek (River Mile 1.6) McCracken County
From River Mile 0.0 to 0.8 Segment Length: 0.8
DMR information from a Municipal Point Source (Package Plant – Small Flow) indicates a possible swimming use impairment because of pathogens and a possible aquatic life use impairment because of organic enrichment/Low DO.

West Fork Massac Creek McCracken County
From River Mile 0.0 to 0.3 Segment Length: 0.3
DMR information from a Municipal Point Source (Package Plant – Small Flow) indicates a possible aquatic life use impairment because of ammonia (un-ionized) and organic enrichment/Low DO.

Basin: Tennessee River

Bear Creek West Fork Clarks River Graves County
From River Mile 0.6 to 1.6 Segment Length: 1.0
DMR information from a Municipal Point Source (Minor Municipal Point Source) indicates a possible swimming use impairment because of pathogens and a possible aquatic life use impairment because of ammonia (un-ionized) and organic enrichment/Low DO.

Blizzard Pond of West Fork Clarks River McCracken County
From River Mile 4.5 to 5.5 Segment Length: 1.0
DMR information from a Municipal Point Source (Package Plant – Small Flow) indicates a possible swimming use impairment because of pathogens and a possible aquatic life use impairment because of ammonia (un-ionized), organic enrichment/Low DO, and suspended solids.

East Fork Clarks River Calloway County
From River Mile 5.7 to 6.7 Segment Length: 1.0
DMR information from a Municipal Point Source (Minor Municipal Point Source) indicates a possible swimming use impairment because of pathogens.

**Table 5(g) – continued. 2002 303(d) Report For Kentucky – Tennessee/Mississippi/Cumberland River Unit
Stream Segments That May Be Impaired Based Solely On Discharge Monitoring Reports (DMRs).**

<u>Little White Oak Creek of Tennessee River</u>	Marshall County
From River Mile 0.9 to 1.9	Segment Length: 1.0
DMR information from a Municipal Point Source (Package Plant – Small Flow) indicates a possible swimming use impairment because of pathogens and a possible aquatic life use impairment because of organic enrichment/Low DO.	

<u>Martin Creek of Clarks River</u>	Marshall County
From River Mile 0.0 to 0.9	Segment Length: 0.9
DMR information from a Municipal Point Source (Minor Municipal Point Source) indicates a possible swimming use impairment because of pathogens and a possible aquatic life use impairment because of ammonia (un-ionized) and organic enrichment/Low DO.	

<u>UT of Chestnut Creek (River Mile 2.8)</u>	Marshall County
From River Mile 0.0 to 0.7	Segment Length: 0.7
DMR information from a Municipal Point Source (Minor Municipal Point Source) indicates a possible swimming use impairment because of pathogens and a possible aquatic life use impairment because of ammonia (un-ionized), organic enrichment/Low DO, and suspended solids.	

Basin: Upper Cumberland River

<u>Clear Fork Branch of Spring Creek</u>	Christian County
From River Mile 2.6 to 3.6	Segment Length: 1.0
DMR information from a Municipal Point Source indicates a possible swimming use impairment because of pathogens.	

<u>Dry Branch of Pitman Creek</u>	Pulaski County
From River Mile 0.0 to 0.3	Segment Length: 0.3
DMR information from a Municipal Point Source (Package Plant – Small Flow) indicates a possible aquatic life use impairment because of ammonia (un-ionized).	

<u>Moore Branch of Cannon Creek</u>	Bell County
From River Mile 0.0 to 0.4	Segment Length: 0.4
DMR information from a Municipal Point Source (Package Plant – Small Flow) indicates a possible swimming use impairment because of pathogens and a possible aquatic life use impairment because of ammonia (un-ionized), pH, and organic enrichment/Low DO.	

<u>UT of Bridge Fork (River Mile 5.5)</u>	McCreary County
From River Mile 0.0 to 0.1	Segment Length: 0.1
DMR information from a Municipal Point Source (Minor Municipal Point Source) indicates a possible aquatic life use impairment because of organic enrichment/Low DO.	

**Table 5(g) – continued. 2002 303(d) Report For Kentucky – Tennessee/Mississippi/Cumberland
River Unit
Stream Segments That May Be Impaired Based Solely On Discharge Monitoring Reports
(DMRs).**

<u>UT of Clifty Creek (River Mile 6.4)</u>	Pulaski County
From River Mile 0.0 to 0.5	Segment Length: 0.5
DMR information from a Municipal Point Source (Minor Municipal Point Source) indicates a possible swimming use impairment because of pathogens.	

<u>UT of Pond Creek (River Mile 6.0)</u>	Jackson County
From River Mile 0.0 to 0.2	Segment Length: 0.2
DMR information from a Municipal Point Source (Package Plant – Small Flow) indicates a possible aquatic life use impairment because of ammonia (un-ionized).	

<u>UT of Pond Creek (River Mile 7.6)</u>	Jackson County
From River Mile 0.0 to 0.2	Segment Length: 0.2
DMR information from a Municipal Point Source (Package Plant – Small Flow) indicates a possible swimming use impairment because of pathogens and a possible aquatic life use impairment because of ammonia (un-ionized).	

<u>Whitley Branch of Little Laurel River</u>	Laurel County
From River Mile 0.0 to 1.0	Segment Length: 1.0
DMR information from a Municipal Point Source (Major Municipal Point Source) indicates a possible aquatic life use impairment because of ammonia (un-ionized).	

TABLE 6. 2002 303(d) REPORT FOR KENTUCKY – TRADEWATER/GREEN RIVER UNIT

**Table 6(a). 2002 303(d) Report for Kentucky – Tradewater/Green River Unit
Modifications to the 1998 303(d) Report**

-1st Priority Listings-

<u>Drakes Creek of Pond River</u>	Hopkins County
From River Mile 0.0 to 8.5	Segment Length: 8.5
Impaired Use:	Aquatic Life (Nonsupport), Swimming (Nonsupport), Fish Consumption (Nonsupport)
Pollutant of Concern:	Low pH, PCBs
Suspected Sources:	Resource Extraction (Acid Mine Drainage), Industrial Point Sources

This listing is from the 1998 303(d) Report. The listing of fish consumption because of PCBs is an error. Drakes Creek in Hopkins County has not been assessed for fish consumption use. A request to delist the stream for PCBs will be submitted to EPA Region 4 with the 2002 303(d) Report. See Tradewater/Green River Unit – Delistings – 1st Priority Listings. Drakes Creek and West Fork Drakes Creek in Warren and Simpson Counties should have been listed as being impaired for fish consumption because of PCBs.

<u>Drakes Creek of Pond River</u>	Hopkins County
From River Mile 8.5 to 21.3	Segment Length: 12.8
Impaired Use:	Fish Consumption (Nonsupport)
Pollutant of Concern:	PCBs
Suspected Sources:	Industrial Point Sources

This listing is from the 1998 303(d) Report. The listing of fish consumption because of PCBs is an error. Drakes Creek in Hopkins County has not been assessed for fish consumption use. A request to delist the stream for PCBs will be submitted to EPA Region 4 with the 2002 303(d) Report. See Tradewater/Green River Unit – Delistings – 1st Priority Listings. Drakes Creek and West Fork Drakes Creek in Warren and Simpson Counties should have been listed as being impaired for fish consumption because of PCBs.

<u>South Fork Russell Creek of Russell Creek</u>	Green County
From River Mile 0.0 to 0.6	Segment Length: 0.6
Impaired Use:	Aquatic Life (Nonsupport)
Pollutant of Concern:	Salinity/TDS/Chlorides
Suspected Sources:	Resource Extraction (Petroleum Activities)

This listing was in the 1998 303(d) Report. It should have been listed as UT to South Fork Russell Creek (at River Mile 4.85). The TMDL for Salinity/TDS/Chlorides has been approved by EPA Region 4. See Tradewater/Green Unit – Approved TMDLs.

**Table 6(a) --continued. 2002 303(d) Report for Kentucky – Tradewater/Green River Unit
Modifications to the 1998 303(d) Report**

-2nd Priority Listings-

None.

**Table 6(b). 2002 303(d) Report for Kentucky – Tradewater/Green River Unit
Delistings**

-1st Priority Listings-

Note: The stream/pollutant combinations listed below are only for the designated uses and pollutants of concern for which a delisting request has been made to EPA Region 4. The stream segment may also have been shown in the 1998 303(d) Report as being impaired for the same designated use because of other pollutants or as being impaired for other designated uses.

<u>Barren River of Green River</u>	Warren County	
From River Mile 29.4 to 43.6	Segment Length:	14.2
Impaired Use:	Swimming (Nonsupport)	
Pollutant of Concern:	Pathogens	
Suspected Sources:	Urban Runoff/Storm Sewers, Agriculture	

This listing is from the 1998 303(d) Report. The listing was an error. Fecal coliform data collected at RM 37.6 during 1996 and 1997 indicated that there was no impairment of the swimming use. The sampling site was subsequently moved far downstream, so no additional information was collected at the site for 1998 – 2000. Some additional fecal coliform data were collected throughout the reach (2001) and indicate that there is no impairment of the swimming use from RM 35.0 to 43.6 and partial support of the swimming use from RM 29.4 to 37.6. Therefore a request to delist the segment from RM 35.0 to 43.6 will be submitted to EPA Region 4 with the 2002 303(d) Report. The stream segment from RM 29.4 to 35.0 will be shown in the 2002 303(d) Report as being in partial support (not nonsupport) of the swimming use. See Tradewater/Green River Unit – 2002 303(d) Listings – 2nd Priority Listings.

<u>Drakes Creek of Pond River</u>	Hopkins County	
From River Mile 0.0 to 8.5	Segment Length:	8.5
Impaired Use:	Fish Consumption (Nonsupport)	
Pollutant of Concern:	PCBs	
Suspected Sources:	Industrial Point Sources	

This listing is from the 1998 303(d) Report. The listing of fish consumption because of PCBs is an error. Drakes Creek in Hopkins County has not been assessed for fish consumption use. A request to delist the stream for PCBs will be submitted to EPA Region 4 with the 2002 303(d) Report. The streams that should have been listed for PCBs are Drakes Creek and West Fork Drakes Creek in Warren and Simpson Counties. See Tradewater/Green River Unit - Modifications to the 1998 303(d) Report - 1st Priority Listings.

**Table 6(b) --continued. 2002 303(d) Report for Kentucky – Tradewater/Green River Unit
Delistings**

-1st Priority Listings-

<u>Drakes Creek of Pond River</u>		Hopkins County	
From River Mile 8.5 to 21.3		Segment Length:	12.8
Impaired Use:	Fish Consumption (Nonsupport)		
Pollutant of Concern:	PCBs		
Suspected Sources:	Industrial Point Sources		

This listing is from the 1998 303(d) Report. The listing of fish consumption because of PCBs is an error. Drakes Creek in Hopkins County has not been assessed for fish consumption use. A request to delist the stream for PCBs will be submitted to EPA Region 4 with the 2002 303(d) Report. The streams that should have been listed for PCBs are Drakes Creek and West Fork Drakes Creek in Warren and Simpson Counties. See Tradewater/Green River Unit - Modifications to the 1998 303(d) Report - 1st Priority Listings.

<u>Little Pitman Creek of Big Pitman Creek</u>		Taylor/Green Counties	
From River Mile 5.9 to 10.1		Segment Length:	4.2
Impaired Use:	Aquatic Life (Nonsupport)		
Pollutant of Concern:	Metals (Copper)		
Suspected Sources:	Municipal Point Sources (Major Municipal Point Sources)		

This listing is from the 1998 303(d) Report. Metals data indicate that copper values are now being met by the Campbellsville WWTP and that instream values of copper meet water quality standards. A request to delist the stream for metals (copper) will be submitted to EPA Region 4 with the 2002 303(d) Report.

**Table 6(b) --continued. 2002 303(d) Report for Kentucky – Tradewater/Green River Unit
Delistings**

-2nd Priority Listings-

Note: The stream/pollutant combinations listed below are only for the designated uses and pollutants of concern for which a delisting request has been made to EPA Region 4. The stream segment may have also been shown in the 1998 303(d) Report as being impaired for the same designated use because of other pollutants or as being impaired for other designated uses.

None.

**Table 6(c). 2002 303(d) Report for Kentucky – Tradewater/Green River Unit
Approved TMDLs**

Note: To view these documents, please access the KDOW’s TMDL web page at <http://water.nr.state.ky.us/dow/tmdl.htm>. For a printed copy of the TMDL, please contact the KDOW.

<u>Brier Creek of Pond River</u>	Muhlenburg County	
From River Mile 0.0 to 4.7	Segment Length:	4.7
Impaired Use:	Aquatic Life (Nonsupport), Swimming (Nonsupport)	
Pollutant of Concern:	Low pH	
Suspected Sources:	Resource Extraction (Acid Mine Drainage)	

This listing is from the 1998 303(d) Report. The TMDL for Low pH has been approved by EPA Region 4.

<u>South Fork Russell Creek of Russell Creek</u>	Green County	
From River Mile 0.0 to 0.6	Segment Length:	0.6
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Salinity/TDS/Chlorides	
Suspected Sources:	Resource Extraction (Petroleum Activities)	

This listing was in the 1998 303(d) Report. It should have been listed as UT to South Fork Russell Creek (at River Mile 4.85). See Tradewater/Green Unit – Modifications to the 1998 303(d) Report – 1st Priority Listings. The TMDL for Salinity/TDS/Chlorides has been approved by EPA Region 4.

