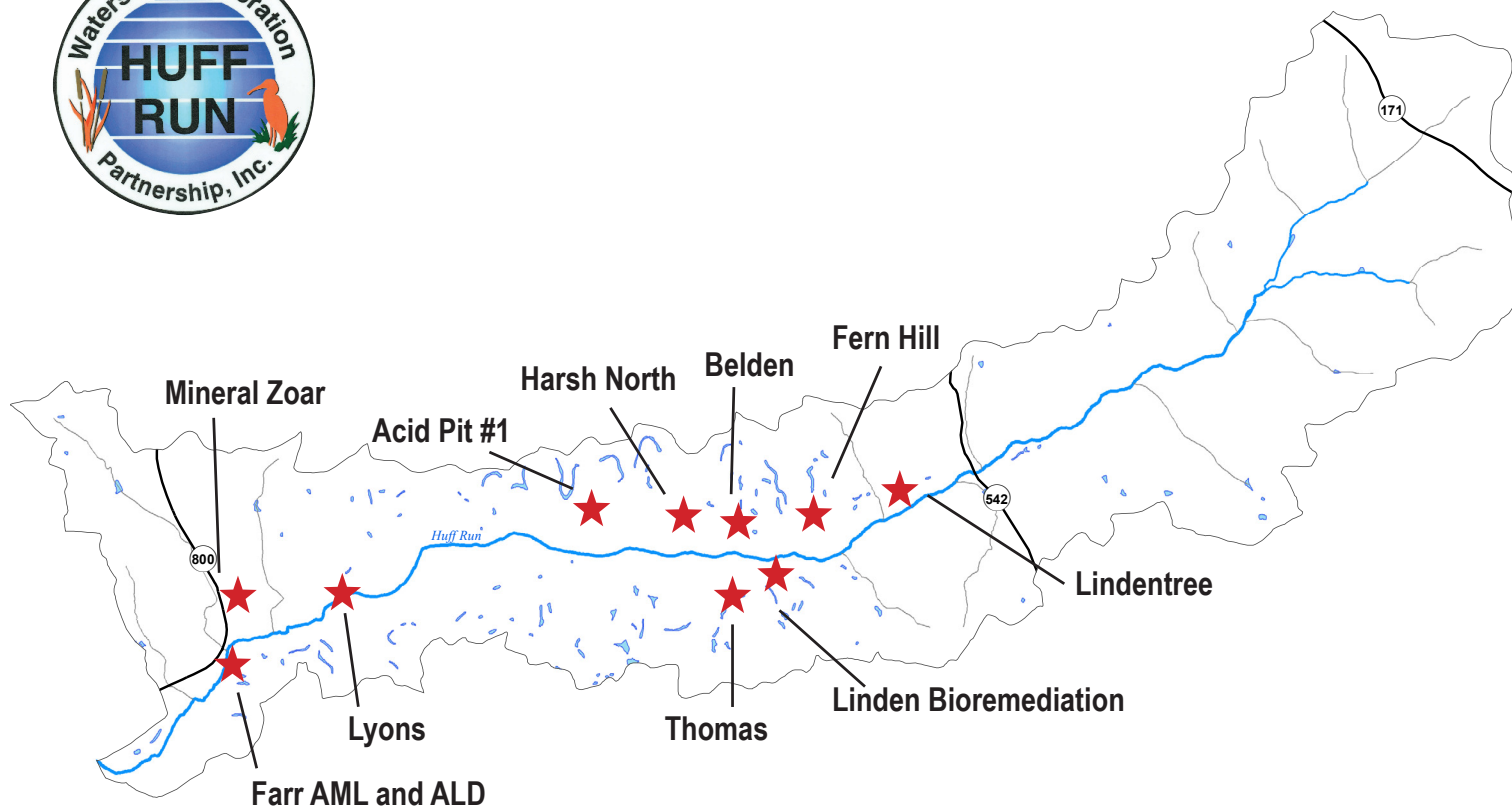


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- Huff Run flows from the Morges community in Carroll County, into Tuscarawas County and has its confluence in the Conotton Creek just South of Mineral City, Ohio. Huff Run is 9.9 miles long with a 13.9 square mile watershed. Almost all land east of State Route 542 (about 2/3 of the watershed) has been mined for coal and some limestone and clay. Because much of the land mined was not reclaimed, the watershed is plagued with the resulting acid mine drainage. Other pollution issues in the watershed include illegal dumping, poor riparian buffers, raw sewage entering the stream, oil and gas impacts, and agricultural impacts.

- The Huff Run Watershed Restoration Partnership Inc. (HRWRP) was founded in 1996 by a group of concerned citizens. The HRWRP has partnered with ODNR/MRM, Rural Action, OEPA, Crossroads RC&D, OSM and others to fulfill their

mission statement which is “To restore the Huff Run watershed by improving water quality and enhancing wildlife habitat, through community support and involvement.”

