

Water Resources Board

February 02, 2017

**Department for Environmental Protection
Energy and Environment Cabinet**



To Protect and Enhance Kentucky's Environment

Kentucky
UNBRIDLED SPIRIT™

Project Profile Ranking Results

Project Profiles	Project Title	Project Duration	Annual Cost	Score	Minimum	Maximum
DOW-1	State Water Plan Initial Project Profile (see separate attachment)	5 year	\$130,000	1.4	1	3
KGS-1	Kentucky Groundwater Observation Network	3 year	\$122,000	2.2	1	3
WKU-1	Kentucky Mesonet Station Acquisition and Installation	5 year	\$45,000	4.8	3	7
WKU-2	Kentucky Mesonet Soil Monitoring	2 year	\$36,000	4.8	2	8
USGS-2	Streamflow Gaging Stations in Critical Areas with Existing Data Gaps	3 year	\$90,000	4.8	1	9
USGS-1	Agricultural and Drought Data Management and Integration Application for Kentucky	1 year	\$40,000	5.8	2	9
UK-1	Stormwater management, Water Harvesting, and the LEAF Program	Variable	\$20,000 - \$130,000	6.3	4	9
WKU-3	Kentucky Mesonet Precipitation Monitoring	2 year	\$124,000	7.3	3	11
KGS-2	A Groundwater Withdrawal Assessment Tool for the Jackson Purchase Region	1 year	\$50,000	7.5	5	11
USGS-3	Water Quality Monitoring Stations to Better Quantify Nutrient Loading from Kentucky	3 year	\$276,000	8.0	3	11
WKU-4	Summaries, Forecasts and Outlooks	2 year	\$200,000	9.2	5	11



Working committees

- **Technical Data Committee**
- **Roadmap Committee**

Committee Actions and Meetings

State Water Plan

TECHNICAL DATA AND STUDIES

Active Groundwater Level Network
Sunday, October 30, 2018



I. WATER AVAILABILITY

Regional Water Inventories
Annual and Seasonal "Surplus/Deficit"

- Existing withdrawal demand
- Instream Flow demands

Map of real-time streamflow compared to historical streamflow for the day of the year (Kentucky)





TECHNICAL DATA AND STUDIES



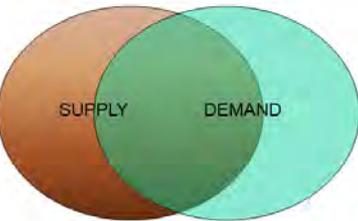
II. DEMAND FORECASTING

- Population-driven Demands
- Agricultural Demands
- Energy Sector Demands
- Industrial Demands




TECHNICAL DATA AND STUDIES

GAP ANALYSIS



Where does available supply not meet current demand?
Where will available supply not meet future demand?
Why does the GAP exist?
What are potential solutions?

"HOT SPOT" ANALYSIS

Which GAPS are most critical?




PLAN DEVELOPMENT



REGIONAL FOCUS

STAKEHOLDER DRIVEN



What issues are seen as priorities at the local/regional level?
What needs to be in the plan?
**Inform the development of a statewide water resources plan.




Committee Actions and Meetings

Technical Data Committee

Areas of Focus

Review and advise on data and technical studies related to Water Board-recommended projects

Review the Literature; propose areas of study, data and research to improve understanding and management of the Kentucky water resources

Assist in the oversight and development of technical studies that support a State Water Plan

Facilitate the implementation of KFB Water Management Working Group Recommendations

Pete Goodmann

Todd Griffin - Agribusiness

Kevin Rogers – Chamber of Commerce / Water Use and Demand

Steve Coleman – Kentucky Farm Bureau

John Dix – KRWA / Rural Water issues

Brent Burchett – Dept of Agriculture / Agricultural issues

Biff Baker – GOAP, Agricultural Issues

USGS

KGS

Kentucky Climate Center

Other as required



Committee Actions and Meetings

Plan Development Roadmap Committee

Areas of Focus

Review existing state water plans from peer states as part of a preliminary plan development process

Develop goals and scope of a state water plan – draw upon the best parts of other states

Identify critical participants in water planning – agency partners, consultants

Provide leadership and oversight for state water planning and water resources development opportunities as they arise

Facilitate the implementation of KFB Water Management Working Group Recommendations