**Table 6(d). 2002 303(d) Report for Kentucky – Tradewater/Green River Unit
TMDLs Under Development**

<u>Beech Creek of Pond Creek</u>	Muhlenburg County	
From River Mile 0.0 to 3.4	Segment Length:	3.4
Impaired Use:	Aquatic Life (Nonsupport), Swimming (Nonsupport)	
Pollutant of Concern:	Low pH	
Suspected Sources:	Resource Extraction (Acid Mine Drainage)	

This listing is from the 1998 303(d) Report. Data collection was done by KDOW personnel. The Tracey Center for the Environment is currently developing the TMDL as part of the EPA FFY2001 104(b)3 Grant awarded to Kentucky.

<u>Butchers Branch of Blackford Creek</u>	Hancock County	
From River Mile 0.0 to 2.3	Segment Length:	2.3
Impaired Use:	Aquatic Life (Nonsupport), Swimming (Nonsupport)	
Pollutant of Concern:	Low pH	
Suspected Sources:	Resource Extraction (Acid Mine Drainage)	

This listing is from the 1998 303(d) Report. Data collection was done by KDOW personnel. The Tracey Center for the Environment is currently developing the TMDL as part of the EPA FFY2001 104(b)3 Grant awarded to Kentucky.

<u>Cane Run of Caney Creek</u>	Hopkins County	
From River Mile 0.0 to 3.4	Segment Length:	3.4
Impaired Use:	Aquatic Life (Partial Support), Swimming (Partial Support)	
Pollutant of Concern:	Low pH	
Suspected Sources:	Resource Extraction (Acid Mine Drainage)	

This listing is from the 1998 303(d) Report. The TMDL has informal approval from EPA Region 4.

<u>Craborchard Creek of Drakes Creek</u>	Hopkins County	
From River Mile 0.0 to 7.6	Segment Length:	7.6
Impaired Use:	Aquatic Life (Nonsupport), Swimming (Nonsupport)	
Pollutant of Concern:	Low pH	
Suspected Sources:	Resource Extraction (Acid Mine Drainage)	

This listing is from the 1998 303(d) Report. The TMDL has informal approval from EPA Region 4.

<u>Cypress Creek of Pond River</u>	Muhlenburg County	
From River Mile 22.9 to 25.0	Segment Length:	2.1
Impaired Use:	Aquatic Life (Partial Support), Swimming (Partial Support)	
Pollutant of Concern:	Low pH	
Suspected Sources:	Resource Extraction (Acid Mine Drainage)	

This listing is from the 1998 303(d) Report. Data collection and TMDL development are being done by the Tracy Farmer Center for the Environment using FFY2001 319 Assessment Grant funding. This TMDL is being combined with the TMDL for the Cypress Creek from RM 25.0 to 33.3, which is a 1st Priority listing in the 1998 303(d) Report. See Tradewater/Green Unit - 2002 303(d) List - 1st Priority Listings – Cypress Creek.

**Table 6(d) --continued. 2002 303(d) Report for Kentucky – Tradewater/Green River Unit
TMDLs Under Development**

<u>Cypress Creek of Pond River</u>	McLean/Muhlenburg Counties
From River Mile 25.0 to 33.3	Segment Length: 8.3
Impaired Use:	Aquatic Life (Nonsupport), Swimming (Nonsupport)
Pollutant of Concern:	Low pH
Suspected Sources:	Resource Extraction (Acid Mine Drainage)

This listing is from the 1998 303(d) Report, which shows Muhlenburg and McLean Counties. It should only have shown Muhlenburg County. Data collection and TMDL development are being done by the Tracy Farmer Center for the Environment using FFY2001 319 Assessment Grant funding. This TMDL is being combined with the TMDL for the Cypress Creek reach from RM 22.9 to 25.0, which is a 2nd Priority listing in the 1998 303(d) Report. See Tradewater/Green Unit - 2002 303(d) List – 2nd Priority Listings – Cypress Creek.

<u>Drakes Creek of Pond River</u>	Hopkins County
From River Mile 0.0 to 8.5	Segment Length: 8.5
Impaired Use:	Aquatic Life (Nonsupport), Swimming (Nonsupport)
Pollutant of Concern:	Low pH
Suspected Sources:	Resource Extraction (Acid Mine Drainage)

This listing is from the 1998 303(d) Report. Data collection and TMDL development for Low pH are being done by the Tracy Farmer Center for the Environment using FFY2001 319 Assessment Grant funding.

<u>Flat Creek of Pond Creek</u>	Hopkins County
From River Mile 0.0 to 10.6	Segment Length: 10.6
Impaired Use:	Aquatic Life (Nonsupport), Swimming (Nonsupport)
Pollutant of Concern:	Low pH
Suspected Sources:	Resource Extraction (Acid Mine Drainage)

This listing is from the 1998 303(d) Report. The TMDL is currently being developed by the Kentucky Water Resources Research Institute.

<u>Pleasant Run of Drakes Creek</u>	Hopkins County
From River Mile 0.0 to 7.9	Segment Length: 7.9
Impaired Use:	Aquatic Life (Nonsupport), Swimming (Nonsupport)
Pollutant of Concern:	Low pH
Suspected Sources:	Resource Extraction (Acid Mine Drainage)

This listing is from the 1998 303(d) Report. The TMDL has informal approval from EPA Region 4.

**Table 6(d) --continued. 2002 303(d) Report for Kentucky – Tradewater/Green River Unit
TMDLs Under Development**

<u>Pond Creek of Green River</u>	Muhlenburg County	
From River Mile 9.4 to 23.8	Segment Length:	23.8
Impaired Use:	Aquatic Life (Nonsupport), Swimming (Nonsupport)	
Pollutant of Concern:	Low pH	
Suspected Sources:	Resource Extraction (Acid Mine Drainage)	

This listing is from the 1998 303(d) Report. The TMDL is currently being developed by the Kentucky Water Resources Research Institute.

<u>Render Creek of Lewis Creek</u>	Ohio County	
From River Mile 0.0 to 3.3	Segment Length:	3.3
Impaired Use:	Aquatic Life (Nonsupport), Swimming (Nonsupport)	
Pollutant of Concern:	Low pH	
Suspected Sources:	Resource Extraction (Acid Mine Drainage)	

This listing is from the 1998 303(d) Report. Data collection was done by KDOW personnel. The Tracey Center for the Environment is currently developing the TMDL as part of the EPA FFY2001 104(b)3 Grant awarded to Kentucky.

<u>Sugar Creek of Clear Creek</u>	Hopkins County	
From River Mile 0.0 to 5.3	Segment Length:	5.3
Impaired Use:	Aquatic Life (Partial Support), Swimming (Partial Support)	
Pollutant of Concern:	Low pH	
Suspected Sources:	Resource Extraction (Acid Mine Drainage)	

This listing is from the 1998 303(d) Report. The TMDL has informal approval from EPA Region 4.

**Table 6(e). 2002 303(d) Report for Kentucky – Tradewater/Green River Unit
2002 303(d) List**

-1st Priority Listings-

Basin: Green River

<u>Bacon Creek of Nolin River</u>	Hart/Larue Counties	
From River Mile 0.0 to 31.2	Segment Length:	31.2
Impaired Use:	Swimming (Nonsupport)	
Pollutant of Concern:	Pathogens	
Suspected Sources:	Agriculture, Land Disposal (Onsite Wastewater Treatment Systems – Septic Tanks)	

This listing was in the 1998 303(d) Report. Some data collection has been done throughout the watershed (through Western Kentucky University) to define the areas of the watershed contributing the most to the impairment.

<u>Barren River of Green River</u>	Warren County	
From River Mile 29.4 to 43.6	Segment Length:	14.2
Impaired Use:	Aquatic Life (Partial Support), Swimming (Nonsupport)	
Pollutant of Concern:	Metals (Lead), Pathogens	
Suspected Sources:	Urban Runoff/Storm Sewers, Agriculture	

This listing is from the 1998 303(d) Report. This listing is no longer relevant based on new pathogens data. The 1998 303(d) Report listing for pathogens was an error. Fecal coliform data collected at RM 37.6 during 1996 and 1997 indicated that there was no impairment of the swimming use. The sampling site was subsequently moved far downstream, so no additional information was collected at the site for 1998–2000. Some additional fecal coliform data were collected throughout the reach (2001) and indicate that there is no impairment of the swimming use from RM 35.0 to 43.6 and partial support of the swimming use from RM 29.4 to 37.6. Therefore, a request to delist the segment from RM 35.0 to 43.6 will be submitted to EPA Region 4 with the 2002 303(d) Report. See Tradewater/Green River Unit – Delistings – 1st Priority Listings. The stream segment from RM 29.4 to 35.0 will be shown in the 2002 303(d) Report as being in partial support (not nonsupport) of the swimming use. Therefore, because both aquatic life and swimming will be shown as partially supporting, this listing will now appear with the 2nd Priority Listings. See Tradewater/Green River Unit – 2002 303(d) Listings – 2nd Priority Listings. The metals violations for lead were just above the chronic level for a number of samples and the violations are believed to be attributable to contamination of the acid used as preservative for the metals samples. Unfortunately, this listing is based on pre-1998 data (this site was an ambient monitoring site until 1998), but the ambient site is now located far downstream. As a result, no data has been collected at the site since 1998. Data collection for metals was initiated in 2001 and is continuing. Continued fecal coliform data collection throughout the reach is also being done.

**Table 6(e) --continued. 2002 303(d) Report for Kentucky – Tradewater/Green River Unit
2002 303(d) List**

-1st Priority Listings-

<u>Beech Creek of Pond Creek</u>	Muhlenburg County	
From River Mile 0.0 to 3.4	Segment Length:	3.4
Impaired Use:	Aquatic Life (Nonsupport), Swimming (Nonsupport)	
Pollutant of Concern:	Low pH	
Suspected Sources:	Resource Extraction (Acid Mine Drainage)	

This listing is from the 1998 303(d) Report. Data collection was done by KDOW personnel. The Tracey Center for the Environment is currently developing the TMDL as part of the EPA FFY2002 104(b)3 Grant awarded to Kentucky. See Tradewater/Green Unit - TMDLs Under Development.

<u>Brier Creek of Pond River</u>	Muhlenburg County	
From River Mile 0.0 to 4.7	Segment Length:	4.7
Impaired Use:	Aquatic Life (Nonsupport), Swimming (Nonsupport)	
Pollutant of Concern:	Low pH	
Suspected Sources:	Resource Extraction (Acid Mine Drainage)	

This listing is from the 1998 303(d) Report. The TMDL for Low pH has been approved by EPA Region 4. See Tradewater/Green Unit – Approved TMDLs.

<u>Caney Creek of Pond Creek</u>	Muhlenburg County	
From River Mile 1.3 to 5.5	Segment Length:	4.2
Impaired Use:	Swimming (Nonsupport)	
Pollutant of Concern:	Pathogens	
Suspected Sources:	Collection System Failure	

This listing is from the 1998 303(d) Report. The Greenville WWTP is under an Agreed Order to remedy the situation and is currently under a sewer sanction.

<u>Craborchard Creek of Drakes Creek</u>	Hopkins County	
From River Mile 0.0 to 7.6	Segment Length:	7.6
Impaired Use:	Aquatic Life (Nonsupport), Swimming (Nonsupport)	
Pollutant of Concern:	Low pH	
Suspected Sources:	Resource Extraction (Acid Mine Drainage)	

This listing is from the 1998 303(d) Report. The TMDL has informal approval from EPA Region 4. See Tradewater/Green Unit - TMDLs Under Development.

**Table 6(e) --continued. 2002 303(d) Report for Kentucky – Tradewater/Green River Unit
2002 303(d) List**

-1st Priority Listings-

<u>Cypress Creek of Pond River</u>	Muhlenburg County
From River Mile 25.0 to 33.3	Segment Length: 8.3
Impaired Use:	Aquatic Life (Nonsupport), Swimming (Nonsupport)
Pollutant of Concern:	Low pH
Suspected Sources:	Resource Extraction (Acid Mine Drainage)

This listing is from the 1998 303(d) Report, which shows Muhlenburg and McLean Counties. It should only have shown Muhlenburg County. Data collection and TMDL development are being done by the Tracy Farmer Center for the Environment using FFY2001 319 Assessment Grant funding. This TMDL is being combined with the TMDL for the Cypress Creek from RM 22.9 to 25.0, which is a 2nd Priority listing in the 1998 303(d) Report. See Tradewater/Green Unit - TMDLs Under Development. Also see Tradewater/Green Unit - 2002 303(d) List – 2nd Priority Listings – Cypress Creek.

<u>Drakes Creek of Pond River</u>	Hopkins County
From River Mile 0.0 to 8.5	Segment Length: 8.5
Impaired Use:	Aquatic Life (Nonsupport), Swimming (Nonsupport), Fish Consumption (Nonsupport)
Pollutant of Concern:	Low pH, PCBs
Suspected Sources:	Resource Extraction (Acid Mine Drainage), Industrial Point Sources

This listing is from the 1998 303(d) Report. The listing of fish consumption because of PCBs is an error. A request to delist the stream for PCBs has been submitted to EPA Region 4. See Tradewater/Green River Unit – Delistings – 1st Priority Listings. Drakes Creek and West Fork Drakes Creek in Warren and Simpson Counties should have been listed as being impaired for fish consumption because of PCBs. Also see Tradewater/Green River Unit - Modifications to the 1998 303(d) Report - 1st Priority Listings. Data collection and TMDL development for Low pH are being done by the Tracy Farmer Center for the Environment using FFY2001 319 Assessment Grant funding. See Tradewater/Green Unit - TMDLs Under Development.

<u>Drakes Creek of Pond River</u>	Hopkins County
From River Mile 8.5 to 21.3	Segment Length: 12.8
Impaired Use:	Fish Consumption (Nonsupport)
Pollutant of Concern:	PCBs
Suspected Sources:	Industrial Point Sources

This listing is from the 1998 303(d) Report. The listing of fish consumption because of PCBs is an error. A request to delist the stream for PCBs has been submitted to EPA Region 4. See Tradewater/Green River Unit – Delistings – 1st Priority Listings. Drakes Creek and West Fork Drakes Creek in Warren and Simpson Counties should have been listed as being impaired for fish consumption because of PCB. Also see Tradewater/Green River Unit - Modifications to the 1998 303(d) Report - 1st Priority Listings.

