

Chapter 7. PREPARATION AND IMPLEMENTATION

This chapter gives an overview of the necessary steps and refers to later chapters in this manual that describe them in more detail. Some of the steps may be carried on at the same time rather than one after another. Chapter 12 provides a detailed checklist of activities to be accomplished.

A. Set Community Goals For Your Wastewater System

Very few people start on a vacation without knowing where they want to go. However, some communities choose to begin finding solutions for problems and pursuing funds before they really know what they want from their utility system. Having goals will enable your community to know where you want to go, what you must do to get there, and what you want from your system.

Sample goals for a wastewater system could be:

1. Wastewater service is provided at a reasonable cost to homes and businesses.
2. Everyone has access to an adequate wastewater system.
3. The wastewater system protects the health of citizens and the environment.
4. Rates are structured to promote water conservation.
5. Financial solvency of the wastewater utility fund will be maintained and reviewed yearly.
6. A central wastewater system is needed to make the community attractive for business.
7. Everyone pays the same rate for similar services.

Goals can help keep a project on track. Working to achieve goals will help groups focus on trying to find ways to attain the wishes of the community, not on attaining the wishes of the groups or individuals. Goals act as a compass to focus discussion and provide a point to measure against. For example, your community's goal could be reasonable rates for all patrons. If a new desired project raises monthly household rates beyond a reasonable level, an alternative plan will need to be considered. The alternative is sought because the goal is not attainable.

B. Proving Capacity to Funders - The Ability to Manage, Operate, And Maintain a System

Funders have a big stake in most utility projects. In order to protect their financial interest, they want to know that your management and maintenance abilities will not put their investment at undue risk. You may be asked to show you are capable of managing a system and that you understand the concepts of management, especially financial management.

The recent reauthorization of the Safe Drinking Water Act requires applicants for federal funding to demonstrate they possess the financial, technical, and managerial capacity to operate, maintain, and manage a utility system in accordance with recognized accounting practices, compliance with federal and state laws, and accepted practices for maintaining and improving a utility system. Capacity refers to human capability, and in the near future, will be an important part of determining if a project is funded. In fact, having a need and a feasible project may not be enough anymore to be considered for financing.

Applicants with an existing wastewater system, or another type of utility system, will be judged by funders as to how well they can manage and operate a utility. Funders want the applicant to get started off on the right foot with a new project, and do not want current managerial and operational deficiencies to create problems for a new system. Take time to analyze your capabilities, and take steps to improve your managerial and operational abilities if needed. In doing so, you will become a more attractive candidate to funders and possibly avoid making mistakes again with a new system.

1. *Records*

Records will be used to help to determine your managerial and operational capabilities. Orderly, and accurate records are a good indication of your ability to properly manage a utility system. Good records are needed for planning, analysis (taking stock), budgeting, reporting to regulatory agencies or lenders, and for continuous system operation, administration, and maintenance. All of these areas are addressed by good utility managers.

Your financial records should allow anyone to determine the status of your system past, present, and future. Whether you are planning for future growth, a new system improvement, or simply ways to save money, accurate information is needed to make proper decisions. A funding agency appreciates knowing your community uses accurate information when making critical decisions, and does not use speculation or blind guessing to make decisions.

Funders want to know if your community takes stock of your system(s) regularly; good records will show that you *regularly* analyze the financial and/or operational status of your system. Most simple problems become large problems because a community does not regularly analyze the financial and the operating functions of its utility system. An audit of your system will give you a good starting reference point. Analyzing your system will take time, but a little time spent analyzing now may help you prevent more serious headaches from happening in the future, and make your community more attractive to funders. Correct managerial and operational deficiencies before applying for funding.

Your records will indicate if you have implemented and sustained the use of a planned maintenance schedule. Maintenance records are a tool which help to remind you what needs to be done, and can be checked by supervisors to make sure maintenance work is being done on schedule. Also maintenance records are valuable if you ever change personnel; a new operator will have a point of reference to start from. These records help track the repairs made to your system, the cost of these repairs, customer complaints, and the condition of key hardware (valves, hydrants and meters). These types of records can be used to establish a repair/complaint history for your system. Using this history, a trained professional can determine if it is more feasible to repair or replace infrastructure. Such records are of great interest to funding agencies and bond companies.

