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America's Drinking Water Trouble On Tap

by Rice Odell

Rice Odell is the Editor of CF LETTER, a monthly report on environmental issues published by the Conservation Foundation in Washington.

For years, the nation's experts on drinking water have been trying to tell the American public something urgent. The point they have been striving to make is that many citizens are being subtly debilitated by contaminated water and, more importantly, that the country is sliding toward a health crisis which is not likely to be at all subtle.

The administration and Congress finally seem to have got the message that the situation calls for decisive action. There is a fair prospect of new federal legislation this year. But will it be strong enough to set up an effective federal program? Will it sufficiently activate state and local governments, which have basic responsibility for drinking water supplies? Many of these administrative bodies take safe water for granted—a complacency shared by the general public.

The complacency is not warranted, even by present circumstances. In the decade from 1961-1970, according to figures compiled by Gunther Craun and Leland McCabe, water specialists with the Environmental Protection Agency, there were 128 *known* outbreaks of disease or poisoning attributable to drinking water, outbreaks in which twenty people died and an estimated 46,374 became ill, many seriously. The worst incident since 1970 is believed to have occurred last summer in Pico Rivera, California, during which some 3,500 persons suffered from gastroenteritis, a stomach and intestinal inflammation that is the most common of the waterborne illnesses.

But *reported* illnesses are probably only the tip of an iceberg. Officials believe that countless sufferers go unreported—those with subclinical symptoms, those who don't bother going to a doctor, and those whose ailments are not attributed to drinking water. Few doctors, faced with a case or two of diarrhea or, even more significant, with arthritic-type symptoms that have their origin in toxicity, are likely to launch the kind of investigation that can track down and pin the blame on an elusive water contaminant. Samples of the water involved usually are not even available.

A DOCTOR is likely to hesitate before he signs a report implicating a city's water system. State and local agencies themselves are suspected of sometimes failing to thoroughly investigate and report the causes of outbreaks, even large ones. In 1964, for example, some 16,000 residents of Gainesville, Florida—well over a third of the population—were struck with gastroenteritis. (The episode was not unlike one in Riverside, California, the following year, when salmonellosis from drinking water infected an estimated similar number of persons, three of whom died.)

Federal water-hygiene officials are convinced that contaminated drinking water was the cause in Gainesville—but they were not notified at the time of the outbreak, despite its magnitude, and learned about it only two years later almost by accident. Why? Perhaps the Floridians couldn't agree that water was the culprit; perhaps they were concerned about tarnishing the image of the university town; or perhaps they feared a host of damage suits. In any case, nonreporting of outbreaks obscures the extent of the problem. "A lot goes on that people don't hear about," says EPA's William Long. "Or if they do hear about it, they don't realize the significance of it."

Similarly, EPA figures for the same ten-year period blame drinking water for 903 cases of infectious hepatitis, which

can result in permanent liver damage. (The infection of the Holy Cross football team in 1969 is a well-known example.) But a person who gets infectious hepatitis from a virus in water can transmit it to others, even without contracting the disease himself. So water may be indirectly responsible for many of the estimated half-million cases of that disease each year, of which most go undetected.

"The disease is so widespread, but so ill-reported," says Daniel A. Okun, a professor at the University of North Carolina, "that its economic impact from work time lost and for medical care is virtually impossible to assess."

Also unquantified, of course, are the discomfort and suffering, and the semi-productive work caused by milder cases. The same can be said of other water-borne diseases. In addition to health and economic effects, tap water frequently brings with it objectionable tastes and odors.

UNACCEPTABLE as the present situation is, the prospect of future hazards is what most unnerves the water experts. Some of the problems behind their concern are:

- Most municipal water supply systems —of which there are over 30,000—were built more than twenty years ago; each year they become more obsolete. They were designed principally to remove coliform bacteria from sources of "raw" water that were relatively clean. The enemies then were typhoid, dysentery, and cholera. "The sanitary engineers built in a helluva safety factor," says Long. The major diseases were all but wiped out, thereby helping to induce the present complacency. But the safety factor, in Long's opinion, has pretty well disappeared under new pressures.
- Rising demands for water are straining facilities for treatment, distribution, and pumping. Cities are turning increasingly to polluted sources of raw water; more and more reuse of water is inevitable. Population and industrial growth are pouring a heavier load of contaminants into the surface and ground waters from which municipal supplies are drawn. Runoff from farms and forests is largely uncontrolled, and chemicals are often accidentally spilled.
- New families of pollutants are entering the nation's waters at a rapid rate. In many cases, techniques have not been devised to remove them or even find them. And their short-term or long-term effects on health remain undetermined. These pollutants include various trace metals and a bewildering array of exotic chemicals. "There are about twelve thousand different toxic chemical compounds in industrial use today," says James H. McDermott, director of EPA's Water Supply Programs Division, "and more than five hundred new chemicals are developed each year." More and more wastes from these chemicals are entering our water supplies, he notes.

"Rising demands for water are straining facilities for treatment, distribution, and pumping. Cities are turning to polluted sources of raw water . . . more reuse of water is inevitable."

Among the polluting materials are such metals, chemicals, and compounds as nickel, tin, vanadium, lithium, beryllium, cadmium, chromium, lead, mercury, arsenic, selenium, silver, zinc, sodium, nitrate, asbestos, solvents, nitriloacetic acid (the NTA in detergents), and polychlorinated biphenyls (the ubiquitous PCBs). Also of concern are hormones, antibiotics, pesticides, and radioactive materials.

Many of these agents have not been evaluated, or have been inadequately evaluated, in terms of their toxicity and their possible effects on allergies, chronic diseases, and other health conditions. Professor Okun points out that few of the new chemicals are assessed for their potential impact on health, "particularly for the synergistic effect they may have when acting together or in concert with other types of environmental stresses." He adds that some of these chemicals have been shown to cause cancer, genetic mutations, or birth deformities.

By and large, conventional treatment systems are incapable of filtering out chemicals and trace metals. As Ralph Nader has put it: "They are making our water heavy with silent violence."

- Still more ominous are the many types of virus lurking in the public's drinking water supplies. Scientists have long known of their presence and their association with hepatitis and other diseases. But viruses are difficult to locate; indeed, until a few months ago they had never been isolated in drinking water in the United States. To some extent, the experts have assumed that chlorination and other types of disinfection—the bread-and-butter water-treatment techniques—put most viruses to rest along with bacteria. But this faith was shaken by EPA's recent discovery of disease-producing viruses in the drinking water of two Massachusetts cities, Lawrence and Billerica, despite the fact that both cities have up-to-date purification systems that surpass most in the country.

Some reasonable conclusions: viruses are alive and well in much drinking water throughout the nation; conventional bacterial tests can no longer be considered sufficient evidence of their absence; viruses may be causing many unexplained outbreaks of disease; and they won't be eliminated from water supplies unless all elements of a modern treatment system are operating optimally, if then.

- State and local health and water agencies are seriously strapped for funds and manpower. Ironically, the great emphasis on water pollution control has siphoned off appropriations and expertise from such programs as drinking water treatment and hygiene. Budgeters don't consider these so critical, because they assume supplies are safe; at least, they identify no current crisis.

(Water pollution control efforts are of only indirect benefit to drinking water supplies. They are designed to improve the quality of the streams, lakes, and other sources of raw water. But conventional pollution control methods do not begin to remove most of the contaminants. Okun says, "They may reduce slightly the pressure on community water supplies, but if we wait for the water pollution control program to provide us with safe drinking water, I believe we will always be well behind.")

- The results of apathy and lack of funds were etched sharply in the 1969 Community Water Supply Study of 969 public systems. It indicated that 2 per cent of the study population was being served water of a potentially dangerous quality. Extrapolated to the total of 160 million persons served by public systems, there are 3.2 million consumers in that boat.

THE STUDY showed that 41 per cent of the systems investigated were delivering water that did not meet all of the Drinking Water Standards set by the Public Health Service in 1962—standards considered by many experts as inadequate anyway; and 56 per cent of the systems were judged deficient because of poor protection of water sources, inadequate disinfection controls, insufficient pressure in the distribution system, and the like. (EPA officals say some local treatment authorities even skimp on the amount of chlorine they apply.)

Almost 80 per cent of the systems had not been inspected by state or county authorities during the prior year, and in many cases the investigators could not determine how long it had been since the last check was made. The study also found generally inadequate training of

plant operators.

