Planning for Water Projects in Kentucky: Implementation of Senate Bill 409

Program Review and Investigations Committee

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Foreword

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Robert Sherman
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Legislative Research Commission
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Overview of Senate Bill 409 and Water Planning

In 2004, the Program Review and Investigations Committee voted to initiate a study examining the implementation of Senate Bill 409 and the usefulness of Kentucky's Six-Year Highway Plan as a model for planning for water facilities.

SB 409 (2000 Regular Session) created a structured planning process for water services in Kentucky. It designates the Kentucky Infrastructure Authority (KIA) as the state agency responsible for developing a program that would make potable water available to all Kentuckians by 2020. SB 409 also encourages regionalization, consolidation, and merger of water systems. The law mandates the creation of water management planning councils to facilitate regional water planning.

In 2000, House Bill 502 provided $50 million in initial funding for the program, which KIA has administered through the 2020 Account. The General Assembly has since authorized more than $300 million for water and wastewater projects through other accounts. The KIA administers this funding, but projects are not chosen using the same procedures established in SB 409 and used for the 2020 Account projects.

In the course of planning water projects, both KIA and the Kentucky Division of Water are usually involved. KIA is responsible for every water project that seeks state or federal funds. The Division of Water is the regulatory agency whose approval is usually required for water and wastewater projects to commence.

In the planning process established by SB 409, area development districts' water coordinators enter proposed projects into project profile forms prescribed by KIA. Water project proposals are then presented to a water management planning council, which reviews them and prioritizes projects. Once local projects have been reviewed and prioritized, the next step involves combining separate planning council project proposals into a regional water plan. If multiple water management planning councils operate within one district, the district combines and prioritizes all the projects. Methods to prioritize and rank projects vary among the 15 area development districts.

KIA staff review the 15 area development district plans and consolidate them. Currently, they do not rank the water projects but review them for consistency with SB 409's objectives. Project proposals are then subject to initial regulatory review, and potential funding sources are notified.

Program Review staff compared Kentucky's policies and processes for water planning to those of six other states. Kentucky ranks at the top. Kentucky is one of only two states in the group that encourage service expansion and regionalization and prioritize funding from multiple federal/state funds to further these goals too. Kentucky is also among the

states in which the highest level of planning for water projects is at the regional or state level, not the local level.

Overview of the Six-Year Highway Plan

The Statewide Transportation Plan, which includes the Six-Year Highway Plan, is developed by the Transportation Cabinet, with input from others. The General Assembly enacts the first two years of the six-year plan each biennium, usually with some modification.

The 15 area development districts initially receive detailed project proposals from local officials, regional planning agencies, highway district offices, state agency officials, transportation planning committees, and residents. The area development districts compile proposals into an Unscheduled Needs List. There are no standardized criteria commonly used for prioritization of projects.

The Transportation Cabinet considers the recommendations of area development districts, metropolitan planning organizations, and highway district offices, along with the needs and goals of the state, and assigns a statewide priority to each project in the Unscheduled Needs List. The priority that the cabinet places on a highway project determines the order in which it will be incorporated into the Six-Year Highway Plan. As part of the biennial budget process, the governor can make changes to the highway plan. The General Assembly then makes adjustments to the first two years of the highway plan in the budgeting process and can add projects that were not part of the proposed plan.

In a general sense, planning for highway and water projects is similar. Both processes involve significant input from local and regional entities, with prioritization and approval of projects at the state level. Highway and water projects can have multiple sources of funding, involving the state and federal governments.

Each type of project has a long-term plan. The Statewide Transportation Plan covers a 20-year period. The goals established in SB 409 can be considered the long-term plan for water projects. A difference is that the statewide Transportation Plan is updated periodically; the goals of SB 409 are set. Highway projects involve short-term (biennial budget) and middle-term (Six-Year Highway Plan) planning. Each plan is updated over time. Water projects are also typically funded each biennium. There is no equivalent to the six-year plan for water projects. The plans developed by the water management planning councils do contain water needs forecasts for different periods up to 20 years in the future. Area development districts are required to review these plans annually, but there is no explicit requirement to periodically update them.

There are dedicated government revenue sources for highways, but not for water projects. Water projects do provide service to consumers who pay directly for the service.

Implementation of Senate Bill 409

SB 409 created 12 mandates for KIA. Four mandates have been fully implemented and six have been partially implemented. It is unclear whether two others have been implemented.

The consensus from water personnel in the field is that KIA is doing a credible job meeting their financial and administrative needs. However, some concern was expressed that KIA needs to streamline the application process for state-funded projects to make it less cumbersome and time consuming.

KIA established eligibility requirements and criteria for selecting projects to be funded through the 2020 Account. KIA ranked water projects according to the number of households served, the number of water systems involved, the median household income of a project's beneficiaries, the cost per household, and the inclusion of the project in an area water management plan.

According to KIA officials, the agency stopped producing a statewide project priority list in 2003 when no additional funds were appropriated for the 2020 Account. KIA still requires the water management planning councils to prioritize drinking water and wastewater projects that seek state funding. KIA does not produce a comprehensive statewide prioritization schedule. Instead, 15 prioritization schedules are created, one for each water management planning area (each of which covers the same territory as an area development district).

In analyzing the projects funded through the 2020 Account, Program Review staff separated them into regional and nonregional groups because SB 409 established regionalization as a goal. Regional projects generally include merging, consolidating, or sharing resources among water systems. Nonregional projects generally involve one water system expanding or renovating facilities and service within one county. Compared to the typical nonregional project, the typical regional project served more households and cost less per household but received a lower share of its total project costs from 2020 funds. Of the 133 funded projects, 22 were regional (17 percent). Regional projects received $17 million (38 percent) and nonregional projects received $28 million (62 percent) of allocated 2020 Account funds.

Based on staff's analysis of project descriptions, classification of projects as regional is not necessarily consistent among area development districts. Water coordinators in each district enter project information, including whether the project is regional, into the Water Resource Information System. It appears that projects lacking any consolidation or expansion activity have sometimes been classified as regional projects.

The General Assembly, beginning with the 2002-2004 biennial budget, appropriated bond funds for designated projects using other accounts. In the 2002-2004 biennial budget, $110 million was appropriated. In the 2004-2006 biennial budget, $206 million was appropriated. Under SB 409, these projects, even though they are not funded through

the 2020 Account, still require water management planning council and water management planning area approval.

As of 2004, Kentucky had 532 water systems. Only four states had fewer. The national average was more than 3,000. The typical Kentucky system also serves more people than the national average. From 2000 to 2004, the number of public water systems in Kentucky decreased by 25 percent. Nationally, the number of water systems also declined but at a much lower rate. Most of Kentucky's decrease was among small systems and/or among systems that do not provide water service year-round.

Since 1995, somewhere between 20 and 30 water systems have merged in Kentucky each year. Given the long-term trend, it is likely that many of the systems that merged after the enactment of SB 409 would have done so anyway. However, the increase after 2000 in the percentage of systems that merged indicates that SB 409 may have accentuated this ongoing trend.

The benefit of purchasing water is that the purchasing system can forgo building and maintaining its own water treatment plant or expanding or renovating an existing one. Water systems that purchase water represent one form of regionalization as identified in SB 409. From 2000 to 2004, the share of water systems purchasing water in Kentucky rose from 30 to almost 40 percent. On the national level, the percentage of water systems purchasing water was significantly lower and was virtually unchanged over the period.

Another goal of SB 409 is to provide potable water to all Kentuckians by the year 2020. Compared to other states, Kentucky already ranks high in terms of the percentage of its population with potable water. According to data compiled by the U.S. Environmental Protection Agency, Kentucky has the third highest percentage of people with potable water in the country: approximately 90 percent. The national average is 71 percent. According to a survey of area development districts, approximately 400,000 Kentuckians were reported to lack potable water in 2004. This number appears to have decreased over recent years, but officials estimated that more than half the residents of two area development districts lack potable water. It should be noted that neither SB 409 nor regulations promulgated by KIA appear to specifically define "availability" of "potable" water.

Major Conclusions

The report has seven major conclusions.

1. The process for water planning established by SB 409 is a bottom up process. Local and regional planning bodies are to prioritize water projects and forward them to the Kentucky Infrastructure Authority for final ranking and funding. At this time, projects are prioritized within each area development district, but KIA does not prioritize projects on a statewide basis. In the past two biennia, projects also received funding

through the budgetary process without having already gone through the procedures established in SB 409.

2. Four of the 12 mandates assigned to KIA by SB 409 have been fully implemented. Most of the remaining mandates have been partially implemented.

3. Kentucky has fewer water systems than most states have, and the number of systems, especially smaller ones, continues to decrease. SB 409 appears to have accentuated an ongoing trend toward regionalization and consolidation of water systems.

4. Compared to other states, Kentucky already ranks high in terms of the percentage of its population with potable water. The percentage appears to be increasing, but there are still areas of the state in which many residents lack access. It is too early to evaluate SB 409's impact on access to potable water.

5. KIA is generally meeting the needs of local and regional entities, but many planning entities perceive that the application process for state-funded projects could be improved.

6. Compared to selected other states, Kentucky ranks at the top in terms of planning for water projects, encouraging regionalization, and encouraging expansion of water supply to unserved or underserved populations.

7. There are different time frames for planning for both highway and water projects. All types of highway plans are updated over time; not all types of plans for water projects are. At the state level, planning for highway projects seems more centralized than planning for water projects.

Recommendations

The report has six recommendations.

1.1: The Kentucky Infrastructure Authority should examine water management planning council procedures and recommend improvements to minimize the short-term impact on water systems that lose membership on a council due to merger.

2.1: The Kentucky Infrastructure Authority, in consultation with the Division of Water, water utilities, and water coordinators, should, if feasible, streamline the funding application process.

2.2: The Kentucky Infrastructure Authority should clearly define the characteristics required for a project to be classified as regional and closely monitor how projects are classified.

2.3: Taking available resources into consideration, the Kentucky Infrastructure Authority should consider producing an annual statewide funding prioritization schedule according to 200 KAR 17:080 for all water project proposals.

2.4: For the purpose of implementing SB 409's goal of making potable water available to all Kentuckians, the Kentucky Infrastructure Authority should take the lead in clarifying what "potable" and "available" mean.

2.5: The Kentucky Infrastructure Authority should work with district officials to establish and maintain a standardized set of criteria for all area development districts to use in prioritizing water projects.

Chapter 1

An Overview of Water Project Planning and This Report

This study's objectives are to examine the implementation of Senate Bill 409 and the usefulness of Kentucky's Six-Year Highway Plan as a model for water planning. SB 409 created a structured planning process for water projects. It designates the Kentucky Infrastructure Authority (KIA) as the state agency responsible for developing a program that would make potable water available to all Kentuckians by 2020. SB 409 also encourages regionalization, consolidation, and merger of water systems.

On November 9, 2004, the Program Review and Investigations Committee voted to initiate a study of the implementation of Senate Bill 409 and the usefulness of Kentucky's Six-Year Highway Plan as a model for planning for water facilities.

SB 409 (2000 Regular Session) created a structured planning process for water services in Kentucky. It designates the Kentucky Infrastructure Authority (KIA) as the state agency responsible for developing a program to make potable water available to all Kentuckians by 2020. The law empowers KIA to provide incentives to encourage the extension of water services to unserved areas and to improve water services to underserved areas. SB 409 encourages regionalization, consolidation, and merger of water systems. In 2000, House Bill 502 provided $50 million in initial funding through the Water Resources Development Bond Fund, which KIA implemented through the 2020 Account.

Through other funds, the General Assembly has since authorized more than $300 million for water and wastewater projects. KIA administers their funding, but the projects were selected by the General Assembly.

To date, the 2020 Account has been used only to fund drinking water projects. KIA requires all projects, including wastewater projects, requesting state or federal funds through the agency to follow SB 409's procedures. Several water system officials and Kentucky Division of Water officials interviewed by staff indicated uncertainty as to whether SB 409 applied to wastewater projects.

In planning for water and highway projects, local and regional planning bodies prioritize projects and forward them to the state level for final ranking and funding.

In implementing SB 409, KIA oversees a bottom up planning process whereby local and regional planning bodies prioritize water projects and forward them to the state level for final ranking and funding. SB 409 created one of the planning bodies: the water management planning council. Kentucky has 27 water management planning councils, each of which is composed of local elected officials, water utility staff, and local health department officials. Most area development districts have one council for the district.

Kentucky's Six-Year Highway Plan also involves a bottom up planning process, overseen by the Transportation Cabinet. The initial step is the Unscheduled Needs List, a database of highway projects identified by residents and local, regional, and state officials. From the listed projects, area development districts, highway district offices, and metropolitan planning organizations establish local, regional, district, and statewide priorities. Based on recommendations from these entities and the state's needs and goals, the Transportation Cabinet assigns a priority to each project.

Each biennium, the General Assembly adopts the first two years of the Six-Year Highway Plan, usually with some modification. Funding for highway improvements comes from dedicated state and federal funds. The current plan, contained in the biennial 2004-2006 budget, provides approximately $1.74 billion (FY 2005) and nearly $1.4 billion (FY 2006) in state funding for highway improvements.

Description of This Study

This report evaluates the implementation of SB 409. At this time, any conclusions to be drawn must be suggestive. First, not enough time has elapsed since its passage to fully measure SB 409's impact on such goals as regionalization and consolidation of water systems, as some projects have not been started. Second, the 2020 Account has not been funded since the initial appropriation through the Water Resources Development Bond Fund in 2000. It is unclear how effective the water project planning process will be without dedicated funding.

This report also describes the Six-Year Highway Plan and compares planning for highway and water projects.

How This Study Was Conducted

For this report, staff conducted interviews and focus groups with relevant officials and staff at the regional and state levels, collected and analyzed data, reviewed documents, and reviewed other states' water planning policies and processes.

In conducting the study, staff interviewed officials of the Kentucky Infrastructure Authority, the Division of Water, the Public Service Commission, the Transportation Cabinet, several area development districts, the Kentuckiana Regional Planning and Development Agency, the Kentucky Rural Water Association, the Louisville Metropolitan Sewer District, U.S. Department of Agriculture Rural Development-Kentucky, and the Rural Utilities Service.

Staff conducted focus groups with the Municipal Water and Wastewater Association of Kentucky and the Kentucky Section of

the American Water Works Association. Staff observed monthly meetings of the KIA board of directors. Staff also analyzed data on water system mergers and 2020 Account projects and reviewed documents such as KIA financial audit reports. Staff reviewed other states' planning processes for water projects.

All 15 area development districts completed a survey about water planning in Kentucky.

Finally, staff surveyed Kentucky's 15 area development districts to gain insight into water planning processes, to elicit feedback on the efficacy of those processes, and to obtain knowledge on the implementation of SB 409. All 15 area development districts responded.

Organization of the Report

The remainder of Chapter 1 discusses the current process for water planning in Kentucky, how SB 409 altered the planning process, how Kentucky's Six-Year Highway Plan works, and how it differs from water planning. Kentucky's water planning process is also compared to relevant policies and procedures of other states.

Chapter 2 discusses the implementation of SB 409 and presents recommendations for improvement of the water planning process.

Appendix A contains the form used to initiate a water project. Appendix B describes policies and processes for water projects in selected other states. Appendix C includes the questionnaire sent to area development districts and the survey results for each question. Appendix D is the Kentucky Infrastructure Authority's response to this report.

Major Conclusions

This report has seven major conclusions.

1. SB 409 established a bottom up planning process. At this time, projects are prioritized within each area development district, but KIA does not prioritize projects on a statewide basis. Projects can also receive funding through the budgetary process without having already gone through the procedures established in SB 409.

2. Four of the 12 mandates assigned to KIA by SB 409 have been fully implemented. Most of the remaining mandates have been partially implemented.

1. The process for water planning established by SB 409 is a bottom up process. Local and regional planning bodies are to prioritize water projects and forward them to the Kentucky Infrastructure Authority for final ranking and funding. At this time, projects are prioritized within each area development district, but KIA does not prioritize projects on a statewide basis. In the past two biennia, projects also received funding through the budgetary process without having already gone through the procedures established in SB 409.

2. Four of the 12 mandates assigned to KIA by SB 409 have been fully implemented. Most of the remaining mandates have been partially implemented.

3. Kentucky has fewer water systems than most states. SB 409 appears to have accentuated an ongoing trend toward regionalization and consolidation of water systems.

4. Compared to other states, Kentucky already ranks high in terms of the share of its population with potable water. The percentage appears to be increasing, but it is too early to evaluate SB 409's impact on access to potable water.

5. KIA is generally meeting the needs of local and regional entities, but many planning entities perceive that the funding application process could be improved.