Pete Goodman

Carey Johnson

Steve Workman – University of Kentucky / Agriculture

Kevin Jeffries – Soil & Water Conservation Districts

Kevin Rogers – Chamber of Commerce / Water Use and Demand

Rusty Cress – KY League of Cities

Gary Larimore – KRWA / Rural Water issues / planning

Biff Baker – GOAP, Agricultural Issues

KY Water Resources Research Inst.
Other as required



Miscellaneous Funding Opportunities

Opportunities for obtaining funding for projects that align with the duties of the Water Resources board as provided in KRS 151.113:

Research emerging water resources issues

Developing new and reliable water sources

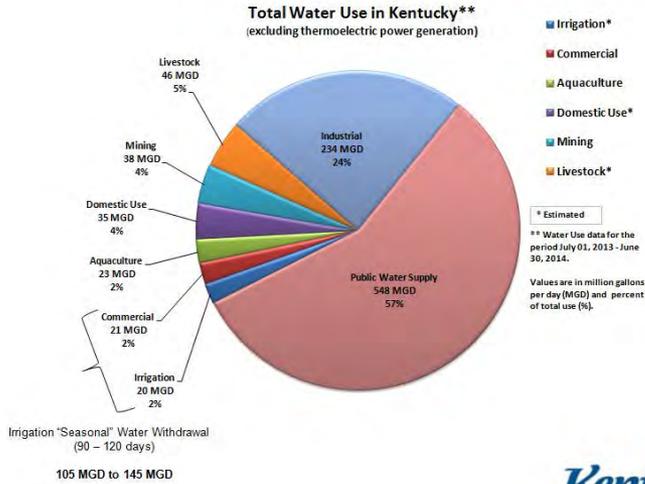
Water use efficiency, water conservation and drought mitigation for farm and rural communities

Monitoring and data needs for water quality and quantity



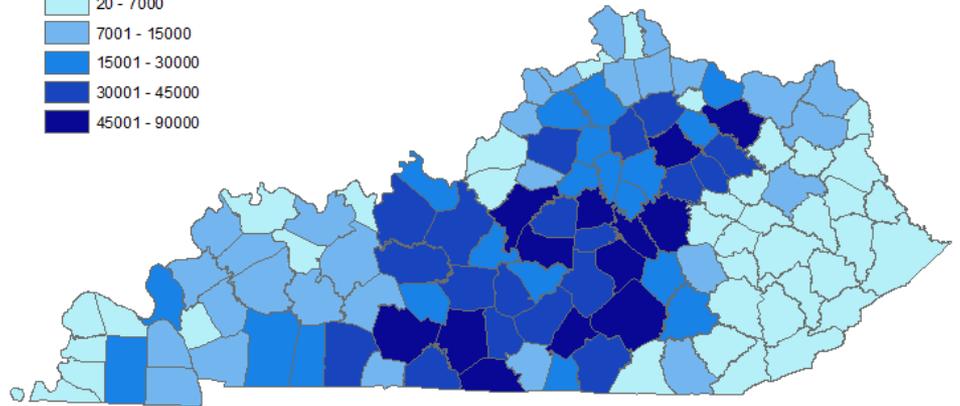
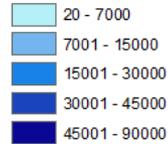
A closer look at water use in Kentucky

Total Water Use in Kentucky** (excluding thermoelectric power generation)