Another widespread problem is the absence or non-enforcement of ordinances against so-called "cross-connections." For example, a chemical plant might hook up to a municipal water pipe so it can flush out its tanks. No problem—except when someone turns a wrong valve, or when peak demand or a large fire reduces pressure in the municipal system enough to cause a back-flow that sucks chemicals into the drinking water supply.

In one instance of a cross-connection—hard to believe but true—a developer ran his water main underground, found a pipe with pressure down there, and hooked up to it. As a result, the first people to move into the development found toilet paper coming out of their faucets. Such occurrences, alas, are not uncommon.

Throughout municipal systems, as well as connected and nearby systems, there are ample opportunities for accidents, machinery malfunctions, and human errors. The proliferation of small systems only increases the chances and magnifies the problem of providing adequate monitoring and surveillance. "The state health men only go to them when they have trouble," says one official. It is also more difficult to staff many small plants with qualified technical personnel, and to disseminate to them much-needed research findings.

As A measure of state and local incapacities to deal with such an array of problems, consider the record on such a simple and inexpensive process as fluoridation. EPA officials assert that many public water authorities—mandated by their customers to provide fluoridation—do not put in as much fluoride as the dental profession recommends for maximum protection against tooth decay.

Legislation pending in both houses of Congress would attempt to alleviate the situation by having EPA set minimum national drinking water standards for states to follow. Such standards would deal with both contaminant levels and operating and testing techniques. (The 1962 standards, which are being revised, could serve the purpose. At present, they can be used only to prohibit interstate trains, buses, and airplanes from taking on water at stops if it doesn't meet standards. Many states have adopted these standards officially or unofficially.)

Key questions of interest to the drinking public are whether the legislation, when it has been through the Congressional mill, will:

1) provide for effective federal enforcement, administrative and legal, in cases of failure within a state to comply with standards;

2) set up a system of program grants to states, and provide adequate funding for them as well as for federal research and technical assistance activities. The bill before the House of Representatives, for example, would authorize for the first year a total of $35-million, the Senate bill $45-million. But some experts feel the states need double those amounts of money. And there is no assurance that authorized amounts will actually be appropriated;

3) require that the state, or the water authority involved, adequately publicize any situation involving substantial health hazards—and, in addition, that it notify all customers whenever water samples fail to meet a standard, or whenever prescribed monitoring is not being undertaken. Ralph Nader adds that local physicians should be given "particularly detailed information so that especially vulnerable citizens may be adequately protected."

A LITTLE community publicity about contaminated drinking water usually works wonders. Public indignation explodes, and remedial action is likely to be swift. Indeed, water officials proceed gingerly with adverse findings. They are afraid of causing a panic. And they balk at using scare tactics that could lead to accusations of crying wolf.

The public also has a stake in the revised Drinking Water Standards that will be issued soon, for stringent standards will be essential to effective regulation in the future. There are some soft spots in the recommendations an advisory committee has been preparing for EPA consideration.

Existing and proposed regulatory programs are aimed chiefly at "public" water systems—which include those operated by private companies as well as municipalities. But what about those Americans who drink from individual systems, such as wells and springs (some thirty-one million), and those who have no running water at all in their homes (an estimated twenty-one million) and must rely on unprotected surface or ground waters, rain barrels, and the like?

Dr. Jay H. Lehr, executive director of the National Water Well Association, notes that a large percentage of those without running water are poor and live in economically depressed areas throughout the nation. "The lack of running water in these households unquestionably contributes to the poor state of the family, like a vicious circle," he says. "The men, women, and children in these homes are frequently debilitated by incipient illness producing lethargy and reduced vigor stemming from intestinal disorders produced by bad drinking water. Such disorders cripple any potential incentive to become productive individuals.

"Children must stay home from school to haul water on laundry days and for bathing. Elderly and sick must haul water over long distances. Families pay excessive amounts for water. Water sources are muddy in some seasons. Embarrassment occurs at school caused by smells and dirty clothes."

DR. LEHR cited recent surveys in Virginia and South Carolina showing a large percentage of houses with no adequate water supply on the property, and a prevalence of health problems associated with poor water and other unsanitary conditions: kidney and intestinal disturbances, skin diseases, dental decay, amoebic dysentery, infectious hepatitis, increased susceptibility to respiratory diseases, and roundworms. "Usually," he says, "rural water supplies are not treated to remove bacterial pollutants from barnyards, outhouses, septic tanks, cesspools, and abandoned open wells."

Who is responsible for the development of safe water supplies in such areas? No one, really. The Farmers Home Administration's water program is usually limited to areas where centralized systems are considered practicable, which does not apply to many scattered rural families. However, Demonstration Water Project, Inc., a non-profit corporation controlled by low-income shareholders around Roanoke, Virginia, is using FHA financing and an Office of Economic Opportunity grant to demonstrate the feasibility of multiple wells arranged in a "cluster system." The project has set up ten small water companies to own and operate facilities serving an average of about sixty families each. It is using the same approach in West Virginia and South Carolina. Moreover, Demonstration Water Project, Inc., is looking for further opportunities elsewhere, according to Stanley Zimmerman, a consultant to the project.

Whether in urban or rural areas, it will be largely up to the public to insist that its drinking waters are safe. "The problem is how to get the public to notice," says McDermott.

In public health, the name of the game is prevention. The experts hope that drinking water contamination is one problem the nation can deal with effectively before it reaches crisis proportions. "It's our overall judgment," says James McDermott, "that the risk is getting excessively high."

Communities That Have Not Met U.S. Drinking Water Standards

The list below represents areas where the drinking water has failed to meet the Drinking Water Standards of the U.S. Public Health Service and are therefore not included on the "approved" list. The deficiencies cited include one or more of the following: sub-standard quality; unsatisfactory physical facilities; failure to submit to the Environmental Protection Agency an adequate number of bacteriological water tests. When the communities not on the approved list notify the EPA that these deficiencies have been corrected, their water supplies will be re-evaluated. If they then meet PHS drinking water standards, the water sources will be placed on the approved list.

ALASKA
Cordova
Fairbanks (Int'l Airport)
Kodiak
Valdez

ARIZONA
Lake Havasu City
Winslow

COLORADO
La Junta
Pueblo (Ute Water Conservatory District, Grand Junction)

CONNECTICUT
Stamford

DELAWARE
Lewes
Wilmington

FLORIDA
Fort Meyers
Tallahassee
Palm Beach (Int'l Airport)
Riviera Beach

GEORGIA
Augusta (Bush Field)
Brunswick

IDAHO
Boise

ILLINOIS
Cairo
Harrisburg
Orland Park
Wood River

INDIANA
Middlebury

IOWA
Marshalltown

KANSAS
Wichita Airport

KENTUCKY
Catlettsburg
Fulton

LOUISIANA
Alexandria
Empire (Buras Water District)
Houma

MAINE
Bar Harbor

MARYLAND
Deer Park Spring Water Co.
Hagerstown

MASSACHUSETTS
Fall River
Medford
New Bedford
Quincy

MINNESOTA
East Grand Forks

MISSISSIPPI
Moss Point
Natchez
Pascagoula
Port of Gulfport

MONTANA
Livingston
Missoula Airport

NEBRASKA
Grand Island (Hall County Airport)
Hastings

NEW JERSEY
Atlantic City
Bayonne
Camden
East Paterson
Elizabeth
Hoboken
Jersey City
Kearny
Lakewood
Mahwah
Newark
Perth Amboy
Trenton

NEW YORK
Albany
Auburn
Buffalo
Clinton
Croton-on-Hudson
Erie–Buffalo County Water Authority
Hudson
Latham
Niagara Falls
Oneonta
Peekskill
Schenectady
West Coxsackie
White Plains

NORTH CAROLINA
Asheville
Morehead City
Salisbury

NORTH DAKOTA
Bismarck
Mandan

OHIO
Akron
Toledo Express Airport
Wellsville

PENNSYLVANIA
Altoona
Hanover
Moon Township
Pottsville
York Springs

PUERTO RICO
Aguadilla
Mayagüez
Ponce

SOUTH CAROLINA
Florence
Georgetown

TENNESSEE
Alcoa
Chattanooga
Clarkville
Nashville

TEXAS
Big Spring

UTAH
Ogden
Salt Lake City

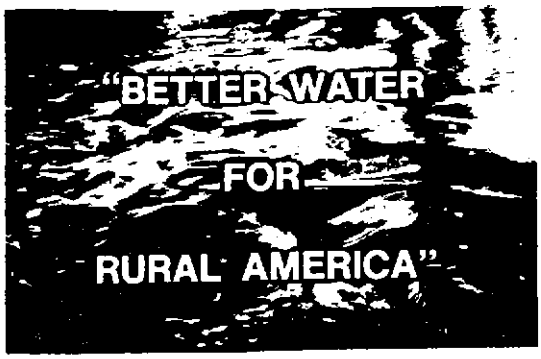
VERMONT
Rutland
White River Junction

VIRGINIA
Crewe

WEST VIRGINIA
Ceredo
Point Pleasant
Williamstown

WASHINGTON
Everett
Raymond

WYOMING
Cheyenne
Green River
Riverton



INFORMATIVE NEW SLIDE FILM ON RURAL WATER PROBLEMS AVAILABLE

"Better Water for Rural America" is a new 20-minute slide film meant for showing to local and national groups interested in improving water and waste disposal facilities for low-income rural Americans. Produced by Demonstration Water Project and the Commission on Rural Water, the 35 mm. color slide/cassette tape presentation requires only a Kodak Carousel projector and standard cassette player for showing. The operator need only change the slides as cued by audible "beeps" on the sound track.

