

General Comments on the Rouge River Watershed Management Plan

General Comments

1. General editorial: Please correct citation format from “et. al.” to “et al.”
2. Please correct stream gauge to gage.
3. Please replace the term biological ecosystem with either aquatic ecosystem or ecosystem.
4. For the frog and toad notable area discussion included in each sub-shed section of Chapter 3 – Please add a bit more specific detail to the discussion about the spots where high numbers of species are being heard in each sub-shed – these are often really nice wetlands, and would be great protection targets, and model restoration projects (such as the Dearborn Hills Golf Course in the Lower 2). It would be nice to highlight these protection spots. Conversely, if a low number of frogs and toads are heard over many years, it may be an indication of a lack of green space, or chemical pollution. These data can provide a good indication of problem areas within the watershed. It would be great to also note these within each subshed.
5. For the Wetlands and Woodlands discussion included in each sub-shed section of Chapter 3– It would be great to compare the subwatersheds based on the amount of woodland and wetland habitat remaining. This could be quantified in GIS software relatively easily. This data should be used in establishing protection priority areas.
6. For the Wetlands and Woodlands, please include a brief description of this dataset (how it was generated).
7. Ecosystems/Aquatic Diversity - Statements are made throughout these discussions about the primary factors affecting/impairing the aquatic communities, but without having done a statistical analysis of the factors contributing to/causing the sampling/survey results, or citing the source of such analyses, it is difficult to support these types of statements. It would be better to preface these with in our opinion, or remove these statements.
8. The report “Application of the Richards-Baker Flashiness Index to Gaged Michigan Rivers and Streams” http://www.michigan.gov/documents/deq/lwm-hsu-rb-flashiness_204776_7.pdf, is not referenced. It would be a useful addition to the watershed management plan.
9. The Lower Des Plaines River Final Draft Report is referred to several times in the document. Is this a typo?
10. Working collaboratively with local land trust organizations on easements and restoration projects may be a useful way to help fulfill some watershed restoration and protection goals. This does not appear to be included in the plan.

Chapter 1

1. Page 1-1 – Could also include public education and stormwater ordinances and related controls in accomplishments.
2. Misplaced purpose section? Seems to be in the middle of history/ accomplishments section now?

Chapter 2

1. Page 2-3 – the naming convention for the various Hydrologic Units has been revised. Please update this table to include the new names.

2. Page 2-10- Please include a brief summary of City–Green, describing the software, the land cover dataset used, and how the 5 land cover categories are derived (ie what land use categories go into open space – ag, etc.).
3. Page 36 of 402 of PDF version- Please change “The 100-year floodplain is technically referred to as the area inundated by floodwaters after a 100-year rain event” to “The 100-year floodplain is the land adjacent to a river, lake or stream that will be inundated by water during a flood which has a 1% chance of occurring of being exceeded in any given year.”