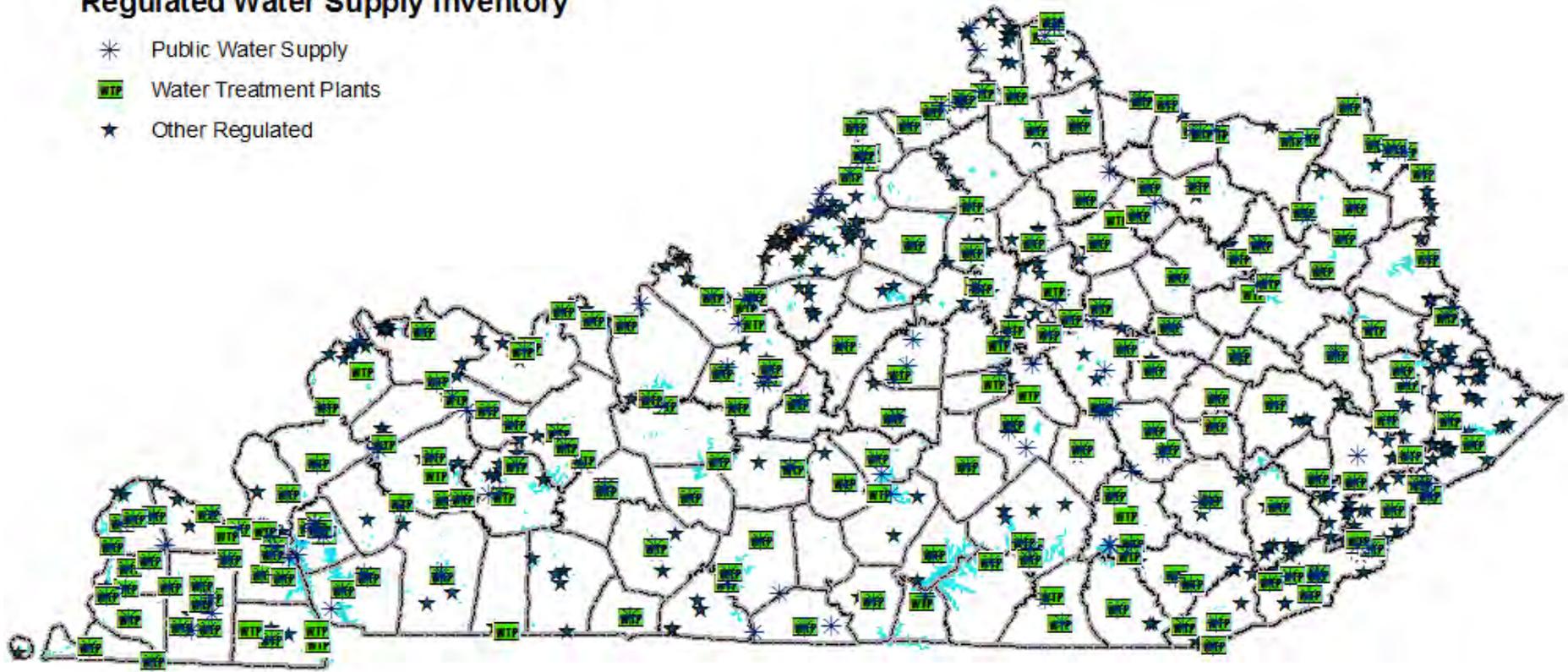
County_Cattle_Numbers

COW_TOT



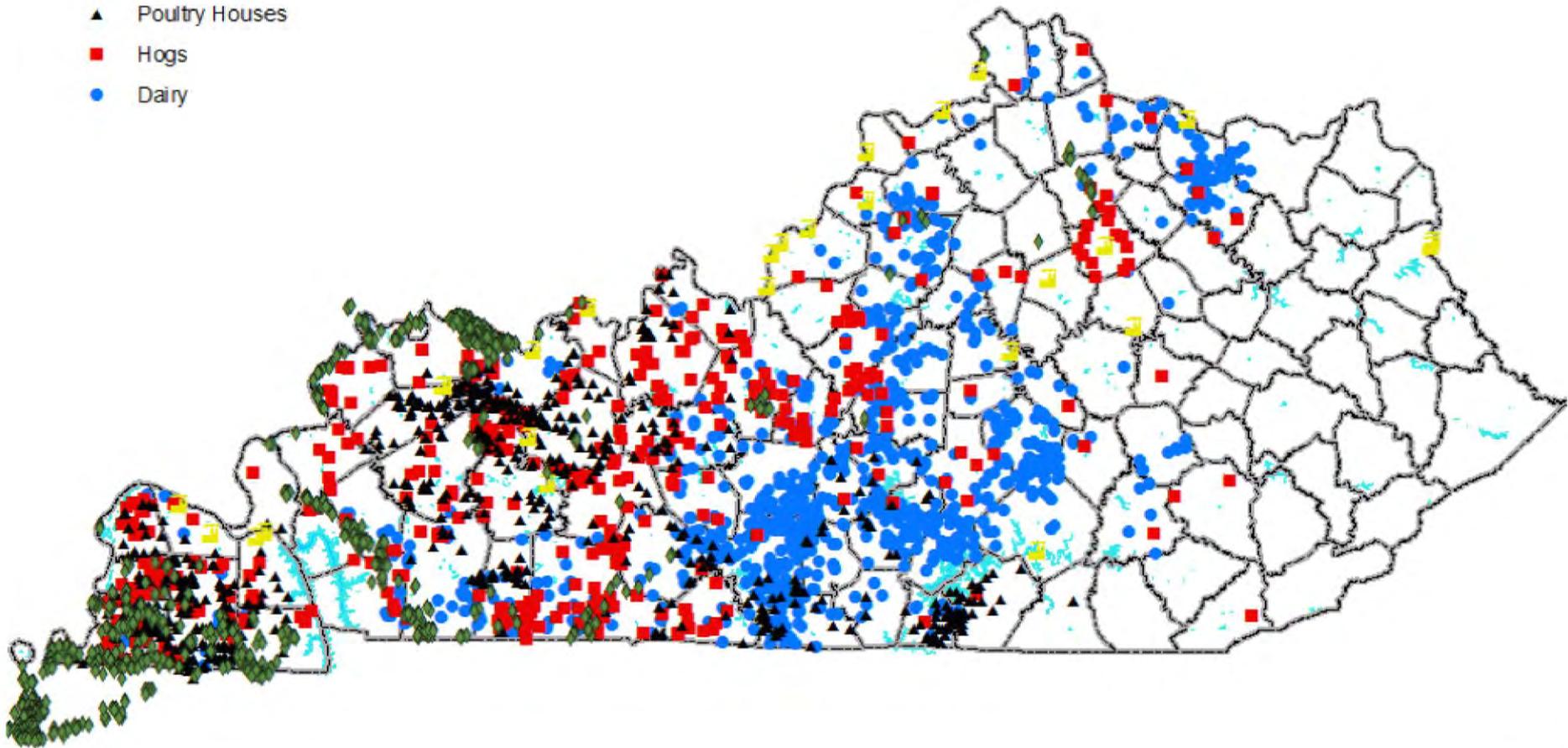