Finally, records are used to show if the manager of a utility system has the ability to budget, properly report to state or federal agencies, and to comply with environmental regulations and codes. If you believe your community needs assistance with proper record-keeping or management skills, you should contact an organization that can provide technical guidance. Funding agencies such as USDA-Rural Development, Kansas Department of Health and Environment, or the Kansas Department of Commerce and Housing can provide suggestions on who to contact for help.

An applicant for a new wastewater system that does not manage another utility has no track record on which to be judged. Funders will look for your demonstrated knowledge on how to manage and operate a wastewater system, especially knowledge about financial and maintenance management. It will be assumed if you can receive a wastewater operator's permit from the Kansas Department of Health and Environment, you have the minimum capacity to operate a system. All new applicants should begin learning how to manage and operate a system as soon as possible. This knowledge will be invaluable to you as you deal with the professional consultants you hire and with your dealings with funders.

2. Cost Recovery/Enterprise Funds

It is important that you understand the concept of an enterprise fund. An enterprise fund is a utility fund established to account for operations that are financed and operated in a manner similar to a private business enterprise. All expenses are recovered primarily through user charges. *A utility, like a business, is self-sustaining in that enough revenues are generated to pay all expenses attributed to the system.* Revenues are not used to pay non-system expenses such as using wastewater revenues to pay for a fire truck.

Your system's financial goal must be *full cost recovery*. The full cost recovery concept states all expenses are recovered primarily through user charges; a utility system should be financially self-sustaining. Full cost recovery is the revenue you generate by selling wastewater service to your customers to pay for all of the costs of running the system, retiring debt, and funding your reserve accounts.

The process of full cost recovery starts with identifying all expenses attributable to the utility system and assigning them to the appropriate budget categories. Second, you need to identify how much of a financial reserve you are required to maintain, and include this figure in the expense budget. Third, all revenue sources must be identified, and the short and long term predictability of each revenue stream determined. Enough revenue must be generated, mainly through user rates, to pay all expenses, maintain reserves and retire debt.

3. Viability

To prove capacity you also need to understand the concept of viability. Viability means maintaining the functionality of your system through proper upkeep, financial management, and operation. Viability does not just happen. It is necessary to develop plans, procedures and rules for maintaining viability. The acronym MOM (maintenance, operation, management) summarizes the concept. Later in this chapter more information about viability will be provided.

C. Steps to Building Public Support

The following are steps to building public support for the project.

1. Establish Credibility With Citizens.

Community leaders will be asking citizens to have faith that they will make the right decisions for the community. At this point, leaders will have to demonstrate they have done everything they could, short of building a new project, to correct problems and/or to find ways to save money if a rate increase is being sought. There will come a point where improvements have to be built and/or rates increased. By exhausting all simpler solutions, a governing body will establish the validity of their concerns and the need to take action. For a rehabilitation project, this step shows the community has received the maximum value out of an existing system. For a new utility system, it shows a system is truly needed to protect the health of citizens. If governmental leaders have done everything they can to save money but still cannot pay their bills, this will show that a rate increase is really needed.

2. Timing

Timing involves two things: (1) getting started, and (2) moving at the speed your community will go. Getting started begins with planning how you will reach your ultimate target. A plan allows governmental and community leaders to remain focused, and to avoid the pitfall of discussions and exploration going down a dead end or destructive path. Avoid sending out trial balloons or running with an idea someone suggests: stick with a plan. Governing bodies need to be bold, share concerns with citizens in a public forum (meeting), and announce the methods to be used to examine concerns. While it is important to prod the process forward, do not get ahead of the community. Moving too fast will heighten opposition and cries that the governing leaders are trying to cram something down citizens' throats. Moving too slow may permit a project to become bogged down in inertia, and cause it to wither on the vine. *A simple rule of thumb is to help your patrons catch up to your speed.* For example, if a community's governing body has been educated on why a grinder pump system may save on construction costs, the public needs to receive the same education. Not all citizens have to be brought up to the speed of the governing body, but it is critical that

a significant portion are keeping the same pace with governmental leaders. Community leaders have to be part of this group.

3. Leadership

Leadership at project start up is crucial. Local governmental leaders must: (1) *be cohesive*: understand what the *purpose* is for having a utility system, (2) *be knowledgeable* of their community: understand how their utility system's goals will fulfill the stated purpose for the system, (3) *be aware*: assess where the system is in meeting community and system goals, (4) *be bold*: develop objectives to be accomplished if the system is to meet community and system goals, and (5) *be decisive*: decide what actions must be taken to ensure the system fulfills its purpose and meets its goals.