Chapter 3

1. 3-9 – Third paragraph – do you mean water quality sampling?
2. 3-17 – Please cite the source for the base flow pollutant load concentrations.
3. 3-18 - Please cite the source for the EMC concentrations.
4. 3-31- Is the paragraph that starts out “Impacted streams” in the wrong location?
5. 3-32 – Please explain this map in more detail– is it showing average #'s heard across entire period of survey or across one year?
6. 3-41 – Map does not appear to include site US9 described on page 3-43.
7. 3-43 – Was 2005 BST data collected by DEQ used? If so, please also note this in description of data.
8. 3-45 – Not all positive BST hits are included. L02 had hits for *Bacteroides* and *Enterococci* in 2006. G-93 also had a positive human *Enterococci* hit in 2006. Would be useful to include and consider all results.
9. 3-47- Overbank flood occurs on the order of every 1-2 months at the mouth of this subwatershed.
10. 3-51- Table 3-18 –Format- First line shouldn't be a title.
11. 3-53- The Lower 1 has the highest percent of agricultural land use of all of the watersheds. Please ensure that the specific characteristics of this unique subshed are addressed in the methods to reduce the volume (things like agricultural BMPs, wetland restoration have a unique role to play in this subshed). Also under the challenges facing the aquatic biota – please ensure that the benefits / challenges incurred from this unique land use are addressed.
12. 3-54 – Probably shouldn't make conclusions about fish community trend declining with this sparse data.
13. 3-56 - Notable fish community in headwaters. Include as a protection target.
14. 3-62- stream habitat – according to map all sites scored good in 2005, so discussion of urban habitat impairment may not be needed,
15. 3-92- Third paragraph refers to FOTR results in Figure 3-40 but this figure notes that FOTR had insufficient data.
16. 3-93 – Impairments – List lack of habitat variability and in-stream cover as impairments but the habitat survey did not indicate impairment. May be useful to clarify.
17. 3-97 – No notable areas for Frogs and Toads in Lower 2? What about Dearborn Hills Golf Course? This is a great model project for wetland restoration and habitat diversity in urban settings.
18. 3-113 – Not all positive BST hits are included. G-45 also had a positive human *Enterococci* hit in 2006. Would be very useful to include and consider all results.
19. 3-114 – Please clarify how the WMM model is adjusted to account for controlled CSOs, as has happened in the Main 1-2.
20. 3-121- Add Lathrup Village rain garden initiative?
21. 3-145 – remove “include reference”.

22. 3-153 – Plan states that the gage shown on page 3-154 provides appropriate flow information for identifying goals for the Main 3-4. Based on the map on page 3-154, this gage does not take into account flow from ½ the watershed – the Lower and middle portions. Please modify the language to address this issue.
23. 3-161- Figure 3-71 does not show FOTR sampling locations, as stated.
24. 3-164- Update notable areas discussion based on maps?
25. 3-177- States that DO is considered good in the subwatershed but DO is ranked poor at site D60.
26. 3-180 – Not all positive BST hits are included. G03 had hits for *Bacteroides* in 2006. D-21 also had a positive human *Enterococci* hit in 2006. Would be useful to include and consider all results.
27. 3-186 – Plan states that gage shown on page 3-187 provides appropriate flow information for identifying goals for the Middle. Based on the map on page 3-187, this gage also incorporates the much more impervious cities of Westland, Livonia and Garden City, which are downstream of the Middle 1. Please modify the language to address this issue.
28. 3-189- The Middle 1 has the second highest percent of agricultural land use of all of the watersheds. Please ensure that the specific characteristics of this unique subshed are addressed in the methods to reduce the volume (things like agricultural BMPs, wetland restoration have a unique role to play in this subshed). Also under the challenges facing the aquatic biota – please ensure that the challenges/benefits incurred from this unique land use are addressed.
29. 3-197 – Table 3-58- Some percentages exceed 100.
30. 3-231- Update notable areas discussion based on maps?
31. 3-247 – Not all positive BST hits are included. U17 had a positive human *Enterococci* hit in 2006. Would be very useful to include and consider all results.
32. 3-252 – Please address the apparent stability of this site – with overbank flows occurring every 1-2 years.
33. Update notable areas discussion based on maps?

Chapter 4

1. 4-6 – Agriculture is an important source of nutrients, pathogens and sediment in the Lower 1 and Middle 1. Please add it.
2. 4-9 –Please cite Table 3-6 and discuss results from watershed analysis.
3. 4-11 – The 2007 MDEQ NPDES SW Permit List is apparently very incorrect in the number of industrial and MS4 permittees within the Rouge watershed. Please omit these numbers, or we can get you updated ones.
4. Page 312 of 402 of PDF version- Please change “The Federal Emergency Management Agency publishes 100-year floodplain maps that identify areas prone to flooding during a 100-year event, also referred to as a rain event that has a 1% chance of occurring in any single year” to “The Federal Emergency Management Agency publishes 100-year floodplain maps that identify areas prone to flooding during a 100-year flood event, also referred to as the flood event that has a 1% chance of occurring in any single year.”

