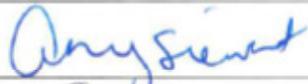
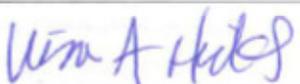


Document ID	DOWSOP03016
Version #	2.0
Effective Date	09/19/2013
Page(s)	Page 1 of 32

Technical Standard Operating Procedure TMDL Document Development and Approval Process

Commonwealth of Kentucky
Energy and Environment Cabinet
Department for Environmental Protection
Division of Water
Water Quality Branch
TMDL Section

Action By	Signature	Date
Eric Liebenauer Prepared, SOP Author		9/10/13
Scarlett Stapleton, Prepared, SOP Author		9/10/13
Amy Siewert Reviewed, TMDL Section Supervisor		9/11/13
Clark Dorman Approved, Branch Manager		9/16/13
Eric Liebenauer Approved, Branch Quality Assurance Coordinator	(Bypass, has signed as an Author)	
Lisa Hicks Approved, Division Quality Assurance Officer		09/19/13





**Commonwealth of Kentucky
Steven L. Beshear, Governor**

**Energy and Environment Cabinet
Len Peters, Secretary**

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Document ID	DOWSOP03016
Version #	2.0
Effective Date	09/19/2013
Page(s)	Page 3 of 32

Document Revision History

Date of Revision	Page(s) Revised	Revision Explanation
August 1 st , 2009	None	The first version of this document was effective this date.
September 19 th , 2013	All pages	Adopted Technical SOP Standard Template format.
September 19 th , 2013	All Sections	Rewritten for clarity.
September 19 th , 2013	Signature Page, Sections 1.0, 6.3, 6.4	Updated hyperlinks; updated public comment process; updated list of programs/agencies to send documents for review.
September 19 th , 2013	Section 3.0	Language added regarding external meetings. Decisions regarding exceptions to the SOP will be made by the TMDL Section Supervisor.
September 19 th , 2013	Section 4.0	Most definitions removed; they are present in another document.
September 19 th , 2013	Section 6.1	New projects will use the new server for Admin Record storage instead of the V: drive. Language added regarding external meetings.
September 19 th , 2013	Section 6.2	The KDOW Project Manager will meet with the MS4 Coordinator during the draft TMDL phase if there are one or more MS4s in the watershed.
September 19 th , 2013	Section 6.3	Submissions to EPA are now electronic instead of hardcopy. Response to Comments letters are now for the Director's signature instead of the TMDL Section Supervisor.
September 19 th , 2013	Sections 6.5 through 6.9	The previous Section 6.5, Public Comment period, is now a subsection of 6.4, Proposed Draft activities. Likewise, the previous Section 6.6, Post Public Comment Period, is now also subsection of 6.4. Other sections have been moved up two decimal places: Currently, subsequent Sections after 6.4 are 6.5 Final Draft, 6.6 Post Final Approval, and 6.7 Document Criteria. These were formerly 6.7 through 6.9.

Document ID	DOWSOP03016
Version #	2.0
Effective Date	09/19/2013
Page(s)	Page 4 of 32

Date of Revision	Page(s) Revised	Revision Explanation
September 19 th , 2013	Sections 6.1 and 6.6	Former Section 6.8 is now 6.6. The Public Notice and Final TMDL posting procedures were revised to include posting to the webpage, to the TMDL Distribution List, Naturally Kentucky, Facebook, and Twitter.
September 19 th , 2013	Appendix A	An example Preliminary Draft review request letter was added.
September 19 th , 2013	Appendix B	An example TMDL Summary Sheet was added.
September 19 th , 2013	Appendix C	An example email for announcing the Final TMDL was added.

Suggested Citation: Kentucky Division of Water (KDOW). 2013. TMDL Document Development and Approval Process SOP. Kentucky Department for Environmental Protection, Division of Water, Frankfort, Kentucky.

Document ID	DOWSOP03016
Version #	2.0
Effective Date	09/19/2013
Page(s)	Page 5 of 32

Table of Contents

1.0 Purpose.....	6
2.0 Applicability / Scope	6
3.0 Summary of Procedure.....	6
4.0 Definitions.....	7
4.1 Third Party	7
5.0 Personnel Qualifications/ Responsibilities.....	7
6.0 Procedure.....	7
6.1 Preliminary Activities	7
6.2 Draft TMDL Document (or Working Draft)	9
6.3 Preliminary Draft TMDL Document	10
6.4 Proposed Draft TMDL Document	12
6.4.1 Public Comment Period	13
6.4.2 Post Public Comment Period	15
6.5 Final Draft TMDL Document.....	16
6.6 Post Final Approval	18
6.7 Document Criteria.....	20
7.0 Records Management	21
8.0 Quality Assurance and Quality Control	21
9.0 References	22

Document ID	DOWSOP03016
Version #	2.0
Effective Date	09/19/2013
Page(s)	Page 6 of 32

1.0 Purpose

Section 303(d) of the Clean Water Act requires states to identify waterbodies within their boundaries that have been assessed and are not currently meeting one or more of their designated uses as found in 401 KAR 10:026 and 10:031. States are also required to develop Total Maximum Daily Loads (TMDLs) for the pollutants of the waterbody segments listed in Category 5 of the Integrated Report that cause each waterbody to fail to meet one or more of its designated uses. The TMDL process establishes the allowable amount (expressed as a load) of pollutant a waterbody can naturally assimilate while continuing to meet the Water Quality Criteria (WQC) for each designated use. Development of TMDLs for the Kentucky Division of Water (KDOW) follows the guidelines outlined in KDOW's Quality Assurance Project Plans (QAPP; KDOW 2012), Standard Operating Procedures (SOP; KDOW 2011a) and Standard Work (2011b, or latest version), in addition to this document.

The purpose of this document is to establish the SOP for development of KDOW TMDL documents and the review and approval process once a Draft document is prepared.

2.0 Applicability / Scope

This SOP applies to all TMDL documents written by the KDOW, and to all TMDL documents written by a third party contractor and reviewed and routed for EPA approval by KDOW.

3.0 Summary of Procedure

The TMDL writers or Project Managers (PMs) begin TMDL development by gathering existing and readily available data that will assist in characterizing the watershed(s), identifying sources, and allocating loads.

During the initial stages of document writing, an internal meeting is held in order to request feedback, input, and involvement with the development process. An external meeting may be held as well, in order to gather further information and promote stakeholder involvement in TMDL development and implementation, see Section 6.1.

TMDL document organization should follow guidelines established in "Standard Work for KDOW TMDL Document Development" (KDOW 2011b, or latest version) which incorporates EPA and Clean Water Act (CWA) requirements as well as examples of tables and equations. The stages of document development include a Draft TMDL (or Working Draft), a Preliminary Draft, a Proposed Draft, and a Final Draft. The TMDL becomes final once the United States Environmental Protection Agency (EPA) approves

Document ID	DOWSOP03016
Version #	2.0
Effective Date	09/19/2013
Page(s)	Page 7 of 32

it. If conditions arise that are not covered by this SOP, the final decision will be made by the TMDL Section Supervisor, as will decisions on exceptions to this SOP.

