City of Columbus Watershed Master Plan

Columbus, Ohio

Source Water Protection Area (SWPA)

Upper Big Walnut Creek
- 195 sq mi
- Row Crops 47%
- Forest 25%
- Hay/Pasture 13%
- Developed Open Space 8%
- Developed 3%

Upper Scioto River
- 1068 sq mi
- Row Crops 70%
- Developed 8%
- Forest 7%
- Developed Open Space 7%
- Pasture 6%

CDM Smith
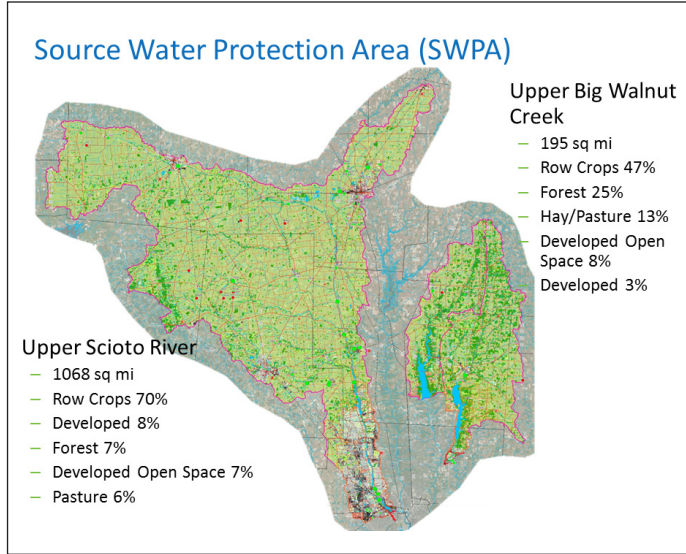
A watershed master plan charts the course for source water quality management and protection for two watersheds spanning over 1,195 square miles.

Approximately 85% of Columbus, Ohio's drinking water originates from only three watersheds: the Scioto River, Big Walnut Creek, and Alum Creek. In an effort to improve water quality and address pollution concerns and risks related to nitrate, nutrients, Azatrine, spills, and emerging pollutants of concern, the City initiated a watershed master plan to identify priority risks and recommend strategies to reduce them.

A key member of the master planning team led by CDM Smith, Biohabitats assisted with evaluating watershed characteristics, water quality data, and natural resource features in order to identify the pollutants and activities presenting the greatest immediate and persistent risk to the city's drinking water supply. Known and emerging pollutant risks (e.g., agriculture, algal blooms, urbanization, home sewage treatment systems, spills, and many other concerns) were inventoried, characterized, and prioritized by the team. Biohabitats also met with and interviewed key natural resources stakeholders to better understand collaboration opportunities. Our work concluded with the identification of priority strategies to protect existing natural resources and projects that the City could undertake in the near term which offered the greatest potential water quality benefits. Priority subwatersheds for demonstration projects were also selected based on their potential to advance understanding and awareness of specific restoration and habitat preservation tools.

The final plan recommended four core strategies:
- Collaborate & Coordinate with Existing Programs to Manage Immediate Risks to the City's Watersheds
- Build Collaborative Networks to Manage Persistent Risks;
- Inform, Engage, and Involve Stakeholders; and
- Monitor and Assess for Long-Term Implementation.

Within each strategy, early actions and enhancements to existing programs were identified. Example measures included riparian restoration demonstration projects on City of Columbus lands, headwater stream protection initiatives through conservation easements, and riparian protection measures that would build on success stories elsewhere in Ohio.

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Watershed
Upper Scioto and Big Walnut Creek