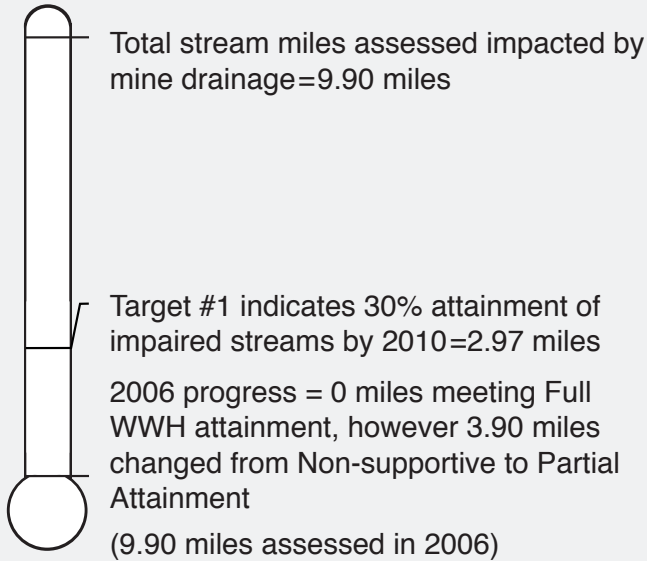
- The Farr Anoxic Limestone Drain, the first passive treatment system in the watershed, was constructed in 2000. Also, HRWRP can boast of building the first bioremediation system in Ohio with their Linden Restoration Project. They also were awarded a US EPA Targeted Watershed Grant in 2005 for their Belden Successive Alkaline Producing System. At their 10 year anniversary, seven restoration projects have been completed with funding obtained for five more.

- To learn more about the HRWRP, visit their website at www.huffrun.org or call 330-859-1050 to reach their office.

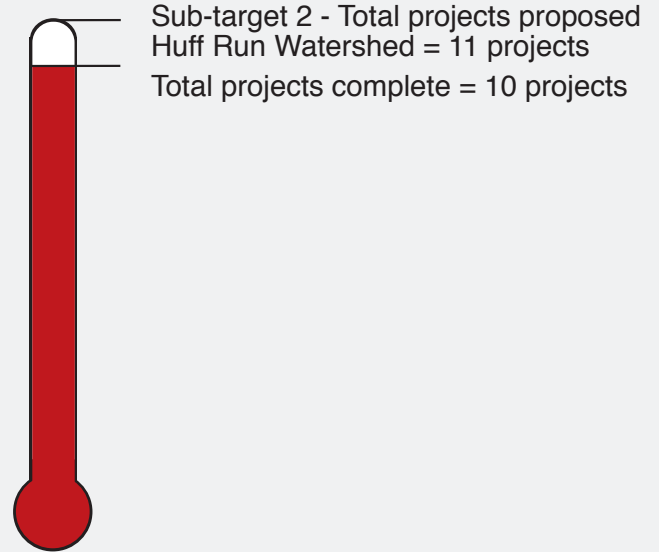
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Attainment Miles



Completion



Reductions

Total acid load reduction = 81 lbs/day at site HRR08

Total acid load reduction = 240 lbs/day

at project effluent sites Linden, Lindentree, Belden and Lyons, where acid load reduction could be calculated.