The film documents the need for better water and waste disposal facilities and shows visually the deprivation that results from inadequate facilities. It focuses particularly on the successful programs of Demonstration Water project in Roanoke, Va. and other project areas, emphasizing innovative approaches that could form the basis of new national programs in this field. It also offers pointers on initial local organization, water company formation, training and operation of on-going facilities.

Two versions are available. One, aimed toward national groups, tells them how the Commission can help them reach national and local political leaders. A locally-oriented version explains how the Commission can help start water-sewer projects in particular rural areas. Make sure you indicate below which version you wish to order.

TO: COMMISSION ON RURAL WATER
221 N. La Salle Street
Chicago, Illinois 60601

Gentlemen: I would like to arrange for a loan copy of the slide film, "Better Water for Rural America." I understand that loan copies are limited and that I should allow at least three weeks for delivery. Although there is no cost for one weeks loan, I agree to pay return postage and insurance.

Please send me the (check one) _____ local _____ national version.

I would like to show the film on _____. If not available, my second choice is _____.
(date) (date)

I will show the film to _____.
(name of group)

I expect approximately _____ people to attend the showing.

Please confirm the availability of a loan copy and ship to:

Name: _____

Group: _____

Address: _____

City, State, Zip: _____

kind. Complete with appendixes illustrating the actual forms and documents involved, the guide provides the local development group with a step-by-step action program. Subjects covered include assessment of local need . . . organization of the development team . . . obtaining official approvals . . . securing necessary financing . . . establishment and training of the individual utility companies . . . the construction process . . . and support company operations.

Printed in inexpensive report style, its cost is **$5.00 per copy.**

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Chicago, Ill. 60601

ORDER FORM

Gentlemen, please accept my order for the following publication. I understand that the technical manuals will be ready for mailing at the end of March and that, **by ordering now,** I will be assured of receiving my copy(s) from the initial print run.

_____Copies of **Engineering Guide to Rural Water Systems Development,** at a cost of:
1-9 copies—$12.50 ea. **10-24 copies**—$11.25 ea. **25-99 copies**—$10.75 ea.
100-499 copies—$10.00 ea. **500 copies & up**—$9.00 ea.

_____Copies of **Technical on Wastewater Treatment for Rural Communities,** same as above.
You may combine your orders of the two books to obtain the best price. For example, an order for five copies of each book would receive the ten copy price, or.....$11.25 ea.

_____Copies of **Guide for the Development of Local Water Projects,**
at a cost of.....$ 5.00 ea.

_____Please send me **one copy each of the technical manuals only,**
at a special combined price of $22.50

_____Please send me a **full set of all three publications,**
at a combined price of $27.00

Signed_____

Company_____

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City_____ State_____ Zip_____

☐ I enclose full payment. You will pay postage and handling charges.

☐ Please bill me. I agree to pay postage and handling charges.

COMMISSION PUBLICATIONS

Ready to Help You NOW!

The Commission on Rural Water and Demonstration Water Project are now making available a series of publications that will be invaluable to anyone who is active—or about to become active—in providing better water and waste disposal facilities for the millions who lack them in rural America.

Written by experts in their fields—and made more meaningful by actual "on the ground" experience in DWP local project areas—each volume provides practical information and guidance and, taken together, constitute a unique reference library for workers in the field. We are pleased to introduce them.

- **Engineering Guide for Rural Water Systems Development,** by Michael Campbell and Dr. Jay Lehr, both of the National Water Well Association. Written primarily for rural water-sewer companies and their engineering consultants, it includes sections on water system development, construction, pumping and treatment facilities, and relative costs and maintenance. It stresses the complete evaluation of all available alternatives for water source and distribution.

  Hard bound and completely illustrated. $12.50 per copy.

- **Technical Manual on Wastewater Treatment for Rural Communities,** by Steven Goldstein of System Sciences, Inc., assisted by Walter Moberg, Jr. Similar in format and scope to the water systems manual, it is intended to be a guide to systems and components which are available for treating wastewater in rural situations. It includes information on traditional systems, such as septic tanks, and on innovative systems that are now available commercially or in the advanced testing stage. Several of these are discussed in detail.

  Hard bound and completely illustrated. $12.50 per copy.

- **Guide for the Development of Local Water Projects,** by Stanley Zimmerman and Edwin [illegible], both of Conset, Inc. This is the "bible" for local project developers and is the only work of [illegible]

(continued)

Rural Water NEWS

published for: COMMISSION ON RURAL WATER / Demonstration Water Project

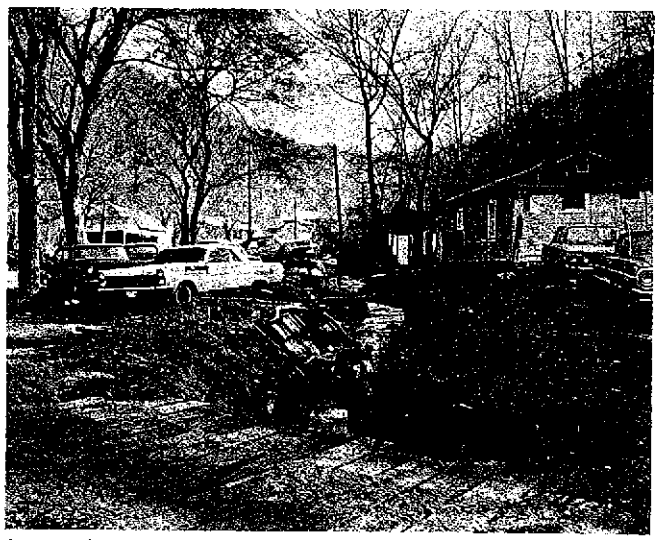
published by: Ground Water Council
221 North LaSalle Street, Chicago, Illinois 60601
Telephone: 312/346-8717

Reports on what's happening on water and waste disposal for rural America.

Number 2 - August, 1972

Cluster Water/Sewer the Answer in Logan

The Demonstration Water Project local project in Logan County, W.Va. -- Guyandotte Water and Sewer Development Corp. -- has received a preliminary engineering report recommending the use of decentralized facilities for both water and waste disposal in its initial project in the county's Big Creek area. The consultant, Swindell-Dressler Co. of Charleston, evaluated four alternatives before making its recommendation.



Long neglected, Logan County's Big Creek area will begin a "comeback" with new water and sewer systems.

Three of these involved the use of a central source-pipe line system for water supply. The most expensive ($441,000) would have required treating raw water from the Guyandotte River, followed by systems using a large deep well ($411,000) and water purchased from a nearby community ($330,000).

The total construction cost for the cluster water system -- using up to nine separate wells to serve as many as 91 families or as few as five -- is estimated at $298,000. According to the report:

"The system of individual wells with separate treatment, storage and distribution for each of the communities is the recommended system. This alternate has the least construction cost, lowest total inplace cost, and minimum user cost per month."

The recommended waste disposal system -- using small package treatment plants serving

=more=

Use Our Information Clearinghouse

To inform the public about developments in the rural water and waste disposal field the Commission has organized a national Information Clearinghouse. We'll be happy to tell you about our program...answer questions about what you can do in your organization or community...put you in touch with Commission members or others who can help you solve your problems.

Call or write the clearinghouse -- c/o Ground Water Council, 221 N. La Salle St., Chicago, Ill. 60601. Telephone: 312/346-8717

NOTE TO EDITORS: Let us know if we can furnish stories or information on how the Commission's ideas and methods can help your readers. Call and ask for Patrick Cannon, Public Information Director.

from five to 61 families each -- was estimated to cost $565,000, as opposed to a central sewer system cost of $646,000. The West Virginia state health department is reviewing this recommendation.