It is also important that leaders *be united*. Local projects can falter quickly if customers perceive their leaders do not fully support a project. Once public concerns are aired, proper debate is conducted, and a decision is made, a governing body should wholly support the decisions it makes. While decisions can be changed if necessary, steadfastness often results in a stable foundation on which a project can be developed. At some point governmental leaders will have to be decisive. Someone has to make the decision. A decision can be yes, no or wait. Once a decision is made, move to the next step boldly.

4. Involve community leaders and opinion-makers in the early stages of a development project or when a rate increase is needed.

A decision to improve, or not to improve, a utility system can have far reaching consequences for a community. Many times citizens know something must be done to improve or maintain their utility system, but no one seems to be willing to step forward to make the important decision to move forward. Other communities will make the decision to move forward, but a project will die because no one will take the lead and shepherd a project to completion. Or, in some cases, a needed and wanted project dies simply because local leaders become divided and actions are delayed or postponed. *Community leadership is often the reason why one rural town is prospering and its neighboring city is not.* Governing leaders need the support and assistance of non-elected community leaders. When approaching non-elected leaders for help, councils or boards should be united in purpose before undertaking new projects or asking for rate increases. Your governing body should consider involving non-elected community leaders, like a banker or business leader, in any project development. Also, your governing leaders should consider naming a primary spokesman or manager for your improvement project or rate increase campaign.

5. Educate citizens

Citizens will be more likely to support a development project or rate increase if they understand why it is needed. Most citizens are not aware of the condition of their utility system or know what it takes to maintain or the cost to operate a system. Citizens probably

do not know what problems you are currently having with your system or the steps you have already taken to correct problems. Citizens also want to have information about the future plans you have for your utility system. Once citizens have information about their utility system, they become better informed consumers and more readily will support your decision to raise rates or to explore pursuing an improvement project. Regarding education, remember: (1) no surprises, (2) give your customers (citizens) all of the facts, (3) get the word out to as many people as possible; identify your education avenues, (4) let your customers know how you price your product, and (5) let your customers know how you are already addressing problems, including steps you are taking to correct problems, and/or to promote efficiency and measures to curb larger rate increases, (6) stress health and regulatory issues.

6. Public Participation

Public participation and awareness are critical if you are to succeed in reaching your desired target. Any project to improve or create a public utility system most likely will be costly and will forever change the future of a community. Many critical, pivotal, and hard decisions will have to be made by local leaders. These decisions can be made in a vacuum, void of public input, or they can be made within the framework of public participation and awareness. Public involvement in the decision-making process helps public officials make informed decisions.

A well prepared and well-executed public involvement process can have the following results: (1) allows for early identification of potential opposition to a course of action proposed in attempting to solve a community problem or to undertake a project, (2) allows sufficient lead time to revise plans and find alternatives, or accept a compromise to the proposed course of action, (3) provides less opposition during legal public review and hearing process, (4) keeps a proposed project on schedule, and (5) avoids potential litigation costs. Involve the public through meetings, steering committees, community groups or other forums that do not intimidate people who are too shy to speak in public (small coffee groups).

7. Welcome and listen to the opposition

Welcoming and listening to the opposition is not always the most enjoyable task a governmental leader has to do. Yet this is an important part of building public support. The earlier opposing parties are brought into the process the better. It is important to remember that as a governmental leader you are going through a thought process to determine what is best for your community. Deciding what to do should involve weighing all of the pros and cons. The opposition can be very valuable in pointing out negative aspects about a proposal. Opposition cannot always be turned, but by addressing the opposition's concerns in a logical manner a stronger case for a project can be made because the time was taken to address negative ramifications of the improvement plan. The opposition should feel as though they have contributed to discussions. If possible, incorporate their suggestions into any plans or proposed actions; this makes them a partner in the outcome. Let the opposition know that

governmental and community leaders are willing to modify plans to address community concerns, but these leaders are resolute in reaching planned targets.

Also, remember it is not always necessary to grease a squeaky wheel. If only a few are vocally opposing a plan and they do not have constructive criticism or suggestions, do not try to placate them -- thank them for their input and move forward. Some simple things to remember when dealing with opposition; (1) give others a chance to express themselves, (2) cooperate with those whom you lead; when discussing issues use words like we or us (“How are we going to correct the problem?” or “How will this effect us?”), and (3) listen to others; true listening occurs when you respect the opinions of the person you are listening too -- the opinions of everyone should be valued and considered.