4.0 Definitions

TMDL Definitions are provided in “Standard Work for KDOW TMDL Document Development” (KDOW 2011b, or latest version). One additional definition applicable to this SOP is provided in Section 4.1.

4.1 Third Party

KDOW generally recognizes a third party to be one that operates outside of the Division. This includes, but it is not limited to universities, public/nonprofit organizations, private consultants and other state, county and local government organizations.

5.0 Personnel Qualifications/ Responsibilities

KDOW personnel responsible for developing TMDL documents must, at a minimum, meet the educational and/or experience requirements of their position titles. However, in practice TMDL writers tend to have more specialized knowledge in water science and aquatic ecosystems.

6.0 Procedure

6.1 Preliminary Activities

Once a watershed is identified for TMDL development, a KDOW PM is assigned to either develop the TMDL(s) internally or oversee third party development.

1. New TMDL projects will utilize the [\\Depdowtmdl\tmdl\TMDL ADMIN RECORDS](#) folder instead of the old administrative record on the V: drive.
2. The KDOW PM will verify the pollutant-waterbody combinations (PWCs) intended for development and update their status on the TMDL Tracking Spreadsheet, which is currently located in [V:\DOWWQB\TMDL Section\monitoring_TMDL development progress.](#)
3. Third parties must complete QAPPs and have SOPs in place for TMDL development:
 - The KDOW PM will ensure that applicable Quality Assurance/Quality Control (QA/QC) documents (i.e., QAPPs and SOPs) are completed and

Document ID	DOWSOP03016
Version #	2.0
Effective Date	09/19/2013
Page(s)	Page 8 of 32

approved for the project and that deliverables (i.e., data or documents) follow their guidelines.

4. The KDOW PM is responsible for completing assessment sheets for waterbodies where monitoring data indicates a new impairment, new sources, or a change in use status, unless the assessment sheets have already been completed (e.g., by monitoring staff, 319 program staff). This information will be provided to the 305(b) Coordinator for inclusion in Kentucky's Integrated Report (IR) to Congress on Water Quality.
5. An internal meeting will be held to gather additional information. Topics for discussion include:
 - Whether additional monitoring data are available for the impaired waterbodies.
 - Whether KPDES-permitted facilities in the watershed have compliance issues, planned construction, expansion, or remediation activities.
 - Whether sensitive issues exist in the watershed (such as KPDES-permitted source reductions, a high degree of public involvement).
 - Whether watershed plans are being developed or implemented in the watersheds.
 - Whether 319 grants have been awarded and/or best management practices (BMPs) are being implemented in the watershed.
 - Whether other groups/environmental organizations are monitoring the watershed.
 - Who will address comments concerning non-TMDL programs.

The KDOW PM is responsible for coordinating the meeting that will include the following persons, or that person's designee:

- TMDL Section Supervisor, Water Quality Branch (WQB).
- WQB Manager.
- Watershed Management Branch (WMB) Manager.
- Nonpoint Source (NPS)/Basin Team Section Supervisor.
- Basin Team Coordinator.
- Surface Water Permits Branch (SWPB) Manager.
- SWPB Wasteload Allocation (WLA) Coordinator.
- Wastewater Municipal Planning Section Supervisor, Water Infrastructure Branch (WIB).
- When applicable:
 - 'Sensitive' areas or issues – Assistant Director, KDOW.
 - Karst areas or groundwater concerns – Groundwater Section Supervisor, WMB.
 - Water supply and withdrawal issues – Water Quantity Section Supervisor or Environmental Scientist II, WMB.
 - Wet weather issues (combined and sanitary sewer overflows, CSO/SSO) – Wet Weather Section Supervisor, SWPB.

Document ID	DOWSOP03016
Version #	2.0
Effective Date	09/19/2013
Page(s)	Page 9 of 32

- Municipal Separate Storm Sewer System (MS4) areas – MS4 Coordinator, SWPB.
 - Mining or individual permit issues – Operational Permits Section Supervisor or Environmental Scientist II, SWPB.
 - Criteria development, habitat assessment – Monitoring Support Section (MSS) Supervisor or Environmental Scientist II, WQB.
 - 305(b) listing/delisting, segmenting, Special Use waters – 305(b) Coordinator, WQB.
6. A location map of the watershed containing basic information on the PWC(s) will accompany the meeting request.
 7. The TMDL synopsis should be completed to the extent practicable for distribution at the meeting (components of the TMDL equation will likely not be known at this time in the development process).
 8. If sufficient public interest exists, an external meeting may also be held. The group formed is referred to as a Technical Advisory Committee (TAC), and may be a source of information about the watershed that can guide TMDL development. The TMDL Section Supervisor will make the determination whether a TAC is needed. In such case, the PM will work with the supervisor to generate a list of participants or stakeholders. PMs will also create a presentation for the TAC that addresses the following:
 - Basic information about the TMDL program as it applies to this watershed, including a map showing the impaired segments.
 - A review of existing data, as applicable.
 - A discussion of data gaps, as applicable.
 - A discussion of the tools that may be used to answer the questions posed.
 - A timeline for TMDL development, including document drafting, additional TAC meetings, and the public comment period.
 - A request for information from the TAC to fill data gaps or refine existing data.

6.2 Draft TMDL Document (or Working Draft)

1. If there are one or more MS4s in the watershed, the PM will set up an appointment with the KDOW MS4 Coordinator. Before the meeting, the PM will look in the folder at V:\DOWWQB\TMDL_Section\Informational Documents\MS4 information for a Microsoft Excel™ list of MS4 permit holders by county. The PM will check the place name and county to determine if there are one or more MS4s in the TMDL watershed. If so, the PM will send the MS4 Coordinator maps and a table with preliminary information on permit numbers and co-permittee status, and then verify the MS4 permit holders during the meeting. Useful GIS layers may include County Boundary Polygons, the

Document ID	DOWSOP03016
Version #	2.0
Effective Date	09/19/2013
Page(s)	Page 10 of 32

Corporate Boundary Polygons and the KY2010UrbanAreas layer, which can be found in V:\DOWWQB\TMDL_Section\TMDL_layers_Nutrients_work\census.

2. The PM will send a notice to the manager of the TMDL Section Website (currently Hui Chen) to update the TMDLs Currently Being Written spreadsheet, which is located at <http://water.ky.gov/waterquality/Pages/TMDLsDevelopment.aspx>.
3. Once complete, the Draft TMDL document will be sent electronically to the TMDL Section Supervisor for review and compliance with the QAPP checklist. KDOW PMs will review third party draft documents before they are submitted to the TMDL Section Supervisor. The TMDL PM or the third party will address comments and make necessary changes before moving to the Preliminary Draft.