**Table 6(e) --continued. 2002 303(d) Report for Kentucky – Tradewater/Green River Unit
2002 303(d) List**

-1st Priority Listings-

<u>Drakes Creek of Barren River</u>	Warren County	
From River Mile 0.0 to 23.5	Segment Length:	23.5
Impaired Use:	Fish Consumption (Nonsupport)	
Pollutant of Concern:	PCBs	
Suspected Sources:	Industrial Point Sources	

Monitoring for PCBs in fish tissue is conducted on a scheduled basis to update the fish consumption advisory. Levels have not declined to the concentrations that would end the advisory.

<u>Elk Creek of Pond River</u>	Hopkins County	
From River Mile 7.8 to 10.9	Segment Length:	3.1
Impaired Use:	Swimming (Nonsupport)	
Pollutant of Concern:	Pathogens	
Suspected Sources:	Collection System Failure	

This listing is from the 1998 303(d) Report. The City of Madisonville is under an Agreed Order to make corrections to their system. Extensive work is underway to categorize the sources (mostly SSOs), and a Sanitary Sewer Overflow Plan (SSOP) has been developed. Sewer System Evaluation Survey (SSES) study work is still underway.

<u>Flat Creek of Pond Creek</u>	Hopkins County	
From River Mile 0.0 to 10.6	Segment Length:	10.6
Impaired Use:	Aquatic Life (Nonsupport), Swimming (Nonsupport)	
Pollutant of Concern:	Low pH	
Suspected Sources:	Resource Extraction (Acid Mine Drainage)	

This listing is from the 1998 303(d) Report. The TMDL is currently being developed by the Kentucky Water Resources Research Institute. See Tradewater/Green Unit - TMDLs Under Development.

<u>Green River of Ohio River</u>	Hart/Edmonson/Green Counties	
From River Mile 183.5 to 250.2	Segment Length:	66.7
Impaired Use:	Swimming (Nonsupport)	
Pollutant of Concern:	Pathogens	
Suspected Sources:	Agriculture	

This listing is from the 1998 303(d) Report.

<u>Lick Creek of Green River</u>	Henderson County	
From River Mile 4.9 to 13.7	Segment Length:	8.8
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Siltation	
Suspected Sources:	Hydromodification (Channelization)	

This listing is from the 1998 303(d) Report.

**Table 6(e) --continued. 2002 303(d) Report for Kentucky – Tradewater/Green River Unit
2002 303(d) List**

-1st Priority Listings-

<u>Little Pitman Creek of Big Pitman Creek</u>	Taylor/Green Counties
From River Mile 5.9 to 10.1	Segment Length: 4.2
Impaired Use:	Aquatic Life (Nonsupport)
Pollutant of Concern:	Metals (Copper), Nutrients
Suspected Sources:	Municipal Point Sources (Major Municipal Point Sources)

This listing is from the 1998 303(d) Report. Metals data indicate that copper values are now being met by the Campbellsville WWTP and that instream values of copper meet water quality standards. A request to delist the stream for metals (copper) will be submitted to EPA Region 4 with the 2002 303(d) Report. See Tradewater/Green River Unit – Delistings – 1st Priority Listings. The nutrient listing remains, and data continue to be collected for phosphorus. The biological assessment information for the stream has not yet been completed.

<u>Nolin River of Green River</u>	Hart/Hardin/Grayson Counties
From River Mile 44.0 to 93.2	Segment Length: 49.2
Impaired Use:	Swimming (Nonsupport)
Pollutant of Concern:	Pathogens
Suspected Sources:	Agriculture

This listing is from the 1998 303(d) Report.

<u>North Fork Panther Creek of Panther Creek</u>	Daviess County
From River Mile 0.0 to 12.7	Segment Length: 12.7
Impaired Use:	Aquatic Life (Nonsupport)
Pollutant of Concern:	Habitat Alterations (Other than Flow), Flow Alterations
Suspected Sources:	Hydromodification (Channelization)

This listing is from the 1998 303(d) Report.

<u>Pleasant Run of Drakes Creek</u>	Hopkins County
From River Mile 0.0 to 7.9	Segment Length: 7.9
Impaired Use:	Aquatic Life (Nonsupport), Swimming (Nonsupport)
Pollutant of Concern:	Low pH
Suspected Sources:	Resource Extraction (Acid Mine Drainage)

This listing is from the 1998 303(d) Report. The TMDL has informal approval from EPA Region 4. See Tradewater/Green Unit - TMDLs Under Development.

**Table 6(e) --continued. 2002 303(d) Report for Kentucky – Tradewater/Green River Unit
2002 303(d) List**

-1st Priority Listings-

<u>Plum Creek of Pond Creek</u>	Muhlenburg County
From River Mile 0.0 to 2.5	Segment Length: 2.5
Impaired Use:	Aquatic Life (Nonsupport)
Pollutant of Concern:	Salinity/TDS/Chlorides
Suspected Sources:	Land Disposal (Inappropriate Waste Disposal/Wildcat Dumping)

The Primary Recovery Facility site at Drakesboro has undergone remediation, which was completed in the fall 2000. The contaminated material has been removed and the site revegetated. Monitoring for chlorides is underway to determine the effectiveness of the remediation efforts. See Tradewater/Green Unit – 2002 303(d) Listings – 1st Priority – Listings - Pond Creek of Green River (RM 0.0 to 9.4).

<u>Pond Creek of Green River</u>	Muhlenburg County
From River Mile 0.0 to 9.4	Segment Length: 9.4
Impaired Use:	Aquatic Life (Nonsupport)
Pollutant of Concern:	Salinity/TDS/Chlorides
Suspected Sources:	Land Disposal (Inappropriate Waste Disposal/Wildcat Dumping)

This listing was in the 1998 303(d) Report. The Primary Recovery Facility site at Drakesboro has undergone remediated, which was completed in the fall 2000. The contaminated material has been removed and the site revegetated. Monitoring for chlorides is underway to determine the effectiveness of the remediation efforts. See Tradewater/Green Unit – 2002 303(d) Listings – 1st Priority Listings - Plum Creek of Pond Creek (RM 0.0 to 2.5). Plum Creek enters Pond Creek at RM 9.4.

<u>Pond Creek of Green River</u>	Muhlenburg County
From River Mile 9.4 to 23.8	Segment Length: 23.8
Impaired Use:	Aquatic Life (Nonsupport), Swimming (Nonsupport)
Pollutant of Concern:	Low pH, Habitat Alterations (Other than Flow)
Suspected Sources:	Resource Extraction (Acid Mine Drainage)

This listing is from the 1998 303(d) Report. The TMDL is currently being developed by the Kentucky Water Resources Research Institute. See Tradewater/Green Unit - TMDLs Under Development.

<u>Render Creek of Lewis Creek</u>	Ohio County
From River Mile 0.0 to 3.3	Segment Length: 3.3
Impaired Use:	Aquatic Life (Nonsupport), Swimming (Nonsupport)
Pollutant of Concern:	Low pH
Suspected Sources:	Resource Extraction (Acid Mine Drainage)

This listing is from the 1998 303(d) Report. Data collection was done by KDOW personnel. The Tracey Center for the Environment is currently developing the TMDL as part of the EPA FFY2002 104(b)3 Grant awarded to Kentucky. See Tradewater/Green Unit - TMDLs Under Development.

**Table 6(e) --continued. 2002 303(d) Report for Kentucky – Tradewater/Green River Unit
2002 303(d) List**

-1st Priority Listings-

<u>Rhodes Creek of Panther Creek</u>	Daviess County	
From River Mile 1.2 to 7.3	Segment Length:	6.1
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Habitat Alterations (Other than Flow), Siltation	
Suspected Sources:	Agriculture, Hydromodification (Channelization)	

This listing is from the 1998 303(d) Report.

<u>Richland Slough of Green River</u>	Henderson/Daviess Counties	
From River Mile 0.0 to 6.2	Segment Length:	6.2
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Siltation	
Suspected Sources:	Agriculture, hydromodification (Channelization)	

This listing is from the 1998 303(d) Report.

<u>South Fork Panther Creek of Panther Creek</u>	Daviess County	
From River Mile 0.0 to 9.9	Segment Length:	9.9
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Habitat Alterations (Other than Flow), Flow Alterations	
Suspected Sources:	Hydromodification (Channelization)	

This listing is from the 1998 303(d) Report.

<u>South Fork Russell Creek of Russell Creek</u>	Green County	
From River Mile 0.0 to 0.6	Segment Length:	0.6
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Salinity/TDS/Chlorides	
Suspected Sources:	Resource Extraction (Petroleum Activities)	

This listing was in the 1998 303(d) Report. It should have been listed as UT to South Fork Russell Creek (at River Mile 4.85). The TMDL for Salinity/TDS/Chlorides has been approved by EPA Region 4. See Tradewater/Green Unit – Modifications to the 1998 303(d) Report – 1st Priority Listings. Also, See Tradewater/Green Unit – Approved TMDLs.

<u>UT of Elk Creek (River Mile 8.8)</u>	Hopkins County	
From River Mile 0.0 to 1.0	Segment Length:	1.0
Impaired Use:	Swimming (Nonsupport)	
Pollutant of Concern:	Pathogens	
Suspected Sources:	Collection System Failure	

This listing is from the 1998 303(d) Report. The City of Madisonville is under an Agreed Order to make corrections to their system. Extensive work is underway to categorize the sources (mostly SSOs), and a Sanitary Sewer Overflow Plan (SSOP) has been developed. Sewer System Evaluation Survey (SSES) study work is still underway.

**Table 6(e) --continued. 2002 303(d) Report for Kentucky – Tradewater/Green River Unit
2002 303(d) List**

-1st Priority Listings-

<u>UT of Flat Creek (River Mile 1.9)</u>	Hopkins County	
From River Mile 3.1 to 4.1	Segment Length:	1.0
Impaired Use:	Swimming (Nonsupport)	
Pollutant of Concern:	Pathogens	
Suspected Sources:	Collection System Failure	

This listing is from the 1998 303(d) Report. The City of Madisonville is under an Agreed Order to make corrections to their system. Extensive work is underway to categorize the sources (mostly SSOs), and a Sanitary Sewer Overflow Plan (SSOP) has been developed. Sewer System Evaluation Survey (SSES) study work is still underway.

<u>UT of South Fork Russell Creek (River Mile 4.85)</u>	Green County	
From River Mile 0.0 to 0.6	Segment Length:	0.6
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Salinity/TDS/Chlorides	
Suspected Sources:	Resource Extraction (Petroleum Activities)	

This is the listing that should have appeared in the 1998 303(d) Report. The listing in the 1998 303(d) Report was shown as South Fork Russell Creek. See Tradewater/Green Unit – Modification to the 1998 303(d) Report – 1st Priority Listings – South Fork Russell Creek of Russell Creek. The TMDL for Salinity/TDS/Chlorides has been approved by EPA Region 4. See Tradewater/ Green Unit – Approved TMDLs – South Fork Russell Creek of Russell Creek.

<u>West Fork Drakes Creek of Drakes Creek</u>	Warren/Simpson Counties	
From River Mile 0.0 to 23.4	Segment Length:	23.4
Impaired Use:	Fish Consumption (Nonsupport)	
Pollutant of Concern:	Priority Organics (PCBs)	
Suspected Sources:	Industrial Point Sources	

Monitoring for PCBs in fish tissue is conducted on a scheduled basis to update the fish consumption advisory. Levels have not declined to the concentrations that would end the advisory.

Basin: Ohio River

<u>Butchers Branch of Blackford Creek</u>	Hancock County	
From River Mile 0.0 to 2.3	Segment Length:	2.3
Impaired Use:	Aquatic Life (Nonsupport), Swimming (Nonsupport)	
Pollutant of Concern:	Low pH	
Suspected Sources:	Resource Extraction (Acid Mine Drainage)	

This listing is from the 1998 303(d) Report. Data collection was done by KDOW personnel. The Tracey Center for the Environment is currently developing the TMDL as part of the EPA FFY2001 104(b)3 Grant awarded to Kentucky. See Tradewater/Green Unit - TMDLs Under Development.

**Table 6(e) --continued. 2002 303(d) Report for Kentucky – Tradewater/Green River Unit
2002 303(d) List**

-1st Priority Listings-

<u>Crooked Creek of Ohio River</u>	Crittenden County
From River Mile 22.3 to 23.3	Segment Length: 1.0
Impaired Use: Swimming (Nonsupport)	
Pollutant of Concern: Pathogens	
Suspected Sources: Collection System Failure	

This listing is from the 1998 303(d) Report. Marion's system is under an Agreed Order and is currently on the sewer sanction list due to overflows/bypasses. An engineer has been contracted to study and propose corrections to the old clay tile lines. A Sewer System Evaluation Survey (SSES) has been performed and approved through DOW. Phase I, which will replace the trunk line along Rush Creek, has been approved by the Marion City Council and is in the bidding phase. Plans for corrections to the failing collection system have been sent to the Facilities Construction Branch of the KDOW. Upgrades to the treatment plant and/or replacement are under review.

Basin: Tradewater River

<u>Clear Creek of Tradewater River</u>	Hopkins County
From River Mile 25.5 to 26.5	Segment Length: 1.0
Impaired Use: Swimming (Nonsupport)	
Pollutant of Concern: Pathogens	
Suspected Sources: Collection System Failure	

This listing is from the 1998 303(d) Report. The City of Madisonville is under an Agreed Order to make corrections to their system. Extensive work is underway to categorize the sources (mostly SSOs), and a Sanitary Sewer Overflow Plan (SSOP) has been developed. Sewer System Evaluation Survey (SSES) study work is still underway.

