

Water System Partnerships & Regionalization – Inter-system agreements



Glenn Barnes
Environmental Finance Center
University of North Carolina at
Chapel Hill

919-962-2789

glennbarnes@sog.unc.edu



UNC
ENVIRONMENTAL
FINANCE CENTER



UNC

**ENVIRONMENTAL
FINANCE CENTER**



EFCN

environmental finance center network



www.efcnetwork.org



<http://efcnetwork.org>



The screenshot shows the EFCN website homepage. At the top left is the EFCN logo with the tagline "environmental finance center network". To the right is a search bar with the text "search here ..." and a "Go" button. Below the logo is a blue navigation menu with the following items: Home, About, News, Small Systems Project, Trainings, Assistance, and Resources. The main content area features a large photograph of four people (three men and one woman) gathered around a table, looking at a map. A semi-transparent text box over the photo reads "Water System Collaboration". Below the photo, the text "Small Water Systems Project" is displayed in a large, bold font, followed by "Under a cooperative agreement with the US EPA" in a smaller font. To the right of this text is a stylized logo consisting of a blue sphere above two green leaf-like shapes.



<http://www.efc.sog.unc.edu>

UNC SCHOOL of GOVERNMENT

[About the School](#) | [Courses and Resources](#) | [Library](#) | [MPA](#) | [Publications](#)

UNC
 ENVIRONMENTAL FINANCE CENTER

 search this site

[About](#) | [Services](#) | [Programs](#) | [Resources](#) | [Events](#) | [Blog](#)

Mission Statement

We work to enhance the ability of governments and other organizations to provide environmental programs and services in fair, effective and financially sustainable ways.

Upcoming Events

- Webinar Series on Revenue Resiliency for Water Utilities
Tuesday, February 4, 2014
- 2014 NC Water and Wastewater Finance Course
Tuesday, February 11, 2014
- NCAWWA-WEA Finance and Management Committee 2014 Spring Seminar
Communicating Your Utility's Financial Position to your Board and Customers
Wednesday, February 19, 2014

1 of 2 next >

[View all events](#)


Featured Work


 Smart Management for
 Small Water Systems

The EFC Awarded \$2M for its Smart Management for Small Water Systems Project

The EPA recently announced the EFC at UNC Chapel Hill and the entire Environmental Finance Center Network as one of four successful grantees for the 2013 competitive award to provide training and technical assistance to small water systems in both rural and urban communities.



Featured Report: Defining a Resilient Business Model for Water Utilities

The Environmental Finance Center and the Water Research Foundation partnered to produce a new report that helps utilities address the challenges of revenue gaps while modernizing financial and management practices.



Poll Questions



Session Objectives

- Talk broadly about water system partnerships and regionalization
- Investigate contractual relationships between systems
- Introduce a tool that has tips for successful agreements



<http://water.epa.gov/infrastructure/sustain/partnerships.cfm>

The screenshot shows the EPA website page for "Water System Partnerships". The page is titled "Water: Sustainable Infrastructure" and "Water System Partnerships". The navigation menu includes "LEARN THE ISSUES", "SCIENCE & TECHNOLOGY", "LAWS & REGULATIONS", and "ABOUT EPA". The page content includes a breadcrumb trail: "You are here: Water » Water Infrastructure » Sustainable Infrastructure » Water System Partnerships". The main content area features a message about Adobe Reader, a paragraph about challenges in providing affordable drinking water, a paragraph about opportunities for partnerships, and a paragraph about the range of partnership arrangements. The right sidebar contains "Sustainable Systems Quick Links" and "Just For You" sections.

EPA United States Environmental Protection Agency

Advanced Search **A-Z Index**

LEARN THE ISSUES SCIENCE & TECHNOLOGY LAWS & REGULATIONS ABOUT EPA

Water: Sustainable Infrastructure [Contact Us](#) [Share](#)

You are here: Water » Water Infrastructure » Sustainable Infrastructure » Water System Partnerships

Water System Partnerships

Home Sustainable Infrastructure Sustainable Systems Sustainable Communities

You will need Adobe Reader to view some of the files on this page. See EPA's PDF page to learn more.