6.3 Preliminary Draft TMDL Document

1. Preliminary Review. Once the Draft TMDL is approved by the TMDL Section Supervisor, the next step is the Preliminary Draft, which is sent to internal parties for review, as well as to EPA. It may also be sent to external stakeholders who are part of a TAC.TT
 - EPA. A copy of the Preliminary Draft TMDL document, along with a preliminary review request cover letter, will be sent to the EPA Region IV TMDL Coordinator in Atlanta, GA. The submission should be electronic to expedite the review process. The Energy and Environment Cabinet (EEC) Microsoft Outlook™ (Outlook) email settings limit the size of documents that can be sent outside of its network to five megabytes (5MB); files larger than this will require using an alternate mail server account (Gmail) or the department's FTP website. Put in a help desk ticket for instructions on using the FTP site.
 - Internal Reviewers. In addition to EPA, review request cover letters will be sent, normally electronically, to the persons, designees or agencies below. The cover letter should state where to find an electronic copy of the document, usually at its present location on the V: drive in the TMDL Administrative Record or on the TMDL server [\\Depdowntmdl\tmdl\TMDL ADMIN RECORDS](\\Depdowntmdl\tmdl\TMDL_ADMIN RECORDS) for those who have access to our internal network. For others, such as the Division of Conservation (DOC) or Abandoned Mine Lands (AML), these agencies can access the EEC DEP Share Drive, <\\Eecdepdata2\DEPShareMe>. Reviewers include:
 - WMB Manager.
 - Nonpoint Source/Basin Team Section Supervisor.
 - Basin Team Coordinator.
 - SWPB Manager.
 - SWPB WLA Coordinator.
 - WIB Manager.

Document ID	DOWSOP03016
Version #	2.0
Effective Date	09/19/2013
Page(s)	Page 11 of 32

- Wastewater Municipal Planning Section Supervisor, WIB.
- Other DOW programs and state agencies and directors as identified:
 - AML Director for abandoned mine-related TMDLs.
 - DOC Director for agriculture-related TMDLs.
 - ‘Sensitive’ areas or issues – KDOW Assistant Director.
 - Karst areas or groundwater concerns – Groundwater Section Supervisor, WMB.
 - Water supply and withdrawal issues – Water Quantity Section Supervisor or Environmental Scientist II, WMB.
 - Wet weather issues (combined and sanitary sewer overflows, CSO/SSO) – Wet Weather Section Supervisor, SWPB.
 - MS4 areas – MS4 Coordinator, SWPB.
 - Mining or individual permit issues – KDOW Operational Permits Section Supervisor and Resource Extraction Section Supervisor or the Surface Water Permits Branch Environmental Scientist II, SWPB.
 - Criteria or target development, habitat assessment – Monitoring Support Section Supervisor or Environmental Scientist III, WQB.
 - 305(b) listing/delisting, segmenting, Special Use waters – 305(b) Coordinator, WQB.

2. Cover Letters. Preliminary review cover letters will meet the following requirements:

- The cover letter must specify each section of the TMDL document for which KDOW is requesting review, as applicable. For example, the Wastewater Municipal Planning Section may be asked to review the sections of the document related to current infrastructure issues and future planning areas.
- The cover letter must specify a deadline. The default review period will be two weeks, however, ‘sensitive’ TMDLs may require a longer review period which will ultimately be determined by the PM and TMDL Section Supervisor. If a commenting agency misses an internal review deadline, the TMDL Section will consider comments submitted through the end of the public notice period. Because EPA ultimately approves or disapproves TMDL documents, their deadline for comments is effectively unlimited (in practice, their comments have been received within 30 days).
- Cover letters must be written on official KDOW letterhead.
- Cover letters must be signed by the TMDL Section Supervisor and scanned or approved electronically and secure printed in Adobe Acrobat (.pdf) format for retention in the Administrative Record before they are sent to the appropriate person, program or agency.
- Appendix A provides an example cover letter with standardized formatting. The names of individuals holding residential wastewater treatment system and KNDOP permits have been deleted from this

Document ID	DOWSOP03016
Version #	2.0
Effective Date	09/19/2013
Page(s)	Page 12 of 32

example letter; instead the generic terms ‘Residence’ or ‘Farm’ are used. However, when generating an actual letter, include the names of individuals holding such permits.

3. Rename the Document. Before sending the Preliminary Draft, modify the document to reflect its status: Change its name to “Preliminary Draft <Document title> MMDDYYYY” where the date used is the date of the internal review request cover letter. Update the header in the TMDL document to reflect this date.
4. TMDL Website. Send a notice to the manager of the TMDL Section website (currently Hui Chen) to update the TMDLs Currently Being Written spreadsheet, which is located at <http://water.ky.gov/waterquality/Pages/TMDLsDevelopment.aspx>.
5. TAC. If an external meeting (TAC meeting) was held, disseminate the Preliminary Draft document to the stakeholders either by email, by a follow-up meeting, or both, depending on the level of interest in the project and what was agreed to at the previous meeting(s).
6. Incorporate Changes Pursuant to Comments Received. As comments are received, the PM will incorporate changes to the TMDL document as appropriate. The PM may begin work on the Proposed Draft document and the public comment period once comments are received from EPA, it is not necessary to wait for all comments before proceeding. KDOW PMs will work with the TMDL Section Supervisor and other reviewers as needed when determining which comments to incorporate and what changes need to be made. The TMDL Section supervisor makes the final decision on which changes are necessary.

6.4 Proposed Draft TMDL Document

When revisions to the Preliminary Draft are complete:

1. Send the Preliminary Draft with updates from comments to the TMDL Section Supervisor for approval. Upon approval, save an electronic copy of the TMDL document with the file name, “Proposed Draft <Document title> MMDDYYYY” where the date is the date the TMDL Section supervisor informs the PM (usually by email) that the document is ready for public notice. Update the header in the TMDL document to reflect this date.
2. Prepare a coordination sheet (with a very brief summary in the comments section, as necessary) and route the proposed document to the TMDL Section Supervisor and WQB Manager. A manila folder will be used with the coordination sheet stapled to the outside. ‘Sensitive’ TMDLs may require a briefing sheet providing

Document ID	DOWSOP03016
Version #	2.0
Effective Date	09/19/2013
Page(s)	Page 13 of 32

more detailed information about the document: PMs are responsible for ensuring this is done for third party TMDLs.

6.4.1 Public Comment Period

Once the Proposed Draft document is approved by the WQB Manager, it is ready for the public comment period.