Costs

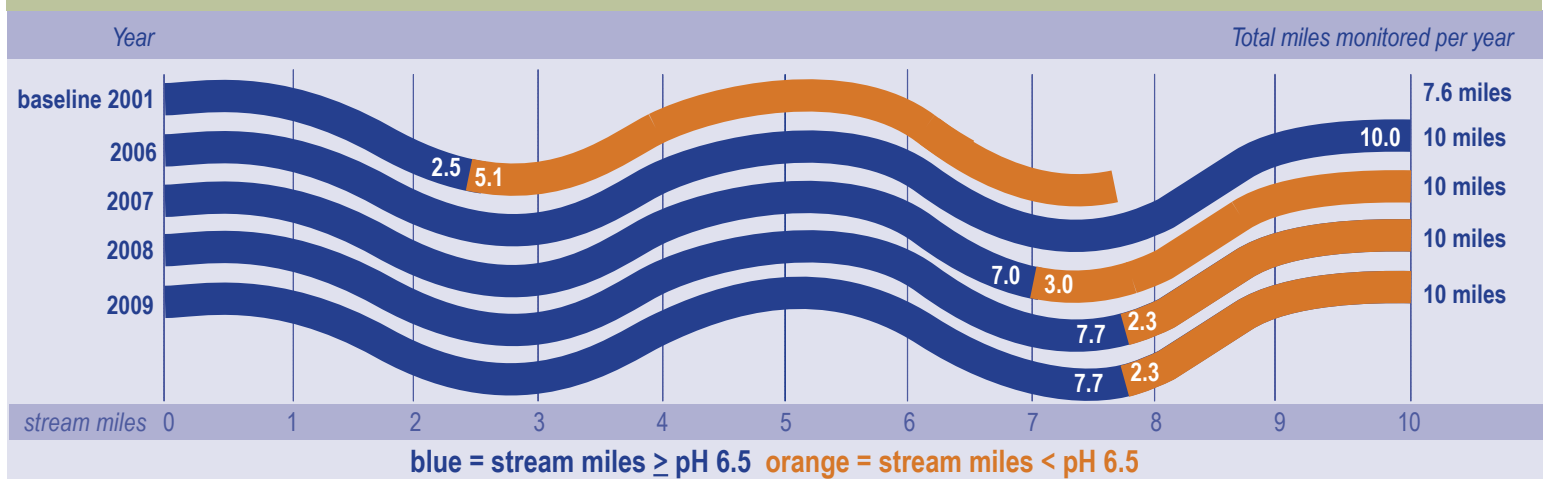
Design \$502,860 (excluding Fern Hill)

Construction \$3,936,8259

Total cost through 2009=\$4,439,685

The mainstem of Huff Run is approximately 10 miles in length with monitoring occurring year round. In 2009, 7.75 miles met the pH target of 6.5 while the two downstream stream reaches (HRR08 and HRR07) fall slightly below the target with an average pH of 6.4 (Figure A). This average has increased 0.2 pH units since 2008.