Small systems face unique challenges in providing affordable drinking water that meets federal and state regulations, especially as new drinking water requirements become increasingly complex. These challenges include aging infrastructure, increasing costs and declining rate bases, and limited technical and managerial capabilities. In order to overcome some of these challenges, water systems may need to develop partnerships with other systems.

These partnerships can provide opportunities to collaborate on compliance solutions and operations and maintenance activities and to share costs with other nearby systems, thereby increasing capacity and enabling systems to provide safe and affordable water to their communities.

Partnerships can range from informal arrangements (e.g., sharing equipment with another water system) to more complex arrangements (e.g., sharing management with another water system) and may involve changes to the operational, managerial or institutional structure of a water system. When considering a partnership with another water system, it is important to evaluate:

Sustainable Systems Quick Links

- Effective Water Utility Management
- Capacity Development
- Water System Partnerships
- Water Sector Workforce
- Resources

Just For You

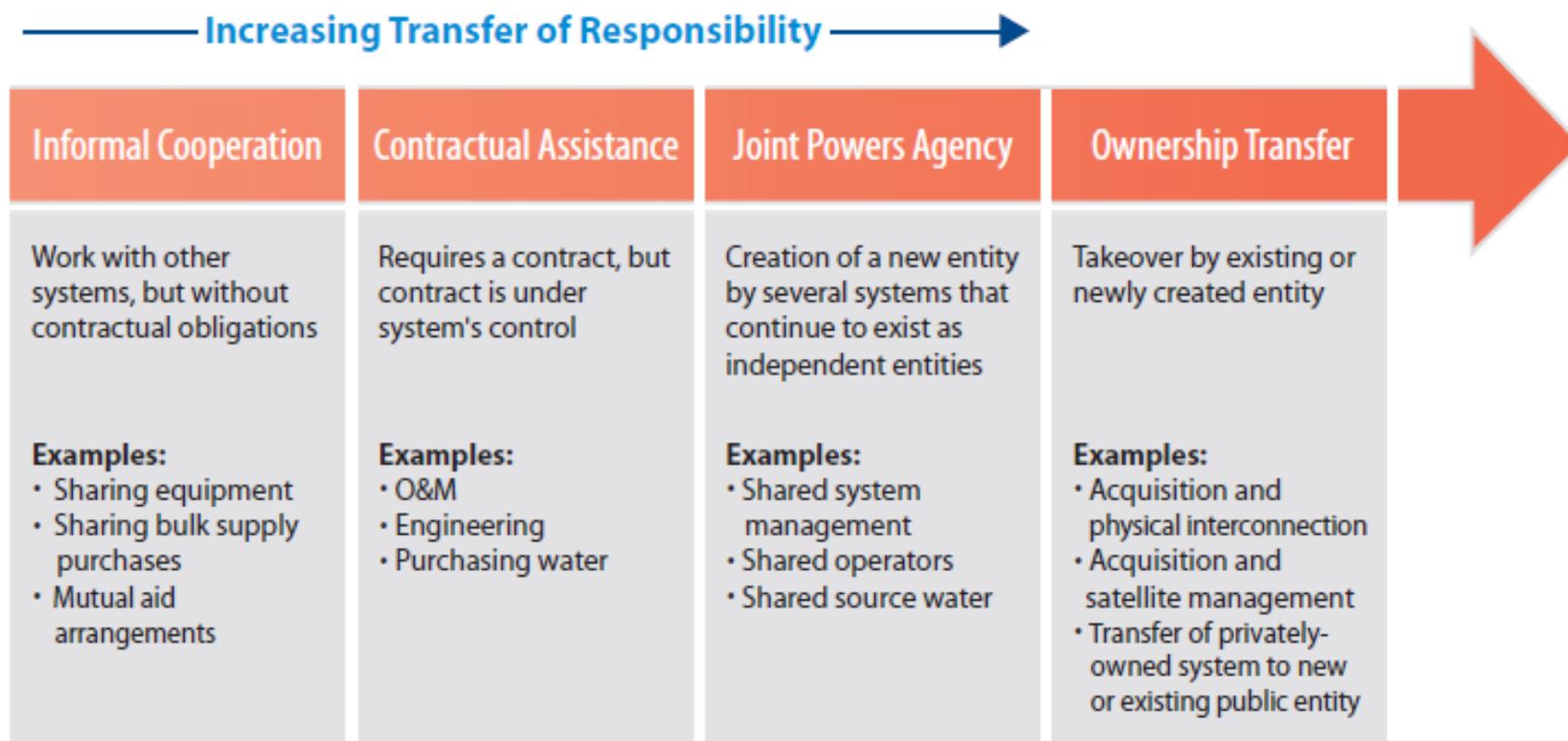
- Local Officials
- Consumers
- Utilities