1. Write a news release giving 30 days for the public to submit comments. The PM will send a draft copy to the Division Public Information Officer (PIO), who finalizes the dates then sends out the final version. Include basic information about the segment(s), pollutant(s), location in the state (at a minimum include the counties where the PWCs are located), who to contact, and where to download the document and send comments. If new segments have been assessed (i.e., never formally listed on the 303(d) list), these will need to be referenced with a request for comment on the new assessment(s) in addition to the comments pertaining to the TMDL document. The news release is free (i.e., there is no fee for KDOW to issue it) and is sent to all participating media outlets in the state. The media outlets may or may not print or announce this notice based on their assessment of its newsworthiness. The EEC Communications Policy requires the following style guidelines:
 - News releases shall fit onto one page.
 - Releases shall be written with a 12 point Times New Roman font whenever possible, although an 11 or 10 point font shall be acceptable to make the release fit on one page.
 - Releases shall always contain 1.5 line spacing.
 - Headlines should be in 14 point bold font, centered, in all capital letters and shall fit on one line whenever possible. Subtitles should be on the next line and italicized.
2. Reword the news release into an advertisement. The advertisement is not free and will only be purchased for the newspaper(s) of highest circulation in or around the county(s) for which the TMDL was developed. Advertisements have single line spacing and their length will be minimized to decrease cost.
3. Select the newspaper(s) that will carry the advertisement using the Kentucky Press Association's Press Service (http://www.kypress.com/directory/daily_list.php). This listing of newspapers contains four sections: the dailies, the weeklies, the associates, and universities. Choose from the dailies or weeklies – associate members do not carry a periodicals-class mailing permit from the US Postal Service and thus cannot publish legal notices in their newspapers (as outlined in KRS 424.120).

Document ID	DOWSOP03016
Version #	2.0
Effective Date	09/19/2013
Page(s)	Page 14 of 32

4. Send an email and electronic copy of the news release and advertisement to the PIO stating the following:
 - Attached are a news release and advertisement for a 30-day public notice period for a Proposed Draft TMDL. The ad should be placed in the body of the paper and both public notice periods should coincide.
 - The name(s) of the newspaper(s) and their county(s).
 - The day of the week of each newspaper when the advertisement should be published (publication days may not overlap, so the advertisement may appear in different newspapers on different days).

5. The PIO will obtain formal approval from the Secretary's Office and then contact the Kentucky Press Service. As stated, the PIO finalizes the dates for the 30-day public notice and will notify the PM when the actions are complete, or simply send out the press release via email, and all KDOW will be copied. If the PIO edits either the news release or advertisement and there are newly assessed segments, the PM will ensure the notices still state that KDOW is seeking public comment on newly assessed segments - this is a regulatory requirement under Section 305(b) of the Clean Water Act.

6. Once notification is received from the PIO that the public notice actions are complete, the PM will ensure the advertisement and Proposed Draft document are posted on the KDOW Public Notices webpage.
 - Create a folder with the watershed's name on the Share drive, at V:\DOW_Share\TMDLs. Place the Proposed Draft (in Adobe Acrobat format) and the advertisement in the folder.
 - Create a help desk ticket with a Problem type of "SharePoint/Intranet," which will route it to the Department's web manger, currently CJ Watts. Ask him to post the advertisement and the Proposed Draft document on KDOW's public notice webpage (<http://water.ky.gov/Pages/PublicNotices.aspx>).
 - Send a notice to the manager of the TMDL Section Website (currently Hui Chen) to update the TMDLs Currently Being Written spreadsheet, which is located at <http://water.ky.gov/waterquality/Pages/TMDLsDevelopment.aspx>.

7. Once the PIO sends out the Press Release via email (which will contain a Microsoft Word document copy of the advertisement as well as text within the body of the email), forward the Word document to:
 - The manager of the NPS Listserv (currently JoAnne Palmer);
 - The manager of the TMDL Distribution List (Amy Siewert is the list's official manager, but Eric Liebenauer can also send out announcements).
 - The manager of the TMDL Section's Facebook and Twitter accounts (currently Amy Siewert).

The Division PIO will also post the news release to the Naturally Kentucky blog.

Document ID	DOWSOP03016
Version #	2.0
Effective Date	09/19/2013
Page(s)	Page 15 of 32

8. Next the PM will set a reminder using the calendar feature of Microsoft Outlook for the start of the comment period and complete the following tasks that day:
 - Verify that the document is on the KDOW public notice webpage and that the TMDLs Currently Being Written spreadsheet reflects the public comment period (<http://water.ky.gov/Pages/PublicNotices.aspx>); verify that these contain the correct contact information and public notice dates, and that the Adobe Acrobat version on the public notice webpage is fully downloadable.
 - Save an electronic copy of the public notice in the Administrative Record and create an electronic copy in Adobe Acrobat format for the final submittal package.
 - Email the EPA Region IV TMDL Coordinator to inform her that the public notice period has begun and include the link to the webpage.

9. Create a new folder in the Administrative Record that incorporates the beginning and end dates of the public comment period (e.g., “Public Comment MMDDYY-MMDDYY”). Place all public notice documents, emails and all public comments received during the public notice period in this folder. Scan any documents as necessary to generate an electronic copy.

10. Update the TMDL Tracking Spreadsheet.

11. If a reporter calls or sends an email asking for information, request their name, phone number, the name of the media outlet, and let them know someone will get back to them. Summarize their request and send information in a press contact email to:
 - KDOW PIO.
 - TMDL Section Supervisor.
 - WQB Manager.

6.4.2 Post Public Comment Period

After the public comment period ends, the PM is responsible for the following (the PM may choose to set another reminder using the Outlook calendar):

1. If the public notice website still has the TMDL available for download after the end of the public comment period, submit a help desk ticket to the Department web manager and ask that the Proposed Draft document be removed.

2. Send a notice to the manager of the TMDL Section Website (currently Hui Chen) to update the TMDLs Currently Being Written spreadsheet, which is located at <http://water.ky.gov/waterquality/Pages/TMDLsDevelopment.aspx>.

Document ID	DOWSOP03016
Version #	2.0
Effective Date	09/19/2013
Page(s)	Page 16 of 32

3. Respond to all comments received in one letter, which will be written for the Section Supervisor's signature on official KDOW letterhead. Comments may be summarized if their meaning is sufficiently similar, but in general the response letter will be written in a manner that allows each person or party that submitted comments to see all comments received and their responses. The comments (or summary comment(s) if sufficiently similar comments are received) will be re-typed verbatim, followed immediately by a response before the next comment is addressed. A different font color, such as a dark blue, may be used for KDOW's responses. Once the response letter is drafted, the PM will email the letter to the TMDL Section Supervisor for her review (for third parties, the PM should review the responses before sending the response letter to the TMDL Section Supervisor). Once the TMDL Section Supervisor's comments are incorporated into the letter, the PM will complete the following tasks:
 - Include a copy of the response to comments letter (in a manila folder with a coordination sheet stapled to the outside) and route it to the TMDL Section Supervisor, Water Quality Branch Manager and KDOW Division Director for review. 'Sensitive' TMDLs also require a briefing sheet providing more detailed information about the comments or the TMDL document (PMs are responsible for ensuring this is completed for third party TMDLs).
 - Incorporate changes to the TMDL document (where necessary) while the response to comments letter is under review, or before as appropriate.
 - Update the public participation paragraph within the TMDL document to reflect the public comment period.