The results of the report confirm the Commission's position that central systems are not always the best or most economical way to provide these essential services to rural people. In this case, 248 families will pay less for water and waste disposal -- and so will the American taxpayer.

Offer Informative New Slide Film

Better Water for Rural America, a 35-mm. slide film presentation sponsored by the Commission on Rural Water and Demonstration Water Project, is now available for showing by local and national groups interested in improving rural water and waste disposal services.

The 20 min. presentation documents the need for improving the delivery of these services throughout the country. It focuses on the experience of DWP in Roanoke, Va. and other project areas, stressing DWP's comprehensive and innovative approach. A step-by-step guide for organizing and operating local projects is included. It covers initial development, company formation, training, construction, and company operation of on-going facilities.

The slide film is useful in explaining and dramatising how DWP ideas can be applied throughout the country. One version, aimed toward national groups, tells how the Commission can help them reach national and local leaders. A locally oriented version explains how the Commission can help start water-sewer projects in particular areas. Send the enclosed card for more information. Or write the Commission, 221 N. La Salle St., Chicago, Ill. 60601.

Rural People Lag in Essential Services

Preliminary 1970 Census figures indicate that more than 22 million rural Americans still lack water in their homes. More than 30 million have inadequate waste disposal. Proportionately, there is more poverty in rural communities. Where one person in 8 in our cities (and one in 15 in our suburbs) is below the poverty level, one in every four is poor in rural areas.

Our city ghettos and their problems have been widely publicized. The opposite is true in rural areas. Although there are many active farmers groups lobbying for higher price supports and other programs, few speak for the poor. The irony of this difference in attention paid to rural as opposed to urban problems is that the two are related. How many of those crowded into our urban ghettos -- both black and white -- arrived from rural America, hoping to escape both poverty and an unhealthy environment?

Plumbing Characteristics
Rural and Urban America

	RURAL	URBAN
HOUSING UNITS	17.7*	67.7
Water		
On central systems	39%	82%
Wells (all types)	53%	16%
Other (cisterns, springs haul, etc.)	8%	2%
Waste Disposal		
On central systems	21%	72%
Septic tanks or cesspools	64%	24%
Other (privy, direct discharge, etc.)	15%	4%

*In millions, from the 1970 Census. The Department of Agriculture estimates that there are 25 million Americans without water in their homes - at least 22 million of them in rural areas.

The health problem is particularly tragic. In many parts of our country, a high percentage of the population is afflicted with debilitating desease. Intestinal and skin

diseases are the most common, but outbreaks of hepatitus and typhoid fever also occur with some regularity. All are related to poor water supply and inadequate waste disposal.

When evaluating these statistics, keep in mind that the dividing line between rural and urban in the Census is a population of 2,500. Thus, many of those counted in the urban totals as lacking facilities actually live in what anyone would consider rural areas. It should also be noted that "wells" doesn't necessarily mean a modern sanitary well with an electric pump; more often than not, it means a shallow dug well with a bucket and a winch.

Report Progress on Local Projects

DWP ROANOKE now has two water companies in operation with the recent addition of the Southern Rural Water Co., serving 87 families. Delaney Court Water Agency, the first company to begin operations, has already sent out and collected its first monthly water bills and is operating smoothly. Four companies are undergoing the DWP training program preparatory to beginning operations later in the year, and eight others are in the engineering stages or awaiting financing.

GUYANDOTTE WATER AND SEWER DEVELOPMENT CORP. in Logan County, W.Va. (see story on page 1) is negotiating with the Farmers Home Administration and the Appalachian Regional Commission for financing for its first project in the Big Creek area. Over 92% of the families affected have signed up as a preliminary to forming their own company.

THE BEAUFORT-JASPER WATER PROJECT in South Carolina has received preliminary engineering reports for its projects in the small town of Bluffton and various areas on St. Helena Island. A large central system, including fire protection, has been recommended for Bluffton. St Helena Island residents will buy their water from an existing utility, the Beaufort Water Authority. Project personnel are now signing up families for both projects, which are being evaluated by local Farmers Home Administration officials.

Commission Holds General Meeting

The Commission on Rural Water held its first general meeting on July 19. The day-long program was chaired by Joseph Van Deventer, chairman of the Commission and project director of Demonstration Water Project (DWP). He was assisted by Stanley Zimmerman, National Coordinator. Reports indicated progress and expansion:

+ The three present local projects are moving forward (as reported elsewhere in this issue of the NEWS).
+ Proposals were heard for two possible new project areas.

=more=

Commission Chairman and Roanoke project director Joseph Van Deventer, Beaufort-Jasper project director Thomas Barnwell, Jr., DWP national coordinator Stanley Zimmerman and Logan County project director Roscoe Thornbury brought the meeting up-to-date on their activities.

Gene Mattern of the Indian Health Service explains how his group brings better water and waste disposal facilities to our Indian citizens.

+ Engineering guides on water systems and on waste disposal are in first-draft form and should be published by fall. Groups and individuals throughout the country have already requested copies.
+ "Better Water for Rural America," a slide film on the work of DWP and the Commission, shown for the first time. See story in this issue.

Commission members and guests then heard reports on what's happening within other government agencies and in the legislative area.

Gene Mattern, of the Indian Health Service told the story of their success in providing our Indian citizens with improved water and waste disposal facilities. He stressed the similarities of the I.H.S. and DWP programs, and offered his assistance to local project directors.

Larry Siegel of Representative Howard Robison's (N.Y.) office told the meeting about the new Rural Drinking Water Assistance Act that the congressman is introducing in this session in an effort to focus greater attention on the drinking water gap that still exists in rural America.

The attendees included observers from the offices of Rep. Mendel Davis (S.C.), Senator Ernest Hollings (S.C.), the American Public Health Association, National Rural Electric Cooperative Association, National Sanitation Foundation, Public Interest Research Group, Environmental Conservation Agency for Vermont, the Federal Office of Economic Opportunity, the Environmental Protection Agency and the Dept. of Health, Education and Welfare.

Rural Development Act Moves Forward

House-Senate conferees have agreed on -- and the House has overwhelmingly passed -- a compromise rural development bill designed to help slow the influx of rural people into urban areas. Most provisions of the bill would apply to rural areas and towns with populations of up to 10,000. Loans and grants for promoting industry would be available to communities of up to 50,000.

Key provisions involving rural water and sewer include increasing Farmers Home Administration grant authorization from $100 million to $300 million a year, with loan authority going up proportionately. Grants of up to $75 million a year would also be available for planning water and sewer facilities. If these amounts are finally appropriated, it will have a significant impact in speeding up the delivery of these essential services to rural Americans. It should be noted, however, that the Administration is currently holding $58 million of the current year's water and sewer association grant money.

Rural Water Information Kit Ready

If you want more information on Commission activities and how you can put its ideas to work -- nationally or locally -- write for the new RURAL WATER INFORMATION KIT.

It includes reports on active Demonstration Water Projects (DWP)...the history of DWP and the Commission...ideas for improvement of the federal government's rural water and waste disposal program...why decentralized wells and sewage systems make economic sense...and how you and your organization can use DWP ideas now!

The Rural Water Information Kit is free. Write to Ground Water Council, 221 N. La Salle St., Chicago, Ill. 60601. Or use the enclosed card.

Information Clearinghouse
Demonstration Water Project
221 North LaSalle Street, Suite 2026
Chicago, Illinois 60601
(312) 346-1862

Commission on Rural Water

Reports on what's happening on water and waste disposal for rural America.

Rural Water News

Number 5
February, 1973

What Does the Farmers Home Freeze Mean?

The recent Administration freeze of Farmers Home Administration grant funds for water and waste disposal facilities is likely to have extremely unfavorable consequences for the small rural communities and groups of scattered families that are the particular concern of Demonstration Water Project and the Commission on Rural Water.

In the short term it will certainly result in even longer lists of needed projects halted for lack of grant funds. The situation had already been critical, since FmHA has received less than half of its authorized $100 million in grant funds for this fiscal year. It is thus important that the program not only get under way again as soon as possible -- but that it be much expanded over past levels.

