APPENDIX A
MAPS AND FIGURES

Figure 2-1. Location Map: Missouri-Cascade and Belt TMDL Planning Areas ......................... 3
Figure 2-2. Metals-impaired Streams in the Missouri-Cascade TMDL Planning Area ............... 4
Figure 2-3a. Level III Ecoregions: Missouri-Cascade TMDL Planning Area ......................... 5
Figure 2-3b. Level IV Ecoregions: Missouri-Cascade TMDL Planning Area ......................... 6
Figure 2-4. Topography: Missouri-Cascade TMDL Planning Area ....................................... 7
Figure 2-5. Geology: Missouri-Cascade TMDL Planning Area ............................................. 8
Figure 2-6. Erodibility: Missouri-Cascade TMDL Planning Area ....................................... 9
Figure 2-7. Slope: Missouri-Cascade TMDL Planning Area ................................................ 10
Figure 2-8. Hydrography: Missouri-Cascade TMDL Planning Area ................................... 11
Figure 2-9. Precipitation: Missouri-Cascade TMDL Planning Area .................................. 12
Figure 2-10. Land Cover: Missouri-Cascade TMDL Planning Area ..................................... 13
Figure 2-11. Census Data: Missouri-Cascade TMDL Planning Area .................................... 14
Figure 2-12. Land Ownership: Missouri-Cascade TMDL Planning Area ............................ 15
Figure 2-13. Land Use: Missouri-Cascade TMDL Planning Area ..................................... 16
Figure 2-14. Transportation Networks: Missouri-Cascade TMDL Planning Area ............... 17
Figure 2-15. Metals-impaired streams in the Belt TMDL Planning Area ............................. 18
Figure 2-16. Level IV Ecoregions: Belt TMDL Planning Area ............................................ 19
Figure 2-17. Topography: Belt TMDL Planning Area ....................................................... 20
Figure 2-18. Geology: Belt TMDL Planning Area ............................................................ 21
Figure 2-19. Erodibility: Belt TMDL Planning Area ...................................................... 22
Figure 2-20. Slope: Belt TMDL Planning Area ............................................................. 23
Figure 2-21. Hydrography: Belt TMDL Planning Area ...................................................... 24
Figure 2-22. Precipitation: Belt TMDL Planning Area ..................................................... 25
Figure 2-23. Land Cover: Belt TMDL Planning Area ...................................................... 26
Figure 2-24. Land Use: Belt TMDL Planning Area .......................................................... 27
Figure 2-25. Wildfire: Belt TMDL Planning Area ............................................................ 28
Figure 2-26. Census Data: Belt TMDL Planning Area ..................................................... 29
Figure 2-27. Land Ownership: Belt TMDL Planning Area .............................................. 30
Figure 2-28. Transportation Networks: Belt TMDL Planning Area ................................... 31
Figure 2-29. Point Sources: Belt TMDL Planning Area ..................................................... 32
Figure 5-1. Carpenter Creek Historic and Abandoned Mining Sources ............................. 33
Figure 5-1a. Carpenter Creek Tailings ............................................................................ 34
Figure 5-1b. Silver Dyke Tailings: Tributary to Carpenter Creek ..................................... 34
Figure 5-2. Carpenter Creek Water Quality Sampling Stations ....................................... 35
Figure 5-3. Galena Creek Historic and Abandoned Mining Sources ............................... 36
Figure 5-3a. Galena Creek Mine Adit & Mine Wastes ....................................................... 37
Figure 5-3b. Galena Creek Mine Drain/Adit ..................................................................... 37
Figure 5-4. Galena Creek Water Quality Sampling Stations .......................................... 38
Figure 5-5. Dry Fork Belt Creek Water Quality Sampling Stations ................................ 39
Figure 5-6. Upper Belt Creek Water Quality Sampling Stations ..................................... 40
Figure 5-7. Lower Belt Creek Water Quality Sampling Stations ..................................... 41
Figure 5-7a. Anaconda Mine Drain discharging to Belt Creek .................................... 42
Figure 5-7b. Belt Creek below Anaconda Mine Drain ................................................................. 42
Figure 5-8. Cottonwood Creek and Number Five Coulee Water Quality Sampling Stations ...... 43
Figure 5-9. Acid Mine Discharge entering Cottonwood Creek at Stockett ................................. 44
Figure 5-10. Acid Mine Discharge entering Cottonwood Creek upstream of Stockett ............... 44
Figure 5-11. Acid Mine Discharge (2) entering Cottonwood Creek upstream of Stockett ......... 44
Figure 5-12. Acid Mine Drainage to Number Five Coulee ........................................................... 45
Figure 5-13. Lower Sand Coulee ................................................................................................. 45
Figure 5-14. Acid mine drainage to Sand Coulee ....................................................................... 45
Figure 5-15. Mine Spoils in Sand Coulee .................................................................................... 45
Figure 5-16. Sand Coulee Water Quality Sampling Stations ....................................................... 46
Figure 5-17. Sand Coulee Creek Water Quality Sampling Stations ............................................ 47
Figure 5-18. Aluminum TMDL as a function of flow ................................................................. 48
Figure 5-19. Arsenic TMDL as a function of flow ................................................................. 48
Figure 5-20. Cadmium TMDL as a function of flow ................................................................. 48
Figure 5-21. Copper TMDL as a function of flow ................................................................. 49
Figure 5-22. Iron TMDL as a function of flow ........................................................................... 49
Figure 5-23. Lead TMDL as a function of flow .............................................................. 49
Figure 5-24. Nickel TMDL as a function of flow ................................................................. 50
Figure 5-25. Silver TMDL as a function of flow ................................................................. 50
Figure 5-26. Zinc TMDL as a function of flow ........................................................................... 50
Figure 2-1. Location Map: Missouri-Cascade and Belt TMDL Planning Areas
Figure 2-2. Metals-impaired Streams in the Missouri-Cascade TMDL Planning Area
Figure 2-3a. Level III Ecoregions: Missouri-Cascade TMDL Planning Area
Figure 2-3b. Level IV Ecoregions: Missouri-Cascade TMDL Planning Area
Figure 2-4. Topography: Missouri-Cascade TMDL Planning Area
Figure 2-5. Geology: Missouri-Cascade TMDL Planning Area
Figure 2-6. Erodibility: Missouri-Cascade TMDL Planning Area
Figure 2-7. Slope: Missouri-Cascade TMDL Planning Area
Figure 2-8. Hydrography: Missouri-Cascade TMDL Planning Area
Figure 2-9. Precipitation: Missouri-Cascade TMDL Planning Area
Figure 2-10. Land Cover: Missouri-Cascade TMDL Planning Area
Figure 2-11. Census Data: Missouri-Cascade TMDL Planning Area
Figure 2-12. Land Ownership: Missouri-Cascade TMDL Planning Area
Figure 2-13. Land Use: Missouri-Cascade TMDL Planning Area
Figure 2-14. Transportation Networks: Missouri-Cascade TMDL Planning Area
Figure 2-15. Metals-impaired streams in the Belt TMDL Planning Area
Figure 2-16. Level IV Ecoregions: Belt TMDL Planning Area
Figure 2-17. Topography: Belt TMDL Planning Area
Figure 2-18. Geology: Belt TMDL Planning Area
Figure 2-19. Erodibility: Belt TMDL Planning Area
Figure 2-20. Slope: Belt TMDL Planning Area
Figure 2-21. Hydrography: Belt TMDL Planning Area
Figure 2-22. Precipitation: Belt TMDL Planning Area
Figure 2-23. Land Cover: Belt TMDL Planning Area
Figure 2-24. Land Use: Belt TMDL Planning Area
Figure 2-25. Wildfire: Belt TMDL Planning Area
Figure 2-26. Census Data: Belt TMDL Planning Area
Figure 2-27. Land Ownership: Belt TMDL Planning Area
Figure 2-28. Transportation Networks: Belt TMDL Planning Area
Figure 2-29. Point Sources: Belt TMDL Planning Area
Figure 5-1. Carpenter Creek Historic and Abandoned Mining Sources
Figure 5-1a. Carpenter Creek Tailings