6. Compared to selected other states, Kentucky ranks at the top in terms of planning for water projects, and encouraging regionalization and expansion of water supply to unserved or underserved populations.

7. There are different time frames for planning for both highway and water projects. All types of highway plans are updated over time; not all types of plans for water projects are. At the state level, planning for highway projects seems more centralized than is planning for water projects.

3. Kentucky has fewer water systems than most states have, and the number of systems, especially smaller ones, continues to decrease. SB 409 appears to have accentuated an ongoing trend toward regionalization and consolidation of water systems.

4. Compared to other states, Kentucky already ranks high in terms of the percentage of its population with potable water. The percentage appears to be increasing, but there are still areas of the state in which many residents lack access. It is too early to evaluate SB 409's impact on access to potable water.

5. KIA is generally meeting the needs of local and regional entities, but many planning entities perceive that the application process for state-funded projects could be improved.

6. Compared to selected other states, Kentucky ranks at the top in terms of planning for water projects, encouraging regionalization, and encouraging expansion of water supply to unserved or underserved populations.

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Overview of Planning for Water Projects

Kentucky Infrastructure Authority Funds

KIA administers several funds that may be used for the construction of water, sewer, and solid waste projects.

The Kentucky Infrastructure Authority was created in 1988 by the General Assembly to provide a mechanism for funding the construction of local public works projects, including water, sewer, and solid waste (KRS 224A). KIA administers four loan and grant programs to assist in funding these types of projects:

- Fund A (Federally Assisted Wastewater Revolving Loan Fund) helps governmental agencies construct publicly owned treatment works, implement management programs, and implement conservation and management plans according to the federal Clean Water Act. Funding is divided approximately 80/20 between the federal and state governments. Projects must comply with federal guidelines.
- Fund B (Infrastructure Revolving Fund) is used for the construction and acquisition of infrastructure projects. It is state funded. The 2020 Account is a subaccount of this fund.

- Fund C (Governmental Agencies Program) provides local governmental agencies access to the bond market at lower interest rates than they could otherwise obtain on their own.
- Fund F (Drinking Water Revolving Loan Fund) helps government agencies construct water supply projects that comply with the federal Safe Drinking Water Act. Funding is divided approximately 80/20 between the federal and state governments. Projects must comply with federal guidelines.

Beginning with the 2002-2004 biennial budget, the General Assembly also appropriated money for specific projects. Funds were divided between coal and tobacco counties with every county included in at least one group.

Planning Involves the Kentucky Infrastructure Authority and the Division of Water

Water project planning involves KIA and the Division of Water.

In the course of planning water projects, KIA and the Division of Water are usually involved. KIA is responsible for every water project that seeks state or federal funds. The Division of Water, part of the Environmental and Public Protection Cabinet, is the regulatory agency whose approval is usually required for water and wastewater projects to commence.

KIA serves as the facilitator between the area development districts, which develop and submit project proposals, and the Division of Water, which approves projects. KIA processes information received by the area development districts via a statewide database and shares information with the Division of Water.

SB 409 Altered Kentucky's Water Planning Process

SB 409 significantly altered Kentucky's water planning process.

As shown in Table 1.1, SB 409 significantly altered Kentucky's water planning process.

Table 1.1
Provisions of Senate Bill 409

Requires:
- Creation of water management planning councils
- Creation of water management areas by area development districts (ADDs)
- Creation of water management area plans by ADDs
- Creation of a statewide water management plan
- ADDs to review and prioritize water management planning councils' plans for needy areas
- Creation of a 2020 water service account within Fund B
- KIA to implement a program for providing water services with the goal of making potable water available to all Kentuckians by 2020

Establishes:
- Eligibility of investor-owned utilities for Fund B resources
- Incentive program to encourage consolidation of water systems
- Incentive program for infrastructure projects to provide service to needy areas
- Program to detect water loss from distribution lines
- Conditions for loan applicants to receive assistance for water-related infrastructure projects

Other:
- Moved KIA from the Finance and Administration Cabinet to the Office of the Governor
- Transferred the Water Resource Information System to KIA
- Granted KIA the exclusive right to promulgate regulations requiring funding applicants to provide current information and updates regarding financial, managerial, and technical aspects of their systems
- Changed the composition of the KIA Board of Directors

Sources: KRS 151; KRS 224A.

The Planning Process Established by SB 409

SB 409, as codified in KRS 151, requires that by 2001 each water management planning council develop a plan that

- includes a water needs forecast for each county for 5, 10, 15, and 20 years after the year 2000,
- includes a strategy for delivering potable water to unserved and underserved areas of the county, and
- encourages the merger and consolidation of water systems.

Each plan must be consistent with county plans mandated by legislation enacted in 1990. SB 409 requires that area development districts annually review and prioritize the councils' plans for underserved and unserved areas.

Selection of Projects

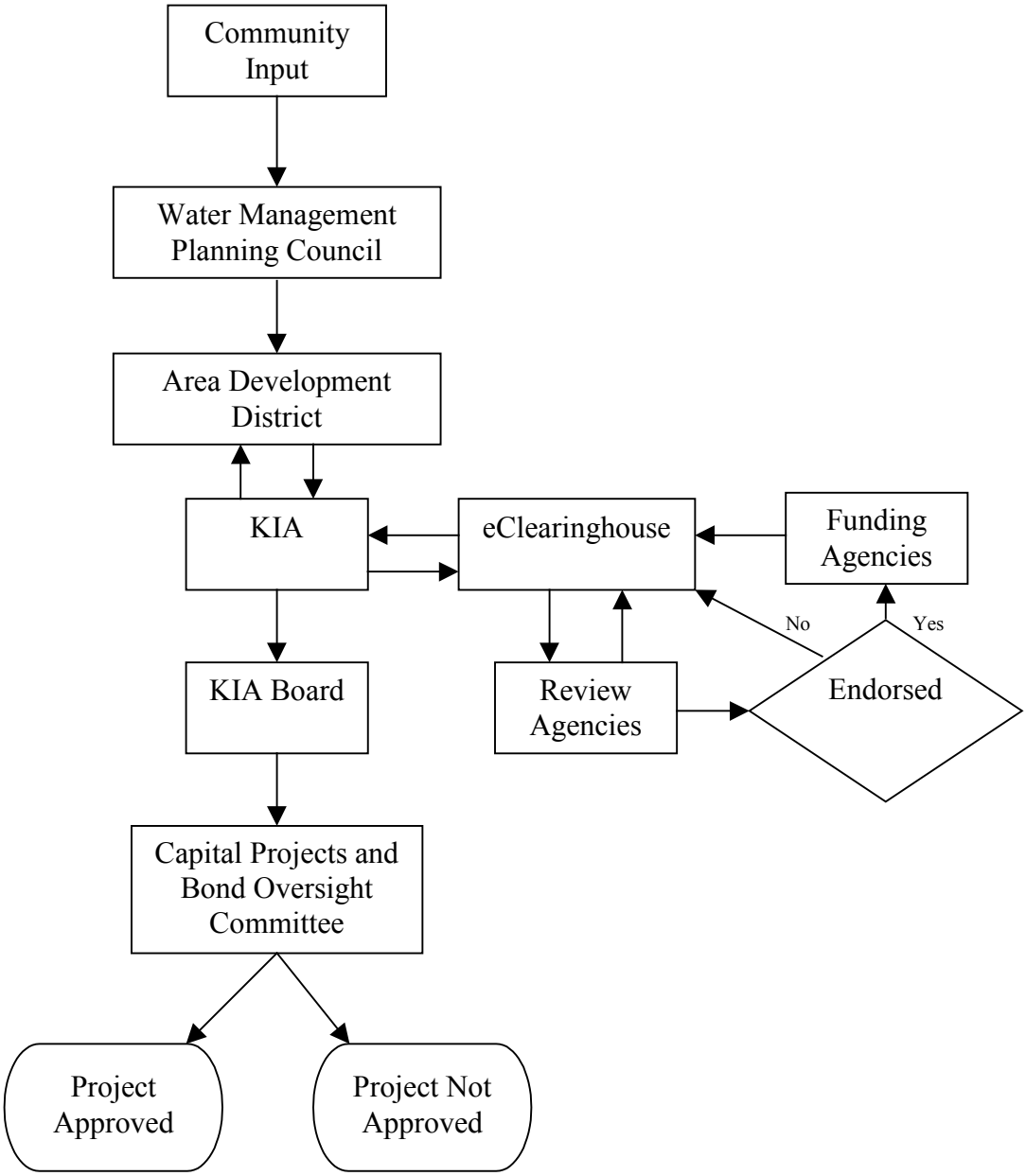
SB 409 established a planning process for water projects in Kentucky. An initial $50 million was appropriated for the program; however, no further funds have been authorized since.

KIA has implemented SB 409 to require that state-funded projects (Fund B) be developed at the local level and go through a specified local and regional planning process. The legislation also created the 2020 Account to encourage regionalization and consolidation among water distributors and to provide service to underserved and unserved households. After an initial $50 million appropriation in 2000 through the Water Resources Development Bond Fund, no additional funds have been appropriated for the account.

Projects can also receive funding through the budgetary process without having already gone through the procedures established in SB 409.

Figure 1.A shows the process established by SB 409 for funding projects. Projects can also receive funding through the budgetary process without having already gone through all these procedures. Projects funded via line-item appropriations are still required to get local and regional approval, but this can be done retroactively.

Figure 1.A
The Process Established by SB 409 for Selecting Projects



Source: Staff analysis.

Water Management Planning Councils Are Central to the Process

Water management planning councils review water project proposals and prioritize projects at the local level.

Area development district water coordinators enter proposed projects into project profile forms prescribed by KIA. (Appendix A contains the form.) A project's description, contact information, potential funding sources, and other pieces of information are collected.

Proposals are then presented to a water management planning council, which reviews and prioritizes them. Each county can have a water management planning council or multiple counties can combine to form one. According to staff's survey of area development districts, counties in northern Kentucky and the Louisville metro area comprise the few single-county water management planning councils. Most councils correspond to the counties in the area development district. Water management planning councils are staffed, including the water coordinator, by the local area development district.

The statutory requirement is for the council to consist of a county judge/executive or mayor of an urban-county government, one representative from each community public water system in the area, one representative from the local county health department, and one representative selected by each first-, second-, third-, and fourth-class city that is not a water supplier or distributor. Each county judge/executive or mayor may appoint an individual to represent a county or urban-county government area that is unrepresented on the council. Across the state, the number of members per council ranges from 21 to 114.

Water System Mergers Affect Council Membership. Each community water system is granted one seat on its local water management planning council. Water systems that merge lose seats. For example, if two community water systems merge, one seat is eliminated.

Two or more water systems considering a proposal to merge must consider the loss of representation on the water management planning council, which could affect the decision to merge.

Recommendation 1.1

The Kentucky Infrastructure Authority should examine water management planning council procedures and recommend improvements to minimize the short-term impact on water systems that lose membership on a council due to merger.

Area Development Districts Coordinate Regional Planning

Area development districts develop proposals from water management planning councils into regional plans.

Once local projects have been reviewed and prioritized, the next step involves combining separate water management planning council project proposals into a regional water plan. For area development districts that have only one planning council, this process has already occurred. Water management planning council members have already reviewed and prioritized projects for the entire region. Where multiple councils operate within one area development district, the district combines and prioritizes all the projects.

Prioritization and ranking methods vary among the 15 area development districts. For example, 11 area development districts reported that cost per household was a factor in ranking projects; 4 reported that it was not. After the district prioritizes the projects, it submits a regional plan to KIA by October 30 each year.

KIA Is the Statewide Facilitator of Water Planning

Water service coordinators from each area development district enter each approved water project into the Water Resource Information System, a statewide database that includes information on water resources, drinking water systems, wastewater treatment systems, project development, emergency response, regulations, and planning. The utility involved in the project reviews and signs off on the information before it is submitted.

KIA reviews area development districts' plans and consolidates them, but there is currently no statewide ranking of water projects.

KIA staff review and consolidate the 15 area development district plans. Currently, they do not rank the water projects. Projects are only reviewed for consistency with SB 409's objectives, such as regionalization.

Project proposals then go to an automated electronic system called eClearinghouse for an initial regulatory review and notification of potential funding sources about the project. Projects are also sent to the KIA Board of Directors for review.

The eClearinghouse Facilitates Regulatory and Financial Processes

Water projects require various regulatory approvals. They also generally require financing from multiple sources.

To facilitate the regulatory and financial processes, each water project proposal for which federal or state funding is sought goes to the eClearinghouse. This is an automated electronic system for exchanging information regarding regulatory and financial processes.

To facilitate the regulatory and financial processes, each water project proposal for which federal or state funding is sought goes to the eClearinghouse.[1] All relevant Kentucky regulatory agencies receive a notice about the proposed water project. These agencies include the Office of Housing, Buildings, and Construction of the Department of Environmental Protection in the Environmental and Public Protection Cabinet; the Transportation Cabinet; the Heritage Council; the Department of Labor; the Cabinet for Health and Family Services; the Office of Policy and Management; and the area development districts. Within a limited period of time, these agencies endorse, conditionally endorse, or do not endorse each proposed project. These decisions represent initial findings and do not signal conclusive approval or disapproval of the project. Final regulatory approval comes after funding has been approved.

Endorsed and conditionally endorsed projects are forwarded to financing agencies. These agencies review and may correspond in order to collaborate and pool funding. Funding decisions flow back through the eClearinghouse to KIA and the area development districts.

To illustrate the process, Table 1.2 presents an example of a water project that was prioritized by the Cumberland Valley Area Development District in June 2001 and subsequently received funding.

In this example, Cumberland Valley's prioritization process began with the project proposal. Among other criteria, the area development district scored the proposed project according to the total number of households and the number of unserved and/or underserved households that the project was intended to benefit, whether or not the project was regional (regional projects receive more points), and the median income of the service areas (projects for areas with a median income below the district's median receive more points). The area development district used the number of households to be served to break ties.

[1] Projects funded with 100 percent local funds, fees, or private bond sale do not require eClearinghouse review.

Each county prioritizes its proposed projects from 1 to 10. The county takes each project's score into account but ultimately bases its rankings on financial feasibility and perceived need. The water management planning council follows the same procedure as the counties. The council ranks each county's number one project, then repeats this process to rank the number two project. The council then forwards the two lists to KIA. Since the Cumberland Valley Area Development District covers eight counties, it ranked the number one projects from 1 to 8 and the number two projects from 9 to 16.

Table 1.2
Example of a Funded Water Project

Project Number: WX21095641

Legal Applicant: Harlan County Fiscal Court

Points Scored: 20 (of a possible 27)

County Ranking: 1

Regional Ranking: 1

Project Title: Water Line Extension to Surrounding Area of Evarts

Project Description: Install 3", 4", 6", and 8" water lines with fire hydrants to the following areas surrounding the cities of Evarts, Shields, Darkmont, River Ridge, Highsplint, Shorttown, and Jones Creek and connect to Black Mountain service area and Louellen. The project consists of approximately 18 miles of water lines and 2 storage tanks. Also serves Verda/Jones Creek area.

Median Household Income of Service Area: $12,500

Number of Households: 654 (unserved), 737 (underserved)

Project Start Schedule: 0-2 years

Amount Requested: $3,457,963

Amount Funded: $500,000

Line Length in Feet: 96,050

Source: Cumberland Valley Area Development District.

The example project that went through this process is one proposed by the city of Evarts to extend water lines to unserved and underserved areas surrounding the city. The city water system defined the project as being nonregional and gave it a score of 20 out of 27 possible points. The Cumberland Valley Area Development District’s priority system designates a project that scores between 20 and 27 points as being high priority. Harlan County ranked the project as its number one priority. The

Cumberland Valley Water Management Planning Council gave the project a regional ranking of 1. Of eight number one priority projects in the Cumberland Valley district, this is the only one that received funding.

Overview of the Six-Year Highway Plan

One of the objectives of this study is to examine the usefulness of Kentucky's Six-Year Highway Plan as a model for planning for water facilities. The next section of the report provides a description of the six-year plan and then compares planning for highway and water projects.

The Six-Year Highway Plan is part of the long-term Statewide Transportation Plan.

The Statewide Transportation Plan, which includes the Six-Year Highway Plan, is developed by the Transportation Cabinet, with input from others.

The Six-Year Highway Plan involves the area development districts and highway district offices establishing local, regional, district, and statewide priorities from the Unscheduled Needs List, a database of highway projects identified by local officials, regional planning agencies, highway district offices, state agency officials, area development districts, and residents.