Chapter 6

1. Several studies that include projects are referred to in the action tables in Chapter 6, including the Main 1-2 detention basin inventory, City of Livonia stream bank stabilization study, City of Livonia storm water storage basin study, and others. Please summarize these studies in the WMP, and provide some

- background on the problems that were found, corrections suggested, and target areas.
2. Figures in this chapter appear to be mis-described in the text. Please review and correct descriptions.
 3. Please explain the methods used to generate the figures in Chapter 6.
 4. Please clarify if the figures in Chapter 6 depict the total load remaining after volume reductions, or the total load that the volume reductions will remove, or something else.
 5. 6-2- Second paragraph – Figure 6-1 does not appear to show what it is stated that it shows (BST results).
 6. 6-5- Table 6-1 – Site US3 does not appear to be impacted.
 7. 6-7 – WMP states that flows greater than overbank flood flow rate actually generate lower flow velocities in the low flow channel. Please correct this – the rate of increase of velocity decreases but the velocity remains the same in the low flow channel.
 8. 6-8 – Please clarify how the numbers on page 6-8 were generated. 100% of what is referred to in the tables? Please also provide the basis of the long and short term goals.
 9. 6-9 – WMP states that individual communities also know where the best and worst places within their respective areas and will work towards addressing these pollutants/sources as resources allow. Please include these areas in the plan.
 10. 6-19 – When will the IDEP/TMDL Plan, Collaborative PEP, Rouge River Supplemental Watershed Study and Stormwater Retrofit Analysis be completed?
 11. 6-19 and beyond: The first 9 actions are the same in every sub-shed. Moving them to the overall action table would help avoid repetition.
 12. 6-19 and beyond: No specific actions proposed by FOTR or the local land trusts?
 13. 6-19 – Table 6-10. No specific actions by Salem, Plymouth or Canton Twps? No ag BMPs?
 14. 6-23 – Middle 3- No specific actions by Garden City or Westland?
 15. 6-24 – Lower 1 – No ag BMPS. No specific actions from Superior, Salem, Ypsilanti, Van Buren Townships? Only 3 actions specific to this subshed?
 16. 6-25- Lower 2- No specific actions by Romulus, Westland, Garden City?
 17. 6-27 – Upper – No specific actions by Redford, W Bloomfield, Walled Lake, Commerce or by Oakland County?
 18. 6-34 – Main 3-4 – No specific actions by Melvindale, Allen Park or Dearborn?

Chapter 7

1. 7-2- Were school and business roundtables convened?
2. 7-7 – What is the timeline for actions in Table 7-4?
3. 7-5-Why are the Survey Ranking of Goals and Survey Ranking of Issues in the main chapter and not in the appendix? This is information that is important, but not critical to the I&E plan. It could be moved to an appendix, and just summarized to save space and make the chapter more concise.

Chapter 8

1. 8-3 – What does xx mean as compared to x?
2. 8-7 – Please rephrase second sentence of second paragraph – the TMDL is based on biological data collected by MDEQ and other supplemental data.
3. Table 8-1 – Please specify who will be doing monitoring for each line.
4. Table 8-1 – Are any reports/brochures/press releases planned?
5. Table 8-1 – Are any public surveys planned?

Appendix C (page 40 of 139 of PDF version)

1. The water years are not years in the Main Branch of the Rouge River at Southfield graph.

Appendix C (pages 55 - 57 of 139 of PDF version)

1. It isn't clear if the blue bars for 1934 through 1947 and 1978 through 1983 represent data that exceed the y-axis scale or no data. There are other graphs throughout this appendix that this also applies to. Please include a legend or note on the graphs.

Appendix C (pages 69 - 77 of 139 of PDF version)

1. We do not understand the information the graphs of Total Flood Volume of All Flood Events Exceeding Annual Mean Flood Flow Rate. Labeling the x-axis would help.

Appendix D

1. Please include Appendix D in the main document.
2. Table D-3. Please remove lack of funding as a cause of pollution.