Water Home

- Drinking Water
- Education & Training
- Grants & Funding
- Laws & Regulations
- Our Waters
- Pollution Prevention & Control
- Resources & Performance
- Science & Technology
- Water Infrastructure
 - Drinking Water
 - Green Infrastructure
 - Septic Systems
 - Sustainable Infrastructure
 - Water Security
 - Wastewater
 - WaterSense
- What You Can Do



System Partnership Spectrum



Source: U.S. EPA

Any kind of collaboration can be helpful



Benefits of Partnerships

- Reduce capital and operating costs and prices (per gallon of finished water produced) through increased economies of scale
- Help raise capital needed to replace and improve aging water-delivery infrastructure

Source: U.S. EPA



Benefits of Partnerships

- Improve operational performance through wider use of trained operators and advanced treatment technologies
- Enhance environmental protection, resource conservation, and contingency planning for conditions of scarcity, through increased coordination and integrated planning.

Source: U.S. EPA



Looking in the next 5-10 years, which local government services will most require increased inter-local cooperation?

Water Supply	82%
Economic Development	44%
Transportation	35%
Environmental Protection	26%
Land Use Planning	25%
Emergency Management	25%
Solid Waste Disposal	19%
Energy Conservation	12%
K-12 Education	9%
Law Enforcement/Jails	7%
Other (Please Specify)	4%
Social Services	3%