The Administration's budget for fiscal 1974 does not seem to offer any hope that this will happen. There is no money for water and waste disposal grants or for rural housing subsidies. The Economic Development Administration is to be eliminated. Of the regional commissions, only the Appalachian survives. The Office of Economic Opportunity is to be dissolved and its main program, the support of community action agencies, eliminated altogether. These agencies have often been the focus of local efforts to improve facilities for low-income families. Programs in the Dept. of Housing and Urban Development that reached many rural communities outside of FmHA jurisdiction are to be lumped into a revenue sharing program sometime in the future but, for the present, spending has been frozen.

Revenue sharing has also been most often mentioned -- although not specifically in the 1974 budget -- as the likely basis for any new administration rural development program. We do not believe that this is a desirable alternative for the constituency that we represent. Available grant funds will be in the hands of local government bodies and only the largest of these will receive grant funds adequate enough in size to finance new or improved facilities. They will have very little incentive to use these new funds to aid smaller communities or scattered groups who do not have domestic water and waste disposal service.

It is much more likely that the funds will be used to add such features as fire protection or additional treatment equipment to existing central water systems, or to install new central sewage systems. The rural resident who lives outside of these communities, largely in unincorporated areas, will have no way to obtain similar grant subsidies, which are absolutely essential if he is to have adequate water-sewer facilities.

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We suggest that any acceptable new delivery system must take this into account and make special provisions for this largely ignored group of rural residents.

Viable conditions in these communities should not be traded for improvements in more densely populated areas. We continue to believe that FmHA programs offer -- with some necessary modifications -- the most feasible vehicle for reaching these communities. If, however, revenue sharing becomes a reality as a replacement for current programs, the states should be given a clear direction requiring them to serve all needy rural residents.

As changes in rural water-sewer programs are debated in the weeks and months ahead we will continue our efforts to make the issues clear to those individuals and organizations who are concerned with the future of these programs, and seek their support...we will continue to demonstrate in our model project and field activities that service can be provided efficiently and economically to our target population ...and we will publish and disseminate the technical works and development guides that show others how they can work with smaller rural communities to achieve meaningful progress.

Arkansas Gets New DWP Project

Three Arkansas counties where over 60% of the population lacks inside plumbing are the location of one of two new DWP projects. DWP's partner is the Lee County Cooperative Clinic (LCCC) of Marianna, Ark., founded in 1969 by local citizens and VISTA volunteers in an attempt to remedy shortcomings in the health delivery systems available to the local poor. LCCC Project Director Olly Neal, Jr. will also be responsible for the new water project.

Lee, Phillips and Monroe Counties fall at the extreme of East Central Arkansas with Lee and Phillips bounded on the East by the Mississippi River. Largely rural, the counties have approximately 15,000 dwellings without indoor plumbing out of a total of just under 25,000. 80% of the affected families are classified as low-income.

LCCC found that its efforts to improve the overall health situation were significantly hampered because of the general lack of modern sanitary facilities. This is an experience it shares with another DWP project, the Beaufort-Jasper Special Water

Lack of inside plumbing works a hardship on the elderly in Lee County.

LCCC medical coordinator Dr. Irwin Redlener discusses water problems with local residents.

Project. Shigella, salmonella and ascaris are widespread and have been traced to inadequate water supplies and waste disposal systems. Most residents have shallow hand-dug wells with little or no protection from contamination.

The first year's activities will include development of three separate projects. The small communities of St. Paul and Garrets Grove will be hooked-up to the existing water lines of the Lee County Rural Water Authority. 70 families will be affected. 130 more-scattered families in the Monroe-Smale-Blaokton area will be served by a combination of central, cluster and individual wells. Financing for both projects will be sought from the Farmers Home Administration.

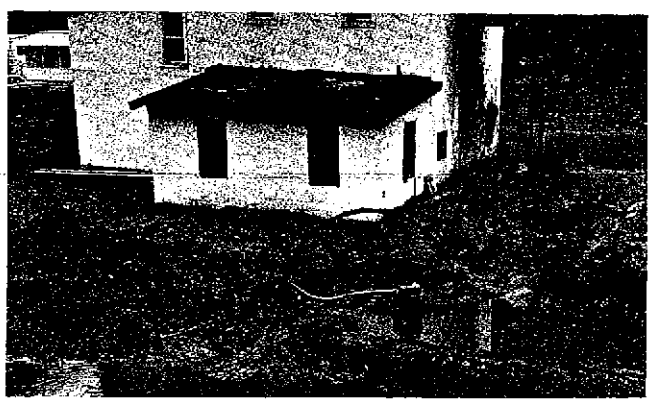
The third project will assist 60 families in the Poplar Grove area -- who already have a modern water system -- in solving their serious waste disposal problem. Clay soil makes current septic tank systems unworkable, with a virtual lake of effluent often reaching the surface. DWP and LCCC will provide a grant for 1/3 of the cost, with the balance to be sought from the Environmental Protection Agency.

How Good As Important As How Many

One of the difficulties in dealing with the rural sanitation question is the scarcity of reliable statistical information. The 1970 Census tells us that approximately 5 million Americans don't have piped-in water in their homes. It doesn't tell us how many homes don't have adequate water supplies. What do we mean by adequate?

Adequate can be defined, we believe, as sufficient safe water to produce that level of personal and household sanitation necessary for good health. We believe there are more than 20 million rural Americans living in dwellings that, in one way or another, do not reach that standard. The sewage disposal numbers are higher. Probably more than 30 million rural people are served by deficient systems, or none at all.

While there has never been a thorough survey undertaken on the extent of the total



"Filtration plant" for an existing water system in one DWP project area. The drum and hose circled in the photo is the water intake!

Water distribution pipe laid in drainage ditch. Note home sewage outfall circled in picture, not uncommon in rural areas.

national problem, several can be cited that illuminate portions of it:

- 75% of the population is served by public water systems. A recent survey by the Public Health Service of representative systems found that 41% failed to meet its Drinking Water Standards. The smaller the system (mainly rural) the more likely it is to be deficient.

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- Individual supplies seem to be in just as bad shape. Survey results in three Southern states show remarkably similar results. More than 40% of all supplies were contaminated. Modern drilled wells showed the least incidence of contamination, but dug wells were 77% and cisterns 85% contaminated. Almost 25% of rural residents rely on individual systems.

- In 1971, 70% of the total population was sewered, but in rural areas the figure is only a little over 20%. Most had septic systems (perfectly adequate in many areas if properly maintained) or cesspools (hardly ever adequate), but 15% were still using outside privies or direct discharge into drainage ditches or waterways.

- A 1969 study by the Farmers Home Administration identifies over 30,000 communities, with populations of less than 5,500, who need a new or improved water system. A sewer study yielded similar results. The study did not even consider areas where central systems would not be appropriate.

We believe that the time has come for an exhaustive survey of rural sanitation conditions. Perhaps the Congress will find the time this year to enact the modest Rural Drinking Water Assistance Act introduced by Rep. Howard Robison (N.Y.) last term, or at least include many of its provisions as part of a strong Safe Drinking Water Act.

DWP Goes Statewide in New Mexico

DWP's first statewide project is the result of the cooperative efforts of three groups: Home Education Livelihood Program, Inc. (HELP) of New Mexico; the state's Environmental Improvement Agency; and the state office of the Federal Farmers Home Administration. HELP, under Executive Director Ray Lopez, will carry the primary responsibility.

Active since 1965, HELP is sponsored by the New Mexico Inter-Church Agency and is committed to economic and social improvement, and community development and self-determination in rural New Mexico. It operates nearly 40 centers with programs in skills-traing, literacy, construction self-help, child development, migrant health and arts and crafts, among many others.

The Environmental Improvement Agency, under John Wright, will bear primary responsibility for identifying needy communities and setting priorities for helping them. They have been active in bringing safe water and wastewater facilities to rural New Mexico areas since 1947 and their wide knowledge of existing conditions will make them an invaluable partner.

In an expanded test of DWP concepts, non-profit development and support (D & S) companies will be established initially in these general areas by HELP. They will offer long term and comprehensive assistance to local communities in meeting their water-waste needs. Assistance will involve the organization of local companies... the planning, financing and construction support required for new companies...and assistance in upgrading and extending existing systems.

The DWP-HELP first year program anticipates 250 completed connections, 250 more under construction and 500 in the organizational stage. It is expected that the project will require nearly five years to reach the total target population.

Commission on Rural Water

PUBLIC INFORMATION OFFICE:
Demonstration Water Project

Ground Water Council
221 North LaSalle Street
Chicago, Illinois 60601
312/346-8717

Rural Water - An Urgent Need

There are more than 20 million people in the United States who still do not have adequate supplies of water in their homes -- most of them in rural areas. This in the last third of the Twentieth Century -- the so-called "century of the common man."