Figure A. Huff Run pH



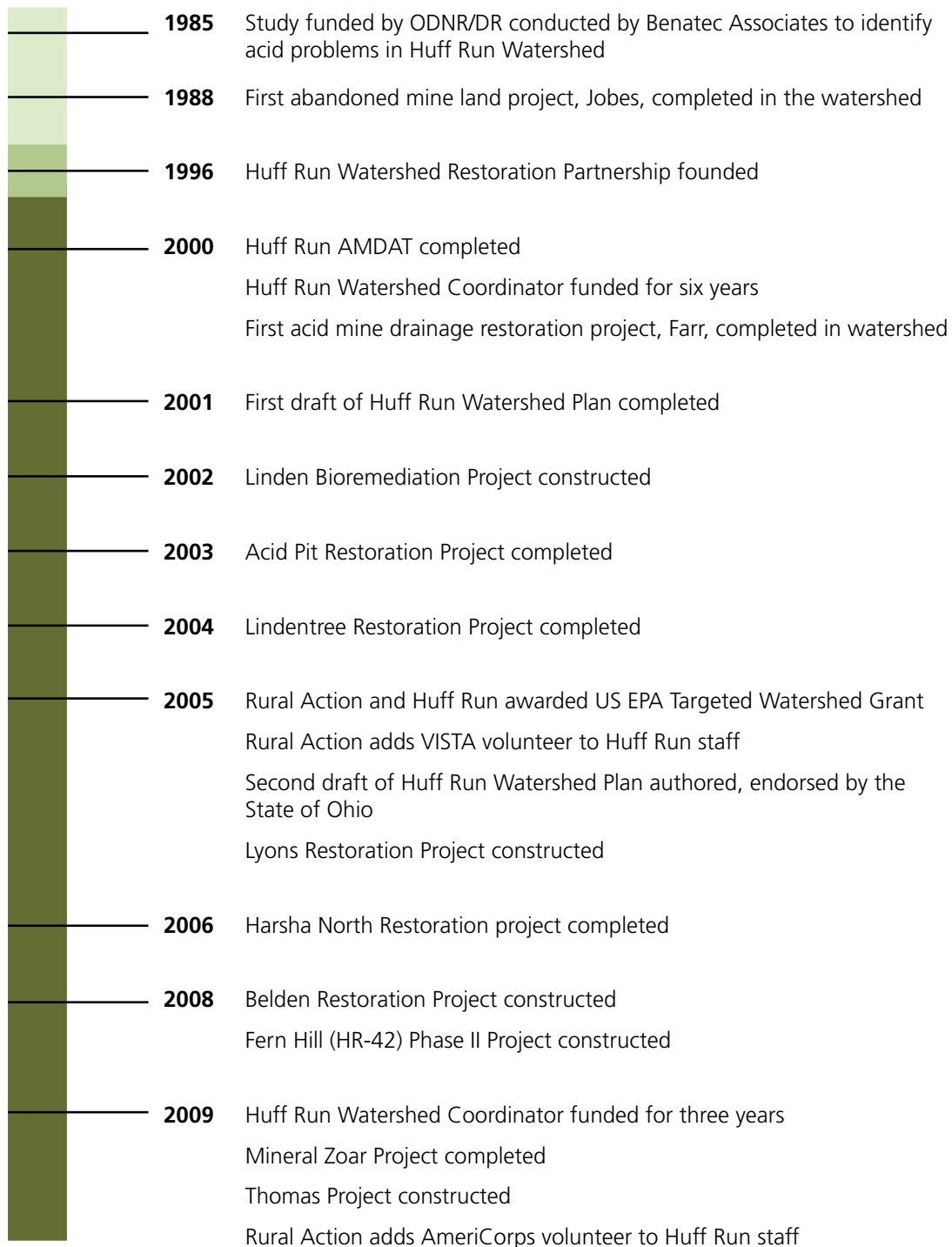
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Timeline of the Huff Run Watershed Project Milestones & AMD Projects

This timeline demonstrates this history of the Huff Run Watershed Restoration Partnership and the work done to restore Huff Run. AMD projects have been administered through Crossroads RC&D, the Tuscarawas Soil and Water Conservation District and the present sponsor of Huff Run,

Rural Action. Funding has been secured for projects through the Office of Surface Mining, Ohio EPA 319 Program, US EPA Targeted Watershed Grant Program and match from the Ohio Department of Natural Resources, Division of Mineral Resources Management.