Source: SOG COG/Regionalism Survey Preliminary Data as of 8/8/08 130 responses



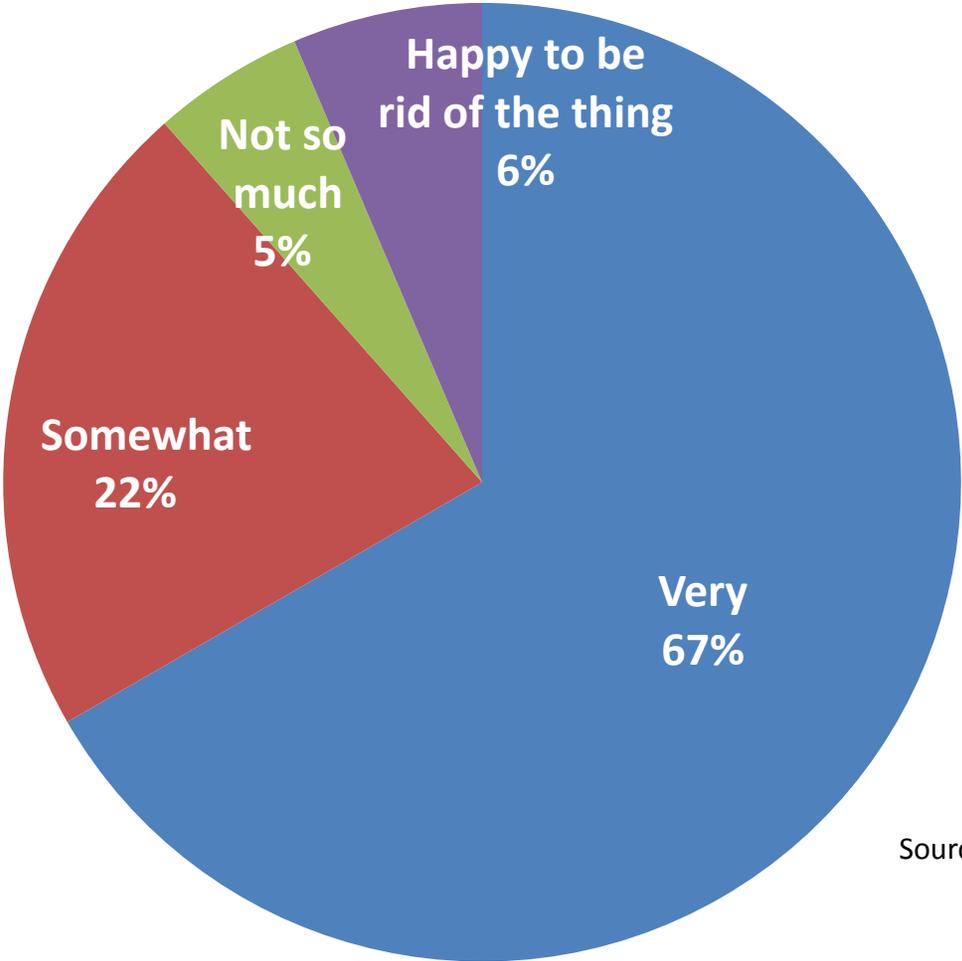
Common Concerns with Partnerships

- Desire for Autonomy
- Mistrust of Other Systems
- Lack of Knowledge of Other Systems
- Lack of Knowledge of the Options
- No Outside Independent Force to Get Collaboration Started

Source: U.S. EPA



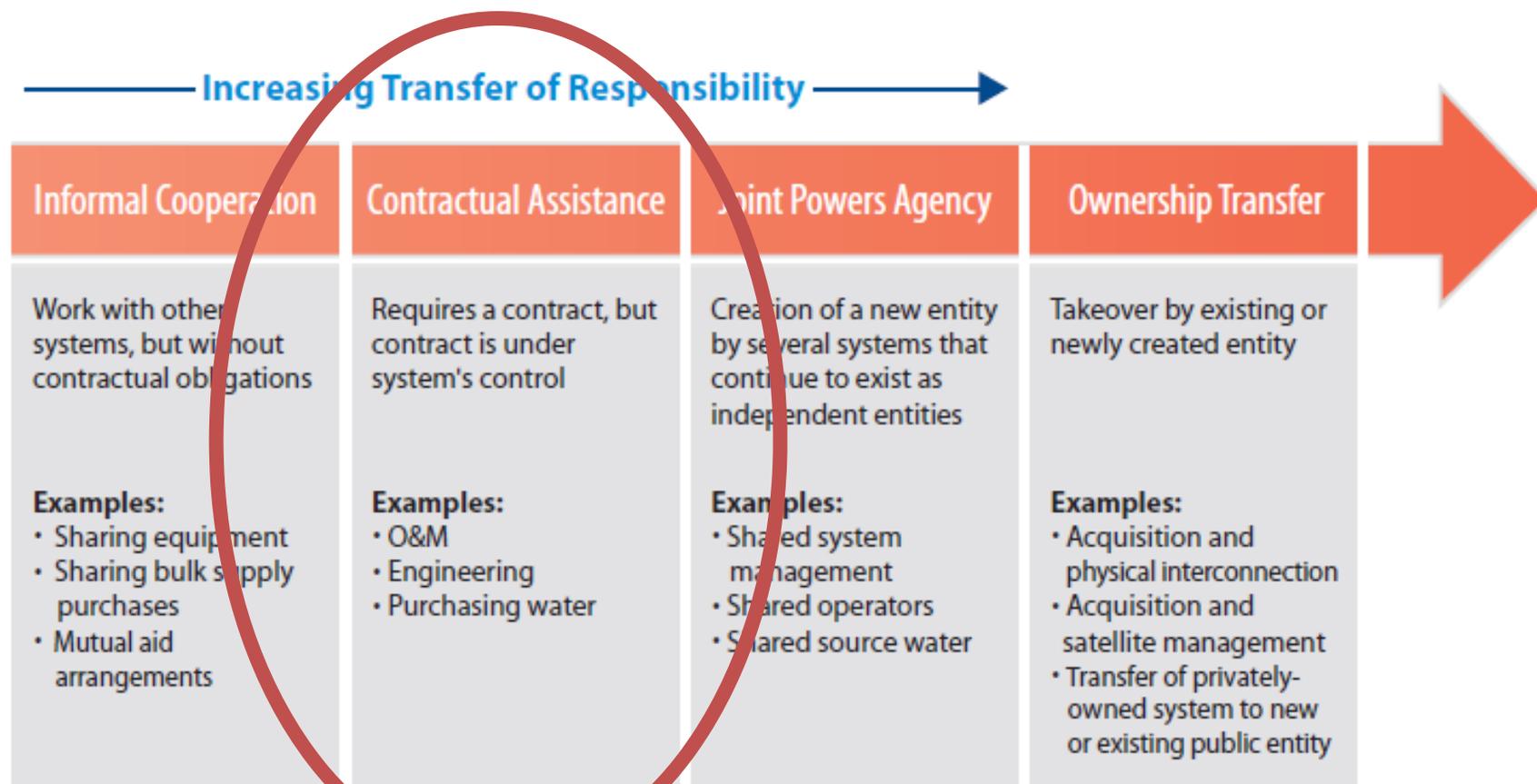
If you manage a utility, how important is it for you to maintain control in the future?



