Many communities face several water management challenges, from flooding to water shortages, water pollution to land erosion, aging sewers to leaky supply pipes. The first step to addressing these issues is to clarify the scale and nature of the problem.

A RainReady Needs Assessment can help communities tackle these problems at the same time, saving money and resources.

Whether you’re a city official or concerned resident, following the steps below can help to document your concerns, gathering the right information, and ensure an effective plan for your community.

**A RAINREADY NEEDS ASSESSMENT WILL:**

- **HELP ADDRESS A MIX OF PROBLEMS WITHIN ONE PLAN OF ACTION.**

- **ENSURE THAT ANY RESULTING PLAN OF ACTION ADDRESSES THE REAL NEEDS AND DESIRES OF THE WHOLE COMMUNITY,** starting with the end users – residents, businesses and other property owners – and taking account of the specific issues they face.

- **HELP UNIFY THE PUBLIC AND RAISE AWARENESS.** A RainReady plan may require public funding and regulatory changes; the more informative the Needs Assessment, the more likely you are to get public support. This is particularly important since problems like property flooding or river and lake pollution are often hidden from public view.

- **IDENTIFY THE MOST COST-EFFECTIVE AND EFFICIENT SOLUTIONS.** Options for individual properties – such as disconnecting sump-pumps, foundation drains and downspouts and yard improvements – and municipally coordinated improvements can be better targeted, quicker and more cost effective than large capital improvements to the municipal sewer system.

- **COORDINATE YOUR PLAN WITH OTHER COMMUNITY GOALS AND ACTIVITIES,** and with the priorities and resources of other agencies, preventing conflicts and reducing the costs of implementing each solution.

- **FULFILL PLANNING REQUIREMENTS FOR STATE OR FEDERAL MITIGATION GRANT FUNDS,** and coordinate the plan with federal, state, and regional programs.
Three Steps to a RainReady Needs Assessment

**STEP 1 ENGAGE THE COMMUNITY AND RELEVANT AGENCIES EARLY**

Residents, businesses, schools, and religious and community institutions are often the most impacted and may already be deeply engaged in the issue. Reach out early and often, and take time to listen to those affected by flooding, water scarcity, and water pollution.

Neighborhood associations and ad hoc groups of property owners can be helpful in spreading the word about the needs assessment, and in developing ideas and garnering citizen support for changes. Writing letters to residents, hosting an event, and/or inviting experts or residents to discuss their concerns are good, initial approaches.

It’s important to focus on community-scale engagement, as these issues are best solved when neighborhoods and municipalities take collective action.

Agencies are important, too – they bring expertise, resources, enthusiasm and ideas to the discussions.

**STEP 2 GATHER INFORMATION AND DATA ON THE PROBLEM(S)**

Documenting the problems associated with poor water management can require creativity. Many of the effects are undocumented and hidden from public view. For example, FEMA flood risk mapping is focused on the floodplains, yet many homes beyond the floodplains suffer from flooding. Water pollution isn’t easily visible. Sometimes communities can suffer from flooding and water shortages simultaneously, with the former being more evident than the latter.

Define the problem broadly: flooding, water shortages, sewer disrepair, and water pollution can all be tackled through improved water management and should be considered within one plan of action. Start with the existing data: government agencies often have helpful information: stormwater management plans; the community’s Flood Insurance Rate Map (FIRM); flooding complaints and known areas where street flooding is a problem, flood insurance claims data that provide the location, and dates of flood events and the extent of damage.
The municipality should already have data on any problems in relation to water scarcity risks, as well as water pollution, and erosion of streams and rivers. Natural areas such as landscape buffers alongside lakes, rivers and streams, ponds and swales, and nature and forest preserves play a critical role as natural defenses against floods, hurricanes, and water shortages, so it is important to gather data on the location and health of these areas.

Where there are information gaps, try to fill them yourself:

✔ **SET UP AN ONLINE GROUP:** Many communities affected by flooding are setting up Facebook pages to spread awareness and offer mutual support. Online groups can also be a good way of getting people to post photos of flooded properties, parched yards or polluted streams.