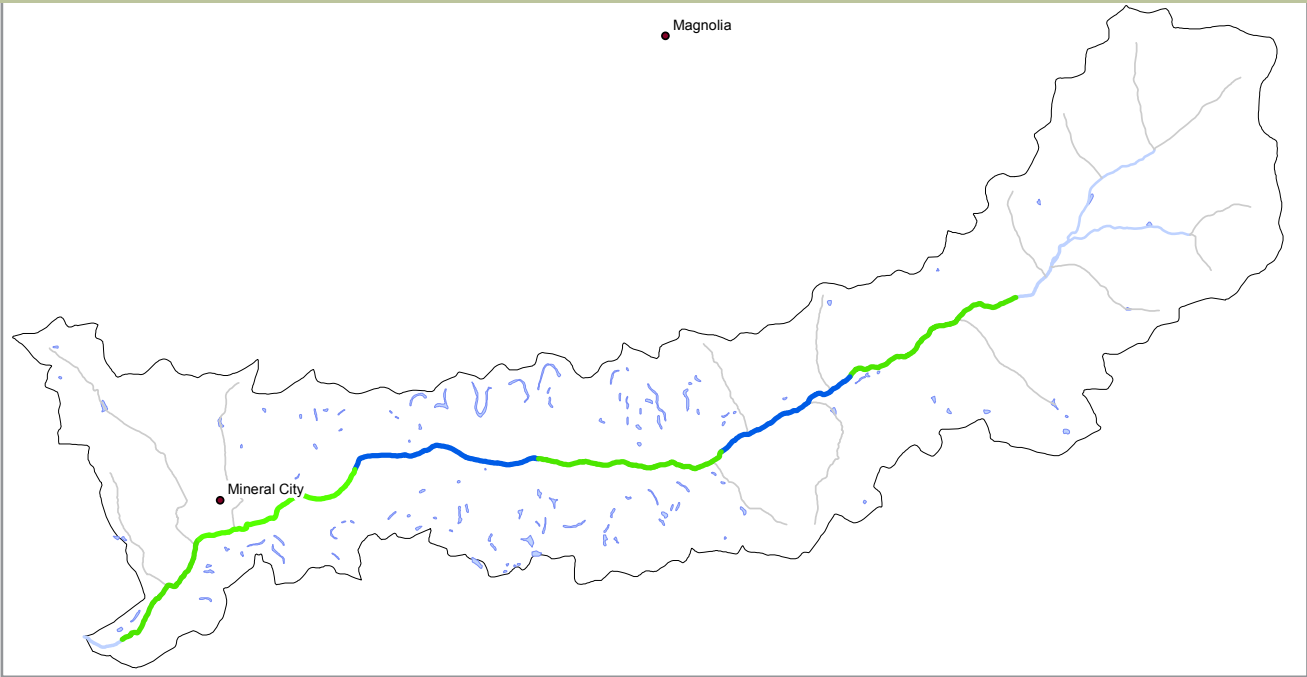


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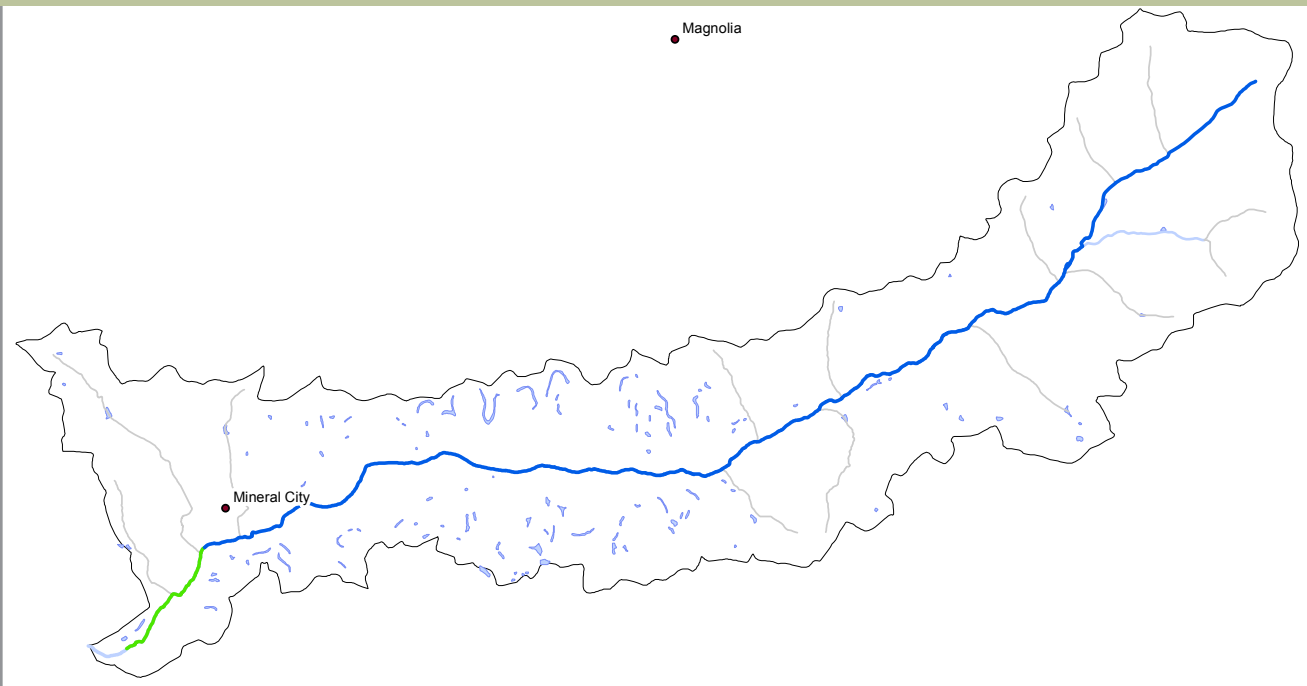
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Chemical Water Quality

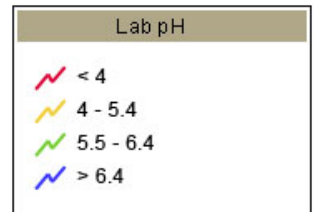
Huff Run baseline pH



Huff Run 2009 pH



Huff Run pH values have improved from baseline conditions (1985-1998) to 2009.