Source: 2008 Water Vision Conference



System Partnership Spectrum



Source: U.S. EPA

Any kind of collaboration can be helpful



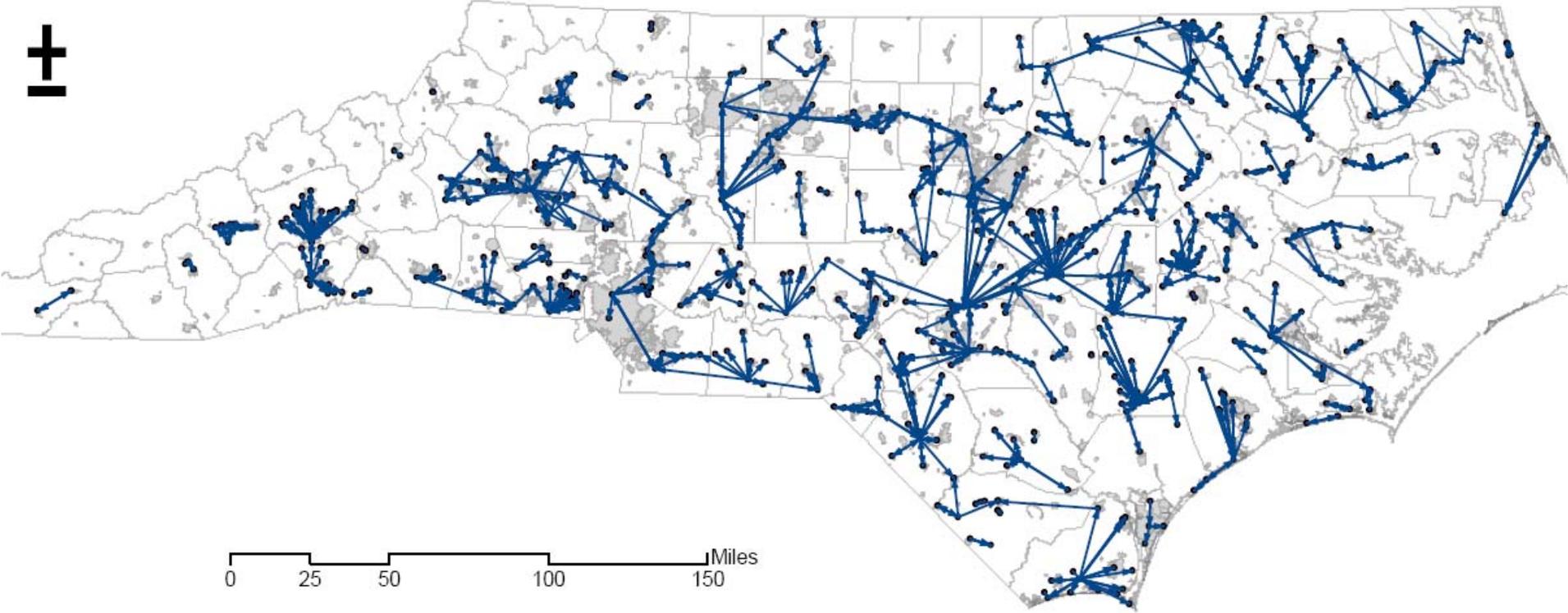
You have partnerships if your water system:



- Is owned by a company or organization that owns and operates multiple utilities
- Contracts out management or operations services to towns/companies that serve other utilities
- Buys chemicals or shares equipment or personnel with other utilities
- Buys or sells water to another system
- Is an "Authority" or special unit of government serving multiple communities
- ... and more

Inter-System Water Agreements





www.efcnetwork.org



Crafting Successful Inter-local Agreements

Available at <http://efc.sog.unc.edu/>

Format

- Questions to consider, descriptions, example text
- Advice for getting inter-local agreements right, avoid pitfalls
- NOT draft contract
- NOT every issue that will come up in every document

Crafting Inter-local Water Agreements

Tips relating to issues you may not have thought of or that you were hoping to avoid....

Prepared by:
UNC Environmental Finance Center

For
Public Water Supply Section
Division of Environmental Health
North Carolina Department of Environment and Natural Resources

6/24/09

*Note: Example text is provided in these guidelines to illustrate different concepts. These excerpts are designed to generate discussion and inspire development of agreement clauses appropriate to local conditions. These excerpts are **NOT** presented as, nor should they be considered as, model contract clauses that can be copied into agreements.*

Table of Contents

- Background 2
- Topics of Consideration: 3
 - ✓ What does the agreement say about each partner's current and future service area? 3
 - ✓ What does the agreement say about the relationship between water service, annexation and growth? 4
 - ✓ How precisely does the agreement define key usage thresholds and limits? 5
 - ✓ Does the agreement clearly outline meter maintenance and ownership responsibilities? 6
 - ✓ How does the agreement address water quality problems? 7
 - ✓ How does the agreement assure that water suppliers receive adequate payment for use of their capital? 9
 - ✓ What does the agreement say about how commodity charges are calculated and modified over time? 12
 - ✓ What does the agreement say about reselling water or capacity? 14
 - ✓ What does the agreement say about water pressure? 15
 - ✓ How does the agreement address communicating and handling supply interruptions or shortages? 16
 - ✓ What does the agreement say about the transferability of conservation status/measures? 17



What are Issues you Discuss or Put Down in Writing in your Inter-System Agreements?

- Service area boundaries
 - Usage limits
 - Meter maintenance and ownership
 - Water quality
 - Capital costs
 - Resale or capacity
 - Water pressure
 - Communications, service interruptions
 - Conservation status and measures
- ... and more.