In an effort to help some of these people, Demonstration Water Project, Inc. (DWP) was formed in Roanoke, Va., in 1968. Under the leadership of Joseph Van Deventer, DWP was funded by the Office of Economic Opportunity in October, 1969. DWP's goal was not only to solve local problems but to demonstrate how low-income families in all parts of the country might be assisted in their efforts to obtain adequate, healthful water and waste disposal systems.

Beginnings

DWP began its program by contacting low-income families in the five-county Roanoke area. It identified about 2,000 families with serious water problems. Five hundred sixteen of these families were organized for the first-year effort.

At the same time, government agencies -- local, state and federal -- who might be in a position to assist DWP were contacted. Since the Farmers Home Administration (FHA) -- Dept. of Agriculture -- would be the primary funding source for the new water companies, DWP concentrated its efforts in that area.

Four companies, with 215 member families, were formed and received financing from FHA for conventional central well-pipe line rural water systems. As organized by DWP, these companies are owned and operated by the users themselves. They are run democratically, electing their own officers and also members of the DWP Board.

Thus, low-income people are not only organized to help themselves but -- through the DWP Board of Directors -- can assist others in obtaining needed water supplies.

Training & Assistance

Since most of those involved in company operations have had no prior experience in management, and since the companies are expected to function for at least the 40-year duration of the FHA loan, DWP has developed an exhaustive training program to insure the self-sufficiency of the individual companies. The three-year course includes instruction in water company management, administration, and inspection and service. Although each of the courses is directed specifically at those who have been designated to perform these functions, all interested members are invited to attend and many, indeed, do attend.

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In addition to training, DWP provides important assistance in many other areas, including company organization, loan and grant application, technical assistance in facilities development, and construction supervision. DWP Board and staff help will continue to be available to help the fledgling companies over any rough spots in their first few years of operation.

Breakthrough

Although DWP had met or exceeded every target set for it by OEO for its first grant year, it became obvious that a potential problem existed in FHA regulations that could prevent water service being made available to all needy persons -- FHA's traditional policy of funding only central source-pipe line systems.

Many families in rural areas live in remote locations that can't be economically serviced by a pipe line. The area surrounding Roanoke, for example, is very hilly with many homes entirely remote, or in "clusters" of two or three homes.

When DWP suggested that a more flexible approach to water company financing was needed if these families were to be served, FHA replied that adequate financing could be provided -- under its individual home improvement loan program for low-income families -- to allow these families to have a private system.

DWP was skeptical but decided to give the program a fair test. After six months, and after DWP helped 180 families submit applications, FHA finally tacitly acknowledged that the program was ineffective. Only 32 wells were approved.

Among the deficiences that effectively excluded many families was the requirement that the applicant prove "clear title" to the property. Even where this was possible, the short term nature of the loan resulted in monthly payments of approximately $11.00 -- or $4.00 a month more than other low-income families were paying for pipe line service.

In the meantime, research by DWP and its consultant for program development, Conset, Inc., showed conclusively that Congress had not intended that FHA association loans be limited to central systems only. Mainly as a result of water well/water systems industry testimony before the Subcommittee on Conservation and Credit of the Committee on Agriculture during the 1965 Pogue-Aiken Bill hearings, the following language was included in its report, "the term 'project' shall include facilities providing central service or facilities serving individual properties, or both."

On June 1, 1971, with its homework done, DWP submitted a formal proposal to Virginia FHA for a rural water district that would include single family and "cluster" wells, all to be drilled and maintained by a single company. With the support of several Virginia congressmen, the proposal went up through channels to Washington and was approved in principle in late August. It now appears likely that final approval will come early in 1973.

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Success in Roanoke

DWP's local program has been, by any standards, a notable success. More than a thousand families have been organized into 16 companies thus far. The first company, Delaney Court Water Agency, began serving its 48 member families in April. Early in 1973, nine companies will be pumping water to over 450 families. The ultimate goal of service for 2,000 families is within reach.

Throughout its brief history, DWP has been aware that the success of its local projects and methodologies could form the basis for a change in national policy for developing rural water and waste disposal facilities. Indeed, OEO had this in mind when it originally funded DWP. Recognizing the success obtained in the project areas in other states, where low-income families could reproduce the Roanoke success.

As it assists the new local project areas, the DWP national unit will be developing the methodologies required to assist rural residents on a national basis. Manuals will be prepared for local project directors, for first year training and assistance of new companies, and for the guidance of government agencies involved in assisting rural residents. Since each new project area will have its own unique problems, the manuals will stress flexibility of approach.

Technical assistance to new project areas will be provided through manuals prepared under contract to DWP by the National Water Well Association (Engineering Guide for Rural Water System Development)and the Mitre Corporation (Technical Manual on Wastewater Treatment Systems for Rural Communities). These manuals will provide local projects with the information necessary for evaluating their own options for water and waste disposal systems and for choosing the most appropriate and economical one.

Commission on Rural Water

As a vehicle for bringing DWP's concepts to the attention of those in a position to help bring about change in national policy, DWP fostered the formation of the national Commission on Rural Water. Chaired by the DWP Project Director, Mr. Van Deventer, membership now includes representatives from new project areas, interested government agencies, the National Water Well Association, and the Ground Water Council, which will be responsible for the National Education Campaign and Clearinghouse, a publicity program designed to gain a wide audience for the Commission and DWP. Coordinating the total Commission effort will be Stanley Zimmerman of Conset, Inc. Additional members will be added from groups interested in taking an active role in improving the standard of living for rural residents.

For the Future

The aim of Demonstration Water Project, and the Commission on Rural Water is ambitious -- nothing less than a reordering of national priorities to insure that every rural resident has adequate potable water and a non-polluting waste disposal system. To accomplish this will require a willingness to try new methods, to build enough flexibility into government programs so that solutions can be tailored to fit real needs. There are no "favorite" delivery systems in the DWP approach -- only the best available system for the rural people affected, and eventually for the 20 million rural people affected.

# # #

January, 1973

Commission on Rural Water

PUBLIC INFORMATION OFFICE:
Demonstration Water Project

Ground Water Council
221 North LaSalle Street
Chicago, Illinois 60601
312/346-8717

WHAT IS THE STRUCTURE OF THE

COMMISSION ON RURAL WATER?

The Commission is a national organization intended to dramatize the water and sewage disposal needs of rural Americans, particularly the poor, and to develop workable programs for meeting these needs.

It is an outgrowth of DEMONSTRATION WATER PROJECT, which has organized rural water projects in the Roanoke, Va. area and is now expanding to other areas. Current DWP programs are underway in Logan County, W. Va. and Beaufort-Jasper Counties, S.C., both involving water and sewage services. DWP is the organizer; these projects will be locally funded in part, and will be run locally. Two or three additional project areas will be in operation by December, 1972.

Responsibility for national program development is in the hands of CONSET, INC., a consulting firm. This includes selecting new project areas, working out joint venture programs for these areas, and coordinating all project activities.

CONSET is also responsible for technical assistance and particularly training. This includes Training Manuals for Local Company Operation, a Local Development & Support Company Manual, and a Guide for Government Program Agencies.

Two technical reports are also in preparation. One on water systems is being developed by the NATIONAL WATER WELL ASSOCIATION, the water well industry trade association. The other, on waste disposal systems, is being prepared by THE MITRE CORP., a systems consulting firm.

Responsibility for national education and the information clearinghouse belongs to the GROUND WATER COUNCIL, a public information organization.

Membership of the Commission on Rural Water now consists of project directors, the principals of organization handling study and information assignments, and interested government agencies. It is anticipated that additional persons with specific interests in rural water will be asked to become Commission members.