<u>Tradewater River of Ohio River</u>	Union County
From River Mile 0.0 to 16.7	Segment Length: 16.7
Impaired Use: Swimming (Nonsupport)	
Pollutant of Concern: Pathogens	
Suspected Sources: Agriculture	

This listing is from the 1998 303(d) Report.

<u>UT of Clear Creek (River Mile 24.4)</u>	Hopkins County
From River Mile 0.0 to 2.2	Segment Length: 2.2
Impaired Use: Swimming (Nonsupport)	
Pollutant of Concern: Pathogens	
Suspected Sources: Collection System Failure, Municipal Point Sources (Package Plants - Small Flows)	

This listing is from the 1998 303(d) Report. The City of Madisonville is under an Agreed Order to make corrections to their system. Extensive work is underway to categorize the sources (mostly SSOs), and a Sanitary Sewer Overflow Plan (SSOP) has been developed. Sewer System Evaluation Survey (SSES) study work is still underway.

**Table 6(e) --continued. 2002 303(d) Report for Kentucky – Tradewater/Green River Unit
2002 303(d) List**

-2nd Priority Listings-

Basin: Green River

<u>Barren River of Green River</u>	Warren County	
From River Mile 29.4 to 35.0	Segment Length:	14.2
Impaired Use:	Aquatic Life (Partial Support), Swimming (Partial Support)	
Pollutant of Concern:	Metals (Lead), Pathogens	
Suspected Sources:	Urban Runoff/Storm Sewers, Agriculture	

This listing and the next listing replace the listing shown in the 1998 303(d) Report. This listing is no longer relevant based on new pathogens data. The 1998 303(d) Report listing for pathogens was an error. Fecal coliform data collected at RM 37.6 during 1996 and 1997 indicated that there was no impairment of the swimming use. The sampling site was subsequently moved far downstream, so no additional information was collected at the site for 1998 – 2000. Some additional fecal coliform data were collected throughout the reach (2001) and indicate that there is no impairment of the swimming use from RM 35.0 to 43.6 and partial support of the swimming use from RM 29.4 to 37.6. Therefore a request to delist the segment from RM 35.0 to 43.6 will be submitted to EPA Region 4 with the 2002 303(d) Report. See Tradewater/Green River Unit – Delistings – 1st Priority Listings. The stream segment from RM 29.4 to 35.0 will be shown in the 2002 303(d) Report as being in partial support (not nonsupport) of the swimming use. Therefore, because both aquatic life and swimming will be shown as partially supporting, this listing will now appear with the 2nd Priority Listings. See Tradewater/Green River Unit – 2002 303(d) Listings – 2nd Priority Listings. The metals violations for lead were just above the chronic level for a number of samples and the violations are believed to be attributable to contamination of the acid used as preservative for the metals samples. Unfortunately, this listing is based on pre-1998 data (this site was an ambient monitoring site until 1998), but the ambient site is now located far downstream. As a result, no data has been collected at the site since 1998. Data collection for metals was initiated in 2001 and is continuing. Continued fecal coliform data collection throughout the reach is also being done.

<u>Barren River of Green River</u>	Warren County	
From River Mile 35.0 to 43.6	Segment Length:	14.2
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Metals (Lead)	
Suspected Sources:	Urban Runoff/Storm Sewers	

This listing and the previous listing replace the listing shown in the 1998 303(d) Report that extended from RM 29.4 to 43.6.

**Table 6(e) --continued. 2002 303(d) Report for Kentucky – Tradewater/Green River Unit
2002 303(d) List**

-2nd Priority Listings-

<u>Cypress Creek of Pond River</u>	Muhlenburg County
From River Mile 22.9 to 25.0	Segment Length: 2.1
Impaired Use:	Aquatic Life (Partial Support), Swimming (Partial Support)
Pollutant of Concern:	Low pH
Suspected Sources:	Resource Extraction (Acid Mine Drainage)

This listing is from the 1998 303(d) Report. Data collection and TMDL development are being done by the Tracy Farmer Center for the Environment using FFY2001 319 Assessment Grant funding. This TMDL is being combined with the TMDL for the Cypress Creek from RM 25.0 to 33.3, which is a 1st Priority listing in the 1998 303(d) Report. See Tradewater/Green Unit - TMDLs Under Development. Also see Tradewater/Green Unit - 2002 303(d) List - 1st Priority – Cypress Creek of Pond Creek.

<u>Daniels Creek of Rock Lick Creek</u>	Breckinridge County
From River Mile 0.0 to 5.7	Segment Length: 5.7
Impaired Use:	Aquatic Life (Partial Support)
Pollutant of Concern:	Habitat Alterations (Other than Flow)
Suspected Sources:	Habitat Modification (Other than Hydromodification)

This listing is from the 1998 303(d) Report.

<u>Green River of Ohio River</u>	McLean/Ohio/Butler Counties
From River Mile 71.3 to 108.6	Segment Length: 37.3
Impaired Use:	Swimming (Partial Support)
Pollutant of Concern:	Pathogens
Suspected Sources:	Agriculture

This listing is from the 1998 303(d) Report.

<u>Knoblick Creek of Green River</u>	Webster County
From River Mile 0.0 to 9.0	Segment Length: 9.0
Impaired Use:	Aquatic Life (Partial Support)
Pollutant of Concern:	Siltation, Habitat Alterations (Other than Flow), Organic Enrichment/ Low DO
Suspected Sources:	Agriculture

This listing is from the 1998 303(d) Report.

<u>Lewis Creek of Green River</u>	Ohio County
From River Mile 0.0 to 11.8	Segment Length: 11.8
Impaired Use:	Aquatic Life (Partial Support)
Pollutant of Concern:	Siltation
Suspected Sources:	Resource Extraction (Surface Mining)

This listing is from the 1998 303(d) Report.

**Table 6(e) --continued. 2002 303(d) Report for Kentucky – Tradewater/Green River Unit
2002 303(d) List**

-2nd Priority Listings-

<u>Long Falls Creek of Green River</u>	McLean County	
From River Mile 2.0 to 11.7	Segment Length:	9.7
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Habitat Alterations (Other than Flow)	
Suspected Sources:	Agriculture	

This listing is from the 1998 303(d) Report.

<u>Pond River of Green River</u>	McLean/Muhlenburg/Hopkins Counties	
From River Mile 1.0 to 31.1	Segment Length:	30.0
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Siltation, Habitat Alterations (Other than Flow)	
Suspected Sources:	Resource Extraction	

This listing is from the 1998 303(d) Report.

Basin: Tradewater River

<u>Cane Run of Caney Creek</u>	Hopkins County	
From River Mile 0.0 to 3.4	Segment Length:	3.4
Impaired Use:	Aquatic Life (Partial Support), Swimming (Partial Support)	
Pollutant of Concern:	Low pH	
Suspected Sources:	Resource Extraction (Acid Mine Drainage)	

This listing is from the 1998 303(d) Report. The TMDL has informal approval from EPA. See Tradewater/Green Unit - TMDLs Under Development.

<u>Sugar Creek of Clear Creek</u>	Hopkins County	
From River Mile 0.0 to 5.3	Segment Length:	5.3
Impaired Use:	Aquatic Life (Partial Support), Swimming (Partial Support)	
Pollutant of Concern:	Low pH	
Suspected Sources:	Resource Extraction (Acid Mine Drainage)	

This listing is from the 1998 303(d) Report. The TMDL has informal approval from EPA Region 4. See Tradewater/Green Unit - TMDLs Under Development.

<u>Tradewater River of Ohio River</u>	Hopkins/Caldwell Counties	
From River Mile 63.0 to 92.2	Segment Length:	29.2
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Siltation	
Suspected Sources:	Resource Extraction	

This listing is from the 1998 303(d) Report.

**Table 6(f). 2002 303(d) Report for Kentucky – Tradewater/Green River Unit
Stream Segments Needing Additional Information Before Being 303(d) Listed**

None.

Table 6(g). 2002 303(d) Report For Kentucky – Tradewater/Green River Unit Stream Segments That May Be Impaired Based Solely On Discharge Monitoring Reports (DMRs).

None.

TABLE 7. 2002 303(d) REPORT FOR KENTUCKY – BIG & LITTLE SANDY/TYGARTS UNIT

**Table 7(a). 2002 303(d) Report for Kentucky – Big and Little Sandy/Tygart Unit
Modifications to the 1998 303(d) Report**

-1st Priority Listings-

<u>Tug Fork of Big Sandy River</u>	Martin County	
From River Mile 0.0 to 10.2	Segment Length:	10.2
Impaired Use:	Swimming (Nonsupport)	
Pollutant of Concern:	Pathogens	
Suspected Sources:	Land Disposal (Onsite Wastewater Systems – Septic Tanks and/or Straight Pipes)	

This listing is from the 1998 303(d) Report. The listing of Martin County is an error. The listing should be Lawrence County. See Big and Little Sandy/Tygart Unit – 2002 303(d) List - 1st Priority Listings.

**Table 7(a). 2002 303(d) Report for Kentucky – Big and Little Sandy/Tygarts Unit
Modifications to the 1998 303(d) Report**

-2nd Priority Listings-

Little Sandy River of Ohio River

From River Mile 11.7 to 37.7

Greenup County

Segment Length: 26.0

Impaired Use: Swimming (Nonsupport)

Pollutant of Concern: Pathogens

Suspected Sources: Agriculture

This listing is from the 1998 303(d) Report. The listing should also show Carter County in addition to Greenup County. See Big and Little Sandy/Tygarts Unit – 2002 303(d) List - 1st Priority Listings.

**Table 7(b). 2002 303(d) Report for Kentucky – Big and Little Sandy/Tygarts Unit
Delistings**

-1st Priority Listings-

Note: The stream/pollutant combinations listed below are only for the designated uses and pollutants of concern for which a delisting request has been made to EPA Region 4. The stream segment may have also been shown in the 1998 303(d) Report as being impaired for the same designated use because of other pollutants or as being impaired for other designated uses.

None.

**Table 7(b). 2002 303(d) Report for Kentucky – Big and Little Sandy/Tygarts Unit
Delistings**

-2nd Priority Listings-

Note: The stream/pollutant combinations listed below are only for the designated uses and pollutants of concern for which a delisting request has been made to EPA Region 4. The stream segment may have also been shown in the 1998 303(d) Report as being impaired for the same designated use because of other pollutants or as being impaired for other designated uses.

None.

**Table 7(c). 2002 303(d) Report for Kentucky – Big and Little Sandy/Tygarts Unit
Approved TMDLs**

(To view these documents, please access the KDOW's TMDL web page at <http://water.nr.state.ky.us/dow/tmdl.htm>. For a printed copy of the TMDL, please contact the KDOW.)

<u>East Fork Little Sandy River</u>	Boyd County	
From River Mile 19.0 to 25.0	Segment Length:	6.0
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Organic Enrichment/Low DO	
Suspected Sources:	Municipal Point Sources	

This TMDL was approved in 1995. Most of the small WWTPs whose flow impacted this stream segment have been eliminated. The flow now goes to regional facilities on the Ohio River.

<u>Newcombe Creek of Little Sandy River</u>	Elliott County	
From River Mile 0.0 to 11.9	Segment Length:	11.9
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Salinity/Chlorides/TDS	
Suspected Sources:	Resource Extraction (Petroleum Activities)	

This listing is from the 1998 303(d) Report. The TMDL for Salinity/Chlorides/TDS has been approved by EPA Region 4.

**Table 7(d). 2002 303(d) Report for Kentucky – Big and Little Sandy/Tygarts Unit
TMDLs Under Development**

Although Kentucky does not have any TMDLs currently under development in the Big and Little Sandy/Tygarts Unit, West Virginia does have a TMDL that is being developed for the Tug Fork from RM 0.0 to 58.8 for iron and aluminum. The results of the TMDL affect Kentucky because the Tug Fork is a shared waterbody between West Virginia and Kentucky for this segment.

**Table 7(e). 2002 303(d) Report for Kentucky – Big and Little Sandy/Tygarts Unit
2002 303(d) List**

-1st Priority Listings-

Basin: Little Sandy River

<u>East Fork Little Sandy River</u>	Boyd County	
From River Mile 19.0 to 25.0	Segment Length:	6.0
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Organic Enrichment/Low DO	
Suspected Sources:	Municipal Point Sources	

This TMDL was approved in 1995. See Big and Little Sandy/Tygarts Unit – Approved TMDLs. Most of the small WWTPs whose flow impacted this stream segment have been eliminated. The flow now goes to regional facilities on the Ohio River.

<u>Newcombe Creek of Little Sandy River</u>	Elliott County	
From River Mile 0.0 to 11.9	Segment Length:	11.9
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Salinity/Chlorides/TDS	
Suspected Sources:	Resource Extraction (Petroleum Activities)	

This listing is from the 1998 303(d) Report. The TMDL for Salinity/Chlorides/TDS has been approved by EPA Region 4. See Big and Little Sandy/Tygarts Unit – Approved TMDLs.