Begin with Service Areas

Current boundaries

Planned future boundaries

Unserved areas

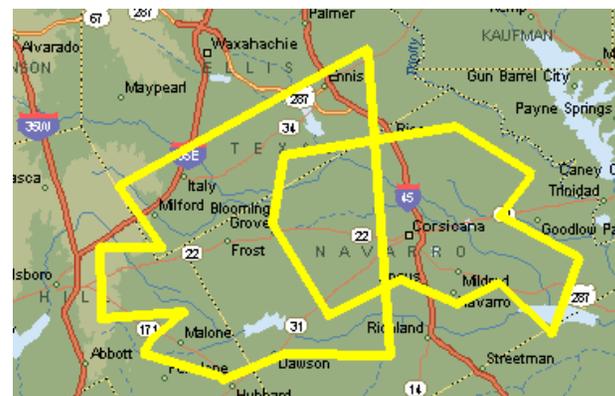
Annexation

Growth

Process to change or expand boundaries in the future

Extend whose lines to new areas?

Service Area Maps



Example 1: Service Area

“... water and sewer service to areas outside the existing Dobson Service Area shall be provided by the County ... If the County is unable or unwilling to provide an extension of service, the Town will have the option to make such extension of service, and utilize the County's utility lines in providing municipal services to potential customers inside or outside the corporate limits of Dobson but within Surry County ...”

Surry County – Dobson Inter-local Agreement



Example 2: Service Area

“That in the event the City annexes an area served by the County, the City reserves the right to buy at a fair and equitable price, from the County, that portion of the Robeson County Water System that is annexed into the corporate limits of the City of Lumberton. The purchase price ... shall be determined by a committee composed of representatives of the Robeson County Board of Commissioners and the City Council of the City of Lumberton ... shall be appointed by the Chairman of the Robeson County Board of Commissioners and the Mayor of the City of Lumberton ... ”

Robeson County – Lumberton Inter-local Agreement



Set a Maximum Allowable Peak Usage

“200,000 gpd.” *What exactly is that?*

Leaks

Requests for exceeding the amount

What if the capacity or demands change?



Example: Maximum Allowable Use

“To furnish the Purchaser at the point of delivery ... potable treated water meeting applicable purity standards ... not to exceed the following maximum demands:

- a. Maximum instantaneous rate of 2100 gallons per minute (3 million gallons per day)*
- b. Maximum daily demand of 1.6 million gallons*
- c. Maximum monthly usage of 42 million gallons.”*

Anson – Richmond Inter-local Agreement



Capital Costs

- How does the agreement assure that water suppliers receive adequate payment for use of their capital?
- How does the agreement address what happens when facilities need to be upgraded and expanded?
- Does the agreement specify minimum purchase requirements?



Common Methods for Addressing Capital Costs

1. Rolling capital costs into the commodity charge (with a minimum?)
2. An upfront capacity fee
3. A recurring capacity fee linked to reserved capacity or actual maximum purchase over a year
4. Purchaser assumes a percentage of seller's debt service
5. Pass through retail customer impact fees



Examples 1: Capital Costs

*“At the occurrence of such capital improvements, should Monroe issue long-term debt to finance, in whole or part, its water and sewer utility capital improvement program, **Monroe agrees to negotiate with Union the terms and conditions of financing Union's share of the capital improvements to the WWTP, conveyance, and disposal facilities providing allocated capacity to Union.**” (Union – Monroe)*

*“The Additional Charge of **\$400.00 per month is the figure calculated by City to provide for recovery of its capital costs ...**” (Columbus – County Water District IV)*



Examples 2: Minimum Purchase Requirements

*“Town will bill the County monthly for the actual amount of water sold and delivered to it at the then applicable rate; **provided however, the Town will bill and County will pay for a minimum quantity of 500,000 gallons per month regardless of whether or not the County actually uses such quantity.**” (Chatham - Siler City)*

*“ ... **the minimum daily volume shall be one million four hundred thousand (1,400,000) gallons per day.**” (Halifax – Roanoke)*



Variable Charges

What does the agreement say about how commodity charges are calculated and modified over time?