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June, 1972

Commission on Rural Water

PUBLIC INFORMATION OFFICE:
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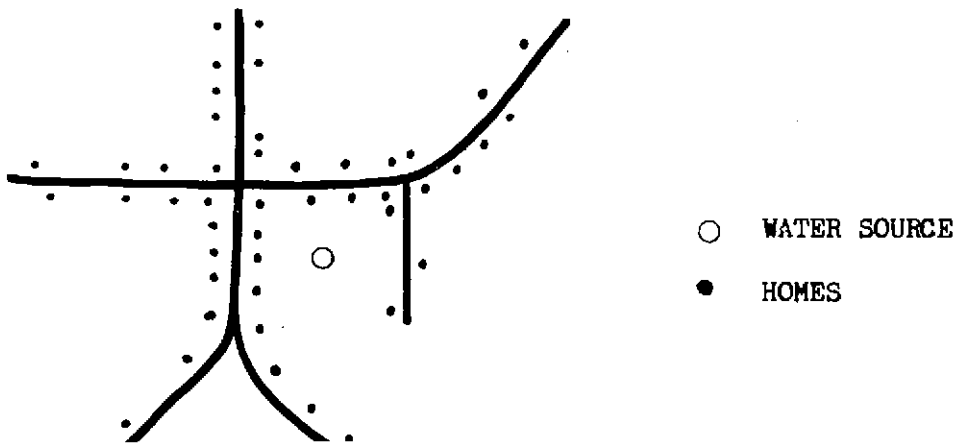
Ground Water Council
221 North LaSalle Street
Chicago, Illinois 60601
312/346-8717

WHAT DO YOU MEAN ---

"FLEXIBLE SYSTEMS DESIGN?"

The desirability of a central water (or sewage, or water/sewage) association in a rural or small town area comes through clearly to everyone. It's just like a city system. There is a utility which organizes and finances the total installation. It owns a water source, puts in and maintains a network of mains, and collects periodically for its services.

In an over-simplified way, its service area looks like this -- central management plus central service:



But what if we have more isolated farms and families in the area who also need water service? Can we have central management? Of course. Do we have to stick with central service? Absolutely not.

Where it would cost too much per user to run pipelines, we can put in wells and plumbing to service one or two or three or several families. The wells are paid for and owned by the central association. They are maintained by the central association. And payments for water service are made by the user to the central association.

We have the advantages of central financing, with long-term payment for

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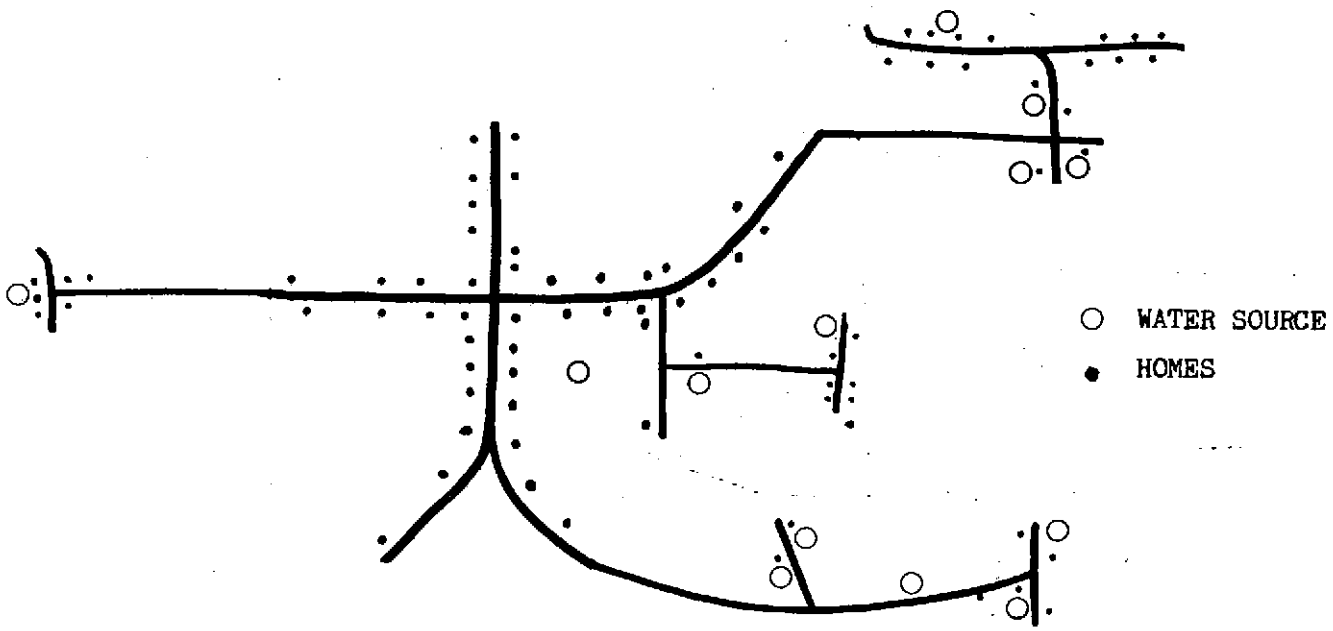
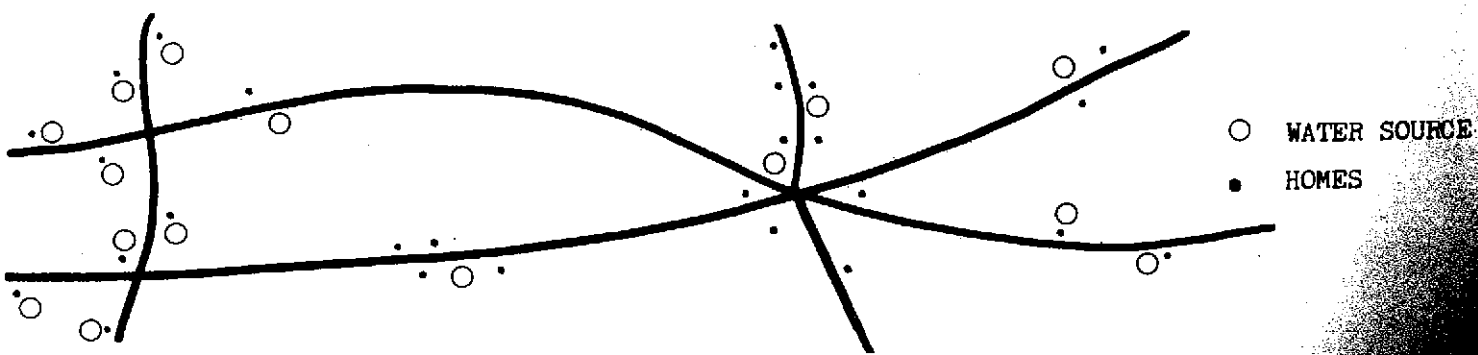
original costs. We have the advantages of central maintenance. At the same time, we avoid the high costs of running pipelines down sparsely settled country roads. If, for example, it costs $1,000 to put in an individual well and $1,200 to connect a particular household to a central pipeline, economics dictates the use of the individual well owned and maintained by the central management.

So we have a second alternative -- a central system, plus one or more small cluster systems:



There's a third alternative, viable where the population is radically dispersed. It involves central management of small cluster systems:



This is what we mean by flexible systems design. Use central financing, management and maintenance. Then use the system, or mix of systems, for water distribution which combines both logic and economy.

# # # # #

June, 1972

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HOW CAN YOUR ORGANIZATION

HELP STRENGTHEN RURAL WATER/SEWER SERVICES?

The 1970 Census shows that 22 million rural area people (or about 5 million households) do not have inside water or plumbing. It is estimated that two-thirds of these families have incomes under the poverty line of $3,000. Less comprehensive but scientifically valid local studies show a dramatic effect on health from this inadequate water supply -- not to mention the human and economic loss to a stagnating rural America.

Because of inadequate incomes, over 3 million American rural families lack both inside water, and modern waste disposal systems and are in no position to pay for these essential services within our normal credit system. They need financing assistance.

The broadest and most active program to bring better water/sewage services to rural Americans is administered by the Farmers Home Administration (FmHA). Yet FmHA's programs help only thousands of families a year -- and even then, proportionately few of the rural poor.

What is the solution? It comes in three parts:

1) More money for rural water/ sewage services	Additional money under the Rural Development Act of 1972 is a big step forward
2) Central Water-sewer association organization, financing and on-going management	This is the traditional FmHA method. It works, as proven by the backlog of association applications and the solid workings of associations already financed by FmHA
3) Flexible approach to systems design	This is where FmHA's program has faltered. FmHA insists on central systems, even where cluster well systems would serve more people at lower cost

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How can you help the Commission carry this message to national and local leadership of key organizations?

Inform your staff and membership leaders about rural water/sewage disposal needs. Inform them about the Commission's program for using cluster wells, either alone or in combination with central systems, to provide a better answer to this need.

Tell the story to Congress, with emphasis on committees concerned with agriculture and rural welfare. Contact committee members, their staff personnel, and committee staff personnel. Your support of Commission programs will benefit the rural poor and improve rural areas as a desirable place to live and work.