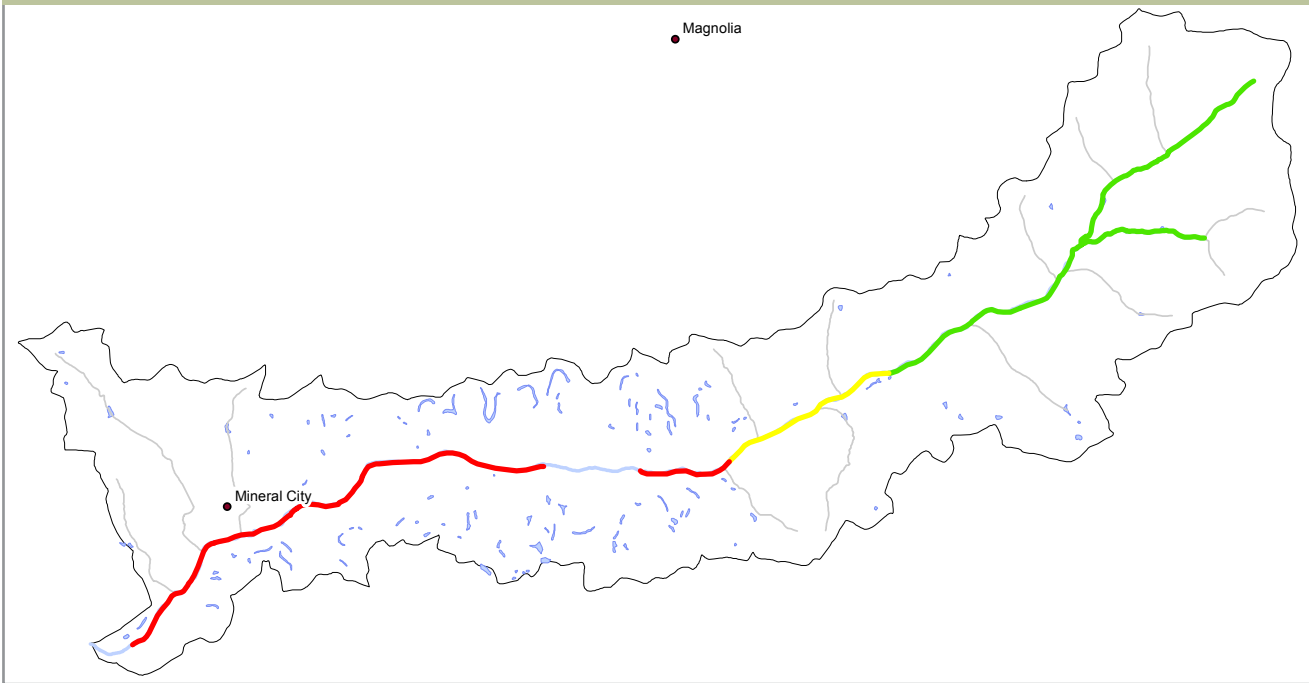


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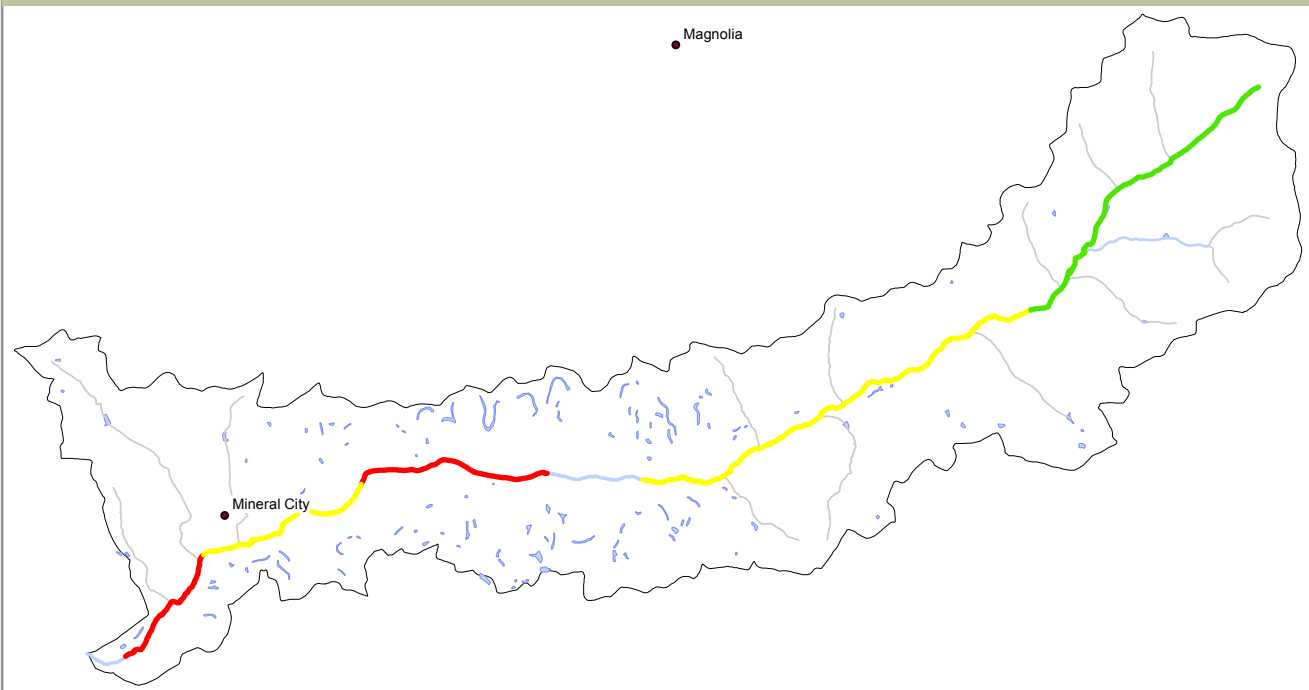
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Biological Water Quality