6.5 Final Draft TMDL Document

Once all changes have been incorporated into the document and upon receipt of the signed response to comments letter, the PM will:

1. Make the following changes to the TMDL document:
 - In the TMDL document title, replace the word "Draft" with "Final."
 - Rename the electronic file "Final <Document title> Sent to <Division Director> MMYYYY" where the date is the date the document is routed to the Director's Office for signature.
 - Update the cover page and header of the TMDL document to reflect the month the TMDL is submitted.
2. Place a hardcopy of the final TMDL document in a manila folder, unless it is too large. In that case, place an electronic copy in Adobe Acrobat format on the TMDL SharePoint website (<http://eecintra.eppc.pri/DEP/DOW/WQB/TMDL/default.aspx>), and print only the signature page for the Director's Signature.

Document ID	DOWSOP03016
Version #	2.0
Effective Date	09/19/2013
Page(s)	Page 17 of 32

3. To complete the final submittal package, also include the following:
 - A coordination sheet, stapled to the outside of the manila envelope, which routes the final submittal package to the TMDL Section supervisor, WQB Manager and Division Director for signature. If the TMDL document was too large to include a printed copy, reference the location of the electronic document (i.e., the TMDL SharePoint website) at the top of the coordination sheet.
 - A briefing sheet if there are ‘sensitive’ issues with an indication of where to find this discussion within the TMDL document, as needed.
 - A cover letter to James Giattina, EPA Region IV Director (on official letterhead, to be signed by the Division Director):
 - James D. Giattina, Director
 - Water Protection Division
 - U.S. EPA Region 4
 - Atlanta Federal Center
 - 61 Forsyth Street, SW
 - Atlanta, Georgia 30303-8960
 - The TMDL summary sheet (an example is provided as Appendix B).
 - A copy of the news release and advertisement(s).
 - The PIO will provide the PM with a ‘tear sheet’ – this is a copy of the page where the advertisement was placed in the newspaper, which is used to show proof of the publication for payment. This may be in the form of an e-copy or a paper copy. Paper copies will be photocopied for inclusion in the submittal package. When making a photocopy of the ad, be sure the date and name of the paper is also visible (fold if needed or write the date on the copy). If the tear sheet is not received by the time it is needed, ask the PIO; the newspaper will not be paid before providing this.
 - The signed response to comments letter.
 - Place ‘sign here’ sticky notes to indicate signature pages (i.e., for the TMDL signature page and the cover letter to James Giattina).
4. When the final submittal package is returned with all appropriate signatures, scan or print (as an Adobe Acrobat document) the cover letter, the signed response to comment letter, and the signature page of the Final TMDL document for the Administrative Record. Maintain all original signature pages on file.
 - The PM will transfer the signed signature page into the final TMDL document. A variety of options are available to ‘copy’ signatures into Microsoft Word, including use of the ‘camera’ icon in Adobe Acrobat and the paste command in Word to copy from one document into another. If the copied signature block is too light, it can be darkened by zooming the scanned signature page out to 200% of normal, copying the signature block, pasting it into the Word document, then using the fill/shrink handles to resize it to normal dimensions.

Document ID	DOWSOP03016
Version #	2.0
Effective Date	09/19/2013
Page(s)	Page 18 of 32

5. Rename the electronic file “Final <Document title> Sent to EPA MMDDYYYY.” Use the date you will submit the final package electronically to EPA. Do not update the dates within the TMDL document unless the month has changed.
6. Prepare the final submittal package to EPA including a hardcopy of all documents and letters listed above. Models (if used) and very large appendices should be included on a CD, as requested. Alternately, the FTP site can be used.
 - Unless specified in their original contract with KDOW, third parties do not write briefing sheets, cover letters, news releases or advertisements – depending on the wording of their contract, they are normally responsible for drafting the working draft, preliminary, proposed, and final TMDL documents and incorporating changes as necessary, drafting the TMDL Summary Sheet and drafting responses to comments after the public notice period. Therefore, it is the responsibility of the KDOW PM to prepare the remaining deliverables.
7. The signed response to comments letter will be sent to each party or agency participating in the public comment process. The letter will be sent via email to all parties. If comments were submitted via postal mail then those individuals will be mailed hardcopies of the letter.
8. The final submittal package to EPA can be sent electronically, as EPA prefers electronic copies of all deliverables. Once the submittal package has been sent, notify the TMDL Section Supervisor, who will include the date the package was sent in the 106 report.
9. Update the TMDL Tracking Spreadsheet.

6.6 Post Final Approval

Once the TMDL document is formally approved by the EPA and the approval letter/decision document (a summary of the elements of their review process) is received:

1. The approval date is the date of the EPA’s approval letter. Do not modify the date within the TMDL document since the EPA approved the final version of the TMDL and it cannot be changed. Approval letters are normally sent electronically, but if not then scan the approval letter and place it in the Administrative Record. Rename the TMDL document file “Final <Document title> Approved MMDDYYYY” where the date is the date of the approval letter. Place a final copy in both Microsoft Word and Adobe Acrobat format in the administrative record, [\\Depdowtmdl\tmdl\TMDL ADMIN RECORDS](#).
2. Photocopy the old assessment sheet for each approved segment and change the assessment category from 5 to 4A. Provide this information to the 305(b) Coordinator (for inclusion in Kentucky’s IR to Congress) and include the EPA

Document ID	DOWSOP03016
Version #	2.0
Effective Date	09/19/2013
Page(s)	Page 19 of 32

TMDL document ID (which is used for the National TMDL Tracking System, called the ATTAINS database, or Assessment and TMDL Tracking and Implementation System).