8. *Develop goals and objectives*

Developing goals and objectives is important if you are going to build public support. A steering committee or the governing body should establish goals for your utility system or planned utility. A goal states what you want your system to accomplish; such as -- “Provide patrons with a wastewater system that adequately protects the health of citizens.” Objectives are the things that must be done to achieve goals. Goals act as a compass to focus discussion and provide a point to measure against. It is difficult to debate or discuss something without having a defined topic. Goals provide the topic to be discussed, and keeps things focused. A goal should answer the question why do we have, or need, a wastewater system? A goal should be measurable or absolute. You need to determine if your system is, or is not, meeting the goals your community has for the system. Some people believe goal-setting is an ignorant waste of time, but all successful businesses have goals they can measure progress or needs against. A community should use the same practices as businesses. If you are not attaining your desired goals, then objectives should be developed that give guidance on how to obtain your goals. The Midwest Assistance Program, the Kansas Rural Water Association, the League of Kansas Municipalities, K-State Research and Extension and KDHE can provide assistance with setting goals and objectives.

D. Determine How Much Customers Are Willing to Pay per Household for a Project

How much is it going to cost me? For your customers this is the bottom line. This question is the pivotal point where many projects start or die.

1. Do not broach the subject with the public until you are educated about funding projects, have taken steps to address problems, and have started to build support for action!!!
2. Do not give an exact cost until you know what it is!!!
3. First, establish a-not-to exceed limit!!!
4. Remember patrons are your customers -- treat them like customers!!!
5. Stress nothing is free -- your community will have to help pay for improvements!!!

Governing leaders must establish credibility with citizens. This point cannot be emphasized enough. Customers look at their governing body as its leaders. Standing before your citizens dumbfounded

and unable to answer a simple question does not help rally customers to a cause. Equally embarrassing is when a customer asks you why you let things get so bad that you need to spend large amounts of money for new improvements, and all you can say is we have not done a thing to try to address problems. Educate yourself about what lies ahead and educate customers as to why you must move forward.

You will not know how much a project will cost the community or customers until the preliminary engineering report is completed. Customers will remember the first cost figure you give them, and will forever hold you to it. This often becomes the rallying point for opposition. The opposition may comment, “They told us it would not cost more than \$15 per month, and now they are saying it will cost \$20 per month. How can we trust them on anything! Let’s scrap the whole works.”

RD can be helpful in providing information about what an affordable user rate should be for a new or rehabilitated system. It is wise to begin talking in terms of rates being higher than what an affordable rate may be today. It may take one to three years to get a project funded, and costs during that time will increase; in the end, rates could appreciate considerably. Rates will have to be adjusted up to generate enough money to pay for costs. Governing leaders should:

1. Understand what funders expect customers to pay per month.
2. Adjusting for increased costs, determine if customers are willing to pay suggested monthly user rates.
3. Stress that steps will be taken to try to keep rates at the levels customers say they are willing to pay.
4. If the preliminary engineering report estimates that monthly rates will be higher than the rate customers said they are willing to pay, no commitment to move forward with the project will be made until customers are consulted.

New improvements usually require customers to pay more each month than they are now for service. The process of raising rates can become difficult for local leaders. It is important to understand some basic dynamics of building support for increasing user fees. The following are four key dynamics to remember:

1. Taxpayer Truths

Two things all citizens think about increasing taxes, fees, etc.

- I do not want government to take any more of my money!
- I really get angry when government foolishly spends the money I do send to it!

These two attitudes are healthy for your citizens to have. They help to foster a balance between the electorate and its leaders, a balance built on effective two-way communication. Leaders must articulate and convince citizens why spending for services or improvements are needed. In turn, citizens must communicate their support for reasonable expenditures and that they expect government programs to be administered efficiently. Local leaders must convey

they are very cognizant of the *taxpayer truths* and that they are not eager to challenge these truths, but they must convey why a rate increase is truly needed. No one is going to thank you for keeping rates low if your utility system becomes unhealthy or is always breaking down.