The Transportation Cabinet engages in both long-term and short-term highway planning. The Statewide Transportation Plan covers 20 years and includes all air, water, and road transportation. The long-range plan does not list specific projects; the adopted Six-Year Highway Plan does. Both documents set transportation priorities. Both plans are recommendations made to the General Assembly, which ultimately determines the projects to be funded and implemented.

There have been several updates to the highway plan since the beginning of such plans in 1992. It is updated every two years, with the next update due in 2006. The General Assembly adopts the first two years of the six-year plan each biennium, usually with some modification.

The Highway Planning Process

Area development districts and metropolitan planning organizations are involved in the highway planning process. Some use standardized, comprehensive criteria to prioritize projects, but most do not. Planning at the state level is centralized in the Transportation Cabinet.

The 15 area development districts receive project proposals from local officials, regional planning agencies, highway district offices, state agency officials, area development districts' transportation planning committees, and residents. Each proposal includes a Project Identification Form, which contains detailed technical and financial information. The area development districts compile the proposed projects into an Unscheduled Needs List.

Projects of metropolitan planning organizations are also included in the plan. These are transportation planning organizations composed of local government officials and transportation

authorities. Kentucky has nine metropolitan planning organizations, which are mandated by federal law for each urbanized area having a population of more than 50,000.

Standardized, Comprehensive Criteria To Prioritize Projects Are Not Commonly Used. There are no standardized criteria for prioritization of projects used throughout the state; although, there has been discussion at the Transportation Cabinet about imposing statewide criteria. Staff could only confirm that one of the area development districts and four metropolitan planning organizations use a systematic project prioritization system.

The most systematic method used is based on a numerical scoring process that rates a project along eight dimensions: traffic mobility, access, connectivity of existing roads, safety, environment, economic development, commitment of previous resources, and public input.

Points are assigned for each dimension and once all the projects are scored, the priority projects are identified. Each state-maintained project has its own Project Identification File, which includes its cost estimate. County and city projects also have cost estimates from their respective sources. With the top-scoring projects ranked in descending order based on score, affordability is considered based on past spending trends.

Scored and ranked projects are then divided into three tiers. Tier I is for projects with estimated costs less than $1.5 million. Tier II is for projects in the $1.5 to $10 million range. Tier III is for projects that cost more than $10 million. Within each tier, projects are classified into high, medium, and low priority and one-third of funds are allocated to each category. Prioritized project lists from area development districts and metropolitan planning organizations go to the highway district offices and then to the Transportation Cabinet.

The Transportation Cabinet assigns a statewide priority to each highway project in the Unscheduled Needs List.

State-level Planning and Funding. The Transportation Cabinet considers the recommendations of area development districts, metropolitan planning organizations, and highway district offices, along with the needs and goals of the state, and assigns a statewide priority to each project in the Unscheduled Needs List. The priority that the Transportation Cabinet assigns a project determines the order in which it will be incorporated into the recommended Six-Year Highway Plan. The governor can make changes to the highway plan during the biennial budget process. The General Assembly then makes adjustments to the highway plan in the

budgeting process and can add projects that were not part of the proposed plan.

The Transportation Cabinet coordinates to some degree with the U.S. Congress, which includes line items for highway projects when making appropriations. When projects for Kentucky are included, the Transportation Cabinet makes sure that the projects are part of the Six-Year Highway Plan as well.

The Six-Year Highway Plan typically contains more projects than could be funded at typical levels of legislative appropriations.

The general consensus among highway planners is that the current Six-Year Highway Plan is "overprogrammed" by approximately $1.3 billion, which means there are more projects in the plan than could be funded at typical levels of legislative appropriations. According to a Transportation Cabinet official and two regional highway planners, in practice it would take approximately 12 years to fund the plan's projects based on current funding levels.

A Comparison of Planning for Highway and Water Projects

Highway and water planning both involve significant input from local and regional entities, with prioritization and approval of projects at the state level.

In a general sense, planning for highway and water projects is similar. Both planning processes involve significant input from local and regional entities, with prioritization and approval of projects at the state level. Highway and water projects can have multiple sources of funding, involving the state and federal governments.

Each type of project has a long-term plan. The Statewide Transportation Plan covers a 20-year period. The goals established in SB 409 can be considered the long-term plan for water projects. A difference is that the Transportation Plan is updated periodically. Unless the General Assembly enacts new legislation, the goals of SB 409 are set.

Highway projects involve short-term (biennial budget), middle-term (Six-Year Highway Plan), and long-term (Statewide Transportation Plan) planning. The goals of SB 409 may be considered the long-range plan for water projects. Water projects have no equivalent to the six-year highway plan. Planning at the state level appears more centralized for highway projects than for water projects.

Highway projects involve short-term (biennial budget) and middle-term (Six-Year Highway Plan) planning. Each plan is updated over time. Water projects have not been included in the Executive Branch Budget Recommendations but are typically funded each biennium. There is no equivalent to the six-year plan for water projects. The plans developed by the water management planning councils do contain water needs forecasts for different periods up to 20 years in the future. Area development districts are required to annually review these plans, but there is no explicit requirement to periodically update them.

There appear to be more local and regional actors involved in planning for highway projects. At the state level, highway planning is centralized in the Transportation Cabinet. Planning for water projects involves KIA and the Division of Water.

As a group, highway projects have dedicated government revenue streams. Water projects do not, but do deliver services that are usually paid for by consumers.

Finally, there are key differences in the nature of highway and water projects. Highway projects have dedicated revenue streams from both the federal government and the state. Section 230 of the Kentucky Constitution forbids spending revenues derived from the excise tax on motor fuels and other road-related sources on anything other than purposes related to highway transportation. Water projects have no such dedicated government revenue sources. Water projects do, however, have a private revenue source. Water systems deliver services that are usually paid for by consumers. Except for the occasional toll road, highway projects do not.

A Comparison With Other States

Kentucky's water planning and financing policies were compared to those of six other states. Kentucky's policies for water project planning are similar to those of the model state Texas.

The final section of Chapter 1 compares Kentucky's water planning and financing policies to those of six other states: Alabama, Arkansas, Illinois, Tennessee, Texas, and West Virginia. Five of the other states were chosen for their proximity and/or similarity to Kentucky. Texas was selected because many experts regard its water planning and financing policies as models. (Appendix B provides further detail on the six states used for comparison.)

Kentucky and the other states were compared based on whether

- policies encourage service expansion to unserved and underserved populations,
- policies encourage regionalization,
- planning occurs primarily at the local level or at the regional or state level, and
- ranking systems for projects funded from three federal/state funds encourage regionalization and/or expansion of service.[2]

[2] States were classified based only on policies directly related to each criterion. For example, a state would be classified as encouraging regionalization if a funding formula awarded more points for regional projects. A policy of not funding duplicative projects could, but not necessarily, favor regional projects. In itself, this would not provide sufficient evidence to classify a state as favoring regionalization.

As shown in Table 1.3, Kentucky's policies for water project planning are similar to those of the model state Texas. Kentucky and Texas are the only states that encourage service expansion and regionalization, and prioritize funding from multiple federal/state funds to further these goals too. Along with Texas and two other states, the highest levels of planning for water projects in Kentucky are the regional or state level, not the local level.

Table 1.3
Summary Comparison of Planning for Water Projects in Kentucky and Six Other States

	KY	AL	AR	IL	TN	TX	WV
Expansion of service to unserved and underserved populations encouraged	√			√		√	√
Regionalization encouraged	√					√	√
State- and/or regional-level planning	√		√			√	√
Federal/state funds prioritized to encourage service expansion and/or regionalization:							
Drinking Water State Revolving Fund	√	√	√			√	
Clean Water State Revolving Fund	√					√	
Community Development Block Grant	√						

Source: Staff analysis.

Expansion of Service to Unserved and Underserved Populations

Kentucky is among the states with policies that encourage regionalization and the expansion of water service to unserved and underserved populations.

Kentucky, Illinois, Texas, and West Virginia have policies that encourage the expansion of water service to unserved and underserved populations. Kentucky and West Virginia have priority systems that heavily weight projects that provide service to these populations. Illinois and Texas have funds that are dedicated to such projects (Dean; Hughes; Loop; Mallory; Bowers; Cox; Keck; State of Arkansas. Soil; State of Texas. Water. "Economically").[3]

[3] For this paragraph and the next, the listed sources provide information on all states mentioned as having policies encouraging expansion of service or regionalization. The sources also document which states do not have such policies.

Regionalization

Three states have policies to promote regionalization. In Kentucky, regionalization is one of the goals of SB 409. Texas has funding programs and regulations that encourage regionalization. In West Virginia, the Infrastructure and Jobs Development Council and other state agencies consider the degree to which projects encourage effective and efficient consolidation of water or sewage treatment systems (Dean; Hughes; Loop; Cox; Keck; Mallory; State of West Virginia; State of Texas. Water. "State" and "Texas"; State of Texas. Commission).

State or Regional Planning

Kentucky is similar to three other states in that the highest level of water planning is at the regional or state level.

In Kentucky, Arkansas, Texas, and West Virginia, the highest level of planning occurs at the state and/or regional levels (Loop; Mallory; Mullican). In Texas, regional plans, which involve water supply and demand forecasts and recommended projects, are incorporated into a statewide plan. The regional plans and the statewide plan cover a 50-year horizon and are updated every five years. This is the only practice discovered in the course of the study that resembles Kentucky's transportation planning process. West Virginia's process resembles Kentucky's in that planning is carried out primarily at the regional level, but the selection of projects is influenced by substantial state funding and the associated state policies. In Alabama, Illinois, and Tennessee, planning is implemented primarily at the local level (Dean; Hughes; Cox; Keck).

Implementation of Federal/State Funds

Among states selected for comparison, Kentucky is the only one that uses all three federal/state funds to encourage regionalization or expansion of services to unserved and underserved populations.

Staff also compared Kentucky and six other states as to how they implemented three shared federal/state funding mechanisms for water projects. (Appendix B contains more detailed descriptions of the three funds.) The Drinking Water State Revolving Fund and the Clean Water State Revolving Fund are administered by states, with approximately 80 percent of the funds provided by the federal government (U.S. Environmental. Office of Ground Water. *Prioritizing*; U.S. Environmental. Office of Water. *Financing* 2).[4] Water projects may also be funded through the Community Development Block Grant. This program, administered by the U.S. Department of Housing and Urban Development, distributes federal funds to large cities. All other cities apply to the Small

[4] In implementing the funds, states may refer to them by different names. Kentucky's versions of the two funds are the Drinking Water Revolving Loan Fund and the Federally Assisted Wastewater Revolving Loan Fund.

Community Block Grant programs that are administered at the state level (U.S. Dept. of Housing and Urban Development).

For each fund, states must prioritize projects to receive funding and there may be specific criteria that must be considered, but states may also consider additional criteria (U.S. Environmental. Office of Ground Water. *Prioritizing* 3; U.S. Environmental. Office of Water. *Financing* 2-5). Program Review staff analyzed the procedures of each of the states to determine whether those criteria explicitly included regionalization or expansion of services to unserved or underserved populations.

Drinking Water State Revolving Fund. The priority ranking systems of Kentucky, Alabama, Arkansas, and Texas provide explicit incentives for regionalization (U.S. Environmental. Office of Ground Water. *Prioritizing*). Other states have policies that could result in increased regionalization or expansion of service. The West Virginia Infrastructure and Jobs Development Council typically does not consider duplicative projects for any type of funding, including the Drinking Water Revolving Loan Fund (Mallory). None of the states in the study explicitly assigns high priority to projects that extend public water service, but they do heavily weight projects that address public health concerns (U.S. Environmental. Office of Ground Water. *Prioritizing*). This practice could be favorable to projects that extend service to unserved populations and improve service to underserved populations.

Clean Water State Revolving Fund. Kentucky and Texas are the only states in the study with Clean Water prioritization systems that explicitly encourage regionalization. Most of the states in the study prioritize wastewater projects according to the environmental concerns that they are intended to address. This can be, but is not necessarily, conducive to projects that extend service to unserved or underserved populations (200 KAR 17:50; White; Fenter; State of Illinois. Joint Committee. “Section 110.80” and “Section 366.104”; State of Tennessee. Dept. of Environment; State of Texas. Water. "Chapter 375").[5]

Community Development Block Grant. None of the states in the study has Community Development Block Grant priority systems that explicitly favor the extension of service to unserved and

[5] For this paragraph and the next, the listed sources provide information on all states mentioned as using these funds to encourage expansion of service or regionalization. The sources also document which states do not use the funds to encourage expansion of service or regionalization.

underserved populations. Kentucky's Small Communities Development Block Grant program does assign higher priority to regional projects (Commonwealth. Governor’s Office; State of Alabama; State of Arkansas. Dept. of Economic Development; State of Illinois. Joint Committee. "Section 110"; State of Tennessee. Dept. of Economic; State of Texas. Office.).

Chapter 2

Implementation of Senate Bill 409

This chapter discusses the implementation of SB 409 by examining KIA's role in the water planning process, by analyzing information on regionalization and consolidation of water systems in Kentucky, and by describing Kentuckians' access to potable water.

Most of KIA's Mandates Under SB 409 Have Been Partially or Fully Implemented

SB 409 created 12 mandates for KIA. Four mandates have been fully implemented and six have been partially implemented. It is unclear whether two others have been implemented.

SB 409, as codified in KRS 224A, created 12 mandates for KIA. The statute also includes language suggesting actions that KIA could take, but does not necessarily have to take. Table 2.1 documents KIA's mandates under SB 409 and whether they have been implemented over the past five years.

Based on staff's analysis of available information, four of the mandates have been fully implemented:

- promulgating regulations requiring project applicants to provide financial, managerial, and technical information;
- managing the 2020 Account;
- requiring conditions for receiving financial assistance; and
- requiring input on infrastructure projects from area development districts.

Six mandates have been partially implemented. It is unclear whether mandates have been implemented to target water systems meeting certain requirements and to create a program allocating 2020 Account funds to needy areas.

Table 2.1
Implementation of Provisions of SB 409 by the Kentucky Infrastructure Authority

Mandate	Progress	Implementation?
1. Notify government agencies about Fund B money	KIA officials have stated that Fund B is not marketed actively now due to limited resources. KIA reserves loans from this fund for applicants for which it is most suitable or for those not qualifying for other funds.	Partial
2. Implement program for provision of water services	KIA has implemented this program with an emphasis on unserved areas. It is less clear whether underserved areas have been targeted.	Partial
3. Promulgate regulations requiring applicants to provide information	KIA has regulations in place requiring this information: 200 KAR 17:080 sec. 5(1).	Full
4. Manage 2020 Account	KIA has managed the 2020 Account using the initial $50 million appropriation to the Water Resources Development Bond Fund from HB 502. No further appropriations have been made. [200 KAR 17:080]	Full
5. Require conditions for receiving financial assistance	Established in KRS 224A.306(1).	Full
6. Require applicants to use same accounting system	KIA officials stated that there has been some resistance by funding recipients to use a uniform system of accounting and charge cost-based rates for service. It is unclear if there have been efforts to compel compliance with this requirement.	Partial
7. Create program helping government agencies detect water loss	According to KIA officials, the Water Loss Detection Program was initially funded from the 2020 Account. The program was set aside because no further funds have been allocated.	Partial
8. Create program encouraging mergers/ consolidation	Officials indicated that KIA initially financed incentives for consolidation from the 2020 Account. KIA has since recommended consolidation in limited instances.	Partial
9. Target water systems meeting certain requirements	It is unclear whether this mandate has been implemented.	Unclear
10. Require giving highest funding priority to 2020 projects	According to officials, KIA has placed greater importance on local priorities than on the extension of service to unserved and underserved populations. Local entities may place high priority on projects that extend service. [200 KAR 17:080 sec. 2(2)]	Partial
11. Create program allocating 2020 funds to needy areas	It is unclear whether the term "needy areas" has been defined adequately. 2020 Account projects were spread across the state so that projects in each ADD received funding.	Unclear
12. Require input from ADDs on infrastructure projects	ADDs are part of the formal prioritization process for water projects.	Full

Source: Staff analysis. Mandates are from KRS 224A.

Water Personnel Reported That KIA Meets the Needs of Local and Regional Entities, but the Application Process for Funding Could Be Improved

The consensus among water personnel is that KIA does a credible job meeting the needs of local and regional water entities. Some expressed concern that the funding application process for some projects is too cumbersome and time consuming.

The consensus from water personnel in the field is that KIA is doing a credible job meeting their financial and administrative needs. However, some concern was expressed that KIA needs to streamline the application process to make it less cumbersome and time consuming. Program Review staff heard numerous complaints from water planners indicating that the application process for Fund B projects takes longer than they believe is necessary.

