Water Resources Board

February 02, 2017

Department for Environmental Protection
Energy and Environment Cabinet

To Protect and Enhance Kentucky’s Environment

Kentucky

UNBRIDLED SPIRIT
<table>
<thead>
<tr>
<th>Project Profiles</th>
<th>Project Title</th>
<th>Project Duration</th>
<th>Annual Cost</th>
<th>Score</th>
<th>Minimum</th>
<th>Maximum</th>
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</thead>
<tbody>
<tr>
<td>DOW-1</td>
<td>State Water Plan Initial Project Profile (see separate attachment)</td>
<td>5 year</td>
<td>$130,000</td>
<td>1.4</td>
<td>1</td>
<td>3</td>
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<tr>
<td>KGS-1</td>
<td>Kentucky Groundwater Observation Network</td>
<td>3 year</td>
<td>$122,000</td>
<td>2.2</td>
<td>1</td>
<td>3</td>
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<tr>
<td>WKU-1</td>
<td>Kentucky Mesonet Station Acquisition and Installation</td>
<td>5 year</td>
<td>$45,000</td>
<td>4.8</td>
<td>3</td>
<td>7</td>
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<td>WKU-2</td>
<td>Kentucky Mesonet Soil Monitoring</td>
<td>2 year</td>
<td>$36,000</td>
<td>4.8</td>
<td>2</td>
<td>8</td>
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<td>USGS-2</td>
<td>Streamflow Gaging Stations in Critical Areas with Existing Data Gaps</td>
<td>3 year</td>
<td>$90,000</td>
<td>4.3</td>
<td>1</td>
<td>9</td>
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<tr>
<td>USGS-1</td>
<td>Agricultural and Drought Data Management and Integration Application for Kentucky</td>
<td>1 year</td>
<td>$40,000</td>
<td>5.8</td>
<td>2</td>
<td>9</td>
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<tr>
<td>UK-1</td>
<td>Stormwater management, Water Harvesting, and the LEAF Program</td>
<td>Variable</td>
<td>$20,000 - $130,000</td>
<td>6.3</td>
<td>4</td>
<td>9</td>
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<tr>
<td>WKU-3</td>
<td>Kentucky Mesonet Precipitation Monitoring</td>
<td>2 year</td>
<td>$124,000</td>
<td>7.3</td>
<td>3</td>
<td>11</td>
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<tr>
<td>KGS-2</td>
<td>A Groundwater Withdrawal Assessment Tool for the Jackson Purchase Region</td>
<td>1 year</td>
<td>$50,000</td>
<td>7.5</td>
<td>5</td>
<td>11</td>
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<tr>
<td>USGS-3</td>
<td>Water Quality Monitoring Stations to Better Quantify Nutrient Loading from Kentucky</td>
<td>3 year</td>
<td>$276,000</td>
<td>8.0</td>
<td>3</td>
<td>11</td>
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<tr>
<td>WKU-4</td>
<td>Summaries, Forecasts and Outlooks</td>
<td>2 year</td>
<td>$200,000</td>
<td>9.2</td>
<td>5</td>
<td>11</td>
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</table>
Working committees

- Technical Data Committee
- Roadmap Committee
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 Goodmann
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
Total Water Use in Kentucky** *(excluding thermoelectric power generation)*

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

<table>
<thead>
<tr>
<th>Use Type</th>
<th>Water Use (MGD)</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industrial</td>
<td>134 MGD</td>
<td>24%</td>
</tr>
<tr>
<td>Public Supply</td>
<td>54 MGD</td>
<td>10%</td>
</tr>
<tr>
<td>Irrigation</td>
<td>28 MGD</td>
<td>5%</td>
</tr>
<tr>
<td>Mining</td>
<td>21 MGD</td>
<td>4%</td>
</tr>
<tr>
<td>Domestic Use</td>
<td>11 MGD</td>
<td>2%</td>
</tr>
<tr>
<td>Aquaculture</td>
<td>9 MGD</td>
<td>1%</td>
</tr>
<tr>
<td>Livestock</td>
<td>4 MGD</td>
<td>1%</td>
</tr>
<tr>
<td>Commercial</td>
<td>1 MGD</td>
<td>0.2%</td>
</tr>
</tbody>
</table>

* Estimated
** Water Use data for the period July 01, 2013 - June 30, 2014.
Values are in million gallons per day (MGD) and percent of total use (0%).

County Cattle Numbers

<table>
<thead>
<tr>
<th>COW_TOT</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 - 7000</td>
</tr>
<tr>
<td>7001 - 15000</td>
</tr>
<tr>
<td>15001 - 30000</td>
</tr>
<tr>
<td>30001 - 45000</td>
</tr>
<tr>
<td>45001 - 90000</td>
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</tbody>
</table>

Kentucky

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Kentucky UNBRIDLED SPIRIT
Regulated Water Supply Inventory

- Public Water Supply
- Water Treatment Plants
- Other Regulated
Planning Assistance to States

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.

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
- Dams/Reservoir Failure Studies
- Flood Risk Management Studies
- Floodplain Management Studies
- Coastal Zone Management/Protection Studies
- Harbor/Port Studies

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).