3. Update the TMDL Tracking Spreadsheet: Move the TMDL waterbodies to the category 4A tab and fill out the remaining information.
4. Place an Adobe Acrobat version of the final document in the folder previously created on the KDOW Share drive (V:\DOW_Share\TMDL\http://water.ky.gov/waterquality/Pages/ApprovedTMDLs.aspx).
5. Once you are notified by the Department’s web manager that your help desk ticket is complete and the TMDL is posted, check the Approved TMDLs webpage to make sure the document is fully downloadable. If so, delete the folder V:\DOW_Share\TMDL\- 6. Create an announcement email stating the TMDL has been approved; an example from Hardwick Creek is given in Appendix C. The body of the email will include a link to download the TMDL. Attachments to the email should include:
 - A map of the impaired waters.
 - The EPA approval letter and review checklist (as one document).
 - The TMDL summary table.
 - A response to comments letter. If there were no comments submitted during the public notice period and thus there is no response to comments letter, state this in the body of the announcement email.
- 7. Send the announcement email to the following:
 - The manager of the TMDL Distribution List (Amy Siewert is currently the list’s official manager, but Eric Liebenauer can also send out this type of announcement).
 - The TMDL Section Supervisor for posting on Facebook and Twitter.
- 8. Remove the attachments to the announcement email (the TMDL Summary, response to comments, map, etc.), reword it so it does not reference the attachments and send it to:
 - The manager of the NPS Listserv (currently JoAnne Palmer).
 - The PIO so that she can prepare a press release and post the email to the Naturally Kentucky blog.
- 9. Notify the TMDL Section GIS Coordinator (currently Scarlett Stapleton) to remove the waterbodies from the map of TMDLs Under Development and add

Document ID	DOWSOP03016
Version #	2.0
Effective Date	09/19/2013
Page(s)	Page 20 of 32

- them to the Approved TMDLs map on the TMDL website, <http://water.ky.gov/waterquality/Pages/TMDLProgram.aspx>. Include a link to the location of the GIS layer used to show the impaired segments, and also include the name of the appropriate GIS layer.
10. Send an email to the manager of the TMDL Section Website (currently Hui Chen) to remove the TMDL from the list of TMDLs Currently Being Written spreadsheet, <http://water.ky.gov/waterquality/Pages/TMDLsDevelopment.aspx>.
 11. Email the people involved in the Preliminary Draft process notifying them of the formal approval – include the TMDL document ID, approval date, and a link to the Approved TMDLs webpage. Ensure that the KDOW Branch Managers, KPDES WLA Coordinator, NPS/Basin Team Section Supervisor, NPS Basin Team Coordinator, Assistant Director and Director are notified of the formal approval. Include the MS4 Coordinator if there is an MS4 in the watershed.
 12. Place a copy of the approved TMDL in Adobe Acrobat format on the V: drive at V:\DOWWQB\TMDL_Section\Approved TMDLs. This will act as a second repository in case the website is temporarily unavailable or there is a problem resulting in data loss.
 13. Delete all information in the Administrative Record that is no longer needed (draft documents, any extraneous ArcMap files, etc.). Refer to the EPA memorandum on records retention located at V:\DOWWQB\TMDL_Section\TMDL_Admin_Records\EPA_guidance.

6.7 Document Criteria

All TMDL documents must meet the following criteria:

1. They must conform to this SOP. Any deviations from the SOP must be approved by the TMDL Section supervisor.
2. They must meet the requirements in the latest version of KDOW’s “Quality Assurance Project Plan for Data Analysis for TMDL Development” (KDOW 2012) as well as the “Pathogen Indicator TMDL Standard Operating Procedures Revision 1.0” (KDOW 2011), where applicable.
3. Data collected and submitted for use in TMDL document development must meet the requirements in the latest version of the “Quality Assurance/Quality Control of KDOW GIS Data Standard Operating Procedures” (KDOW 2009a) as well as the “KDOW Digital Data Submission Standard Operating Procedures” (KDOW 2009b).

Document ID	DOWSOP03016
Version #	2.0
Effective Date	09/19/2013
Page(s)	Page 21 of 32

4. All TMDLs submitted by third parties must follow their KDOW-approved QAQC documents.

7.0 Records Management

As stated in KDOW's "Quality Assurance Project Plan for Data Analysis for TMDL Development" (KDOW 2012), the final TMDL document and the TMDL QAPP Checklist are maintained in the Administrative Record indefinitely. In addition, KDOW TMDL PMs also maintain the necessary files and spreadsheets used to derive the final TMDLs in the event additional analyses are required.

8.0 Quality Assurance and Quality Control

The TMDL Section Supervisor completes the TMDL QAPP Checklist for each TMDL document submittal as required by the "Quality Assurance Project Plan for Data Analysis for TMDL Development" (KDOW 2012). In addition, all TMDL documents are required to conform to the provisions of this SOP document which is monitored by the TMDL Section Supervisor through the TMDL Tracking Spreadsheet.

Third party submitted TMDL documents undergo similar QAQC procedures to ensure adherence to their project QAPPs and SOPs. These projects are also updated by the TMDL PM and monitored by the TMDL Section Supervisor through the TMDL Tracking Spreadsheet.

The PMs are also responsible for ensuring that KDOW TMDL documents follow the guidelines of this SOP, or that unexpected situations or deviations are brought to the attention of the TMDL Section Supervisor for final decision.

Document ID	DOWSOP03016
Version #	2.0
Effective Date	09/19/2013
Page(s)	Page 22 of 32

9.0 References

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Goldstein, Norm. 2004. The Associated Press Style Book. Basic Books, New York, NY 10016.

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Document ID	DOWSOP03016
Version #	2.0
Effective Date	09/19/2013
Page(s)	Page 23 of 32

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U.S. Environmental Protection Agency. December 2008. Handbook for Developing Watershed TMDLs (DRAFT). Office of Wetlands, Oceans, and Watersheds. 1200 Pennsylvania Ave NW, Washington, DC 20460.

United States Geological Survey. 2002. Estimating Mean Annual Streamflow of Rural Streams in Kentucky, Water-Resources Investigations Report 02-4206. Denver, CO 80225-0286.

Document ID	DOWSOP03016
Version #	2.0
Effective Date	09/19/2013
Page(s)	Page 24 of 32

Appendix A Example Preliminary Draft Review Request Letter

October 24, 2012

Mr. Jory Becker, Manager
Surface Water Permits Branch
Kentucky Division of Water
200 Fair Oaks Lane, 4th floor
Frankfort, KY 40601

RE: Preliminary Draft
Cox Creek *E. coli* TMDLs

Dear Mr. Becker:

The Preliminary Draft Cox Creek *E. coli* TMDL document can be accessed at the following location [V:\DOW_Share\TMDLs](#). The Cox Creek TMDL stream segments are located in Bullitt, Nelson and Spencer counties, in the Salt River Basin. The TMDL Section requests that the Surface Water Permits Branch provide comments on this report prior to the Public Notice requirement. Please review Sections 5.1, 5.2.1 and 7.3. There is currently one KPDES-permitted wastewater source discharging to an impaired segment within Cox Creek. There are two MS4 communities (city of Bardstown and Bullitt County) within the watershed, one CAFO and 21 KNDOPs (10 agricultural and 11 home residences). Permit-related tables are also included below. Please provide comments by November 9, 2012.

If you have any questions about this request, or cannot access the link to the document, please contact Scarlett Stapleton at (502) 564-3410 (ext. 4885) or email her at scarlett.stapleton@ky.gov.