Huff Run baseline MAIS



Huff Run 2009 MAIS



Huff Run aquatic life use has improved from baseline conditions (1985-1998) to 2005. Aquatic life use changed from WWH non-sportive to WWH partial attainment along 3.9 miles in Huff Run. In 2008 the MAIS score increased in the headwaters slightly (HR0, RM 8.4) and at HR11/HRR04 the site downstream of Lindentree Project, a pattern held over from 2007.

The area of degradation analysis for the seven mainstem sites along Huff Run (-93, Figure 4), shows modest improvement at the upstream sites, but little evidence of improvement below RM 4.1 (HRR05).

Macroinvertebrate
Aggregated
Index for Streams

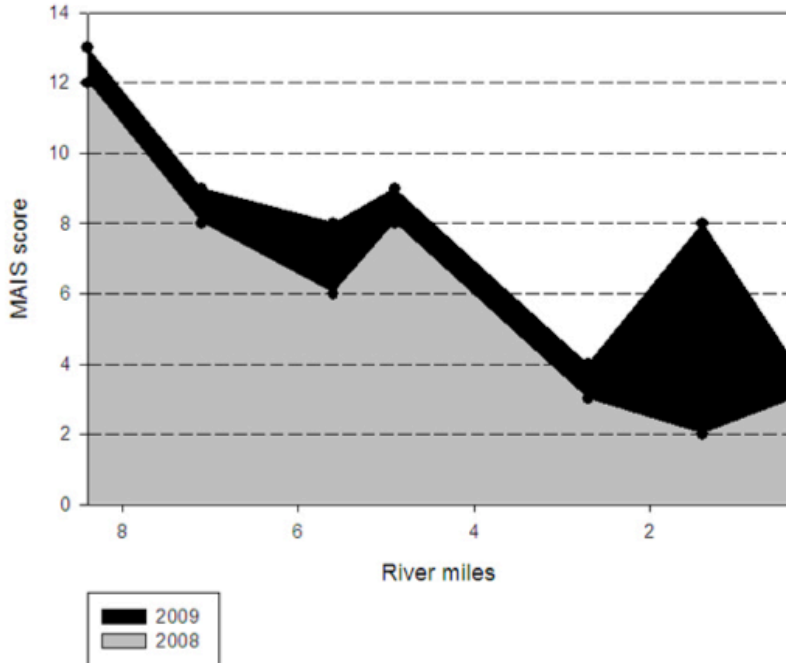


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Biological Water Quality

Figure C. Huff Run Area of Degradation 2008-2009



Calculation of the area of degradation in Huff Run based on 2009 macroinvertebrate data shows improvement at all stations.

Figure B. Huff Run Area of Degradation

RM	2006	2007	2008	2009	
8.4					
7.1	-6.5	-5.2	-5.2	-2.6	Improved
5.6	-15.0	-13.5	-15.0	-10.5	Improved
4.9	-7.7	-5.6	-7.0	-4.9	Improved
2.7	-28.6	-22.0	-28.6	-24.2	Some improvement
1.4	-22.1	-20.8	-24.7	-15.6	Improved
0.4	-22.1	-17.9	-20.0	-12.6	Improved
Total area of degradation	-102.0	-85.0	-100.5	-70.4	