At the very least, the perception that the application process is too long and involved is a problem. If practical, the best solution would be for KIA to streamline the process. If this is not done, then KIA should better communicate to involved parties the rationale for existing procedures and schedules. Otherwise, participation in the local planning process could be discouraged needlessly.

Recommendation 2.1

KIA, in consultation with the Division of Water, water utilities, and water coordinators, should, if feasible, streamline the funding application process.

KIA's financial analysts accept funding applications, collect financial data, and conduct financial analyses on applicants for loans from Funds A, B, C, and F. They manage Fund B, including 2020 Account grants, and budget line-item appropriations by working with grantees in completing assistance agreements and receiving funds. Federally subsidized funds require additional responsibilities based on a priority list developed by the Division of Water under federal mandates.

KIA staff are perceived as competent, but overextended. More support staff are needed to assist KIA's financial analysts, according to many in the water industry.

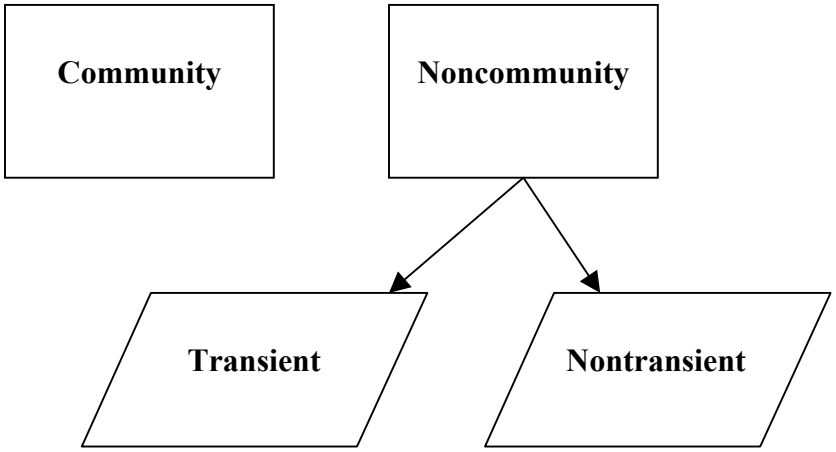
KIA staff are perceived as competent and willing to work with rank and file personnel. According to some staff of water utilities and some water coordinators, KIA financial analysts are overextended. They need more support staff to handle the volume of paperwork involved in the loan application process. KIA officials have stated recently that they intend to hire more support staff to assist the financial analysts.

Kentucky's Public Water Systems

Public water systems include community and noncommunity systems. Community systems provide water year-round. Noncommunity systems provide water less than year-round to either transient (for example, campgrounds) or nontransient (for example, schools) populations.

Unless otherwise noted, the following analyses cover public water systems. A "public water system" is a system with at least 15 service connections or that serves, on average, 25 or more people for at least 60 days per year (401 KAR 8:010). Note that "public" systems also include privately owned companies. As shown in Figure 2.A, public water systems are divided into community and noncommunity systems.

Figure 2.A
Types of Public Water Systems



Source: Staff analysis.

A community water system provides water to people year-round. Examples include municipal water companies, water districts, and water associations. Noncommunity systems do not provide water service year-round and are further divided into two subgroups: transient and nontransient. Transient water systems provide water service to 25 or more different people for less than a year. An example would be a campground. Nontransient water systems provide water service to the same people over a period of six months or more but less than year-round. An example would be a school.

Kentucky Has Fewer Water Systems Than Most States

Kentucky has fewer water systems than most states and the typical system provides water to more people than in other states.

Table 2.2 shows that only four states have fewer water systems than Kentucky. In 2004, Kentucky had 532 water systems. The national average was 3,155.

Each Kentucky water system, on average, served 6,600 people, which was more than any other state.[1]

Table 2.2
Public Water Systems by State, 2004

State	Systems	Rank		State	Systems	Rank
Hawaii	131	1		Iowa	1,999	27
Rhode Island	482	2		Idaho	2,025	28
Delaware	508	3		Montana	2,062	29
North Dakota	523	4		New Hampshire	2,279	30
Kentucky	**532**	**5**		Georgia	2,481	31
Nevada	610	6		Oregon	2,648	32
South Dakota	689	7		Missouri	2,720	33
Alabama	720	8		Connecticut	2,982	34
Wyoming	748	9		Virginia	3,158	35
Utah	947	10		Maryland	3,696	36
Kansas	1,064	11		New Jersey	4,123	37
Arkansas	1,109	12		Washington	4,130	38
Tennessee	1,151	13		Indiana	4,423	39
West Virginia	1,224	14		Ohio	5,479	40
New Mexico	1,275	15		Illinois	5,897	41
Vermont	1,348	16		Florida	6,231	42
Nebraska	1,377	17		Texas	6,499	43
Mississippi	1,383	18		North Carolina	7,064	44
South Carolina	1,406	19		California	7,596	45
Arizona	1,591	20		Minnesota	7,801	46
Louisiana	1,602	21		Pennsylvania	9,897	47
Oklahoma	1,610	22		New York	10,005	48
Alaska	1,625	23		Wisconsin	11,369	49
Massachusetts	1,712	24		Michigan	11,910	50
Colorado	1,937	25				
Maine	1,989	26		**Average**	**3,155**	

Source: Staff analysis of U.S. Environmental Protection Agency. Office of Ground Water and Drinking Water. SDWIS/Fed database.

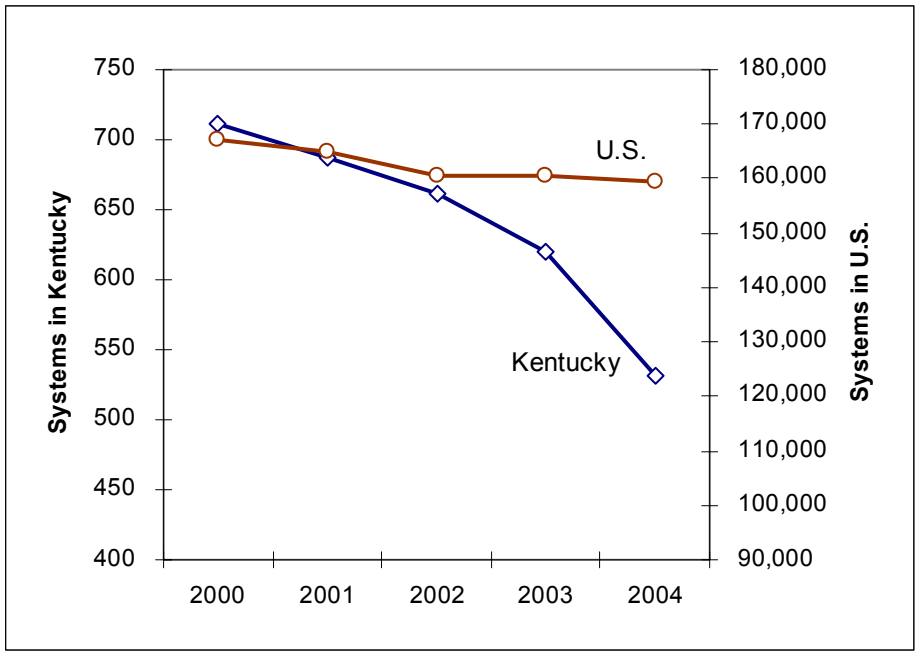
[1] Population served by each water system is estimated for Kentucky and for all other states. Because of this, Kentucky's ranking should be considered to be among the highest in the country, not necessarily the highest.

The Number of Water Systems Is Decreasing

From 2000 to 2004, the number of public water systems in Kentucky decreased from more than 700 to 532, a 25 percent decrease.

As shown in Figure 2.B, from 2000 to 2004, the number of public water systems in Kentucky declined from more than 700 to 532, a 25 percent decrease. Nationally, the number of water systems also declined but only by 5 percent.

Figure 2.B
Water Systems in Kentucky and U.S. Are Decreasing, 2000-2004



Note: The number of U.S. systems excludes Kentucky.
Source: Staff analysis of U.S. Environmental Protection Agency. Office of Ground Water and Drinking Water. SDWIS/Fed Database, various years.

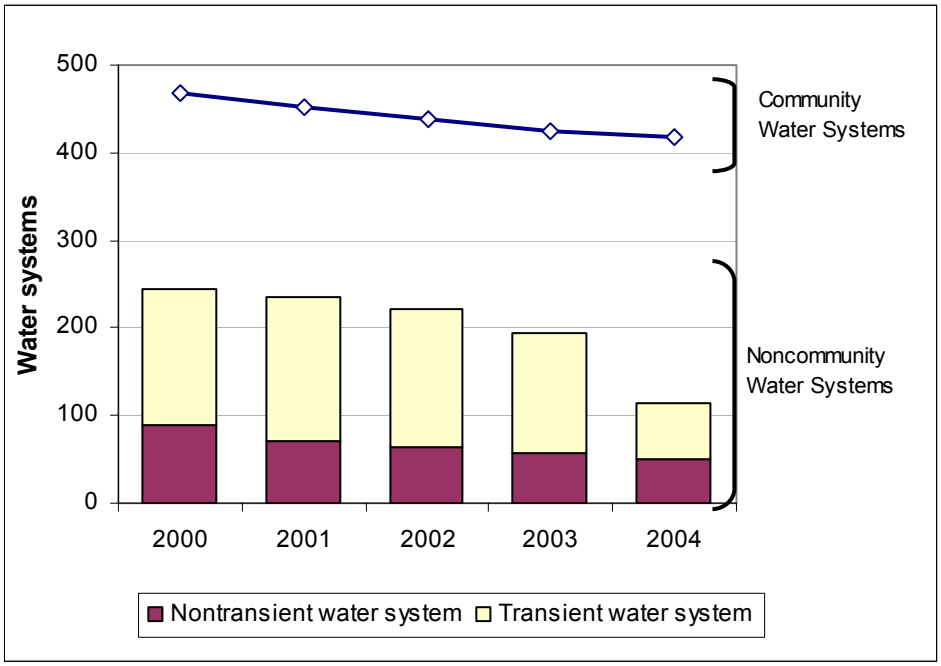
Fewer Community and Noncommunity Water Systems

As of 2004, there were 417 community water systems in Kentucky, 50 fewer (11 percent) than in 2000. Over the same period, noncommunity systems declined by more than one-half, from 245 to 115.

Figure 2.C shows that the decrease in water systems in the Commonwealth has been occurring among all systems but predominately among noncommunity systems. As of 2004, there were 417 community water systems in Kentucky, 50 fewer (11 percent) than in 2000. Over the same period, noncommunity systems declined by more than one-half, from 245 to 115.

More than two-thirds of the reduction in noncommunity systems was among transient systems. The number of such systems dropped to 65 as of 2004.

Figure 2.C
Water Systems in Kentucky by Type, 2000-2004



Source: Staff analysis of U.S. Environmental Protection Agency. Office of Ground Water and Drinking Water. SDWIS/Fed Database, various years.

Fewer Small, More Large Water Systems

The decrease in Kentucky's public water systems occurred exclusively among smaller systems.

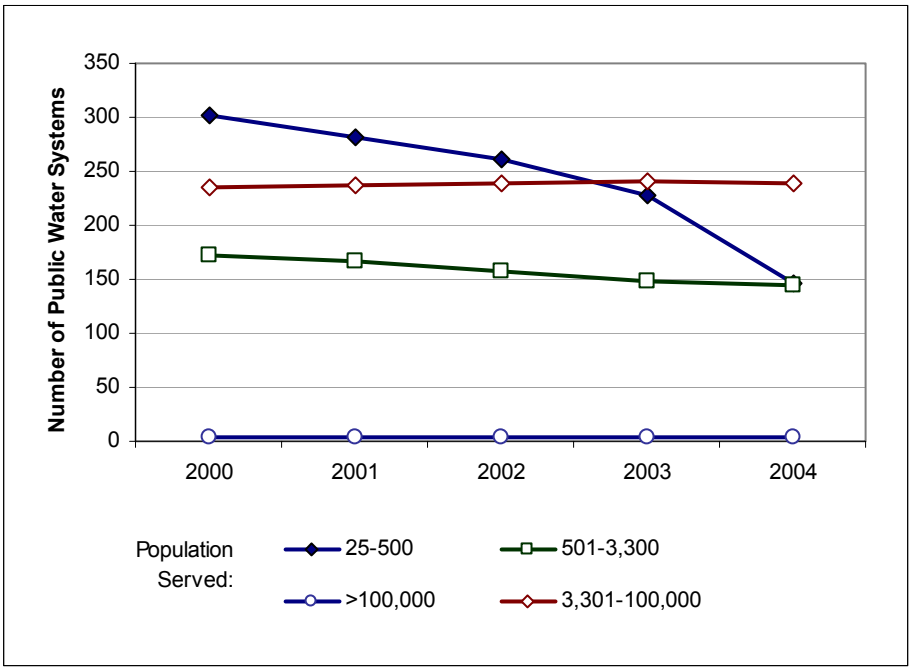
Public water systems provide service to a wide population range. Some systems are small, serving fewer than 3,300 people. Other systems provide water service to 100,000 or more. The decrease in Kentucky's public water systems occurred exclusively among smaller systems.

Figure 2.D shows that over a five-year period, water systems serving 500 or fewer people decreased by one-half to 147. Systems serving 501 to 3,300 people decreased to 144, a 16 percent decline.

The number of water systems serving more than 3,300 people was virtually unchanged from 2000 to 2004. As of 2004, there were 241 systems serving 3,301 to 100,000 people; in 2000, there were 238.

In 2004, as in 2000, there were three systems serving more than 100,000 people: Northern Kentucky Water Service; Kentucky-American Water Company, serving Lexington-Fayette County; and Louisville Water Company.

Figure 2.D
Number of Public Water Systems in Kentucky
by Population Served, 2000-2004



Source: Staff analysis of U.S. Environmental Protection Agency. Office of Ground Water and Drinking Water. SDWIS/Fed database, various years.

Nationally, there was less of a decrease in smaller systems and more of an increase in larger systems.[2] Between 2000 and 2004, the number of systems serving fewer than 3,300 people declined by 5 percent. The number of U.S. water systems serving populations greater than 3,300 grew by almost 4 percent.

Kentucky's Decrease in Water Systems Reduces One Source of Federal Funding

A side effect of the decrease in the number of water systems is a reduction in Kentucky's share of a federal grant to supervise funding of water systems.

SB 409 promotes regionalization, which includes consolidation and merger of water systems. As the goal is met, the number of water systems decreases. A side effect is that fewer water systems, all other things equal, means a reduction in one type of federal funding. The U.S. Environmental Protection Agency provides grants to states for the purpose of monitoring and regulating water systems. State grant amounts are determined by formula and include four criteria, each with differing weights: population (20 percent), land area (10 percent), number of community and

[2] National figures exclude Kentucky.

nontransient water systems (56 percent), and the number of transient water systems (14 percent).

The number of systems in Kentucky has been decreasing significantly more than the national average. All else equal, Kentucky's allotment of $800,000 in 2005 would have been approximately $47,000 (6 percent) more if the number of systems in Kentucky had declined at the national average.

Classification of Projects as Regional Is Inconsistent

Based on an analysis of project descriptions, classification of projects as regional is inconsistent.

Based on an analysis of project descriptions, classification of projects as regional is inconsistent. The water coordinator in each district enters projects into the Water Resource Information System, including whether the project is regional. It appears that projects lacking any consolidation or expansion activity have sometimes been described as regional projects.

How a project is classified does not affect its actual impact. If every project were to be misclassifed as regional, that would not result in any of the increased efficiency that regionalization is supposed to bring. However, if classification of projects as regional were consistently accurate, this would provide a useful performance measure to compare projects over time and across districts.

Recommendation 2.2

KIA should clearly define the characteristics required for a project to be classified as regional and closely monitor how projects are classified.