Basin: Big Sandy River

<u>Levisa Fork of Big Sandy River</u>	Lawrence County	
From River Mile 1.0 to 38.9	Segment Length:	37.9
Impaired Use:	Aquatic Life (Partial Support), Swimming (Nonsupport)	
Pollutant of Concern:	Metals (Lead), Pathogens	
Suspected Sources:	Unknown, Municipal Point Sources	

<u>Levisa Fork of Big Sandy River</u>	Johnson/Floyd Counties	
From River Mile 65.0 to 97.3	Segment Length:	32.3
Impaired Use:	Swimming (Nonsupport)	
Pollutant of Concern:	Pathogens	
Suspected Sources:	Municipal Point Sources (Package Plants – Small Flows), Land Disposal (Onsite Wastewater Systems – Septic Tanks and/or Straight Pipes)	

<u>Levisa Fork of Big Sandy River</u>	Pike County	
From River Mile 116.2 to 124.6	Segment Length:	8.4
Impaired Use:	Aquatic Life (Nonsupport), Swimming (Nonsupport)	
Pollutant of Concern:	Siltation, Pathogens	
Suspected Sources:	Resource Extraction, Land Disposal (Onsite Wastewater Systems – Septic Tanks and/or Straight Pipes)	

**Table 7(e)--continued. 2002 303(d) Report for Kentucky – Big and Little Sandy/Tygarts Unit
2002 303(d) List**

-1st Priority Listings-

<u>Tug Fork of Big Sandy River</u>	Lawrence County
From River Mile 0.0 to 10.2	Segment Length: 10.2
Impaired Use:	Swimming (Nonsupport)
Pollutant of Concern:	Pathogens
Suspected Sources:	Land Disposal (Onsite Wastewater Systems – Septic Tanks and/or Straight Pipes)

This listing is from the 1998 303(d) Report, but the county was incorrectly shown as Martin County instead of Lawrence County. See Big and Little Sandy/Tygarts Unit – Modifications to the 1998 303(d) Report - 1st Priority.

<u>Tug Fork of Big Sandy River</u>	Martin/Lawrence Counties
From River Mile 10.2 to 41.6	Segment Length: 31.4
Impaired Use:	Swimming (Nonsupport), Aquatic Life (Partial Support)
Pollutant of Concern:	Pathogens, Siltation, Organic Enrichment/Low DO
Suspected Sources:	Land Disposal (Onsite Wastewater Systems – Septic Tanks and/or Straight Pipes), Resource Extraction (Surface Mining), Unknown Source

This listing is from the 1998 303(d) Report.

**Table 7(e)—continued. 2002 303(d) Report for Kentucky – Big and Little Sandy/Tygarts Unit
2002 303(d) List**

-2nd Priority Listings-

Basin: Big Sandy River

<u>Big Sandy River of Ohio River</u>	Lawrence County	
From River Mile 0.0 to 26.8	Segment Length:	26.8
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Siltation, Metals (Lead)	
Suspected Sources:	Resource Extraction, Hydromodification (Dredging)	

This listing is from the 1998 303(d) Report.

<u>Knox Creek of Tug Fork</u>	Pike County	
From River Mile 0.0 to 7.6	Segment Length:	7.6
Impaired Use:	Aquatic Life (Partial Support), Swimming (Partial Support)	
Pollutant of Concern:	Siltation, Pathogens	
Suspected Sources:	Unknown Source, Land Disposal (Onsite Wastewater Systems – Septic Tanks and/or Straight Pipes)	

This listing is from the 1998 303(d) Report.

Basin: Little Sandy River

<u>Little Sandy River of Ohio River</u>	Greenup/Carter Counties	
From River Mile 11.7 to 37.7	Segment Length:	26.0
Impaired Use:	Swimming (Nonsupport)	
Pollutant of Concern:	Pathogens	
Suspected Sources:	Agriculture	

This listing is from the 1998 303(d) Report. The listing should also show Carter County in addition to Greenup County. See Big and Little Sandy/Tygarts Unit – Modifications to the 1998 303(d) Report – 2nd Priority Listings.

Basin: Tygarts Creek

<u>Tygarts Creek of Ohio River</u>	Greenup County	
From River Mile 0.0 to 45.7	Segment Length:	45.7
Impaired Use:	Swimming (Nonsupport)	
Pollutant of Concern:	Pathogens	
Suspected Sources:	Agriculture, Land Disposal	

This listing is from the 1998 303(d) Report

**Table 7(f). 2002 303(d) Report for Kentucky – Big and Little Sandy/Tygarts Unit
Stream Segments Needing Additional Information Before Being 303(d) Listed**

None.

**Table 7(f). 2002 303(d) Report for Kentucky – Big and Little Sandy/Tygarts Unit
Stream Segments That May Be Impaired Based Solely on Discharge Monitoring Reports (DMRs)**

None.

TABLE 8. 2002 303(d) REPORT FOR KENTUCKY – OHIO RIVER (MAIN STEM)

**Table 8(a). 2002 303(d) Report For Kentucky - Ohio River (Main Stem)
Modifications to the 1998 303(d) Report**

-1st Priority Listings-

Note: In the 1998 303(d) Report there were no 1st Priority Listings for the main stem of the Ohio River along the Kentucky border.

**Table 8(a)--continued. 2002 303(d) Report For Kentucky - Ohio River (Main Stem)
Modifications to the 1998 303(d) Report**

-2nd Priority Listings-

<u>Ohio River (main stem)</u>	Boone County
From River Mile 510.0 to 491.1	Segment Length: 18.9
Impaired Use:	Fish Consumption (Partial Support), Swimming (Partial Support)
Pollutant of Concern:	PCBs, Priority Organics, Pathogens
Suspected Sources:	Urban Runoff/Storm Sewers, Combined Sewer Overflows, Land Disposal

The listing was already covered under the following 1998 303(d) listing and therefore should not have been shown.

<u>Ohio River (main stem)</u>	Boone/Kenton/Campbell Counties
From River Mile 510.0 to 436.1	Segment Length: 73.9
Impaired Use:	Fish Consumption (Partial support), Swimming (Partial Support)
Pollutant of Concern:	PCBs, Priority Organics, Pathogens
Suspected Sources:	Urban Runoff/Storm Sewers, Combined Sewer Overflows, Land Disposal

**Table 8(b). 2002 303(d) Report For Kentucky - Ohio River (Main Stem)
Delistings**

-1st Priority Listings-

Note: The stream/pollutant combinations listed below are only for the designated uses and pollutants of concern for which a delisting request has been made to EPA Region 4. The stream segment may have also been shown in the 1998 303(d) Report as being impaired for the same designated use because of other pollutants or as being impaired for other designated uses.

Note: In the 1998 303(d) Report there were no 1st Priority Listings for the main stem of the Ohio River along the Kentucky border.

**Table 8(b)--continued. 2002 303(d) Report For Kentucky - Ohio River (Main Stem)
Delistings**

-2nd Priority Listings-

Note: The stream/pollutant combinations listed below are only for the designated uses and pollutants of concern for which a delisting request has been made to EPA Region 4. The stream segment may have also been shown in the 1998 303(d) Report as being impaired for the same designated use because of other pollutants or as being impaired for other designated uses.

<u>Ohio River (main stem)</u>	All Counties Along the Ohio River in Kentucky
From River Mile 317.1 to 981.0	Segment Length: 663.9
Impaired Use:	Fish Consumption (Partial Support)
Pollutant of Concern:	Priority Organics (Chlordane)

This listing is from the 1998 303(d) Report. The entire reach of the Ohio River in Kentucky is listed for Priority Organics (specifically chlordane). The reach of the Ohio River that borders Kentucky (River Mile 981.0 to 317.1) was included on the 1998 303(d) list because of partial support of fish consumption because of a number of pollutants, including Priority Organics (specifically chlordane). The Food and Drug Administration (FDA) Action Level for chlordane in fish tissue was used (0.30 parts per million – ppm) as the criteria. More recently, Kentucky has adopted the Great Lakes Protocols, which calls for the use of risk-based assessments. However, no cancer-risk factor has been delineated for use by Kentucky in the risk-based approach. As a result, Kentucky defers back to the FDA Action Level value of 0.30 ppm of chlordane in fish tissue as the criteria for fish consumption for chlordane.

ORSANCO has chlordane data for fish tissue from fish taken from the Ohio River for the period 1988 to 1999. The data extend from ORM (Ohio River Mile) 317, which is the upstream-most section of the Ohio along the Kentucky border, to ORM 962 (the mouth of the Ohio River is at River Mile 981.0). The data show that since 1992, levels of chlordane in fish taken from the Ohio River have been less than the FDA Action Level of 0.30 ppm. In addition, what little in-stream chlordane concentration data that are available show that the concentrations of chlordane is below Kentucky's standard for warmwater aquatic habitat. Kentucky submitted a request to EPA to delist the Ohio River along Kentucky's border for chlordane. EPA concurred and the Ohio River along Kentucky's border has been informally delisted for chlordane. A request to formally delist the Ohio River for chlordane will be submitted to EPA Region 4 with the 2002 303(d) Report.

Ohio, Indiana, and Illinois do not have the Ohio River listed for Priority Organics (chlordane). However, the entire length of the Ohio River along the Kentucky border is included on the most recent 303(d) list of Illinois, Indiana, Ohio, and Kentucky because of PCBs. This results in a continued fish consumption advisory for the Ohio River along the entire length of the Kentucky border; delisting for chlordane will NOT result in the removal of the fish consumption advisory.

**Table 8(c). 2002 303(d) Report For Kentucky - Ohio River (Main Stem)
Approved TMDLs**

There are no approved TMDLs for the main stem of the Ohio River along the Kentucky border.

**Table 8(d). 2002 303(d) Report For Kentucky - Ohio River (Main Stem)
TMDLs Under Development**

There are no TMDLs currently being developed for the main stem of the Ohio River along the Kentucky border. ORSANCO is in the process of developing TMDLs for the Ohio River in the upper reaches along the West Virginia and Ohio border and on selected major tributaries of the upper Ohio River. This process will continue in a downstream direction. It will therefore be several years before TMDL development will be initiated for the Ohio River along the KY border. Kentucky intends to have ORSANCO do the data collection and modeling for the Ohio River along Kentucky's border. It is anticipated that the adjoining states of Ohio, Indiana, and Illinois will also have ORSANCO perform these tasks. The states would then be responsible for actual TMDL development using this information. No schedule has been set for this process at this time.

Dioxin data collection has just recently been initiated by ORSANCO for the lower-most reaches of the Ohio River. PCB, dioxin, mercury, and pathogen data continue to be collected by ORSANCO at selected locations along the entire length of the Ohio River.

**Table 8(e). 2002 303(d) Report For Kentucky - Ohio River (Main Stem)
2002 303(d) List**

1st Priority Listings

<u>Ohio River of Mississippi River</u>	Boone County
From River Mile 477.5 to 491.1	Segment Length: 13.6
Impaired Use:	Swimming (Nonsupport), Fish Consumption (Partial Support)
Pollutant of Concern:	Pathogens, PCBs, Dioxin
Suspected Sources:	Combined Sewer Overflows, Urban Runoff/Storm Sewers, Land Disposal, Agriculture, Municipal Point Sources, Industrial Point Sources, Contaminated Sediments (Sediment Resuspension).

This listing for fish consumption (partial support) due to PCBs is from the 1998 303(d) Report. Dioxin has been added as a pollutant of concern for fish consumption. This segment is now listed as being in nonsupport of the swimming use based on the most recent data.

<u>Ohio River of Mississippi River</u>	Jefferson County
From River Mile 619.3 to 629.9	Segment Length: 10.6
Impaired Use:	Swimming (Nonsupport), Fish Consumption (Partial Support)
Pollutant of Concern:	Pathogens, PCBs, Dioxin
Suspected Sources:	Combined Sewer Overflows, Urban Runoff/Storm Sewers, Land Disposal, Agriculture, Municipal Point Sources, Industrial Point Sources, Contaminated Sediments (Sediment Resuspension).

This listing for fish consumption (partial support) due to PCBs is from the 1998 303(d) Report. Dioxin has been added as a pollutant of concern for fish consumption. This segment is now listed as being in nonsupport of the swimming use based on the most recent data.

<u>Ohio River of Mississippi River</u>	Henderson/Union Counties
From River Mile 791.5 to 846.0	Segment Length: 54.5
Impaired Use:	Swimming (Nonsupport), Fish Consumption (Partial Support)
Pollutant of Concern:	Pathogens, PCBs
Suspected Sources:	Combined Sewer Overflows, Urban Runoff/Storm Sewers, Land Disposal, Agriculture, Municipal Point Sources, Industrial Point Sources, Contaminated Sediments (Sediment Resuspension).

This listing for fish consumption (partial support) due to PCBs is from the 1998 303(d) Report. This segment is now listed as being in nonsupport of the swimming use based on the most recent data.

**Table 8(e)--continued. 2002 303(d) Report For Kentucky - Ohio River (Main Stem)
2002 303(d) List**

-2nd Priority Listings-

Note: Priority Organics (Chlordane) has been delisted for the entire length of the Ohio River along Kentucky's border. See Ohio River (Main Stem) – Delistings – 2nd Priority Listings.

<u>Ohio River of Mississippi River</u>	Greenup County
From River Mile 317.1 to 341.0	Segment Length: 23.9
Impaired Use:	Fish Consumption (Partial Support), Swimming (Partial Support)
Pollutant of Concern:	PCBs, Dioxin, Pathogens
Suspected Sources:	Combined Sewer Overflows, Urban Runoff/Storm Sewers, Land Disposal, Agriculture, Municipal Point Sources, Industrial Point Sources, Contaminated Sediments (Sediment Resuspension).

This listing for fish consumption due to PCBs, and swimming due to pathogens is from the 1998 303(d) Report. Dioxin has been added as a pollutant of concern for fish consumption.

<u>Ohio River of Mississippi River</u>	Greenup County
From River Mile 341.0 to 354.0	Segment Length: 13.0
Impaired Use:	Fish Consumption (Partial Support)
Pollutant of Concern:	PCBs
Suspected Sources:	Land Disposal, Industrial Point Sources, Contaminated Sediments (Sediment Resuspension).

This listing is from the 1998 303(d) Report.