- A. No mention
- B. CPI/inflation index
- C. Cost accounting
- D. Linked to retail rate increases



Restrictions on Resale of Water

- No restrictions on reselling water unless specifically addressed in the contract
- Usually limited because of concern about future growth areas. If so, can be addressed in the service area portion of the agreement



Restrictions on Resale of Water

“The Water district may not provide water service to any areas within the Town’s corporate limits nor provide water service to those out-of-town customers identified in Appendix “C” of this contract, without first receiving approval of the Town.”

(Whitelake – Blade)

“The COUNTY shall not, during the term of this Contract, sell water to its customers at an amount less than the outside rate charged by the CITY to its customers located outside the corporate limits without the written consent of the CITY.”

(Nash – Rocky Mount)



Water Pressure Standards

- Standards prevent slow flow and sediment fallout caused by low pressure and harm to household plumbing that can be caused by high pressures
- Meet fire flow requirements.

“That water will be furnished at a reasonably constant pressure calculated at 45 to 50 PSI from an existing 12” supply main ... If greater pressure than that normally available at the point of delivery is required by the DISTRICT, the cost of providing such greater pressure shall be born by the DISTRICT.”

(Clinton – Sampson)



Communication and Handling Supply Interruptions

- Minimum advance notice of planned interruptions
- Who gets priority when supply is insufficient and what notice to provide



Transferability of Conservation Status

“In the event that Andrews has to institute any mandatory or voluntary water conservation efforts while supplying water to Murphy, Murphy will institute the same conservation efforts.”

(Murphy- Andrews)

“During periods of State of North Carolina and/or Federal and/or Roanoke Rapids Sanitary District mandatory conservation restrictions the minimum daily volume shall be one million one hundred thousand (1,100,000) gallons per day.”

(Halifax – Roanoke)



Working Together

- Does the agreement address non-revenue water or excessive inflow/infiltration?
- Does the agreement allow for variations due to emergencies?
- Are there agreed-upon exit clauses and situations?



Crafting Successful Inter-local Agreements

Available at
<http://efc.sog.unc.edu/>

Format

- Questions to consider, descriptions, example text
- Advice for getting inter-local agreements right, avoid pitfalls
- NOT draft contract
- NOT every issue that will come up in every document

Crafting Inter-local Water Agreements

Tips relating to issues you may not have thought of or that you were hoping to avoid....

Prepared by:
UNC Environmental Finance Center

For
Public Water Supply Section
Division of Environmental Health
North Carolina Department of Environment and Natural Resources

6/24/09

Note: Example text is provided in these guidelines to illustrate different concepts. These excerpts are designed to generate discussion and inspire development of agreement clauses appropriate to local conditions. These excerpts are NOT presented as, nor should they be considered as, model contract clauses that can be copied into agreements.

Table of Contents

- Background 2
- Topics of Consideration: 3
 - ✓ What does the agreement say about each partner's current and future service area? 3
 - ✓ What does the agreement say about the relationship between water service, annexation and growth? 4
 - ✓ How precisely does the agreement define key usage thresholds and limits? 5
 - ✓ Does the agreement clearly outline meter maintenance and ownership responsibilities? 6
 - ✓ How does the agreement address water quality problems? 7
 - ✓ How does the agreement assure that water suppliers receive adequate payment for use of their capital? 9
 - ✓ What does the agreement say about how commodity charges are calculated and modified over time? 12
 - ✓ What does the agreement say about reselling water or capacity? 14
 - ✓ What does the agreement say about water pressure? 15
 - ✓ How does the agreement address communicating and handling supply interruptions or shortages? 16
 - ✓ What does the agreement say about the transferability of conservation status/measures? 17



Before Q&A

- **Next webinar:**
- Wednesday, February 12 at 2.30 ET
- Topic: Water System Partnerships & Regionalization – System Mergers
- Register at <http://www.efcnetwork.org>



Poll Questions on 1-on-1 Assistance



Water System Partnerships & Regionalization – Inter-system agreements



Glenn Barnes
Environmental Finance Center
University of North Carolina at
Chapel Hill

919-962-2789

glennbarnes@sog.unc.edu



UNC
ENVIRONMENTAL
FINANCE CENTER