✔ **HOST AN EVENT:** Invite flood victims to tell their stories (on camera), meet other flood victims and support agencies, fill in a quick survey, and map where flooding is occurring. CNT hosted and filmed a series of “Gross Gatherings” events. We created videos and short reports after each event. Note that you will need to assure people that any information they given can remain anonymous if they wish. Ask a neighborhood association or nonprofit to do the hosting.

✔ **MAKE IT INTO A PROJECT:** Invite residents or schools to document the problems: photos, diaries, historical records, videos, and even poetry competitions can be useful ways to formally document problems and raise awareness.

✔ **CARRY OUT PROPERTY SURVEYS:** Property surveys are an essential ingredient. Although some residents will be reluctant to fill in any survey, they are more likely to do so if they’ve already heard about the work through friends, schools, or neighborhood groups. Don’t forget to ask for information on the estimated costs of any damage caused. This data can be useful when considering the costs of implementing solutions.

✔ **DO DETAILED PROPERTY AUDITS:** In the case of property flooding, a specialist surveyor may need to assess some properties. Homes can often be affected by more than one type of flooding, deriving from stormwater run-off from their property as well as the wider neighborhood. The flood risk to some properties cannot be mitigated through a community-wide or neighborhood-level approach. These buildings need special attention to make them resistant.

✔ **GET ADVICE FROM NEIGHBORING COMMUNITIES, AGENCIES AND EXPERTS.** You may want to host workshops to get a better understanding as to how these groups can help you.

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**STEP 3 PRESENT THE FINDINGS**

A short report and presentation should be prepared that includes a summary of the process that was followed; a summary of residents’ comments and/or a tally of the questionnaires; the problem statement with a map of the areas affected; solutions identified by residents, experts and agencies, and their advantages and disadvantages; relevant activities by other agencies and organizations; and high level conclusions and recommendations. The report is the community’s record of the problems and should be circulated and/or presented to everyone who participated as the first step in agreeing a RainReady plan of action.
BELOW WE HAVE OUTLINED SOME OF THE QUESTIONS YOU SHOULD SEEK TO ANSWER WITH YOUR NEEDS ASSESSMENT:

1. **WHAT WATER MANAGEMENT PROBLEMS IS THE COMMUNITY SEEKING TO ADDRESS?**
   Is your community affected by too much or too little water, or both? Are there problems with river bank erosion or water pollution? Be specific in your descriptions. For example, if properties are affected by flooding, use property surveys to identify how many are affected, and in what way. If there are problems with river bank erosion describe the length of badly eroding banks in feet and the steep of the slope. Describe the frequency of these occurrences and the time period – are they recent or have they been occurring over many years? What are the future risks of reoccurrence?

2. **WHERE ARE THE PROBLEMS OCCURRING?**
   Create a map of the community and mark up where these problems are occurring. If neighborhoods in the community are affected differently, show this on your map. For example, some neighborhoods may be affected by street flooding; others may be affected by sewer backups. Mark these areas differently. If the whole community is affected by water scarcity risk, mark this on your map.

3. **OVER WHAT TIME PERIOD?**
   Provide a broad historical context to the problems. How long have residents, agencies of the community leadership been aware of the problems? What is the frequency and severity of the situation? Has it got worse or better over time? If your community is facing several problems simultaneously, try to describe each one separately.

4. **WHAT IS THE CAUSE?**
   Try to describe the causes at their source. For example, if there is river bank erosion as a result of stormwater runoff, try to identify where the stormwater runoff originates from. If it comes from runoff from parking lots, roads, or playfields, try to identify these areas on your map. If your community is experiencing extreme weather events, describe these events. Be as specific as possible. If the source of the problem appears to go beyond the boundaries of your community, then make a note of this. It may point for the need for regional solutions.

5. **WHAT ARE THE IMPACTS?**
   How is your community affected? Describe the impacts on residents, and the wider neighborhood. Consider the social, economic and environmental impacts. Some of these impacts may be immediately tangible – for example, flooding may be damaging homes resulting in direct costs to the property owners. There may also be indirect costs such as days off work to clean up. You don’t have to know the precise dollar sums, just referencing these costs is sufficient. Make a note of who incurs the various costs – residents, the municipality, insurance companies – it’s important to have this information to help understand what solutions might be cost effective and socially and environmentally beneficial.

DOES YOUR COMMUNITY HAVE A RAINREADY PLAN? LEARN MORE AT WWW.RAINREADY.ORG