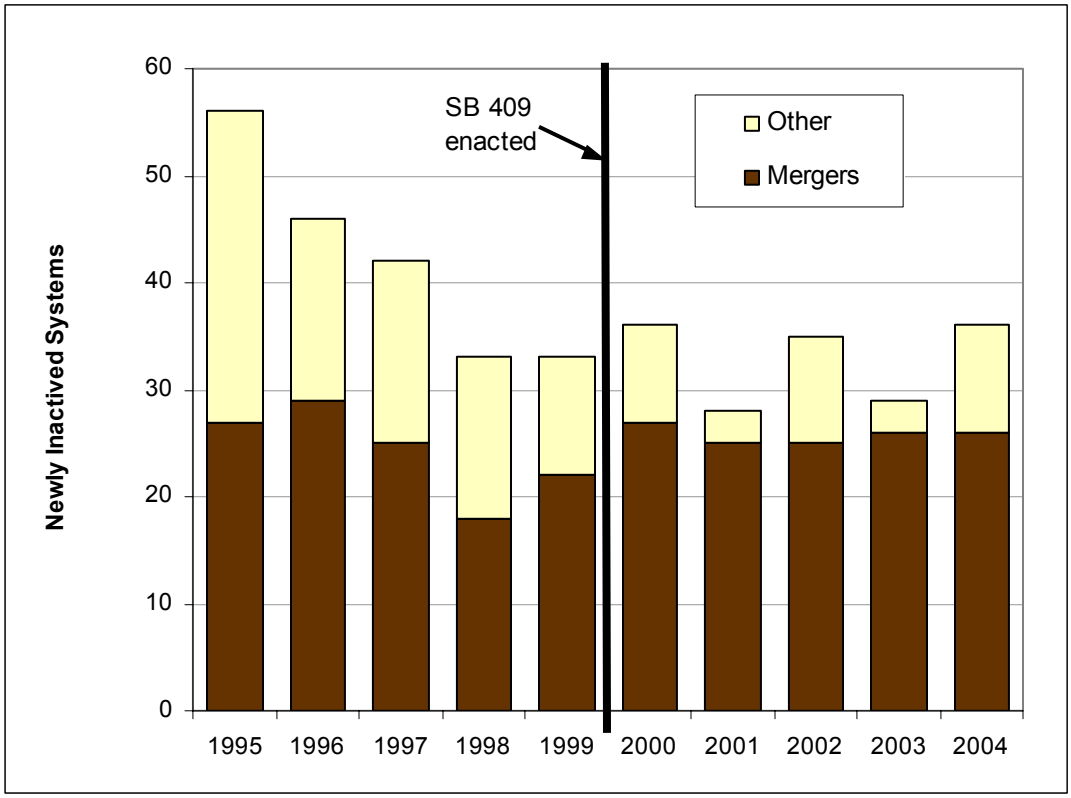
SB 409 Appears To Have Accentuated the Trend of Increasing Regionalization and Consolidation of Public Water Systems

From 1995 through 2004, two-thirds of inactivated systems merged with another system.

According to the Division of Water, 374 public water systems became inactive over the past 10 years. Two-thirds of inactivated systems merged with another system. Typically, a merger meant that a system, which includes its infrastructure and customer base, was purchased by another water system.

Figure 2.E shows the trend over time for systems that merged or became inactive for other reasons.[3] Since SB 409 encourages regionalization and consolidation, the merger rate is a useful measure of the law's implementation. The figure shows that over a 10-year period, for all years except 1998, between 20 and 30 systems merged each year. There is no obvious change in the trend with the enactment of SB 409.

Figure 2.E
Annual Number of Inactivated Public Water Systems in Kentucky by Reason Inactivated, 1995-2004



Source: Staff analysis of Kentucky Division of Water data provided by Marlin.

[3] Other reasons water systems were inactivated include closing without another system taking ownership of its infrastructure or customers (20 percent), abandonment (5 percent), and an indeterminable reason (8 percent).

Looking only at the number of mergers over time does not tell the whole story. Because the number of systems is declining each year—partly due to mergers—maintaining the same annual number of mergers becomes increasingly difficult because there are fewer systems to merge.

The percentage of water systems merging each year is increasing.

A way to take the decreasing number of systems into account is to look at the percentage of systems merging by year. In 2000, 27 water systems merged, which represented approximately 4 percent of the total. In 2004, one fewer system merged, but this was now approximately 5 percent of the total. Despite the similar number of merged water systems, the percentage that merged increased because there were fewer systems in 2004.[4]

It is impossible to know for sure whether any recent mergers occurred because of SB 409. The long-term trend suggests that systems were merging before the implementation of SB 409, so it is likely that many of the systems that merged after 2000 would have done so anyway. However, the increase after 2000 in the percentage of systems that merged indicates that SB 409 may have accentuated this ongoing trend.

[4] It would be useful to know the trend for earlier years too, but data on the total number of water systems prior to 2000 is not sufficiently reliable.

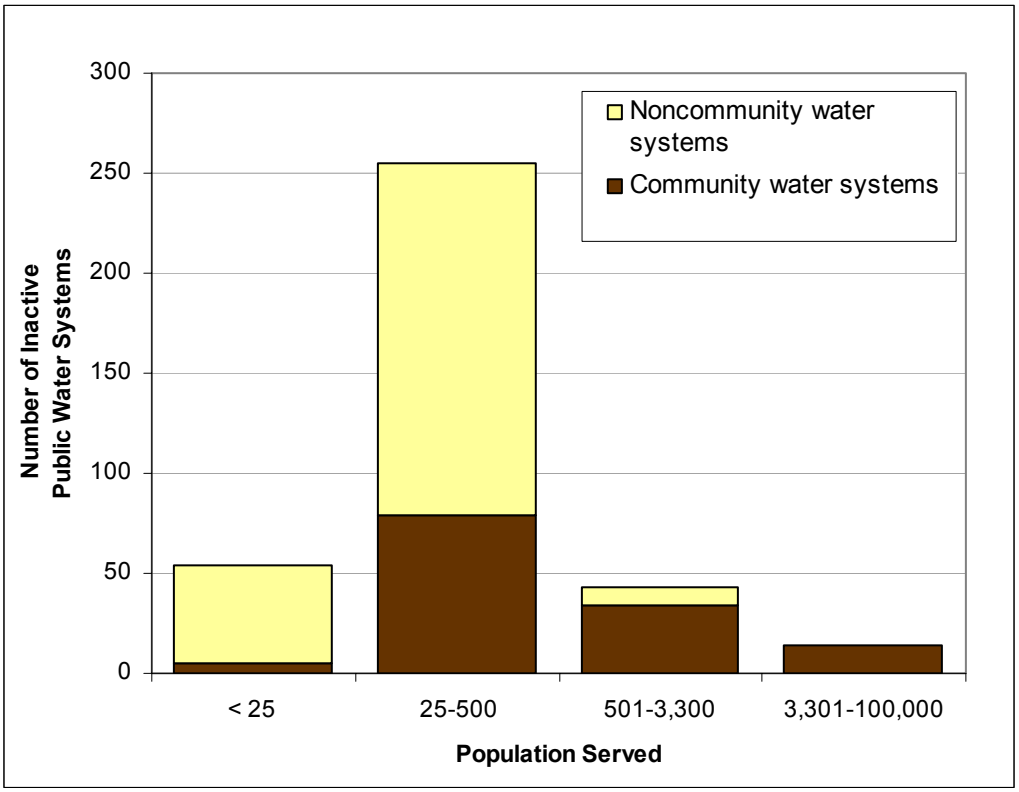
Most Inactivated Water Systems Provided Service to Relatively Few People

Most inactivated water systems had been providing water service to fewer than 500 people. Most inactivated systems had not been providing water to residents year-round.

Figure 2.F shows that the majority—more than 300—of inactivated water systems had been providing water service to fewer than 500 people. Almost two-thirds of inactivated systems were noncommunity water systems, meaning they did not provide water year-round. Examples of inactivated noncommunity systems include a cafe in Boone County, a marina in Calloway County, and a school in Meade County.

Community water systems, which provide service year-round, make up the remaining one-third of inactivated systems. Examples of inactivated community water systems include the Shephardsville Water Company in Bullitt County, Southeastern Water Association in Pulaski County, and Newport Water Works in Campbell County.

Figure 2.F
Inactive Water Systems in Kentucky
by Population Served and System Type, 1995-2004

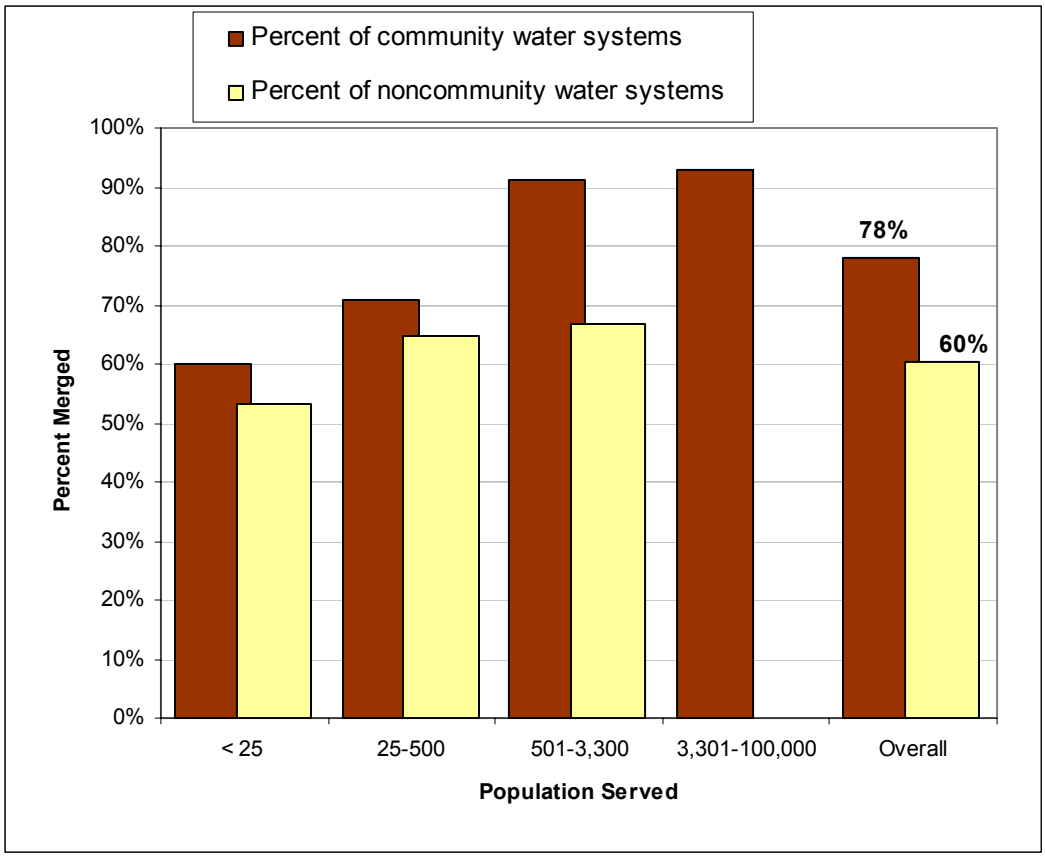


Source: Staff analysis of Kentucky Division of Water data provided by Marlin and U.S. Environmental Protection Agency. Office of Ground Water and Drinking Water. SDWIS/Fed Database, various years.

In general, water systems serving more people were more likely to merge.

Figure 2.G shows that for community and noncommunity water systems, merger rates increased with population served.[5] Depending on whether it was a community or noncommunity system, between 50 and 60 percent of the smallest systems that became inactive over a 10-year period did so via mergers. Almost all the larger systems that became inactive merged.

Figure 2.G
Percentage of Inactive Kentucky Public Water Systems That Merged With Another System by Type and Population Served, 1995-2004



Source: Staff analysis of Kentucky Division of Water provided by Marlin and U.S. Environmental Protection Agency. Office of Ground Water and Drinking Water. SDWIS/Fed Database, various years.

Community water systems were more likely to merge. On average, 78 percent of all community water systems inactivated between 1995 and 2004 merged with another water utility. Among noncommunity water systems, the merger rate was 60 percent.

[5] Note that there were no inactivated noncommunity water systems from 1995 to 2004 that served more than 3,300 residents.

Analysis of 2020 Account Projects

Appropriations Limited to One Biennium

The purpose of the 2020 Account is to help public and private water systems provide potable water to all Kentuckians by the year 2020. The General Assembly appropriated $50 million to the 2020 account in the 2000-2002 biennial budget, which was used to fund 133 water projects.

The purpose of the 2020 Account is to help public and private water systems provide potable water to all Kentuckians by the year 2020 (KRS 224A.304).

In the 2000-2002 biennial budget, the General Assembly appropriated $50 million for the KIA-Water Resources Development Bond Funds. Budget language permitted KIA to use these funds to develop a water project construction program, including establishing prioritization criteria to select which projects to fund. KIA used the $50 million appropriation to fund projects through the 2020 Account using the procedures established by SB 409.

Biennial budget appropriations to KIA in 2002-2004 and 2004-2006 funded water and wastewater projects through line-item appropriations. KIA did not identify these projects as 2020 Account projects.

SB 409 provides that the 2020 Account may operate as a revolving loan fund, but every project received funds in the form of a grant. Of the $50 million appropriation, $44.8 million has been allocated. According to KIA officials, the balance is being held in reserve in case the costs of water and wastewater projects financed by the General Assembly in 2003 and 2005 exceed available resources.

Water Projects Are Located Across Kentucky

All the water management planning areas have had at least two projects funded by the 2020 Account. The funding amounts ranged from $275,000 to $9.1 million.

Every water management planning area—equivalent to saying every area development district—had at least two projects funded by the 2020 Account. Five water management planning areas each had more than 10 projects approved. Total funding amounts for each water management planning area ranged from $275,000 to $9.1 million. Funding for most projects covered 50 percent or less of total estimated costs.

Projects Are No Longer Prioritized Statewide

Eligibility requirements and criteria for selecting projects were established by KIA (200 KAR 17:080). KIA would rank water projects according to the number of households served, the number of water systems involved, the median household income of the

project's beneficiaries, the cost per household, and the inclusion of the project in an area water management plan.

Regulations require that KIA maintain a project priority list on a continuous basis (200 KAR 17:080 sec. 4(1)). According to KIA officials, the agency stopped producing a statewide project priority list in 2003 when no 2020 Account funds were appropriated in the biennial budget.

KIA stopped producing a comprehensive statewide project priority list when no additional funds were appropriated for the 2020 Account.

KIA still requires projects seeking state funding to be prioritized by a water management planning area, resulting in 15 prioritization schedules.

Considering that water projects generally rely on significant state resources, it is appropriate that each project proposal be weighed against all other projects in the state. A statewide prioritization schedule would establish one source of information to assist in selecting projects for state funding.

Recommendation 2.3

Taking available resources into consideration, KIA should consider producing an annual statewide funding prioritization schedule according to 200 KAR 17:080 for all water project proposals.

2020 Account Projects in Relation to Ranking Criteria

Projects funded by the 2020 Account are described below based on the criteria used to rank them. Table 2.3 summarizes this information. All projects funded from the 2020 Account were water projects; no wastewater projects were funded.

Regional projects generally include merging, consolidating, or sharing resources among water systems.

Projects are separated into regional and nonregional groups because SB 409 established regionalization as a goal. Regional projects generally include merging, consolidating, or sharing resources among water systems. Nonregional projects generally involve one water system expanding or renovating facilities and service within one county. Compared to the typical nonregional project, the typical regional project served more households and cost less per household but received a lower share of its total project costs from 2020 funds.

Table 2.3
Summary of 2020 Account Projects, 2000-2004

Category	Regional	Nonregional	Total
Projects	22	111	133
(% of Total)	(17%)	(83%)	(100%)
Total 2020 Funding	$17,000,000	$27,800,000	$44,800,000
(% of Total)	(38%)	(62%)	(100%)
Median 2020 Project Funding	$177,500	$130,000	$149,600
Median Total 2020 Project Cost	$660,000	$355,000	$400,000
Households Served	358,000	205,400	563,400
(% of Total)	(63%)	(37%)	(100%)
Households Served Per Project	16,300	1,850	4,200
Median Cost Per Household	$400	$3,600	$3,100
Median Household Income	$27,000	$28,000	$28,000

Note: Figures do not include withdrawn projects. Dollar figures are rounded.
Source: Staff analysis of Water Resource Information System database.

Of the 133 funded 2020 Account projects, 22 were regional and 111 were nonregional projects; however, regional projects served more households than nonregional projects.

Of the 133 funded projects, 22 were regional (17 percent) and 111 were nonregional projects (83 percent). Regional projects received $17 million (38 percent) and nonregional projects received $28 million (62 percent) of allocated 2020 Account funds.

Regional projects received a greater proportion of 2020 Account funds based upon the percent of total projects. However, the 2020 Account funded about 27 percent of a regional project's median total cost, while funding about 37 percent of a typical nonregional project's total cost.

There were fewer regional projects, but they served more households. Nearly 358,000 households were covered by the 22 regional projects, for an average of nearly 16,300 per project. The 111 nonregional projects covered 205,400 households, which is an average of 1,850.

Regional projects were significantly less costly than nonregional ones. The median cost per household for regional projects was $400 versus $3,600 for nonregional projects.