Tell the story to your membership. They may know the need but will act only if it is dramatized. Tell them about the Commission and its program to "stretch" federal programs to furnish more water to more people more economically.

Encourage your members to initiate local water action programs. Tell them how to get started -- organization, surveys of need, sources of engineering and legal help, and of financing.

How can the Commission help?

1) We can put your leadership on our mailing list. We'll send them Rural Water Information Kits and our Rural Water Newsletter.
2) Give us the opportunity to talk to your leadership group and your general membership. We have a tape/slide presentation which tells our story briefly and effectively. We'll be happy to provide a Commission member to make presentations, if this is advisable.
3) Let us furnish you information to communicate to your members by bulletin and newsletters, and at meetings.
4) Put local people who have problems and want a local action program in touch with us. We'll offer them information and assistance. They can then adapt our procedures and ideas to meet their own needs.

# # #

June, 1972

WHAT TO DO IF YOU HAVE A LOCAL AREA WATER AND SEWER PROBLEM

There are few rural areas in America that have entirely adequate water and waste disposal facilities. Your local County Agricultural Agent will probably be aware of those families who have the most urgent need and will also be able to tell you if there are any current plans to meet this need. Another source of information, especially for low-income people, will be the local Office of Economic Opportunity Community Action Agency. These groups exist in most rural counties where there are large groups of poor people. Politicians, especially at the county level, should also prove a good source of information. You should certainly contact the County Sanitarian, who will be very much concerned with the health problems involved with poor water and waste disposal facilities.

The primary funding source for rural water and sewer systems is the U.S. Department of Agriculture's Farmers Home Administration. They should be contacted at the beginning and made aware of your interest in this area. All applications for loan and grant funds originate at the county level, and the man to see here is the County Supervisor. Any time spent cultivating his interest and support will be very worthwhile.

Another source of funds, especially in depressed areas, is the Economic Development Administration of the Department of Commerce. You should contact their regional office for information. More localized agencies, such as the Appalachian Regional Commission, are an excellent source of grant funds. They should be contacted at the state level, usually the governor's office.

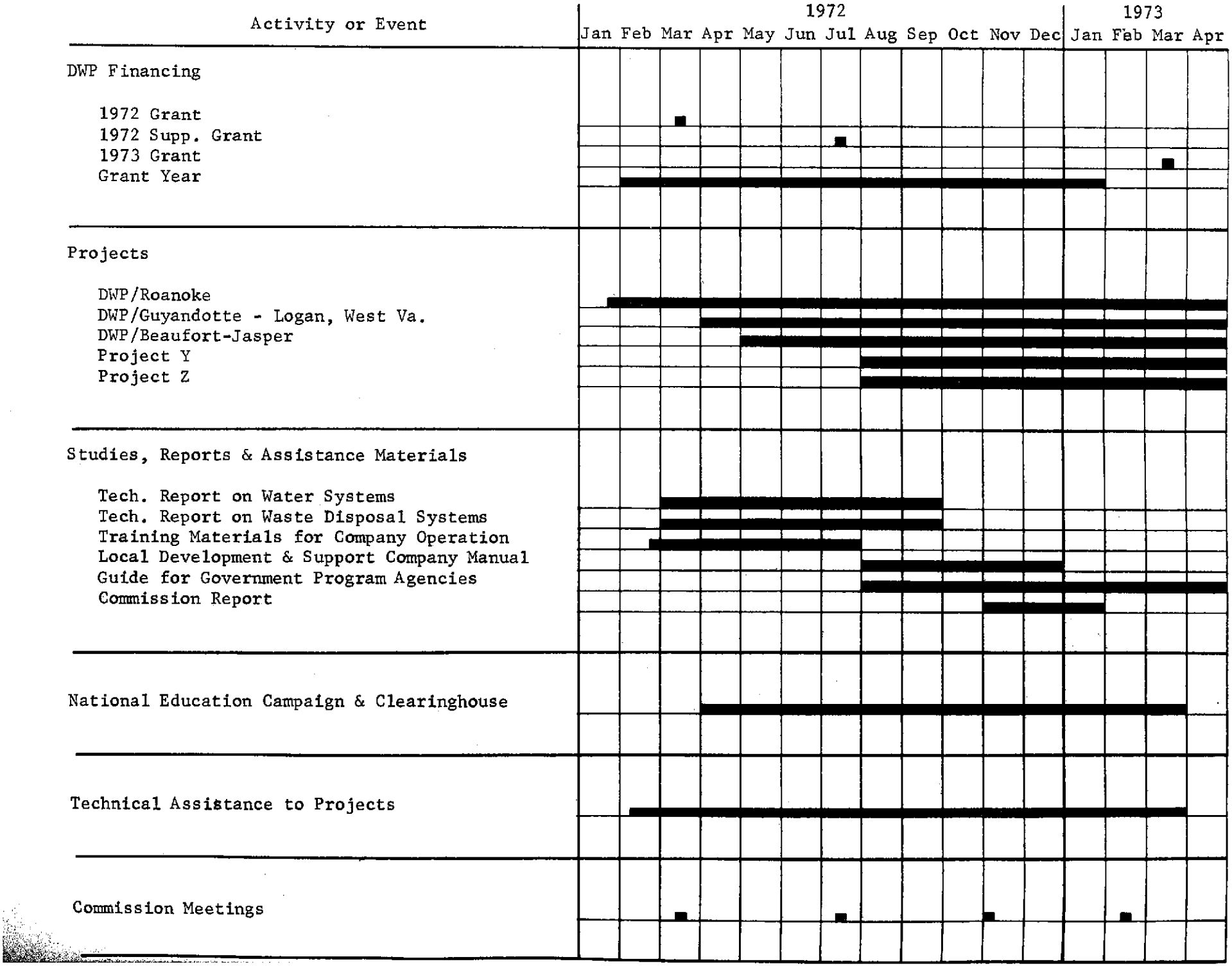
The approval process will very from state to state, but will typically include such groups as the County Board of Supervisors, a regional Planning Commission, and the State Board of Health, in addition to the local, state and national office of the funding agencies involved. The interest and support of local members of Congress will be helpful during the approval process.

In all of your contacts you should make individuals and groups aware of the Demonstration Water Project success story, especially in areas not suited to the central source-pipe line approach.

June 5, 1972

# # #

OVERALL DWP PROGRAM



TOTAL EXPENSES TO DATE ON WATER PROBLEM.

SANDECKI — POSTAGE 6.87
TELEPHONE 23.41
PROF. OSBERG 30.00
CHECK #428
FARNHAM CHIS 10.75
CHECK #544
ATTORNEY GREENE 50.00

121.03 TOTAL.

FARNHAM — TELEPHONE 5.55
MAY-JULY 70
W/T 1.00
CHECK TO
GREENE 6/29/70 50.00

56.55 TOTAL

GRAY — CHECK #489 25.00
7/19/70

TOTAL SPENT - 201.58

A. SANDECKI
21 AUGUST 1970

TOTAL EXPENSES TO DATE ON WATER PROBLEM.

POSTAGE - APRIL 1969 TO PRESENT — 6.87
CONCERNING WATER.
CERT. MAIL ETC. 1.01 W/T. AUG 3/70

TELEPHONE - NEW YORK, GREENE — 23.41
CALLAHAN, ME.
N.Y. - 10.25
D.I. - 10.66
PHILA. - 1.50
PERMUTIT CO
23.41 TOTAL

OBERG REPORT UNIV. MAING — 30.00

CHECK TO MARIAN FARNHAM #425 — 10.75
JULY/AUGUST 1969 TELEPHONE CALLS. 10/13/69.

CHECK TO SHERMAN GREEN #544 — 50.00
6/29/70

TOTAL SPENT TO DATE. 121.03

FARNHAM PHONE CALLS TO GREENE — 5.55
MAY - JULY 1970

CHECK TO SHERMAN GREENE: — 50.00
6/29/70

TOTAL SPENT 55.55

CHECK RECIEVED FROM MALCOLM GRAY 25.00
CHECK # 489 7/19/70

SANDECKI — 121.03
FARNHAM — 55.55
GRAY — 25.00
202.58

65.00 PER. FAMILY AS OF AUG 2,

LISTING TELEPHONE TO ATTORNEY
IN REFERENCE TO WATER SUPPLY

Bill #	1	3 calls	$ 2.10
"	2	2 calls	.85
"	3	8 calls	7.40
			10.35
		4% tax	.40
		Total July/aug.	10.75

As per Marian Farnham's rec.
PAID TO MARIAN 10/13/65 CHECK #428