<u>Ohio River of Mississippi River</u>	Greenup County
From River Mile 354.0 to 356.5	Segment Length: 2.5
Impaired Use:	Fish Consumption (Partial Support), Aquatic Life (Partial Support)
Pollutant of Concern:	PCBs, Unknown
Suspected Sources:	Land Disposal, Agriculture, Industrial Point Sources, Unknown Source, Contaminated Sediments (Sediment Resuspension).

This listing for fish consumption due to PCBs is from the 1998 303(d) Report. The aquatic life impairment due to an unknown cause has been added.

<u>Ohio River of Mississippi River</u>	Greenup/Lewis Counties
From River Mile 356.5 to 361.0	Segment Length: 4.5
Impaired Use:	Fish Consumption (Partial Support), Aquatic Life (Partial Support)
Pollutant of Concern:	PCBs, Dioxin, Unknown
Suspected Sources:	Land Disposal, Agriculture, Industrial Point Sources, Unknown Source, Contaminated Sediments (Sediment Resuspension).

This listing for fish consumption due to PCBs is from the 1998 303(d) Report. Dioxin has been added as a pollutant of concern for fish consumption. The aquatic life impairment due to an unknown cause has also been added.

**Table 8(e)--continued. 2002 303(d) Report For Kentucky - Ohio River (Main Stem)
2002 303(d) List**

-2nd Priority Listings-

<u>Ohio River of Mississippi River</u>	Lewis/Mason/Bracken Counties
From River Mile 361.0 to 436.2	Segment Length: 75.1
Impaired Use:	Fish Consumption (Partial Support)
Pollutant of Concern:	PCBs, Dioxin
Suspected Sources:	Land Disposal, Industrial Point Sources, Contaminated Sediments (Sediment Resuspension).

This listing for fish consumption due to PCBs is from the 1998 303(d) Report. Dioxin has been added as a pollutant of concern for fish consumption.

<u>Ohio River of Mississippi River</u>	Bracken/Pendleton/Campbell Counties
From River Mile 436.2 to 464.1	Segment Length: 28.0
Impaired Use:	Fish Consumption (Partial Support), Swimming (Partial Support)
Pollutant of Concern:	PCBs, Dioxin, Pathogens
Suspected Sources:	Combined Sewer Overflows, Urban Runoff/Storm Sewers, Land Disposal, Agriculture, Municipal Point Sources, Industrial Point Sources, Contaminated Sediments (Sediment Resuspension).

This listing for fish consumption due to PCBs, and swimming due to pathogens is from the 1998 303(d) Report. Dioxin has been added as a pollutant of concern for fish consumption.

<u>Ohio River of Mississippi River</u>	Campbell County
From River Mile 464.1 to 470.2	Segment Length: 6.1
Impaired Use:	Fish Consumption (Partial Support), Swimming (Partial Support)
Pollutant of Concern:	PCBs, Pathogens
Suspected Sources:	Combined Sewer Overflows, Urban Runoff/Storm Sewers, Land Disposal, Agriculture, Municipal Point Sources, Industrial Point Sources, Contaminated Sediments (Sediment Resuspension).

This listing for fish consumption due to PCBs, and swimming due to pathogens is from the 1998 303(d) Report. The listing in the 1998 303(d) Report was actually for RM 436.1 to 510.0, but that reach has been further subdivided for this 303(d) Report.

**Table 8(e)--continued. 2002 303(d) Report For Kentucky - Ohio River (Main Stem)
2002 303(d) List**

-2nd Priority Listings-

<u>Ohio River of Mississippi River</u>	Kenton County
From River Mile 470.2 to 477.5	Segment Length: 7.3
Impaired Use:	Fish Consumption (Partial Support), Swimming (Partial Support)
Pollutant of Concern:	PCBs, Dioxin, Pathogens
Suspected Sources:	Combined Sewer Overflows, Urban Runoff/Storm Sewers, Land Disposal, Agriculture, Municipal Point Sources, Industrial Point Sources, Contaminated Sediments (Sediment Resuspension).

This listing for fish consumption due to PCBs, and swimming due to pathogens is from the 1998 303(d) Report. The listing in the 1998 303(d) Report was actually for RM 436.1 to 510.0, but the reach has been further subdivided and the segment from 477.5 to 491.1 is now 1st Priority for swimming because of pathogens. See Ohio River – 2002 303(d) List – 1st Priority Listings. Dioxin has been added as a pollutant of concern for fish consumption.

<u>Ohio River of Mississippi River</u>	Boone County
From River Mile 491.1 to 510.0	Segment Length: 18.9
Impaired Use:	Fish Consumption (Partial Support), Swimming (Partial Support)
Pollutant of Concern:	PCBs, Dioxin, Pathogens
Suspected Sources:	Combined Sewer Overflows, Urban Runoff/Storm Sewers, Land Disposal, Agriculture, Municipal Point Sources, Industrial Point Sources, Contaminated Sediments (Sediment Resuspension).

This listing for fish consumption due to PCBs, and swimming due to pathogens is from the 1998 303(d) Report. The listing in the 1998 303(d) Report was actually for RM 436.1 to 510.0, but the reach has been further subdivided and the segment from 477.5 to 491.1 is now 1st Priority for swimming due to pathogens. See Ohio River – 2002 303(d) List – 1st Priority Listings. Dioxin has been added as a pollutant of concern for fish consumption.

<u>Ohio River of Mississippi River</u>	Boone/Gallatin Counties
From River Mile 510.0 to 531.5	Segment Length: 21.5
Impaired Use:	Fish Consumption (Partial Support)
Pollutant of Concern:	PCBs, Dioxin
Suspected Sources:	Land Disposal, Industrial Point Sources, Contaminated Sediments (Sediment Resuspension).

This listing for fish consumption due to PCBs is from the 1998 303(d) Report. Dioxin has been added as a pollutant of concern for fish consumption.

**Table 8(e)--continued. 2002 303(d) Report For Kentucky - Ohio River (Main Stem)
2002 303(d) List**

-2nd Priority Listings-

<u>Ohio River of Mississippi River</u>	Gallatin/Carroll Counties
From River Mile 531.5 to 545.8	Segment Length: 14.3
Impaired Use:	Fish Consumption (Partial Support)
Pollutant of Concern:	PCBs
Suspected Sources:	Land Disposal, Industrial Point Sources, Contaminated Sediments (Sediment Resuspension).

This listing is from the 1998 303(d) Report.

<u>Ohio River of Mississippi River</u>	Carroll/Trimble/Oldham/Jefferson Counties
From River Mile 545.8 to 606.8	Segment Length: 61.0
Impaired Use:	Fish Consumption (Partial Support), Swimming (Partial Support), Aquatic Life (Partial Support)
Pollutant of Concern:	PCBs, Pathogens, Unknown
Suspected Sources:	Combined Sewer Overflows, Urban Runoff/Storm Sewers, Land Disposal, Agriculture, Municipal Point Sources, Industrial Point Sources, Unknown Source, Contaminated Sediments (Sediment Resuspension).

This listing is from the 1998 303(d) Report.

<u>Ohio River of Mississippi River</u>	Jefferson County
From River Mile 606.8 to 619.3	Segment Length: 12.5
Impaired Use:	Fish Consumption (Partial Support), Swimming (Partial Support)
Pollutant of Concern:	PCBs, Dioxin, Pathogens
Suspected Sources:	Combined Sewer Overflows, Urban Runoff/Storm Sewers, Land Disposal, Agriculture, Municipal Point Sources, Industrial Point Sources, Contaminated Sediments (Sediment Resuspension).

This listing for fish consumption due to PCBs, and swimming due to pathogens is from the 1998 303(d) Report. The listing was actually from 606.8 to 629.9, but the segment from 619.3 to 629.9 is now 1st Priority for swimming due to pathogens. Dioxin has been added as a pollutant of concern for fish consumption.

<u>Ohio River of Mississippi River</u>	Hardin/Meade/Breckinridge/Hancock Counties
From River Mile 629.9 to 720.7	Segment Length: 90.6
Impaired Use:	Fish Consumption (Partial Support)
Pollutant of Concern:	PCBs, Dioxin
Suspected Sources:	Land Disposal, Industrial Point Sources, Contaminated Sediments (Sediment Resuspension).

This listing for fish consumption due to PCBs is from the 1998 303(d) Report. Dioxin has been added as a pollutant of concern for fish consumption.

**Table 8(e)--continued. 2002 303(d) Report For Kentucky - Ohio River (Main Stem)
2002 303(d) List**

-2nd Priority Listings-

<u>Ohio River of Mississippi River</u>	Hancock/Davies Counties
From River Mile 720.7 to 776.1	Segment Length: 55.4
Impaired Use:	Fish Consumption (Partial Support)
Pollutant of Concern:	PCBs
Suspected Sources:	Land Disposal, Industrial Point Sources, Contaminated Sediments (Sediment Resuspension).

This listing is from the 1998 303(d) Report.

<u>Ohio River of Mississippi River</u>	Davies/Henderson Counties
From River Mile 776.1 to 791.5	Segment Length: 25.4
Impaired Use:	Fish Consumption (Partial Support), Swimming (Partial Support)
Pollutant of Concern:	PCBs, Pathogens
Suspected Sources:	Combined Sewer Overflows, Urban Runoff/Storm Sewers, Land Disposal, Agriculture, Municipal Point Sources, Industrial Point Sources, Contaminated Sediments (Sediment Resuspension).

This listing is from the 1998 303(d) Report. The listing was actually from 776.1 to 800.0, but the segment from 791.5 to 846.0 is now 1st Priority for swimming due to pathogens. See Ohio River – 2002 303(d) List – 1st Priority Listings.

<u>Ohio River of Mississippi River</u>	Union/Crittenden/Livingston Counties
From River Mile 846.0 to 918.5	Segment Length: 70.5
Impaired Use:	Fish Consumption (Partial Support)
Pollutant of Concern:	PCBs, Mercury
Suspected Sources:	Land Disposal, Municipal Point Sources, Industrial Point Sources, Contaminated Sediments (Sediment Resuspension), Atmospheric Deposition

The listing for fish consumption because of PCBs is from the 1998 303(d) Report. Mercury has been added as a pollutant of concern for fish consumption.

<u>Ohio River of Mississippi River</u>	Livingston County
From River Mile 918.5 to 920.4	Segment Length: 1.9
Impaired Use:	Fish Consumption (Partial Support)
Pollutant of Concern:	PCBs
Suspected Sources:	Land Disposal, Industrial Point Sources, Contaminated Sediments (Sediment Resuspension).

The listing is from the 1998 303(d) Report.

**Table 8(e)--continued. 2002 303(d) Report For Kentucky - Ohio River (Main Stem)
2002 303(d) List**

-2nd Priority Listings-

<u>Ohio River of Mississippi River</u>	<u>Livingston/McCracken Counties</u>
From River Mile 920.4 to 934.5	Segment Length: 14.1
Impaired Use:	Fish Consumption (Partial Support), Swimming (Partial Support)
Pollutant of Concern:	PCBs, Pathogens
Suspected Sources:	Combined Sewer Overflows, Urban Runoff/Storm Sewers, Land Disposal, Agriculture, Municipal Point Sources, Industrial Point Sources, Contaminated Sediments (Sediment Resuspension).

This listing is from the 1998 303(d) Report. The listing was actually from 920.4 to 981.0, but the segment from 934.5 to 981.0 is now also impaired for fish consumption because of mercury.

<u>Ohio River of Mississippi River</u>	<u>McCracken/Ballard Counties</u>
From River Mile 934.5 to 981.0	Segment Length: 45.5
Impaired Use:	Fish Consumption (Partial Support), Swimming (Partial Support)
Pollutant of Concern:	PCBs, Mercury, Pathogens
Suspected Sources:	Combined Sewer Overflows, Urban Runoff/Storm Sewers, Land Disposal, Agriculture, Municipal Point Sources, Industrial Point Sources, Contaminated Sediments (Sediment Resuspension).

This listing for fish consumption due to PCBs, and swimming due to pathogens is from the 1998 303(d) Report. The listing was actually from 920.4 to 981.0, but this segment (from 934.5 to 981.0) is now also impaired for fish consumption because of mercury.

TABLE 9. 2002 303(d) REPORT FOR KENTUCKY – LAKES UNIT

**Table 9(a). 2002 303(d) Report For Kentucky - Lakes Unit
Modifications to the 1998 303(d) Report**

-1st Priority Listings-

None.

**Table 9(a)--continued. 2002 303(d) Report For Kentucky - Lakes Unit
Modifications to the 1998 303(d) Report**

-2nd Priority Listings-

<u>Rough River Lake</u>	Tradewater/Green River Unit
Breckinridge/Grayson Counties	Acres: 5,100
Impaired Use:	Drinking Water Supply (Partial Support)
Pollutant of Concern:	Nutrients

This listing is from the 1998 303(d) Report. This listing is an error. The lake has always fully supported the drinking water supply use. A request to delist Rough River Lake as being impaired for drinking water supply use was submitted to EPA Region 4. EPA Region 4 concurred and Rough River Lake has been informally delisted as being impaired for drinking water supply use because of nutrients. A request to formally delist Rough River Lake will be submitted to EPA region 4 with the 2002 303(d) Report. See Lakes Unit - Delistings – 2nd Priority Listings.

**Table 9(b). 2002 303(d) Report For Kentucky - Lakes Unit
Delistings**

-1st Priority Listings-

Note: The lake/pollutant combinations listed below are only for the designated uses and pollutants of concern for which a delisting request has been made to EPA Region 4. The lake may also have been shown in the 1998 303(d) Report as being impaired for the same designated use because of other pollutants or as being impaired for other designated uses.