Median household income was similar for regional and nonregional projects. For regional projects, the median household income was $27,000; for nonregional projects, it was $28,000. Kentucky's median household income was $36,700.

Most 2020 Account Projects Are Unfinished

As of June 2005, 40 of 88 projects approved by June 2003 had been constructed. Some projects that have not been completed may be removed from the project list.

According to data in the Water Resource Information System, most 2020 Account projects had not been constructed as of June 2005. The first 2020 Account project came before the Capital Projects and Bond Oversight Committee for approval in April 2002. As of June 2003, the committee had approved 88 projects, 40 of which have been constructed.

In addition to the 40 constructed projects, 30 more were listed as fully funded, meaning all necessary funds were on hand, but construction had not been completed. Fourteen others showed only partial project funding. Four projects were in the process of being updated or changed, so project status was unavailable.

Some projects that have yet to be started may be removed from the project list. Complications in securing local, federal, and other state funds may keep some projects from proceeding. Funds may be reallocated to other projects.

Analysis of 2002-2004 Water and Sewer Resource Development Fund Projects

After the initial $50 million appropriation to the 2020 Account, most water and wastewater projects have received funding through line-item budget appropriations.

After the initial $50 million appropriation in the 2000-2002 biennial budget, most water and wastewater projects have received funding through line-item appropriations. The General Assembly, beginning with the 2002-2004 biennial budget, appropriated funds for those counties that produce coal and/or tobacco. In the 2002-2004 biennial budget, $110 million was appropriated through the Water and Sewer Resource Development Funds. In the 2004-2006 biennial budget, $206 million in state bond funding was appropriated through the Infrastructure for Economic Development Funds.

Under SB 409, these projects, though they are not funded through the 2020 Account, still require approval by water management planning councils and area development districts.

In this section of the report, only projects funded in the 2002-2004 biennial budget are analyzed. Most projects in the 2004-2006 biennial budget have yet to be approved by the local planning councils and entered into the Water Resource Information System.

Most Projects Are Nonregional

Ten percent of the 265 projects funded in the 2002-2004 biennial budget were regional projects.

As shown in Table 2.4, the 2002-2004 biennial budget contained funding for 265 water and wastewater projects. Of these, 26 (10 percent) were defined as regional projects. Regional projects received 13 percent of all funds, so total project funding slightly favored regional projects. More than one-fifth of Water and Sewer Resource Development projects were for wastewater projects, almost all nonregional.

Median state funding was $400,000 for regional projects and $300,000 for nonregional projects. As a percent of total project costs, the state's contribution represented 40 percent and 52 percent, respectively.

Regional projects funded through the Water and Sewer Resource Development Fund covered fewer total households than nonregional projects—66,000 versus 209,000, respectively. The typical regional project covered approximately 2,500 households, compared with approximately 900 for nonregional projects. Median cost per household for regional projects was one-half of the cost of nonregional projects—$2,700 versus $5,400.

Table 2.4
Summary of Water and Sewer Resource Development Projects, 2002-2004

Category	Regional	Nonregional	Total
Projects	26	239	265
(% of Total)	(10%)	(90%)	(100%)
Total WSRD Funding	$14,700,000	$97,700,000	$112,400,000
(% of Total)	(13%)	(87%)	(100%)
Median WSRD Project Cost	$400,000	$300,000	$300,000
Median Total Project Cost	$1,000,000	$572,000	$650,000
Households Served	66,000	209,000	275,000
(% of Total)	(24%)	(76%)	(100%)
Households Served Per Project	2,500	900	1,000
Median Cost Per Household	$2,700	$5,400	$5,000
Median Household Income	$24,000	$26,000	$26,000

Note: Figures do not include withdrawn projects. Dollar figures are rounded.
Source: Staff analysis of Water Resource Information System database.

Overall, 16 percent of Water and Sewer Resource Development Fund projects have been constructed.

Through June 2005, 19 percent of regional projects and 16 percent of nonregional projects have been constructed. Overall, 16 percent of Water and Sewer Resource Development Fund projects have been constructed.

Analysis of All Regional Projects, 2000-2004

Staff analyzed regional projects funded from the 2020 Account and from the Water and Sewer Resource Development Fund through the 2002-2004 biennial budget. This provides an overview of all regional projects since 2000 for which complete information is available in the Water Resource Information System.[6]

Most Regional Projects Involve Sharing of Resources

Regional projects rarely involved merger of one water system with another. From 2000 through 2004, water systems serving between 3,301 and 100,000 people initiated five of the six mergers. The remaining merger was initiated by a water system serving 1,700 people.

Most regional projects involved systems sharing resources such as water treatment plants or water storage tanks, or establishing water line cross-connections.

Instead of merging, most regional projects involved systems sharing resources such as water treatment plants or water storage tanks, or establishing cross-connections to water lines. Twenty-nine of the 48 projects (60 percent) identified these as the reasons for regionalization.

Initiators and Participants in Regional Projects

The following section analyzes which type of water systems initiated regional projects and which water systems participated in such projects.

More than two-thirds of projects promoting regionalization were initiated by a water system that served between 3,301 and 100,000 people.

Initiators. Any water system can initiate an effort to consolidate or merge with another system. As shown in Table 2.5, more than two-thirds of projects promoting regionalization were initiated by a water system that served between 3,301 and 100,000 people. Water systems serving more than 100,000 did not initiate any regional projects that were entered into Water Resource Information System and were funded through KIA during the 2000 to 2004 period.

[6] This section describes the scope of projects in terms of how many people a water system currently serves, not how many would be affected by a particular project. For example, a water system that served 200,000 people and received funding to add 250 previously unserved people is categorized as a system with more than 100,000 people.

Table 2.5
Initiators and Participants in Regional Projects
by Number of People Served, 2000-2004

	Initiators		Participants	
People Served	**Projects**	**Percent**	**Projects**	**Percent**
More than 100,000	0	0%	2	2%
10,001-100,000	16	33%	22	26%
3,301-10,000	17	35%	24	28%
501-3,300	7	15%	22	26%
25-500	3	6%	2	2%
Totals	43	90%	72	85%

Note: Forty-eight regional projects were initiated; five are not included because the population served by the water system could not be determined. The total number of regional participants exceeds the number of projects because some projects involved more than two systems.
Source: Staff analysis of Water Resource Information System database.

Participants. Any type of system, other than the smallest and largest, was about equally likely to participate in a regional project. As a percentage of total projects, water systems serving more than 100,000 people infrequently participated in regional projects. However, there are only three systems in Kentucky that serve that many people.

Most regional projects were composed of a system serving 10,001 to 100,000 people working with participant systems serving 501 to 10,000.

Patterns of Initiation and Participation. Combining the analyses of initiators and participants, Table 2.6 shows that most regional projects were composed of an initiator system serving 10,001 to 100,000 people working with participant systems serving 501 to 10,000 people.

Table 2.6
Regional Projects by Initiating and Participating
Water Systems' Population Served, 2000-2004

	Participant Population Served					
Initiator Population Served	**25-500**	**501-3,300**	**3,301-10,000**	**10,001-100,000**	**More than 100,000**	**Total**
10,001-100,000	1	14	13	5		33
3,301-10,000		3	2	8	1	14
501-3,300		2	2	3		7
25-500	1	1	1			3

Note: Water systems are not included for which populations served are unknown. The table covers 48 regional projects. Totals add to more than 48 because some projects had more than one participant.
Source: Staff analysis of Water Resource Information System database.

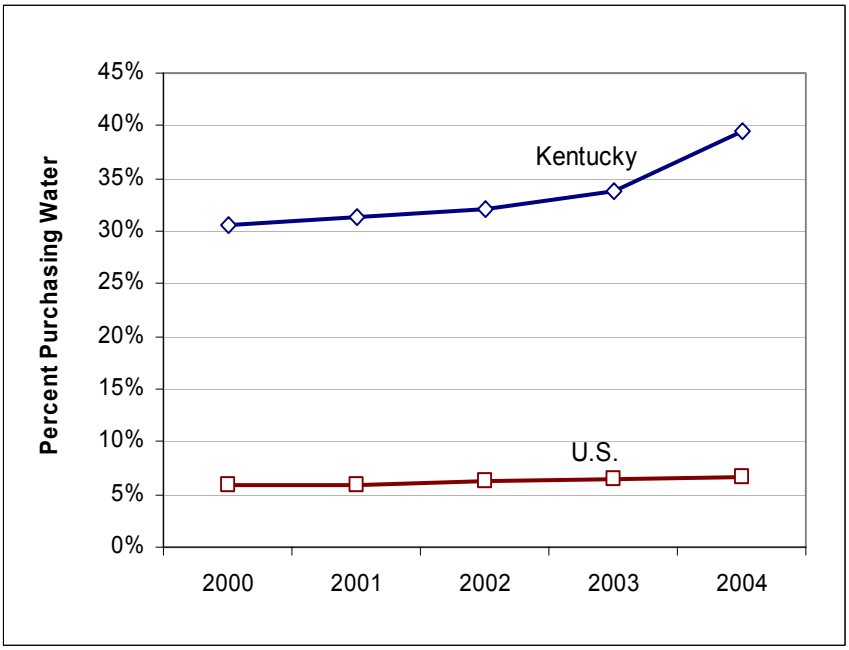
Two-Fifths of Water Systems Purchase Water

Water systems that purchase water represent one form of regionalization as identified in SB 409. Many Kentucky systems purchase water from another system instead of treating their own water. The benefit of this arrangement is that the purchasing system may be able to forgo building and maintaining its own water treatment plant or expanding or renovating an existing one.

Between 2000 and 2004, the percentage of water systems purchasing water in Kentucky rose from 30 to almost 40 percent.

Figure 2.H indicates that from 2000 to 2004, the share of water systems purchasing water in Kentucky rose from 30 to almost 40 percent. On the national level, the share of water systems purchasing water was significantly lower and was virtually unchanged over the period.

Figure 2.H
Percentage of Water Systems Purchasing Water in Kentucky and U.S., 2000-2004



Note: The number of U.S. systems excludes Kentucky.
Source: Staff analysis of U.S. Environmental Protection Agency. Office of Ground Water and Drinking Water. SDWIS/Fed Database, various years.

Access to Potable Water

Kentucky Compares Well to Other States

Approximately 90 percent of Kentuckians have potable water, ranking Kentucky third best in the nation. The national average is 71 percent.

One goal of SB 409 is to provide potable water to all Kentuckians by the year 2020. Table 2.7 shows that compared to other states,

Kentucky already ranks high in terms of the percentage of its population with potable water. According to data compiled by the U.S. Environmental Protection Agency, Kentucky has the third highest percentage of people with potable water in the country: approximately 90 percent. The national average is 71 percent.[7] Several water system officials interviewed by staff shared the belief that Kentucky is a national leader in regional and statewide water planning, as well as in regionalization and consolidation efforts.

Table 2.7
Percentage of People With Potable Water by State, 2003

State	Percent	Rank	State	Percent	Rank
Alabama	90%	2	Nebraska	65%	34
Alaska	56%	46	Nevada	68%	25
Arizona	67%	29	New Hampshire	49%	49
Arkansas	72%	18	New Jersey	72%	17
California	80%	9	New Mexico	67%	27
Colorado	85%	6	New York	73%	16
Connecticut	60%	42	North Carolina	60%	41
Delaware	76%	13	North Dakota	69%	24
Florida	75%	14	Ohio	69%	22
Georgia	65%	33	Oklahoma	77%	12
Hawaii	81%	8	Oregon	63%	37
Idaho	53%	48	Pennsylvania	66%	31
Illinois	70%	20	Rhode Island	93%	1
Indiana	57%	43	South Carolina	64%	36
Iowa	68%	26	South Dakota	67%	28
Kansas	75%	15	Tennessee	72%	19
Kentucky	**90%**	**3**	Texas	79%	11
Louisiana	85%	5	Utah	80%	10
Maine	37%	50	Vermont	63%	38
Maryland	64%	35	Virginia	65%	32
Massachusetts	86%	4	Washington	69%	21
Michigan	56%	45	West Virginia	62%	40
Minnesota	63%	39	Wisconsin	55%	47
Mississippi	82%	7	Wyoming	69%	23
Missouri	67%	30			
Montana	57%	44	U.S.	71%	

Note: Percentage is based on the population served by community water systems.
Source: Staff analysis of U.S. Environmental Protection Agency. Office of Ground Water and Drinking Water. SDWIS/Fed Database, various years.

[7] Variations in how water systems report the number of people served make state-by-state comparisons less than exact. Water systems generally estimate the number of people served by using census data or a household multiplier. In both cases, it is likely that the actual number and percentage of people served will be different from the table.

The Number of Kentuckians With Potable Water Is Increasing

Based on a survey of area development districts, about 400,000 Kentuckians were without potable water as of 2004.

The survey of area development districts confirmed that most Kentuckians have access to potable water. In 2004, about 400,000 Kentuckians, however, were reported to lack potable water. (See Appendix C for the questionnaire and results for all questions.)

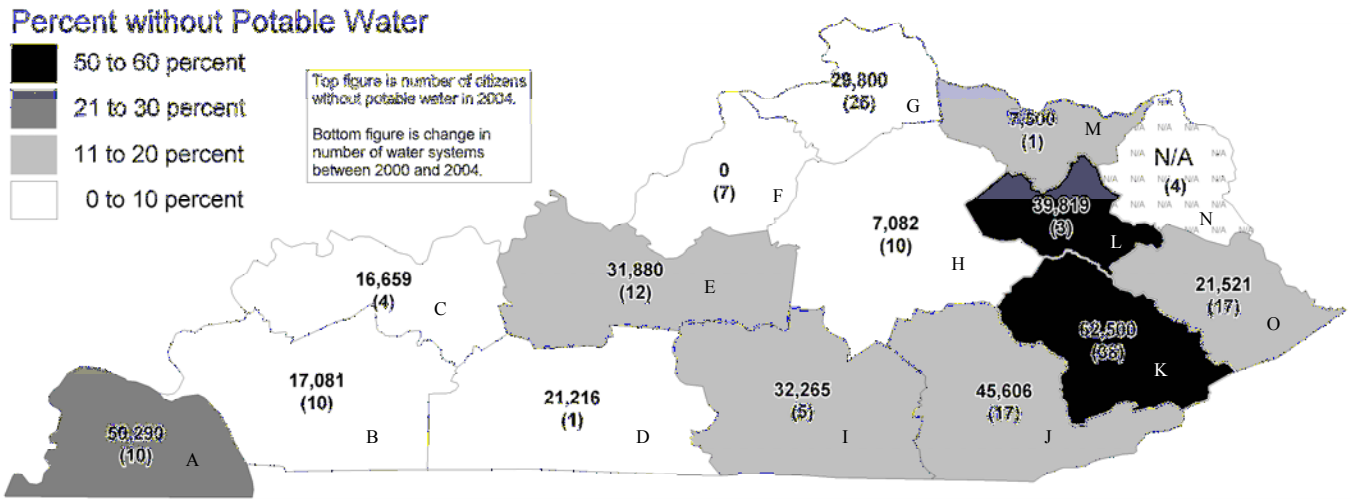
In Figure 2.I, the top number for each area development district shows how many people lacked potable water in 2004. Only the KIPDA district indicated that all its residents had access to potable water.

Most area development districts estimated that less than 20 percent of their residents lacked potable water. The Kentucky River and Gateway Area Development Districts each estimated that more than 50 percent did not have access to potable water. Every area development district had fewer water systems in 2004 than in 2000.

Shading for each district shows the percentage of people without potable water. Most area development districts estimated that less than 20 percent of their residents lacked potable water. The Kentucky River and Gateway Area Development Districts, though, each estimated that more than one-half of their residents did not have potable water.

The second number for each district indicates how many water systems were inactivated between 2000 and 2004. Every area development district had fewer water systems in 2004 than in 2000. The largest decline was in the Kentucky River Area Development District, in which 38 water systems were inactivated. In percentage terms, the largest decline occurred in the Big Sandy Area Development District, which reported a 49 percent decrease.

Figure 2.I
Percentage of Residents Without Potable Water (2004) and Decrease in Water Systems by Area Development District (2000-2004)



A	Purchase	F	KIPDA	K	KY River
B	Pennyrile	G	Northern KY	L	Gateway
C	Green River	H	Bluegrass	M	Buffalo Trace
D	Barren River	I	Lake Cumberland	N	FIVCO
E	Lincoln Trail	J	Cumberland Valley	O	Big Sandy

Note: FIVCO did not provide an explanation for its estimates.
Source: Staff analysis of U.S. Environmental Protection Agency. Office of Ground Water and Drinking Water. SDWIS/Fed Database, various years; and responses to survey of area development districts.