Regulated Water Supply Inventory

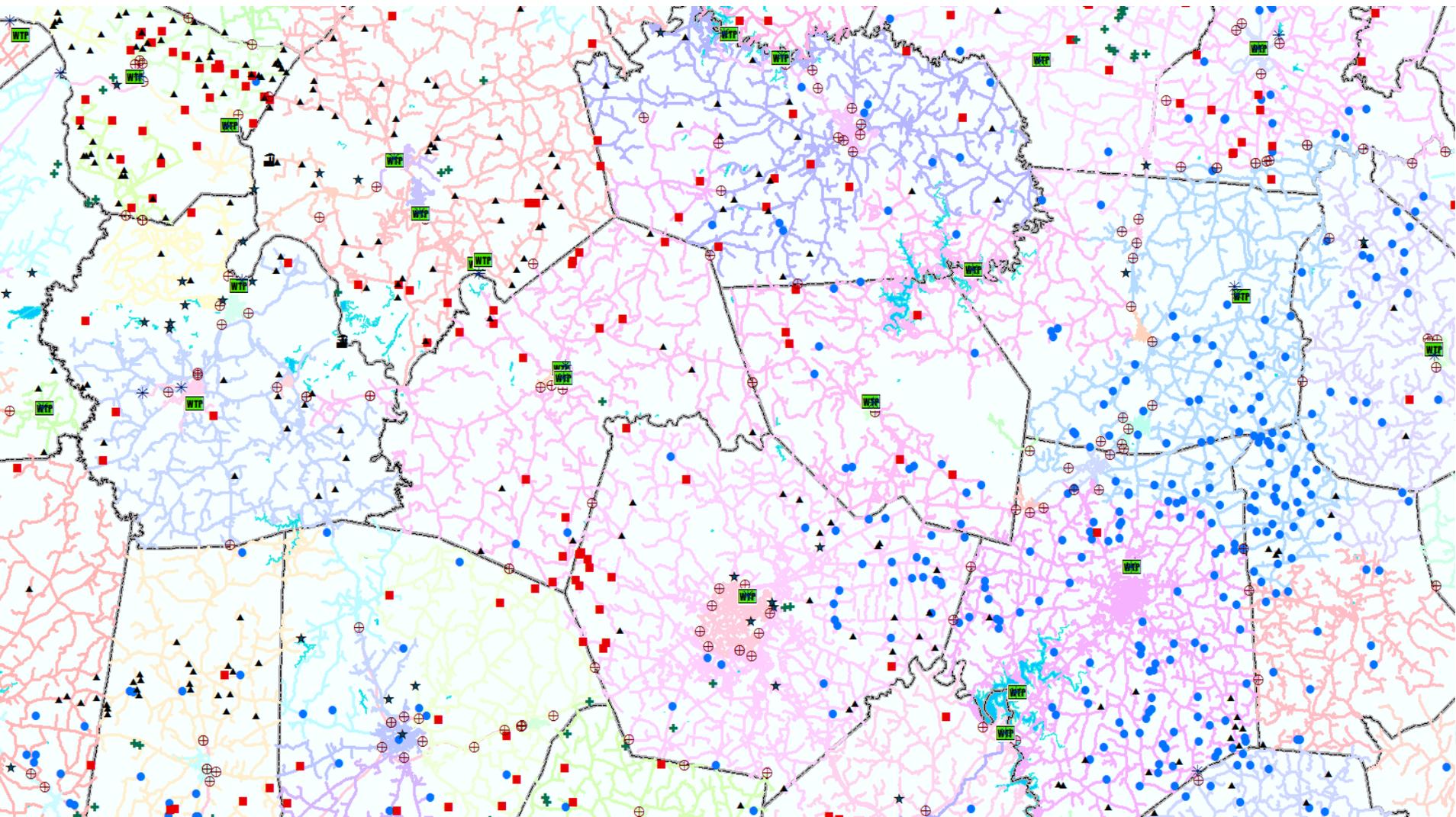
- * Public Water Supply
- WT Water Treatment Plants
- ★ Other Regulated