<u>Briggs Lake</u>	Tradewater/Green River Unit
Logan County	Acres: 18
Impaired Use:	Aquatic Life (Nonsupport)
Pollutant of Concern:	Nutrients
Suspected Sources:	Lake Fertilization

This listing is from the 1998 303(d) Report - nonsupport of aquatic life because of nutrients (based on low DO readings in the epilimnion and severe hypolimnetic oxygen depletion). The suspected source of the impairment was lake fertilization that was occurring late into the summer period. A letter was sent to Kentucky Fish and Wildlife Resources in the winter of 2001 requesting that the lake fertilization schedule be modified so that fertilization only occurred in the spring. Kentucky Fish and Wildlife Resources modified the schedule and no fertilization of Briggs Lake occurred after spring. An assessment of the lake was conducted during the summer and fall of 2001. The results indicate that the lake fully supports the aquatic life designated use. A request to formally delist Briggs Lake as not meeting the aquatic life designated use because of nutrients will be submitted to EPA Region 4 with the 2002 303(d) Report.

<u>Loch Mary Lake</u>	Tradewater/Green River Unit
Hopkins County	Acres: 135
Impaired Use:	Drinking Water Supply (Nonsupport)
Pollutant of Concern:	Metals (Manganese), Other Inorganics (Noncarbonate Hardness)

This listing is from the 1998 303(d) Report. Loch Mary Lake was placed on the 1990 and subsequent 303(d) lists for not meeting the designated use of drinking water supply. The cause was metals (specifically manganese) and high values of hardness (other inorganics, noncarbonate hardness) at the raw water intake. The listing was based on data collected between 1981 and 1983. Some improvement in manganese and hardness values occurred during 1983, but monitoring was not continued after 1983. It was concluded that a significant improvement in these values would not be evident for some time and that treatment plant records would provide data to assess whether or not improvements have occurred. Recent data from the raw water intake site on Loch Mary Lake indicate that the impairment no longer exists. A request to delist Loch Mary Lake was submitted to EPA Region 4. EPA Region 4 concurred, and Loch Mary Lake has been informally delisted. A request to formally delist Loch Mary Lake for metals and other inorganics will be submitted to EPA Region 4 with the 2002 303(d) Report.

**Table 9(b)--continued. 2002 303(d) Report For Kentucky - Lakes Unit
Delistings**

-1st Priority Listings-

<u>Metcalfe County Lake</u>		Tradewater/Green River Unit
Metcalfe County		Acres: 22
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Nutrients	

This listing is from the 1998 303(d) Report - nonsupport of the aquatic life use because of nutrients (based on low DO readings in the epilimnion and severe hypolimnetic oxygen depletion). The most recent data (from the summer and fall 2001) show that the lake now fully supports the aquatic life designated use. A request to delist the lake for aquatic life impairment because of nutrients will be submitted to EPA Region 4 with the 2002 303(d) Report.

<u>Reformatory Lake</u>		Salt/Licking River Unit
Oldham County		Acres: 54
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Nutrients	
Suspected Sources:	Agriculture	

This listing is from the 1998 303(d) Report - nonsupport of aquatic life because of nutrients (based on the low DO readings in the epilimnion and severe hypolimnetic oxygen depletion). An assessment of the lake water quality was made based on site visits during the spring, summer, and fall of 1999. The assessment showed that the lake fully supports the aquatic life use. A site visit to the farm on May 30, 2002 indicated that a Water Quality Plan for the lake has been developed and that BMPs have been implemented at the farm to keep pollutants from entering the lake. Therefore, a delisting request will be submitted to EPA Region 4 with the 2002 303(d) Report.

<u>Sympson Lake</u>		Salt/Licking River Unit
Nelson County		Acres: 184
Impaired Use:	Drinking Water Supply (Nonsupport)	
Pollutant of Concern:	Nutrients	

This listing is from the 1998 303(d) Report - nonsupport of drinking water supply use because of nutrients. An assessment of the lake water quality was made based on data collected during site visits made in the spring and summer 1999. The assessment showed that the lake fully supports the drinking water supply use. The Bardstown Kentucky water plant no longer treats for taste and odor problems. A request to delist Sympson Lake as being impaired for drinking water supply use because of nutrients will be submitted to EPA Region 4 with the 2002 303(d) Report.

**Table 9(b)--continued. 2002 303(d) Report For Kentucky - Lakes Unit
Delistings**

-2nd Priority Listings-

Note: The lake/pollutant combinations listed below are only for the designated uses and pollutants of concern for which a delisting request has been made to EPA Region 4. The lake may also have been shown in the 1998 303(d) Report as being impaired for the same designated use because of other pollutants or as being impaired for other designated uses.

<u>Campbellsville City Lake</u>	Tradewater/Green Unit
Taylor County	Acres: 63
Impaired Use:	Aquatic Life (Partial Support)
Pollutant of Concern:	Nutrients

This listing is from the 1998 303(d) Report – partial support of aquatic life because of nutrients (based on low DO readings in the epilimnion). The latest assessment information from data collected in the summer and fall 2001 shows that the lake now fully supports the aquatic life use. A request to delist the lake for aquatic life impairment because of nutrients will be submitted to EPA Region 4 with the 2002 303(d) Report.

<u>Honker Lake</u>	Tenn./Miss./Cumberland River Unit
Trigg County	Acres: 190
Impaired Use:	Aquatic Life (Partial Support)
Pollutant of Concern:	Nutrients

This listing is from the 1998 303(d) Report – partial support of aquatic life designated use because of nutrients (based on low DO readings in the epilimnion). The latest assessment information from data collected in the spring, summer, and fall 2001 shows that the lake now fully supports the aquatic life use. A request to delist Honker Lake as being impaired for aquatic life use because of nutrients will be submitted to EPA Region 4 with the 2002 303(d) Report.

<u>Lake George</u>	Tradewater/Green Unit
Crittenden County	Acres: 53
Impaired Use:	Aquatic Life (Partial Support)
Pollutant of Concern:	Nutrients

This listing is from the 1998 303(d) Report - partial support of the aquatic life use because of nutrients (based on low DO readings in the epilimnion). The most recent data (from the summer and fall 2001) show that the lake now fully supports the aquatic life designated use. A request to delist Lake George for aquatic life impairment because of nutrients will be submitted to EPA Region 4 with the 2002 303(d) Report.

**Table 9(b)--continued. 2002 303(d) Report For Kentucky - Lakes Unit
Delistings**

-2nd Priority Listings-

<u>Lake Washburn</u>		Tradewater/Green Unit
Ohio County		Acres: 26
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Nutrients	

This listing is from the 1998 303(d) Report - partial support of the aquatic life use because of nutrients (based on severe hypolimnetic oxygen depletion). The most recent data (from the summer and fall 2001) show that the lake now fully supports the aquatic life designated use. A request to delist Lake Washburn for aquatic life impairment because of nutrients will be submitted to EPA Region 4 with the 2002 303(d) Report.

<u>Rough River Lake</u>		Tradewater/Green River Unit
Breckinridge/Grayson Counties		Acres: 5,100
Impaired Use:	Drinking Water Supply (Partial Support)	
Pollutant of Concern:	Nutrients	

This listing is from the 1998 303(d) Report. This listing is an error. The lake has always fully supported the drinking water supply use. A request to delist Rough River Lake as being impaired for drinking water supply use was submitted to EPA Region 4. EPA Region 4 concurred and Rough River Lake has been informally delisted as being impaired for drinking water supply use because of nutrients. A request to formally delist Rough River Lake will be submitted to EPA Region 4 with the 2002 303(d) Report. See Lakes Unit – Modifications to the 1998 303(d) Report – 2nd Priority Listings.

<u>Spa Lake</u>		Tradewater/Green Unit
Logan County		Acres: 240
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Nutrients	

This listing is from the 1998 303(d) Report - partial support of the aquatic life use because of nutrients (based on low DO readings in the epilimnion). The most recent data (from the summer and fall 2001) show that the lake fully supports the aquatic life use. A request to delist Spa Lake for aquatic life impairment because of nutrients will be submitted to EPA Region 4 with the 2002 303(d) Report.

**Table 9(c). 2002 303(d) Report For Kentucky - Lakes Unit
Approved TMDLs**

(To view these documents, please access the KDOW's TMDL web page at <http://water.nr.state.ky.us/dow/tmdl.htm>. For a printed copy of the TMDL, please contact the KDOW.)

<u>Taylorsville Lake</u>	Salt/Licking River Unit
Spencer County	Acres: 3,050
Impaired Use:	Aquatic Life (Nonsupport)
Pollutant of Concern:	Nutrients
Suspected Sources:	Agriculture, High Phosphorus Content in Soils

This listing is from the 1998 303(d) Report. The TMDL for nutrients has been approved by EPA Region 4. The TMDL contains information that phosphorus values at a stream site just upstream of the lake have been decreasing over the past ten years. A number of BMPs have been installed throughout the watershed upstream of the lake to reduce the amount of phosphorus that enters the Salt River (and eventually Taylorsville Lake).

**Table 9(d)--continued. 2002 303(d) Report For Kentucky - Lakes Unit
TMDLs Under Development**

<u>Herrington Lake</u>	Kentucky River Unit
Garrard/Boyle/Mercer Counties	Acres: 2,940
Impaired Use:	Aquatic Life (Nonsupport)
Pollutant of Concern:	Organic Enrichment/Low DO, Nutrients
Suspected Sources:	Municipal Point Sources, Agriculture

This listing is from the 1998 303(d) Report. A report defining phosphorus loads and sources was produced by the U.S. Geological Survey (USGS), *Modeling Hydrodynamic and Water Quality in Herrington Lake, Kentucky*, USGS Water Resources Investigations Report 99-4281. However, the lake model was calibrated using data from a hydrologically wet year. This resulted in exceptionally high phosphorus loadings, such that even significant reductions in loading resulted in only a minor improvement in lake water quality. Ideally, modeling is done using data representing various hydrologic conditions to better assess the effects of load reductions on lake water quality. Additional modeling for other flow conditions (using data from other years) is planned.

**Table 9(e). 2002 303(d) Report For Kentucky - Lakes Unit
2002 303(d) List**

-1st Priority Listings-

Unit: Kentucky River

Basin: Kentucky River

Herrington Lake

Garrard/Boyle/Mercer Counties

Acres: 2,940

Impaired Use: Aquatic Life (Nonsupport), Fish Consumption (Partial Support)

Pollutant of Concern: Organic Enrichment/Low DO, Nutrients, Metals

Suspected Sources: Municipal Point Sources, Agriculture, Land Disposal (Onsite Wastewater Systems - Septic Tanks), Atmospheric Deposition

This listing for organic enrichment/Low DO is from the 1998 303(d) Report. More recent information shows that fish consumption is also impaired because of mercury. This listing is from the 1998 303(d) Report. A report defining phosphorus loads and sources was produced by the U.S. Geological Survey (USGS), *Modeling Hydrodynamic and Water Quality in Herrington Lake, Kentucky*, USGS Water Resources Investigations Report 99-4281. However, the lake model was calibrated using data from a hydrologically wet year. This resulted in exceptionally high phosphorus loadings, such that even significant reductions in loading resulted in only a minor improvement in lake water quality. Ideally, modeling is done using data representing various hydrologic conditions to better assess the effects of load reductions on lake water quality. Additional modeling for other flow conditions (using data from other years) is planned. See Lakes Unit – TMDLs Under Development.

Panbowl Lake

Breathitt County

Acres: 98

Impaired Use: Aquatic Life (Nonsupport)

Pollutant of Concern: Organic Enrichment/Low DO

Suspected Sources: Land Disposal, Septage Disposal, Internal Nutrient Cycling

Unit: Salt/Licking River

Basin: Ohio River

Jericho Lake

Henry County

Acres: 137

Impaired Use: Aquatic Life (Nonsupport)

Pollutant of Concern: Nutrients

Suspected Sources: Agriculture

This listing replaces the one that was in 1998 303(d) Report. The latest assessment information indicates that the lake is now in nonsupport of the aquatic life designated use instead of partial support of the aquatic life designated use.

**Table 9(e)--continued. 2002 303(d) Report For Kentucky - Lakes Unit
2002 303(d) List**

-1st Priority Listings-

Reformatory Lake

Oldham County		Acres: 54
Impaired Use:	Aquatic Life (Nonsupport)	
Pollutant of Concern:	Nutrients	
Suspected Sources:	Agriculture	

This listing is from the 1998 303(d) Report. An assessment of the lake water quality was made based on site visits during the spring, summer, and fall of 1999. The assessment showed that the lake fully supports the aquatic life use. A site visit to the farm on May 30, 2002 indicated that a Water Quality Plan for the lake has been developed and that BMPs have been implemented at the farm to keep pollutants from entering the lake. Therefore, a delisting request will be submitted to EPA Region 4 with the 2002 303(d) Report. See Lakes Unit – Delistings – 1st Priority Listings.

Unit: Salt/Licking River
Basin: Salt River

Guist Creek Lake

Shelby County		Acres: 317
Impaired Use:	Aquatic Life (Nonsupport), Drinking Water Supply (Partial Support), Fish Consumption (Partial Support)	
Pollutant of Concern:	Nutrients, Metals, Organic Enrichment/Low DO	
Suspected Sources:	Agriculture, Land Disposal (Onsite Wastewater Systems – Septic Tanks)	

This listing for aquatic life (originally partial support) and drinking water supply because of nutrients and metals is from the 1998 303(d) Report. The latest assessment information indicates that Guist Creek is now in nonsupport of aquatic life, and shows that fish consumption is also impaired.