Sincerely,

Amy Siewert
TMDL Section Supervisor
Water Quality Branch
Division of Water

AS/SS/ss

c: Division of Water file

Document ID	DOWSOP03016
Version #	2.0
Effective Date	09/19/2013
Page(s)	Page 25 of 32

Table 5.1 Summary of KPDES-Permitted Source Information

KPDES Permit Number	Facility	Flow (cfs) ⁽¹⁾	Permit Limit Monthly Average (<i>E. coli</i> colonies/ 100 ml)	Permit Limit Maximum Weekly Average (<i>E. coli</i> colonies/ 100 ml)	Outfall Latitude And Longitude	WLA (colonies/ day)	TEMPO AI ⁽²⁾
KY0096075	Cox's Creek Elementary School	0.015472	130	240	37.89694 -85.46861	9.08E+07	3250
12005029	Residence	0.000774	130	240	37.931111 -85.570278	4.54E+06	15958
12005028	Residence	0.000774	130	240	37.943333 -85.513611	4.54E+06	11829
12005027	Residence	0.000774	130	240	37.929444 -85.5725	4.54E+06	10072
12005022	Residence	0.000774	130	240	37.994167 -85.512222	4.54E+06	10078
12005018	Residence	0.000774	130	240	37.9925 -85.495833	4.54E+06	10080
12005026	Residence	0.000774	130	240	37.9511 -85.5349	4.54E+06	9486
12004019	Residence	0.000774	130	240	37.999694 -85.508528	4.54E+06	70996
12005032	Residence	0.000774	130	240	37.979167 -85.5125	4.54E+06	75062
12005035	Residence	0.000774	130	240	37.974722 -85.539389	4.54E+06	97045
12005031	Residence	0.000774	130	240	37.943056 -85.514444	4.54E+06	71055
1206033	Residence	0.000774	130	240	37.980278 -85.513611	4.54E+06	75137

Notes:

- (1). Flow value is based on design flow.
- (2). The TEMPO AI is an internal KDOW tracking number.

Document ID	DOWSOP03016
Version #	2.0
Effective Date	09/19/2013
Page(s)	Page 26 of 32

Table 5.2 KNDOP Permitted Facilities in the Cox Creek Watershed

KNDOP Number	Facility	KNDOP Type	Latitude	Longitude	TEMPO AI
179085463	Farm	Cattle Ranching & Farming	37.941528	-85.404389	85463
12005023	Farm	Dairy Farming	37.948056	-85.420278	10703
12005010	Farm	Dairy Farming	37.913611	-85.568611	10740
12005016	Farm	Dairy Farming	37.915833	-85.405278	10769
0	Farm	Dairy Farming	37.928489	-85.405411	82013
12005024	Farm	Hog & Pig Farming	37.919722	-85.459444	10714
12005011	Farm	Hog & Pig Farming	37.930278	-85.466667	10735
12005002	Farm	Hog & Pig Farming	37.913889	-85.5	10744
12005019	Farm	Hog & Pig Farming	37.955	-85.520554	10763
12005034	Farm	Hog & Pig Farming	37.9575	-85.5175	44111

Document ID	DOWSOP03016
Version #	2.0
Effective Date	09/19/2013
Page(s)	Page 27 of 32

Appendix B Example EPA Summary Sheet

1. State: Kentucky

Major River Basin: Tennessee, Mississippi, Cumberland River Basin

USGS HUC8: 05130101

Counties: Laurel

Pollutants of Concern: *E. coli*, Fecal Coliform

Impaired Use: Primary Contact Recreation

Impaired Waterbodies:

Waterbody & Segment	County	Listing Year ⁽¹⁾	Use Impairment	GNIS Number ⁽²⁾	Impairment ⁽³⁾
Laurel River 26.35 to 33.95	Laurel	2012	Primary Contact Recreation (Nonsupport)	KY513263_03	<i>Escherichia coli</i>
Lick Creek 0.0 to 3.65	Laurel	2012	Primary Contact Recreation (Nonsupport)	KY513397_01	<i>Escherichia coli</i>
Little Laurel River 0.0 to 8.4	Laurel	2006	Primary Contact Recreation (Nonsupport)	KY513497_01	<i>Escherichia coli</i>
Little Laurel River 8.4 to 12.7	Laurel	1998	Primary Contact Recreation (Nonsupport)	KY513497_02	<i>Escherichia coli</i>
Little Laurel River 12.7 to 14.8	Laurel	1996	Primary Contact Recreation (Nonsupport)	KY513497_03	Fecal Coliform
Little Laurel River 14.8 to 23.0	Laurel	1998	Primary Contact Recreation (Nonsupport)	KY513497_04	<i>Escherichia coli</i>
Sallys Branch 0.0 to 2.90	Laurel	2012	Primary Contact Recreation (Nonsupport)	KY515184_01	<i>Escherichia coli</i>

Document ID	DOWSOP03016
Version #	2.0
Effective Date	09/19/2013
Page(s)	Page 28 of 32

Waterbody & Segment	County	Listing Year⁽¹⁾	Use Impairment	GNIS Number⁽²⁾	Impairment⁽³⁾
Sampson Branch 0.0 to 4.70	Laurel	2012	Primary Contact Recreation (Nonsupport)	KY515208_01	<i>Escherichia coli</i>
UT of Little Laurel River 0.0 to 1.4	Laurel	2012	Primary Contact Recreation (Nonsupport)	KY513497-16.05_01	<i>Escherichia coli</i>
Whitley Branch 0.0 to 1.0	Laurel	2012	Primary Contact Recreation (Nonsupport)	KY516339_01	<i>Escherichia coli</i>
Whitley Branch 1.1 to 2.6	Laurel	1996	Primary Contact Recreation (Nonsupport)	KY516339_02	Fecal Coliform

⁽¹⁾ N/A = Not Applicable. Springs do not have River Miles.

⁽²⁾ GNIS = Geographic Names Information System.

⁽³⁾ While some waterbodies are listed for fecal coliform, these data are not available due to recordkeeping issues. Because of this, and to maintain consistency with the sampling protocol used to develop the TM 6DL, all TMDLs are presented in terms of *E. coli*. Kentucky has dual criteria for bacteria impairments, allowing TMDLs to be written in terms of either fecal coliform or *E. coli*.