Definition of Potable Water Is Unclear

The questionnaire sent to the area development districts did not define "potable." Water system officials interviewed by staff generally equated potable with water from a public water system, which would not include well or cistern water.

"Potable water" is not specifically defined by KIA. For purposes of this report, potable is considered to be water provided by a public water system.

For purposes of this report, potable was considered to be water provided by a public water system. Neither SB 409 nor regulations appear to specifically define potable. This creates a degree of uncertainty about its meaning. The Division of Water, for instance, defines potable water as "suitable for human consumption" (401 KAR 8:01). The definition does not specifically associate potable water with a public water system, so it appears that potable well or cistern water would be included. The definition also does not

clarify whether simply having access to potable water is sufficient for establishing that a household has potable water.

Recommendation 2.4

For the purpose of implementing SB 409's goal of making potable water available to all Kentuckians, the Kentucky Infrastructure Authority should take the lead in clarifying what "potable" and "available" mean.

SB 409's Impact

Between 2000 and 2004, state-funded water projects provided water service to about 20,000 Kentuckians.

Using responses from the survey of area development districts and data from the Water Resource Information System, it is possible to assess how many people have received access to potable water since SB 409's enactment. Overall, projects funded and constructed with state funds (2020 Account, Water and Sewer Resource Development Funds) between 2000 and 2004 provided water service to about 20,000 Kentuckians who previously lacked potable water.

Implementation of SB 409 by Area Development Districts

Prioritization of Projects at the District Level Is Not Standardized

No standardized statewide project prioritization criteria exist for area development districts to use.

As part of the survey of area development districts, officials were asked about district procedures for prioritizing project proposals. Officials from all 15 districts reported having procedures, but the procedures varied by district. Officials in 12 districts mentioned using explicit criteria to rank projects. Of the 12, 11 used the number of customers affected; 9 assigned more points to projects that promoted regionalization; 9 considered whether the proposed project benefited unserved or underserved customers, or a combination of the two; and 11 used cost per household. Some districts used criteria instead of or in addition to these. Other criteria included whether lower-income residents would be served, the readiness of the project, and the possible impact of the project on economic development.

Any, most, or all of the criteria used at the district level may be excellent means for evaluating water projects. So long as projects are to be evaluated only within each district, having criteria specific to each is not necessarily a problem. However, the fact that the criteria vary across the state means that it is impossible to

compare projects across districts as easily or effectively as possible. Objective prioritization on a statewide basis would seem to require that the criteria be the same for all projects. Unless there is a compelling reason for maintaining separate prioritization systems, KIA should work with district officials to ensure that the criteria used to prioritize projects are the same in all area development districts.

Recommendation 2.5

The Kentucky Infrastructure Authority should work with district officials to establish and maintain a standardized set of criteria for all area development districts to use in prioritizing water projects.

Reported Problems With the Water Planning Process

Eight of the 15 area development districts reported no problems with the current water planning process.

Eight of the 15 area development districts reported no problems with the current water planning process. Of the seven that did report problems, two described issues with political influence over project selection, and three cited insufficient participation from elected officials. One respondent to the survey noted inefficiencies in information gathering between agencies. Another reported having insufficient funding for staff. Another raised the concern that too many projects receive a "high priority" ranking from the area development districts/water management planning councils.

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Appendix A

Water Project Profile Form

1. **Project Title (use title which will be identifiable by local community):**

2. **Project Description:**
Provide a brief narrative denoting if project relates to source, distribution, treatment, storage or other)

Project Descriptor:

WRIS Project Number (PNUM): *

*This number is assigned by an ADD through the respective Area Water Management Planning Council once the project profile is approved by the Council. This number ties each project to mapped/spatial information in the Water Resource Information System (WRIS). Project profiles without this number AND the required corresponding mapped/spatial information will NOT be accepted.

Project County:

Is it a multi-county project: Yes No

Project Submitted By:

Select the PWSID# from the list below:

Available:
0010082
0010702
0020386
0020956
0030007
0030239
0030660
0040015
0040020
0040223

Include >

< Remove

Selected:
None Selected..

3. Legal Applicant

Legal Applicant:

Water Utility which will own proposed improvements:
(if different from Legal Applicant)

Organizational Structure:

Authorized Official Information

First Name: Last Name: M.I.:
Title:
Street Address Line 1:
Street Address Line 2:
P.O. Box:
City: State: Zip:
County:
Telephone: Ext:
Fax:
Email:

Contact Person Information

First Name: Last Name: M.I.:
Title:
Street Address Line 1:
Street Address Line 2:
P.O. Box:
City: State: Zip:
County:
Telephone: Ext:
Fax:
Email:

Project Administrator Information

First Name: Last Name: M.I.:
Title:
Street Address Line 1:
Street Address Line 2:
P.O. Box:
City: State: Zip:
County:
Telephone: Ext:
Fax:
Email:

Consulting Engineer Information

First Name: Last Name: M.I.:
Firm:
Street Address Line 1:
Street Address Line 2:
P.O. Box:
City: State: Zip:
County:
Telephone: Ext:
Fax:
Email:

4. Project Type (check all that apply):
   - Planning
   - Design
   - Construction
   - Management
5. Project Alternatives: Please list a minimum of three:
   a.
   b.
   c.
6. Special Impact(s) of Proposed Water Project:
   a. New service/improve service to unserved underserved households
   b. Number of new jobs: 0 Number of retained jobs: 0
   c. Other beneficial technical, managerial, fiscal impacts: (20 words or less)
   d. Does proposed activity relate to public health protection emergency: Yes No
   e. Does project involve regionalization: Yes No
   f. Number of systems affected/involved: 0
7. Median Household Income of Service Area:
   $ 0
8. Project Start Schedule:
   Years 0-2 Years 3-10 Years 11-20
9. Estimated Funding Sources:
   Estimated Local Funding Amount $ 0
   Estimated Other Funding Amount (all sources) $ 0
   Total Estimated Project Cost $ 0

10. Project Data - Water (complete all items which apply to your project)

   a. Is project related to source protection? Yes No
   Acres 0

Cost ($acre) 0

Use control (r/c)

Drinking Water Facilities

b. Is project related to source? Yes No

Number of new surface/spring sources 0 Total MGD 0.0000

Number of new wells 0 Total MGD 0.0000

Elimination of Public Water Systems through Mergers

0 Number of systems serving 500 or fewer population

0 Number of systems serving 501-3,000 population

0 Number of systems serving 3,001-10,000 population

0 Number of systems serving 10,001 or greater population

Interconnections

0 Number of water treatment plants eliminated

0 Number of supplemental potable water supply

0 Number of emergency backup potable water supply

Source Water Quantity and Quality

0 Number of existing raw water sources replaced

0 Number of existing raw water sources supplemented

Briefly describe why the above items apply to your project:

c. Is project related to water treatment? Yes No

If new or expanded plant, proposed design capacity 0.0000 MGD (as a result of this project)

Project will involve expansion or modification of Microbiology and Turbidity

Pre-filtration (CT/Microbial removal)

Filtration (Surface Water Treatment Rule Compliance)

Disinfection Process (CT/Microbial Inactivation)

Best Available Technologies

VOCs IOCs SOCs Radionuclides

Disinfectants Disinfection by-products

Secondary contaminants

d. Is project related to distribution (Extension/Rehab)? Yes No

Check all that apply to your project

Extension Water Tank

Rehab/Improvement Pump Station

Proposed project involves construction of line

Total linear feet 0 of new line

Line Size (in inches) 2 3 4 6 8 10 greater than 10

Material Ductile Iron PVC PE Other

Project activity improves pressure, as a result of

Replacement of total linear feet of inadequately sized lines

total gallons of increased storage due to additional demand

Leaks, Breaks, or restrictive flows due to age

Project activity improves water quality by providing:

Adequate turnover of water

Proper maintenance of disinfection residual

Replacement of _____ total linear feet of lead, copper, asbestos-cement lines
Briefly describe why the above items apply to your project:

e. Management (describe)

f. Other (describe)

g. Date Project was approved by the Area Water Management Planning Council: _____

Submit Profile Save Profile

Source: Commonwealth of Kentucky. Kentucky Infrastructure Authority. Kentucky Water Project Profile.

Appendix B

Planning for Water and Wastewater Projects in Six Other States

This appendix summarizes planning in six states: Alabama, Arkansas, Illinois, Tennessee, Texas, and West Virginia. For each, there are sections on state government's role in planning and in expanding service and regionalization. If a state administers any of the three federal/state funds described below to expand service or to encourage regionalization, this is noted.

The Drinking Water State Revolving Fund, established in 1996, is administered by states. The federal government provides approximately 80 percent of funding. States are required to develop a priority system for funding infrastructure projects based on 1) the ability of the project to address serious risks to human health; 2) the importance of the project in ensuring compliance with the Safe Drinking Water Act; and 3) the project's potential to assist water systems with the greatest need on a per household basis, according to affordability criteria developed by the state. States can utilize other criteria as long as they do not permit the ranking of a "low priority compliance, public health, or affordability project over a high priority one" (U.S. Environmental. Office of Ground Water. *Prioritizing* 3).

The Clean Water State Revolving Fund program, established in 1987, is a state-administered program that receives approximately 80 percent of its funding from the federal government. The program requires states to develop priority ranking systems for project proposals that must be approved by the U.S. Environmental Protection Agency (U.S. Environmental. Office of Water. *Financing*).

The Community Development Block Grant program is administered by the U.S. Department of Housing and Urban Development. The program distributes federal funds to cities for the purpose of promoting economic development and supporting anti-poverty initiatives and public facilities in low- and moderate-income communities. Large cities apply directly to the department for funds. All other cities apply to the Small Community Block Grant programs that are administered at the state level. Construction and reconstruction of water and wastewater facilities are among the activities eligible for funds (U.S. Dept. of Housing and Urban Development).

Alabama

Planning

According to planners with the Alabama Department of Environmental Management, planning occurs at the local level with the exception of projects that involve the Drinking Water State Revolving Fund and those that are driven by state government (Dean; Hughes). The state does not develop a short-term list of projects. It does monitor systems with weak capacity development and ensures that high growth areas have sufficient water supply.

Expansion of Service, Regionalization

The state's drinking water and wastewater programs do not have explicit policies that promote the expansion of service to unserved and underserved populations (Dean; Hughes).

Drinking Water State Revolving Fund

The Alabama Department of Environmental Management administers the state's program. Among the criteria for selection is whether the proposed project consolidates two or more systems. (For all states, the source of information on administration of the Drinking Water fund is U.S. Environmental. Office of Ground Water. *Prioritizing*)

Arkansas

Planning

According to a drinking water planner for the Arkansas Soil and Water Conservation Commission, the commission developed a statewide plan in 1990 that addressed the state's major basins (Loop). The commission has since monitored the state's water supply and annual water use. The highest priority projects receive funding as it becomes available. Otherwise, planning occurs at the local level.

Expansion of Service, Regionalization

There is no policy that provides incentives to expand provision to unserved and underserved populations (Loop). The Water Resources Development General Obligation Bond Program does give higher priority to systems where the percentage of elderly residents is above the state average, the per-capita income is below the state's per-capita income, and the percentage of unemployed residents exceeds the state average (State of Arkansas. Soil). State government has no explicit policies to encourage regionalization.

Drinking Water State Revolving Fund

The Arkansas Soil and Water Conservation Commission administers the state's program. One of the criteria for ranking proposed projects is consolidation and interconnection. Smaller systems that are consolidating are favored.

Illinois

Planning

According to a planner for the Illinois Environmental Protection Agency, drinking water and wastewater planning occur primarily at the local level, but local entities within a region cooperate sometimes (Cox).

Expansion of Service, Regionalization

According to a wastewater planner for the Illinois Environmental Protection Agency, the agency has a state-funded grant program that supports municipalities lacking sewer systems (Bowers). There is no state-level fund for drinking water in addition to the federal/state funds. Grant size depends on the municipality's income. Grant recipients can also receive low-interest loans. The agency gives higher priority to proposed projects that are the most cost-effective, not necessarily to those that are regional in character.

Tennessee

Planning

According to a planner for the Tennessee Department of Environment and Conservation, water planning is carried out primarily by local governments and water providers, within the limits of state and federal quality standards and environmental impact assessments (Keck).

Expansion of Service, Regionalization

The state does not mandate regionalization and the expansion of drinking water and wastewater services to unserved and underserved populations. The department does encourage providers to pursue those goals (Keck).

Texas

Planning

There are 16 Regional Water Planning Groups, with representatives from public, agricultural, county, municipal, industry, and environmental interests; small businesses; water utilities; electric utilities; river authorities; and water districts. The planning groups develop regional plans that the Texas Water Development Board consolidates into a statewide plan. The regional and statewide plans are for 50 years but are updated every 5 years. The five-year plans contain water supply and demand forecasts, identified needs, and recommended projects. According to a deputy director, the board is capable of funding all applicants, so it does not maintain a prioritized list of projects (Mullican). The board may only provide funding to projects consistent with the regional plans and with state and federal regulations (State of Texas. Water. "SB 1 Water Planning").

Expansion of Service, Regionalization

The Economically Distressed Areas Program provides financial support to projects intended to address water and wastewater needs in economically distressed areas that lack adequate services and face serious health hazards (State of Texas. Water. "Economically"). The Texas Water Development Board encourages regionalization through the State Participation Program, under which the state assumes temporary ownership interest in a regional project when local sponsors cannot assume debt for an appropriate facility (State of Texas. Water. "State"). The Regional Water Supply and Wastewater Facilities Planning Program provides grants to compare the costs of regional and stand-alone drinking water and wastewater projects (State of Texas. Water. "Texas").

The Texas Commission on Environmental Quality requires that public water project proposals consider regionalization. The commission’s policy is that regionalization is feasible except when there are no public water systems within one-half mile, the water system has been denied service from another system, or the water system can demonstrate that an exception is merited. Existing systems must have a certificate of convenience and necessity, which confers a service area that cannot be encroached by other providers. Existing systems that apply for a new certificate must evaluate the feasibility of regionalization, subject to the exceptions noted above (State of Texas. Commission).

Drinking Water State Revolving Fund

The Texas Water Development Board administers the state’s program. Among the criteria for selection is whether the project consolidates two or more water systems.

Clean Water State Revolving Fund

Texas assigns additional points to projects that result in the consolidation of one or more treatment facilities or which promote a "regional solution" (State of Texas. Water. "Chapter 375").

West Virginia

Planning

According to its executive secretary, the Infrastructure and Jobs Development Council prioritizes projects and then places them on a pending list to receive available state funding in order of priority (Mallory). A project may be bypassed if it cannot be funded. The list is purged every 18 months. The council's 11 regional planners carry out planning.

Expansion of Service, Regionalization

The West Virginia Infrastructure and Jobs Development Council was created in 1994 to fund water, wastewater, and economic development projects and to coordinate project funding with federal and other state agencies. The council prioritizes projects using such criteria as the extent to which the project is expected to expand service to unserved populations, whether it will improve service to underserved populations, the number of customers affected, the cost per customer, the ability of the project to garner other funds, whether the project addresses a public health threat or is necessary to ensure the viability of a water system, and other economic development considerations (Mallory). A committee reviews all proposed projects to determine if consolidation with another water system would be beneficial. According to an official with the West Virginia Development Office, water and wastewater projects are typically implemented only if the Infrastructure and Jobs Development Council approves them (Rowan).

Appendix C

Survey of Area Development Districts

Program Review and Investigations Committee staff conducted an e-mail survey of Kentucky's 15 area development districts (ADDs). All responded by the July 27 deadline. This appendix includes the questions and the tabulated responses.

1. *Does your ADD rank or prioritize water and wastewater proposals? (For example, do projects receive a high, medium, or low priority ranking?)*

Yes	15
No	0
Total	15

If the answer is "yes," please briefly describe the ranking/prioritization system you use, including any numerical measures.

Cost per household	11
Number of households affected	10
Regionalization	9
Impact on unserved and/or underserved	9
No explicit criteria	3
Other	4

2. *Have there been any problems implementing the current water and wastewater planning processes?*

Yes	7
No	8
Total	15

If yes, please check the types of problems that apply and briefly describe each below:

Funding	5
GIS data	1
Local buy-in	7
Regulatory	2
Technical	2
Prioritization	3
Other	4

Descriptions:

Funding: One respondent wrote that funding is insufficient for staff duties. Two wrote that state funding for water projects is insufficient.

GIS data: One respondent stated that the current data collection process requires GIS managers to collect data that project engineers already possess. There is no procedure for obtaining the data from the engineers.