Figure 5-1b. Silver Dyke Tailings: Tributary to Carpenter Creek
Figure 5-2. Carpenter Creek Water Quality Sampling Stations
Figure 5-3. Galena Creek Historic and Abandoned Mining Sources
Figure 5-3a. Galena Creek Mine Adit & Mine Wastes

Figure 5-3b. Galena Creek Mine Drain/Adit
Figure 5-4. Galena Creek Water Quality Sampling Stations
Figure 5-5. Dry Fork Belt Creek Water Quality Sampling Stations
Figure 5-6. Upper Belt Creek Water Quality Sampling Stations
Figure 5-7. Lower Belt Creek Water Quality Sampling Stations
Figure 5-7a. Anaconda Mine Drain discharging to Belt Creek

Figure 5-7b. Belt Creek below Anaconda Mine Drain
Figure 5-8. Cottonwood Creek and Number Five Coulee Water Quality Sampling Stations
| Figure 5-9. Acid Mine Discharge entering Cottonwood Creek at Stockett | Figure 5-10. Acid Mine Discharge entering Cottonwood Creek upstream of Stockett | Figure 5-11. Acid Mine Discharge (2) entering Cottonwood Creek upstream of Stockett |
Figure 5-12. Acid Mine Drainage to Number Five Coulee

Figure 5-13. Lower Sand Coulee

Figure 5-14. Acid mine drainage to Sand Coulee

Figure 5-15. Mine Spoils in Sand Coulee
Figure 5-16. Sand Coulee Water Quality Sampling Stations
Figure 5-17. Sand Coulee Creek Water Quality Sampling Stations
Figure 5-18. Aluminum TMDL as a function of flow

Figure 5-19. Arsenic TMDL as a function of flow

Figure 5-20. Cadmium TMDL as a function of flow
Figure 5-21. Copper TMDL as a function of flow

Figure 5-22. Iron TMDL as a function of flow

Figure 5-23. Lead TMDL as a function of flow
Missouri-Cascade and Belt TMDL Planning Area Metals TMDLs & Framework Water Quality Improvement Plan – Appendix A

Figure 5-24. Nickel TMDL as a function of flow

Figure 5-25. Silver TMDL as a function of flow

Figure 5-26. Zinc TMDL as a function of flow