Sympson Lake

Nelson County		Salt/Licking River Unit Acres: 184
Impaired Use:	Drinking Water Supply (Nonsupport)	
Pollutant of Concern:	Nutrients	

This listing is from the 1998 303(d) Report - nonsupport of drinking water supply use because of nutrients. An assessment of the lake water quality was made based on data collected during site visits made in the spring and summer 1999. The assessment showed that the lake fully supports the drinking water supply use. The Bardstown, Kentucky water plant no longer treats for taste and odor problems. A request to delist Sympson Lake as being impaired for drinking water supply use because of nutrients will be submitted to EPA Region 4 with the 2002 303(d) Report. See Lakes Unit – Delistings – 1st Priority Listings.

**Table 9(e)--continued. 2002 303(d) Report For Kentucky - Lakes Unit
2002 303(d) List**

-1st Priority Listings-

Taylorsville Lake

Spencer County

Acres: 3,050

Impaired Use: Aquatic Life (Nonsupport)

Pollutant of Concern: Nutrients

Suspected Sources: Agriculture, High Phosphorus Content in Soils

This listing is from the 1998 303(d) Report. The TMDL for nutrients has been approved by EPA Region 4. See Lakes Unit – Approved TMDLs. The TMDL contains information that phosphorus values at a stream site just upstream of the lake have been decreasing over the past ten years. A number of BMPs have been installed throughout the watershed upstream of the lake to reduce the amount of phosphorus that enters the Salt River (and eventually Taylorsville Lake).

Unit: Tennessee/Mississippi/Cumberland River

Basin: Upper Cumberland River

Corbin City Reservoir

Laurel County

Acres: 139

Impaired Use: Drinking Water Supply (Nonsupport), Aquatic Life (Partial Support)

Pollutant of Concern: Nutrients, Organic Enrichment/Low DO, Taste and Odor, Algal Growth/Chlorophyll_a

Suspected Sources: Municipal Point Sources (Major Municipal Point Sources), Agriculture, Internal Nutrient Cycling

The listing of the impairment of drinking water supply because of nutrients is from the 1998 303(d) Report. More recent information shows that the aquatic life designated use is also impaired because of organic enrichment/low DO, taste and odor, and algal growth/chlorophyll_a. Some data collection has been done in the watershed to define what areas of the watershed are contributing most to the impairments.

**Table 9(e)--continued. 2002 303(d) Report For Kentucky - Lakes Unit
2002 303(d) List**

-1st Priority Listings-

Unit: Tradewater/Green River

Basin: Green River

Briggs Lake

Logan County

Acres: 18

Impaired Use: Aquatic Life (Nonsupport)

Pollutant of Concern: Nutrients

Suspected Sources: Lake Fertilization

This listing is from the 1998 303(d) Report. The suspected source of the impairment was lake fertilization that was occurring late into the summer period. A letter was sent to Kentucky Fish and Wildlife Resources in the winter of 2001 requesting that the lake fertilization schedule be modified so that fertilization only occur in the spring. Kentucky Fish and Wildlife Resources modified the schedule and no fertilization of Briggs Lake occurred after spring. An assessment of the lake was conducted during the summer and fall 2001 and the assessments indicate that the lake fully supports the aquatic life designated use. A request to delist Briggs Lake will be submitted to EPA Region 4 with the 2002 303(d) Report. See Lakes Unit – Delistings – 1st Priority Listings.

Metcalf County Lake

Metcalf County

Acres: 22

Impaired Use: Aquatic Life (Nonsupport)

Pollutant of Concern: Nutrients

This listing is from the 1998 303(d) Report. An assessment of the lake water quality was made based on site visits made during the summer and fall of 2001. The assessment showed that the lake fully supports the aquatic life use. Therefore, a delisting request will be submitted to EPA Region 4 with the 2002 303(d) Report. See Lakes Unit – Delistings – 1st Priority Listings.

**Table 9(e)--continued. 2002 303(d) Report For Kentucky - Lakes Unit
2002 303(d) List**

-1st Priority Listings-

Unit: Tradewater/Green River

Basin: Tradewater River

Loch Mary Lake

Hopkins County

Acres: 135

Impaired Use:

Drinking Water Supply (Nonsupport)

Pollutant of Concern:

Metals (Manganese), Other Inorganics (Noncarbonate Hardness)

This listing is from the 1998 303(d) Report. Loch Mary Lake was placed on the 1990 and subsequent 303(d) lists for not meeting the designated use of drinking water supply. The cause was metals (specifically manganese) and high values of hardness (other inorganics, noncarbonate hardness) at the raw water intake. The listing was based on data collected between 1981 and 1983. Some improvement in manganese and hardness values occurred during 1983, but monitoring was not continued after 1983. It was concluded that a significant improvement in these values would not be evident for some time and that treatment plant records would provide data to assess whether or not improvements have occurred. Recent data from the raw water intake site on Loch Mary Lake indicate that the impairment no longer exists. A request to delist Loch Mary Lake was submitted to EPA Region 4. EPA Region 4 concurred, and Loch Mary Lake has been informally delisted. A request to formally delist Loch Mary Lake for metals and other inorganics will be submitted to EPA Region 4 with the 2002 303(d) Report. See Lakes Unit – Delistings – 1st Priority Listings.

**Table 9(e)--continued. 2002 303(d) Report For Kentucky - Lakes Unit
2002 303(d) List**

-2nd Priority Listings-

Unit: Kentucky River
Basin: Kentucky River

Buckhorn Lake

Perry County Acres: 1,230
 Impaired Use: Secondary Contact Recreation (Partial Support), Aquatic Life (Partial Support)
 Pollutant of Concern: Suspended Solids, Siltation, Organic Enrichment/Low DO
 Suspected Sources: Municipal Point Sources, Agriculture, Resource Extraction

This listing for secondary contact recreation due to suspended solids is from the 1998 303(d) Report. The most recent assessment also indicates an impairment of the aquatic life use because of siltation and organic enrichment/Low DO.

Carr Fork Lake

Knott County Acres: 710
 Impaired Use: Secondary Contact Recreation (Partial Support), Aquatic Life (Partial Support)
 Pollutant of Concern: Suspended Solids, Siltation, Organic Enrichment/Low DO
 Suspected Sources: Resource Extraction (Surface Mining), Unknown Source

The listing for secondary contact recreation due to suspended solids is from the 1998 303(d) Report. More recent information shows that the aquatic life use is impaired due to organic enrichment/Low DO from an unknown source.

Elmer Davis Lake

Owen County Acres: 149
 Impaired Use: Aquatic Life (Partial Support)
 Pollutant of Concern: Nutrients
 Suspected Sources: Agriculture

General Butler State Park Lake

Carroll County Acres: 29
 Impaired Use: Aquatic Life (Partial Support)
 Pollutant of Concern: Nutrients
 Suspected Sources: Internal Nutrient Cycling

Stanford Reservoir

Lincoln County Acres: 43
 Impaired Use: Drinking Water Supply (Partial Support)
 Pollutant of Concern: Nutrients
 Suspected Sources: Natural Sources

This listing is from the 1998 303(d) Report.

**Table 9(e)--continued. 2002 303(d) Report For Kentucky - Lakes Unit
2002 303(d) List**

-2nd Priority Listings-

Wilgreen Lake

Madison County

Acres: 169

Impaired Use: Aquatic Life (Partial Support), Secondary Contact Recreation (Partial Support)

Pollutant of Concern: Nutrients

Suspected Sources: Land Disposal (Onsite Wastewater Systems – Septic Tanks)

This listing is from the 1998 303(d) Report.

Unit: Salt/Licking River

Basin: Licking River

Cave Run Lake

Bath/Rowan/Morgan/Menifee Counties

Acres: 8,270

Impaired Use: Fish Consumption (Partial Support)

Pollutant of Concern: Metals (Mercury)

Suspected Sources: Atmospheric Deposition

Doe Run Lake

Kenton County

Acres: 51

Impaired Use: Aquatic Life (Partial Support)

Pollutant of Concern: Nutrients

Suspected Sources: Unknown

Greenbriar Lake

Montgomery County

Acres: 66

Impaired Use: Aquatic Life (Partial Support)

Pollutant of Concern: Nutrients

Suspected Sources: Agriculture

Kincaid Lake

Pendleton County

Acres: 183

Impaired Use: Aquatic Life (Partial Support)

Pollutant of Concern: Nutrients

Suspected Sources: Unknown

This listing is from the 1998 303(d) Report.

**Table 9(e)--continued. 2002 303(d) Report For Kentucky - Lakes Unit
2002 303(d) List**

-2nd Priority Listings-

Sand Lick Creek Lake

Fleming County

Acres: 74

Impaired Use: Aquatic Life (Partial Support), Secondary Contact Recreation (Partial Support)

Pollutant of Concern: Nutrients, Shallow Lake Basin

Suspected Sources: Agriculture, Internal Nutrient Cycling

This listing is from the 1998 303(d) Report.

Unit: Salt/Licking River

Basin: Ohio River

Jericho Lake

Henry County

Acres: 137

Impaired Use: Aquatic Life (Partial Support)

Pollutant of Concern: Nutrients

Suspected Sources: Agriculture

This listing is from the 1998 303(d) Report. The latest assessment information indicates that the lake is now in nonsupport of the aquatic life designated use instead of partial support of the aquatic life designated use, making this listing no longer relevant. See Lakes Unit – 2002 303(d) List – 1st Priority Listings for the updated listing.

Unit: Salt/Licking River

Basin: Salt River

Guist Creek Lake

Shelby County

Acres: 317

Impaired Use: Drinking Water Supply (Partial Support), Aquatic Life (Partial Support)

Pollutant of Concern: Nutrients, Metals

Suspected Sources: Agriculture, Land Disposal (Onsite Wastewater Systems – Septic Tanks)

This listing is from the 1998 303(d) Report. The latest assessment information indicates that Guist Creek is now in nonsupport of Aquatic Life, making this listing no longer relevant. See Lakes Unit – 2002 303(d) List – 1st Priority Listings for the updated listing.

Lake Shelby

Shelby County

Acres: 17

Impaired Use: Aquatic Life (Partial Support)

Pollutant of Concern: Nutrients

Suspected Sources: Agriculture, Internal Nutrient Cycling

This listing is from the 1998 303(d) Report.

**Table 9(e)--continued. 2002 303(d) Report For Kentucky - Lakes Unit
2002 303(d) List**

-2nd Priority Listings-

Campbellsville City Lake

Taylor County Acres: 63
 Impaired Use: Aquatic Life (Partial Support), Secondary Contact Recreation (Partial Support)
 Pollutant of Concern: Nutrients, Shallow Lake Basin
 Suspected Sources: Agriculture, Natural Sources

This listing is from the 1998 303(d) Report. The lake was identified as not meeting the aquatic life designated use because of low DO readings in the epilimnion. The latest assessment information (from data collected during the summer and fall 2001) shows that the lake fully supports the aquatic life use. A request to delist the lake for aquatic life impairment because of nutrients will be submitted to EPA Region 4 with the 2002 303(d) Report. See Lake Unit – Delistings – 2nd Priority Listings.

Caneyville Reservoir

Grayson County Acres: 75
 Impaired Use: Drinking Water Supply (Partial Support), Secondary Contact Recreation (Partial Support)
 Pollutant of Concern: Nutrients, Shallow Lake Basin
 Suspected Sources: Natural Sources

This listing is from the 1998 303(d) Report. The City of Caneyville no longer uses the Caneyville Reservoir for water supply. The City purchases water from the Grayson County Water District, which has just recently completed a new facility which uses Rough River Lake as the raw water source.

Grapevine Lake

Hopkins County Acres: 50
 Impaired Use: Drinking Water Supply (Partial Support)
 Pollutant of Concern: Nutrients
 Suspected Sources: Unknown

This listing is from the 1998 303(d) Report. The lake is no longer used for water supply by the City of Madisonville, which now gets raw water from the Green River.

Green River Lake

Taylor/Adair Counties Acres: 8,210
 Impaired Use: Fish Consumption (Partial Support)
 Pollutant of Concern: Priority Organics (PCBs), Metals (Mercury)
 Suspected Sources: Industrial Point Source, Atmospheric Deposition

This listing for fish consumption due to Priority Organics (PCBs) is from the 1998 303(d) Report. More recent fish tissue data indicates that the Lake is also impaired for fish consumption because of Mercury from atmospheric deposition.

**Table 9(e)--continued. 2002 303(d) Report For Kentucky - Lakes Unit
2002 303(d) List**

-2nd Priority Listings-

Spa Lake

Logan County		Acres: 240
Impaired Use:	Aquatic Life (Partial Support), Secondary Contact Recreation (Partial Support)	
Pollutant of Concern:	Nutrients, Shallow Lake Basin	
Suspected Sources:	Agriculture, Natural Sources	

This listing is from the 1998 303(d) Report. The lake was identified as not meeting the aquatic life designated use because of low DO readings in the epilimnion. The latest assessment information (from data collected during the summer and fall of 2001) shows that the lake now fully supports the aquatic life use. A request to delist the lake for aquatic life impairment because of nutrients will be submitted to EPA Region 4 with the 2002 303(d) Report. See Lakes Unit – Delistings – 2nd Priority Listings.

Unit: Tradewater/Green River
Basin: Ohio River

Lake George

Crittenden County		Acres: 53
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Nutrients	

This listing is from the 1998 303(d) Report. The lake was identified as not meeting the aquatic life designated use because of low DO readings in the epilimnion. The latest assessment information (from data collected during the summer and fall 2001) show that the lake now fully supports the aquatic life use. A request to delist the lake for aquatic life impairment because of nutrients will be submitted to EPA Region 4 with the 2002 303(d) Report. See Lakes Unit – Delistings – 2nd Priority Listings.

Scenic Lake

Henderson County		Acres: 18
Impaired Use:	Aquatic Life (Partial Support)	
Pollutant of Concern:	Nutrients	
Suspected Sources:	Internal Nutrient Cycling	

This listing is from the 1998 303(d) Report.