2. *Citizens are customers*

It is important for local leaders to think of their citizens who use utilities as customers. Although they are captive customers, they, like all customers, want service, fair prices, and, when necessary, be convinced they are getting a good buy when rates must be raised. Things to consider about your customers:

- Do you provide good service to your customers?
- Does everyone pay a fair and equitable rate for what they receive from your utility?
- What are the demographics of your customers? What do different groups of customers want?

Understand basic customer concepts:

- They do not want to buy something they do not feel they need.
- They will not purchase an item if they do not understand what it is for.
- They will only purchase the best deal -- they want the most value for their money.
- They will not buy something unless they derive some benefit from the purchase (utility value).

3. *Education*

Once citizens have information about their utility system, they become better informed consumers and more readily will support your decision to raise rates (the first three basic customer concepts apply here). Regarding education, remember:

- No surprises.
- Give your customers all of the facts.
- Get the word out to as many people as possible; identify your education avenues.
- Let your customers know how you price your product.
- Let your customers know how you are already addressing problems including steps you are taking to promote efficiency and measures to curb larger rate increases

4. Benefits

Remember the fourth basic customer concept: *They will not buy something unless they derive some benefit from the purchase (utility value)*. In essence, when you are trying to convince citizens to support a rate increase, you are really asking your customer to buy the new enhanced product that you are selling. Key to making this sale is persuading your customers they are deriving an important benefit from this purchase. Things to remember:

- Start with basic benefits; articulate personal benefits first -- a personal impact must be established.
- Articulate how your community will benefit in the near term.
- Provide a list of long-term benefits that might occur.

E. What Funding Programs Are You Eligible For?

Each funding agency has specific eligibility criteria. In addition, their programs may also contain standards that are used to determine grant qualification. In general the categories of eligibility criteria are:

1. *Qualified governing body*

In Kansas this is a township, county, city or sewer benefit district. USDA-Rural Development can finance projects for townships, counties, cities, and Community Development Block Grant (CDBG) can finance projects for counties and cities. Kansas State Revolving Loan Fund can finance projects for counties and cities.

2. *Target audience*

Who the agency can work with. Each agency must be contacted for specific guidance.

3. *Income guidelines*

- RD -- uses Median Household Income (MHI) level for a benefiting area to determine whether a community is eligible for low interest loans or grants. Census data is used to make determinations. For unincorporated areas, the census data for the township is used. If a county, city, or benefit district can justify why they believe census data is inaccurate, RD may allow an income survey to be done for the service area to determine actual MHI. The income survey must be conducted by a non-partial third party. Contact RD for detailed information.
- CDBG -- Uses Low and Moderate Income (LMI) to determine eligibility. At least 51 percent of the people residing in a benefiting area must qualify as low-and-moderate income.
- SRF -- no income qualifying standard

4. Eligible activities

Each funder has a list of the types of improvements it can fund.

F. Set Up a Governing Agency, Apply for Funds, Prepare Preliminary Engineering Report and Environmental Report

If your community is not incorporated, it will need some kind of a governing agency that can develop and operate a wastewater system. This body also needs to be able to borrow money, and assess and collect fees. Chapter 10 discusses the formation of a Sewer Benefit District.

Earlier paragraphs in this chapter discuss determining how much to pay and identifying funding programs. Chapter 11 discusses the process of funding a project in more detail, including other (although more costly), sources of funding. Closely related to working with funding agencies is the step of clearly defining the project. This is accomplished by a Preliminary Engineering Report that evaluates alternatives for the project. An Environmental Report will be needed as well. Engineering reports are discussed in Chapter 8 and hiring and working with engineers are covered in Chapter 9.

The funder may commit to funding a selected project after successful completion of these and any other requirements. However, there is strong competition for available funds, especially for grants and low interest loans.

G. Final Design and Approval to Use Funds

Before the funds are released, the final engineering design must be completed and approved. Land, easements, rights-of-way, and/or services must be acquired for the project. Steps must be taken to properly maintain, operate, and manage the system.

H. Construction

The real project begins to take shape. The construction of the project is not covered by this manual. The community will want to be sure that the construction work is adequately supervised and inspected. It may want to include that in the design engineer's contract or to hire an inspector.

I. Operation

As will be discussed in Chapter 11 on Funding and Chapter 13 on Capacity, the project is just beginning with the completion of construction. Operating and maintaining the physical plant, recovering costs, and serving the customers throughout the life of the system and preparing for the future are the true measures of a successful project.