Document ID	DOWSOP03016
Version #	2.0
Effective Date	09/19/2013
Page(s)	Page 29 of 32

2. TMDL Endpoints (i.e., Water Quality Standard):

Waterbody, Segment	GNIS ⁽¹⁾ Number	TMDL Target
Laurel River 26.35 to 33.95	KY513263_03	216 <i>E. coli</i> colonies/100ml which must be met in at least 80% of all observations within a 30-day period during the Primary Contact Recreational season of May through October. This is based on the 240 colonies/100ml instantaneous Water Quality Criterion, incorporating an explicit Margin of Safety of 10%.
Lick Creek 0.0 to 3.65	KY513397_01	
Little Laurel River 0.0 to 8.4	KY513497_01	
Little Laurel River 8.4 to 12.7	KY513497_02	
Little Laurel River 12.7 to 14.8	KY513497_03	
Little Laurel River 14.8 to 23.0	KY513497_04	
Sallys Branch 0.0 to 2.90	KY515184_01	
Sampson Branch 0.00 to 4.70	KY515208_01	
UT of Little Laurel River at 16.05 RM ⁽²⁾ 0.0 to 1.4	KY513497-16.05_01	
Whitley Branch 0.0 to 1.0	KY516339_01	
Whitley Branch 1.1 to 2.6	KY516339_02	

⁽¹⁾ GNIS = Geographic Names Information System.

⁽²⁾ RM = River Mile.

3. Allocations:

Waterbody, Segment, GNIS Number	TMDL (<i>E. coli</i> colonies/day) ⁽¹⁾	MOS (<i>E. coli</i> colonies/day)	SWS-WLA (<i>E. coli</i> colonies/day) ⁽²⁾	Future Growth-WLA (<i>E. coli</i> colonies/day)	LA (<i>E. coli</i> colonies/day)
Laurel River 26.35 to 33.95 KY513263_03	4.95E+11	4.95E+10	8.99E+07	4.45E+09	4.41E+11
Lick Creek 0.0 to 3.65 KY513397_01	4.99E+10	4.99E+09	0.00E+00	8.98E+08	4.40E+10
Little Laurel River 0.0 to 8.4 KY513497_01	4.14E+11	4.14E+10	4.55E+10	1.63E+10	3.10E+11
Little Laurel River 8.4 to 12.7 KY513497_02	2.60E+11	2.60E+10	4.55E+10	9.42E+09	1.79E+11
Little Laurel River 12.7 to 14.8 KY513497_03	2.22E+11	2.22E+10	4.55E+10	7.70E+09	1.46E+11

Document ID	DOWSOP03016
Version #	2.0
Effective Date	09/19/2013
Page(s)	Page 30 of 32

Waterbody, Segment, GNIS Number	TMDL (<i>E. coli</i> colonies/day) ⁽¹⁾	MOS (<i>E. coli</i> colonies/day)	SWS-WLA (<i>E. coli</i> colonies/day) ⁽²⁾	Future Growth-WLA (<i>E. coli</i> colonies/day)	LA (<i>E. coli</i> colonies/day)
Little Laurel River 14.8 to 23.0 KY513497_04	1.40E+11	1.40E+10	4.54E+07	5.05E+09	1.21E+11
Sallys Branch 0.0 to 2.90 KY515184_01	2.17E+10	2.17E+09	0.00E+00	5.87E+08	1.90E+10
Sampson Branch 0.0 to 4.70 KY515208_01	5.23E+10	5.23E+09	0.00E+00	2.35E+09	4.47E+10
UT ⁽³⁾ of Little Laurel River at 16.05 RM ⁽⁴⁾ 0.0 to 1.4 KY513497-16.05_01	1.82E+10	1.82E+09	0.00E+00	8.19E+08	1.56E+10
Whitley Branch 0.0 to 1.0 KY516339_01	6.71E+10	6.71E+09	4.54E+10	7.51E+08	1.43E+10
Whitley Branch 1.1 to 2.6 KY516339_02	1.70E+10	1.70E+09	0.00E+00	7.66E+08	1.46E+10

⁽¹⁾ The TMDL applies only during the May through October Primary Contact Recreational season, as described in 401 KAR 10:031.

⁽²⁾ WLAs for the Sanitary Wastewater Systems (SWSs, e.g., Wastewater Treatment Plants (WWTPs)) discharging to a listed segment are equal to their permit limit times their design flow. These values were derived using the *E. coli* Water Quality Criterion (WQC) of 240 colonies/100ml so the allocated load is in units of colonies/day. See Table S.4 for allocations for individual SWSs. According to 401 KAR 10:031, individual SWSs may be permitted to discharge either fecal coliform or *E. coli*; Cornerstone Christian School and Johnson Elementary report in terms of *E. coli* but the London STP reports in terms of fecal coliform. However, it was necessary to report the WLA for all SWSs in terms of *E. coli* so their allocations were consistent with the monitoring protocol used to develop the TMDL. Although the WLA is in terms of *E. coli*, this does not change the permit limits for any given facility; facilities permitted in terms of fecal coliform should continue to report in those units.

Although Concentrated Animal Feeding Operations (CAFOs) receive their allocations within the WLA, there are no permitted CAFOs present in the watershed. Any future CAFO cannot legally discharge to surface water, and therefore receives a WLA of zero. The only exception is holders of a CAFO Individual Permit can discharge during a 25-year or greater storm event.

⁽³⁾ UT = Unnamed Tributary.

⁽⁴⁾ RM = River Mile.

Document ID	DOWSOP03016
Version #	2.0
Effective Date	09/19/2013
Page(s)	Page 31 of 32

4. **Endangered Species (yes or blank):**
5. **EPA Lead on TMDL (EPA or blank):**
6. **TMDL Proposal Date:** 8/23/12
7. **TMDL Considers Point Source, Nonpoint Source, or Both:** Both.
8. **NPDES Discharges to Surface Waters Addressed in TMDLs:**

Facility	KPDES Permit	Receiving Waterbody	Design Discharge (mgd ⁽¹⁾)	Permit Limit (<i>E. coli</i> colonies/100ml)	WLA (<i>E. coli</i> colonies/day)
Cornerstone Christian School	KY0026581	UT to Laurel River at 27.9, near mouth	0.0099	240	8.99E+07
London STP ⁽²⁾	KY0021270	Whitley Branch at RM ⁽³⁾ 1.0	5.0	240	4.55E+10
Johnson Elementary School	KY0026557	RM 1.0 of the UT to Little Laurel River at RM 19.7	0.005	240	4.54E+07

⁽¹⁾ mgd = millions of gallons per day.

⁽²⁾ STP = sewage treatment plant.

⁽³⁾ RM = river mile.

Document ID	DOWSOP03016
Version #	2.0
Effective Date	09/19/2013
Page(s)	Page 32 of 32

Appendix C Example Email Announcement for Approved TMDLs

The Hardwick Creek Bacteria TMDL received EPA approval effective August 5, 2013. This TMDL was developed for five *E. coli* impaired stream segments within the Hardwick Creek Watershed located in Powell and Estill Counties, KY. The EPA approval package, a summary of the TMDL and response to comments letter are attached. A copy of the approved TMDL document can be obtained at:

<http://water.ky.gov/waterquality/Pages/ApprovedTMDLs.aspx>

TMDL Section

Water Quality Branch

KY Division of Water

<http://water.ky.gov/waterquality/Pages/TMDLProgram.aspx>