Local buy-in: Five out of the seven respondents who identified local buy-in as a concern stated that participation from local officials is insufficient. The other two reported that local officials sometimes solicit legislators for funding instead of participating in the regional prioritization process.

Regulatory: One of the respondents wrote that the relationship between KIA and the Division of Water complicates the regional planning process. Another respondent stated that frequent procedural changes on the state level have created administrative problems for water management area planners.

Technical: One respondent wrote that there is no provision for the technical review and cost estimation of projects prior to their ranking.

Prioritization: One respondent stated that projects that cross ADD boundaries are difficult to prioritize, since ADDs may have different prioritization criteria. Another respondent wrote that the direct solicitation of funding from state legislators weakens the prioritization process.

Other: One respondent described the need for greater coordination between land-use planning, transportation planning, and water project planning at the local level.

3. *Does each county within your ADD have its own water management planning council?*

Yes	2
No	13
Total	15

4a. *How many water distributors and/or water suppliers in the ADD have merged or consolidated since January 1, 1995?*

Barren River	14
Big Sandy	5
Bluegrass	4
Buffalo Trace	1
Cumberland Valley	4
FIVCO	No answer
Gateway	0
Green River	3
Kentucky River	0
KIPDA	1
Lake Cumberland	5
Lincoln Trail	No answer
Northern Kentucky	47
Pennyrile	21
Purchase	11
Total for ADDs that responded	116

4b. *Please describe any ongoing or future plans to merge or consolidate water distributors and/or water suppliers in the ADD, if applicable. Please list each distributor/supplier and the dates each plans to merge or consolidate.*

Barren River	0
Big Sandy	0
Bluegrass	No answer
Buffalo Trace	No answer
Cumberland Valley	2
FIVCO	0
Gateway	0
Green River	1
Kentucky River	0
KIPDA	0
Lake Cumberland	0
Lincoln Trail	1
Northern Kentucky	4
Pennyrile	2
Purchase	3
Total for ADDs that responded	13

5a. *As of December 31, 2004, how many citizens in your ADD lacked access to potable drinking water?*

Barren River	21,216
Big Sandy	21,521
Bluegrass	7,082*
Buffalo Trace	7,500
Cumberland Valley	45,600
FIVCO	Unknown
Gateway	39,819
Green River	16,659
Kentucky River	62,500
KIPDA	0
Lake Cumberland	32,265
Lincoln Trail	31,880
Northern Kentucky	29,800
Pennyrile	17,081
Purchase	50,290
Total for ADDs that responded	383,219

*Respondent submitted estimated percentage of residents without potable water. Program Review staff used the percentage and 2003 U.S. Census population estimates to calculate the number of residents without potable water.

Is this an estimate?

Yes	9
No	1
No answer	5
Total	15

If this figure is an estimate, please explain below how you produced the estimate.

Overview of responses:

ADDs used different population multipliers. Many used U.S. Census data from the 2000 Census report or current population estimates. Some ADDs obtained population data from Kentucky State University's Data Center or from the University of Louisville's State Data Center. Some ADDs obtained estimates on the percentage of population with access to public water from the public water systems in their districts. Others obtained information from the Kentucky Rural Water Association.

5b. *As of December 31, 2000, how many citizens in your ADD lacked access to potable drinking water?*

Barren River	22,149
Big Sandy	25,331
Bluegrass	13,720*
Buffalo Trace	15,680
Cumberland Valley	54,030
FIVCO	Unknown
Gateway	Unknown
Green River	Unknown
Kentucky River	68,276
KIPDA	47,245*
Lake Cumberland	39,195
Lincoln Trail	Unknown
Northern Kentucky	50,800
Pennyrile	29,168
Purchase	Unknown
Total for ADDs that responded	504,242

*Respondents submitted estimated percentages of residents without potable water. For each district, Program Review staff used the percentages and 2003 U.S. Census population estimates to calculate the number of residents without potable water.

Is this an estimate?

Yes	9
No	1
No answer	5
Total	15

If this figure is an estimate, please explain below how you produced the estimate.

(Overview of responses)

There were differences between the methods used for the 2000 data and those used for the 2004 data. Almost all ADDs that used U.S. Census population figures used those reported in the 2000 Census. Some ADDs obtained data on the number of people with access to public water from the 1999 Water Resource Development Plans. Three of the ADDs did not answer Question 5b.

6. *Please provide a copy of your most recent regional water management plan.*

Respondents provided copies of their plans or informed staff of their location on the Web.

Appendix D

Response From the Kentucky Infrastructure Authority

Testimony of Jody E. Hughes, Executive Director
Kentucky Infrastructure Authority
Planning for Water Projects in Kentucky: The Implementation of Senate Bill 409
Before the Program Review and Investigations Committee
October 25, 2005

Ladies and Gentlemen, my name is Jody Hughes, and I am Executive Director of the Kentucky Infrastructure Authority (KIA). I am pleased to have the opportunity to present some prepared comments to you today concerning KIA's continuing efforts to implement the provisions of Senate Bill 409.

Before I begin, I would like to compliment the LRC staff who worked on the report presented today. I believe they conducted a very professional and thorough investigation. The result is a report that accurately describes the challenges and opportunities in implementing a program of the magnitude of the 2020 initiative to provide public water to all Kentuckians.

I have been Executive Director of KIA for over a year. The goal of our agency, like that of SB 409, is to facilitate planning for providing water and wastewater service to all Kentuckians.

I want to bring the committee an update on recent initiatives undertaken by KIA to further the implementation of SB 409. I also want to describe what I believe is the best course of future action on SB 409 in the legislature's upcoming session and future sessions. KIA does not maintain an in-house planning staff to facilitate the planning effort mandated by SB 409. Instead, KIA partners with the 15 Area Development Districts (ADDs) through annual contracts whose time period coincides with the fiscal year (July 1 – June 30). During my first months on the job, I realized that inconsistent project priority ranking systems across the state made it difficult to prioritize on a statewide basis. As a result, KIA had stopped producing a statewide priority list. I believed that future limited funding would ultimately dictate the need for a statewide priority list so that whatever resources were available could be directed to the most effective projects.

With that in mind, this year's contracts with the ADDs require the development and use of a common project priority ranking system. The points assigned through this system will easily allow KIA to again produce a statewide priority list. I am happy to report to you today that the common priority system has been developed and is currently being used in the Water Management Planning Councils. Each of you has been provided with a copy of this standardized schedule for assigning priorities. Most of the councils have either had their final project ranking meetings using the new system or will be meeting sometime this week. The contractual goal of each ADD to have their regional priority list to KIA by the end of this month is on track. KIA will then take the regional lists and formulate the projects into a statewide list in accordance with the requirements of SB 409.

The new project ranking system substantially rewards (1) regional projects, (2) projects that provide service to unserved and underserved populations, and (3) projects that have at least partial funding secured and engineering completed, making them essentially ready to go to construction.

When I became Executive Director, I sensed a lack of information for tracking where we stand in relation to the goal of providing water to all Kentuckians by 2020. Even though such monitoring is not specifically identified in the staff report, I think we all realize how vital tracking this important statistic is to the success of the effort.

In this year's contract with the ADDs, they will be conducting a survey of all water systems to determine the accessibility of public water as a result of the projects that have been funded through the last three legislative sessions. KIA will work with the ADDs to produce a consistent statewide assessment. I believe we will be pleasantly surprised with results that show how far we have come toward meeting the goal. The survey should be completed around the end of this year. We are also revising our database to make sure this statistic continues to be tracked each year.

The LRC staff report indicates some dissatisfaction among utilities with the funding processes administered by KIA. This dissatisfaction is primarily directed at the KIA administered federally subsidized revolving loan funds. The involvement of federal funds in these programs adds to the bureaucracy and resulting frustration. Shortly after I started with KIA I realized the importance of streamlining the procedures in these loan programs. A joint effort with the Kentucky Division of Water was already underway. Since that time my staff and the Division of Water staff have worked to streamline these programs. Much progress has been made; but more still needs to be done. Hopefully, a major milestone in this effort will be reached at the KIA Board meeting in December with approval to file new regulations pertaining to these loan funds.

The staff report identified an issue concerning merged systems and the loss of a seat on the Water Management Planning Council as a potential disincentive to merging. While KIA does not perceive this as a significant problem, we will work with the ADDs, trade associations, and individuals to investigate this potential disincentive to merger and develop appropriate solutions.

I understand that there has been some confusion since the enacting of SB 409 as to the definition of a regional project. I hope we have cleared this confusion with the relatively detailed definition of what constitutes a regional project that KIA included on page 5 of the new priority criteria procedure referred to earlier.

Regional projects are projects involving two or more systems that, through shared or consolidated resources, improve services to consumers and achieve economy of scale. KIA will work with its partners to monitor the use of this definition so that only truly regional projects will be afforded the appropriate regional priority.

The General Assembly through SB 409 established the 2020 water service account. The purpose of the account was to assist in making potable water available to all Kentuckians by the year 2020. The staff report pointed out what was considered a lack of definition in what constitutes potable water. According to the Division of Water's regulations cited in the report, "Potable water" means water that meets the regulatory provisions of 401 KAR Chapter 8, the quality of which is approved by the cabinet for human consumption. This regulation allows only the Division of Water to regulate public water systems. Therefore, any water approved by the Division of Water for human consumption must be from a public water system.

While there is no question as to the definition of potable water, there may be a question as to what constitutes availability. KIA has used the definition that public water is available when a household has access to public water at a reasonable cost. Access can be through the connection to a public water system or by the trucking of water from a public water system. As we get closer to the 2020 goal, I agree that KIA may need to better refine this definition. We will work with our partners to develop a clear sense of what constitutes available potable water that can be used as a benchmark of our progress.

The staff report also questioned whether KIA has done adequate marketing of the Infrastructure Revolving Fund, referred to as KIA's Fund B. When the $50 million was placed in the 2020 account of Fund B and earmarked for grants after the 2000 legislative session, a large marketing effort took place. That effort resulted in the identification of over $1 billion in needs for water infrastructure. The marketing effort also resulted in many more projects requesting funding from the 2020 account than could be accommodated with the $50 million. As indicated in the report, the $50 million was expended, leaving only a small amount in Fund B. After the initial appropriation to the 2020 account, the General Assembly in the last two sessions has chosen not to fund projects by appropriating resources to the 2020 account and Fund B. Therefore, there no longer remained sufficient funds in Fund B to warrant the continuation of the marketing effort.

Although not considered in the staff report, since the enacting of SB 409 there have been many questions and lots of confusion about how wastewater fits into the picture. In Senate Bill 409, the General Assembly found that the work of the Water Resource Development Commission established the necessity of encouraging regionalization, consolidation, and partnerships among governmental agencies, and private parties when appropriate. These cooperative efforts have the goal of making potable water **and wastewater** treatment available to all Kentuckians through maximizing the financial resources and conserving the natural resources of the Commonwealth. Based on these findings, the General Assembly declared in SB 409 that the Kentucky Infrastructure Authority shall implement a program for the provision of **water services** as authorized in the budget and directed by the General Assembly.

Since water and wastewater treatment and water services seem to have been used interchangeably in that paragraph of SB 409, KIA has encouraged the Water management Planning Councils to include wastewater agencies and wastewater projects as full partners in the planning process dictated in SB 409. Wastewater projects have been priority ranked similar to drinking water projects. I believe that this interpretation by KIA of the importance of wastewater funding in the overall process has been ratified by the legislature in its last two sessions. In the 2002-2004 biennium over 20 percent of the projects were wastewater; in the 2004-2006 biennium the number of wastewater projects increased to over 40 percent of the total.

As more and more of the counties provide access to public water for near 100 percent of the residents, the role of wastewater becomes much more significant to these counties. Therefore, I believe in this legislative session it is appropriate for the General Assembly to clear up any confusion regarding the role of the Water Management Planning Councils related to wastewater. KIA will be working with the General Assembly to provide the appropriate modifications to the statutes.

In the last 3 Kentucky budgets, funding has been provided for over $400 million in grants for water and sewer projects. Funds have come primarily from bonds and coal severance taxes. In addition to this $400 million, in the last 5 years, another $900 million to $1 billion have been allocated from other state, federal, local, and private sources for water and wastewater projects in Kentucky. According to the best information available, these funds have been that well over 90%

of Kentucky families have now or will soon have access to public drinking water, with many counties approaching 100%.

As this staff report has examined our progress to date, it is only appropriate that we look to where our efforts will go in the future. As the staff report has indicated, there are many grants and resulting projects in the pipeline (several of the original 2020 projects have yet to start, as well as many more of the 2003 and 2005 projects).

I believe that now is a good time to regroup and head more towards the direction indicated in SB 409 as opposed to the line item funding in the past two legislative sessions. Although the focus of the original $50 million placed in the 2020 account was grants, I believe that we should now fund the 2020 account as primarily a revolving loan fund to supplement the other federally supported revolving loan funds managed by KIA. Placing this biennium's legislative money in a 2020 account revolving loan program would allow KIA time to work the existing grants through the system and implement a revolving loan fund to reflect the goals of SB 409 that have not yet been implemented.

There are still large dollar needs for water and wastewater funding to reach the remaining Kentucky families with public drinking water, to provide public wastewater disposal, to provide assistance to water and sewer utilities in replacing aging infrastructure, and to provide the water and sewer infrastructure to support Kentucky's economic development initiatives.

Therefore, I recommend placing the dollars in the 2007-2008 budget for water and sewer projects in a 2020 account revolving loan fund to begin the transition of state funding for water and sewer projects from a grant program to a long term sustainable revolving loan program. Putting the dollars in the 2020 account of the Infrastructure Revolving Loan Fund reserves the funds for water and sewer projects and gives KIA the flexibility to develop a long term sustainable revolving loan program. This approach would also allow use of the dollars to implement portions of SB 409 that have not been funded since the 2001-2002 budget. **I recommend a funding level for the 2020 water service account of the Infrastructure Revolving Fund for the 2007-2008 budget of $50 million to $75 million.** I also recommend that in future budgets additional funds be placed in this long term revolving loan fund at about $30 million to $50 million per year until the fund can become self-sustaining.

The fund would be operated in a similar manner to the federally assisted drinking water and wastewater revolving loan funds and used for projects and activities not eligible for the federally assisted funds. Like the federally assisted funds, the interest rate in the state revolving loan fund should be below market rate to make the fund affordable and attractive.

In addition to making low interest loans, an established portion of the dollars in the fund would be used for various programs and activities. Many of these have been identified as not implemented in the staff report due to lack of funding in the 2020 account. These activities and programs include:

a. Keeping the information current in Kentucky's Water Resources Information System (GIS) and other water and wastewater databases
b. Conducting state-wide, regional, and local drinking water and wastewater planning as the basis for the most effective use of the resources in the Infrastructure Revolving Fund
c. Conducting state-wide drinking water and wastewater needs assessments to be used as the basis for the levels of future funding for the Infrastructure Revolving Fund and allocation of the resources in the fund to areas and types of projects with the most need

d. Conducting state-wide assessments of the financial, managerial, and technical capacity of Kentucky's water and wastewater utilities and the establishment of incentives for those that attain established performance benchmarks
e. Establishing reporting metrics to determine the effectiveness of the expenditure of funds from the 2020 account
f. Conducting the other programs mandated in SB 409 including water loss from distribution systems, the establishment and monitoring of proper accounting systems for utilities, and monitoring the setting of user charges that reflect the cost of the service being provided
g. Developing and funding the incentive programs in SB 409 for encouraging consolidations of water systems and the elimination of duplication, including targeting water systems meeting certain conditions and giving the highest funding priority to 2020 projects
h. Developing and funding the incentive programs in SB 409 for focusing on providing service to unserved and underserved areas
i. Developing the guidelines and regulations for operation of the revolving loan program
j. Administration of the revolving loan fund

Dr. John Tapp, Executive Assistant with the Kentucky Infrastructure Authority, has taken on the task of compiling a comprehensive study of the state's existing water and wastewater infrastructure along with additional details that help to determine the needs of a particular area. An early draft of a map showing the type of information being gathered is included in your packets. It is our intent to empower local officials, Water Management Planning Councils, state agencies, and you as elected Senators and Representatives, with the ability to make informed decisions. In accordance with the spirit of Senate Bill 409, we are dedicated to seeing that available funding dollars are disbursed equitably and in a manner that will allow the money to be used most effectively.

Thank you for the opportunity to present these comments. KIA and the administration looks forward to working with both houses of the legislature in a very worthwhile effort to improve the quality of life for all Kentuckians through the provision of safe drinking water and the environmentally safe disposal of wastewater.