Energy and Agriculture Water Demand

- ◆ Irrigation
- Thermolectric
- ▲ Poultry Houses
- Hogs
- Dairy







U.S. ARMY CORPS OF ENGINEERS

States, local governments and Native American Tribes often have needs in planning for water and related resources of a drainage basin or larger region of a state, for which the Corps of Engineers has expertise.

Authority and Scope. Section 22 of the Water Resources Development Act (WRDA) of 1974, as amended, provides authority for the Corps of Engineers to assist the States, local governments, Native American Tribes and other non-Federal entities, in the preparation of comprehensive plans for the development and conservation of water and related land resources.

Program Development. The needed planning assistance is determined by the individual States and Tribes. Typical studies are only undertaken at the planning level of detail; they do not include detailed design for project construction. The studies generally involve the analysis of existing data for planning purposes using standard engineering techniques although some data collection is often necessary. Most studies become the basis for State or Tribal and local planning decisions.

Typical Studies. The program can encompass many types of studies, dealing with water resources issues. Types of studies conducted in recent years under the program include the following:

- Water Supply and Demand Studies
- Water Quality Studies
- Environmental Conservation/Restoration Studies
- Wetlands Evaluation Studies
- Dam Safety/Failure Studies
- Flood Risk Management Studies
- Flood Plain Management Studies
- Coastal Zone Management/Protection Studies
- Harbor/Port Studies



Fadwood Creek flow capacity study

Planning Assistance to States

BUILDING STRONG[®]



Eau Claire River watershed study for water quality

Funding. The Planning Assistance to States program is funded annually by Congress. Federal allotments for each State or Tribe from the nation-wide appropriation are limited to \$2,000,000 annually, but typically are much less. Individual studies, of which there may be more than one per State or Tribe per year, are cost shared on a 50 percent Federal - 50 percent non-Federal basis (may include 100% work in kind).

How to Request Assistance. State, local government and Tribal officials who are interested in obtaining planning assistance under this Program can contact the appropriate USACE office for further details. Alternatively, interested parties can contact the appropriate State or Tribal Planning Assistance to States coordinator to request assistance. In either case, USACE will coordinate all requests for assistance with the State or Tribal Planning Assistance to States coordinator to ensure that studies are initiated on State or Tribal prioritized needs.

Point of Contact for Factsheet:

Maria Wegner-Johnson
USACE Headquarters
202-761-5541

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