

**ORANGE COUNTY
BOARD OF COMMISSIONERS**

ACTION AGENDA ITEM ABSTRACT
Meeting Date: November 17, 2009

**Action Agenda
Item No. 6-C**

SUBJECT: Rogers Road Eubanks Neighborhood Association Request for a Well and Septic Survey

DEPARTMENT: Health

PUBLIC HEARING: (Y/N)

No

ATTACHMENT(S):

- 1) Letter of Request to Health Director from RENA
- 2) Policy 1.0 Requests for Environmental Services and Assessments
- 3) Draft Survey Proposal

INFORMATION CONTACT:

Rosemary Summers, 245-2411
Tom Konsler, 245-2360

PURPOSE: To consider approving the Rogers Road Eubanks Neighborhood Association (RENA) request for a community water and septic system study by the Health Department.

BACKGROUND: The Health Director has received a formal request for the Health Department to conduct a survey of the neighborhood wells and septic systems (see Attachment 1).

In accordance with the Board of Health's *Policy 1.0 Requests for Environmental Services and Assessments* (see Attachment 2), this request meets the criteria for County funding for additional departmental operating expenses, projected to be approximately \$3,500. This policy was reviewed and amended by the Orange County Board of Commissioners in 2006 and adopted by the Board of Health in 2006.

The draft survey proposal (Attachment 3) is an outline of a survey plan and is still a work in progress. Staff has worked with the community (RENA) and with the UNC School of Public Health to organize a well and septic survey using collaborative survey teams. This should help offset the County staff resources which would otherwise be needed. The majority of the out-of-pocket costs are for the water bottles for well testing from the State public health laboratory for the 36 homes with drinking water wells. Collaboration with Engineers Without Borders through the School of Public Health may also provide volunteer labor to repair septic systems and wells that may be identified as needing repairs.

The Health Department's objective in the survey is to assure that community residents have adequately constructed drinking water wells yielding safe drinking water and that septic systems are functioning properly to ensure adequate protection of the groundwater. Repairs and treatment systems may be recommended to bring systems up to functioning capability. To the

extent possible, the Health Department will work with residents to ensure that short-term and long-term repairs or treatment systems are in place.

The time required for the survey is estimated at 330 staff hours at an estimated "in-kind" cost of \$14,000. The Health Department believes that at this time of the year, the staff will have time available to participate in this field study. Permit delays should not exceed two to two and a half weeks due to participation in this study. This is appropriate for environmental health staff to assess the functioning of these septic systems, many of which are more than 20 years old and to test water from drinking water wells that may have been constructed more than 20 years ago.

The Health Director recommended to the Board of Health that the Department proceed with requesting funding to conduct the study. At its October meeting, the Board of Health approved forwarding the recommendation for funding to the Board of Commissioners.

It is anticipated that the Department will report to the Board of Commissioners and the community with the results of the study no later than the end of February 2010. The timing may depend on the weather allowing adequate field time for the septic assessments.

FINANCIAL IMPACT: The funding for the out-of-pocket costs of the water testing is not available in the Health Department's current budget. The total amount for 36 homes is \$3,500. The funding could be allocated from the Solid Waste Enterprise fund.

RECOMMENDATION(S): The Manager recommends that the Board approve the funding for the Rogers Road Eubank Neighborhood Association well and septic study not to exceed \$4,000 and authorize the allocations from the Solid Waste Enterprise fund.

October 2, 2009

Dr. Rosemary Summers

MPH, DrPH, Health Director

Orange County Health Department

300 West Tryon Street

Hillsborough, NC 27278

Dear Dr. Summers:

On behalf of the Rogers-Eubanks Road community, I write to request a formal study of water and sewer quality issues in our neighborhood by the Board of Health.

We are concerned that our drinking water is contaminated, posing a risk to our health and failing to meet water quality standards. We are also concerned with our lack of access to basic public sewage infrastructure. A previous study, in cooperation with the University of North Carolina at Chapel Hill, demonstrated serious areas of concern, with above-threshold levels of microbial contaminants. The knowledge of contamination in the test wells around the landfill has solidified our concerns about our drinking water and sewage disposal systems.

In order to apply for grant funding to improve safety and infrastructure, it is necessary that we conduct a study more thoroughly documenting the extent of the contamination. This letter is to request funds to move ahead with such a study, which would be conducted in conjunction with the County and relevant agencies. To date, we have identified 36 homes that lack connections to public drinking water and 85 homes that lack connections to public sewer.

We feel it is important to point out that our community has borne the burdens of the community's landfill for 37 years. Yet, at the same time, we have found it difficult to impossible to acquire safe drinking water and working waste disposal systems. For these reasons, and many others, we feel strongly that the Board of Health and Board of County Commissioners ought to move forward and help us document the need for safe drinking water, as well as working sewage disposal, in our community.

Sincerely,

Minister Robert L. Campbell, President of the Rogers-Eubanks Neighborhood Association (RENA) and
Co-Chair of the Coalition to End Environmental Racism (CEER)

Agenda Item Number: V.B

**ORANGE COUNTY BOARD OF HEALTH
AGENDA ITEM SUMMARY**

Meeting Date: October 22, 2009

Agenda Item Subject: Rogers Road Community Request for Environmental Services

Attachment(s): Attachment i - Notes from Third Meeting with RENA
Attachment ii – Request for Survey from RENA
Attachment iii – DRAFT Survey Proposal

Staff or Board Member Reporting: Tom Konsler / Rosemary Summers

Purpose: Action
Information only
Information with possible action

Summary Information:

For the last two months, the Board has been updated on staff meetings with the Rogers Eubanks Neighborhood Association (RENA) regarding their concerns about the safety of well water supplies and septic systems in this neighborhood. The Health Director has received a formal request for the department to conduct a survey of the neighborhood wells and septic systems (see Attachment ii).

The attached DRAFT survey proposal is the outline of a plan to respond to the community request with a survey and is still a work in progress. Staff has worked with the community and with UNC School of Public Health to organize a well and septic survey using collaborative survey teams. This should help offset the county staff resources which would otherwise be needed. Because only 36 homes are on drinking water wells, cost estimates are lower than previously estimated.

In accordance with the Board's **Policy 1.0 Requests for Environmental Services and Assessments**, it appears that this request meets the criteria for county funding of the departmental operating expenses which are projected to be approximately \$3,500. The time required for the survey is estimated at 330 staff hours at a cost of \$14,000

The policy states:

When estimated operational costs are greater than \$2,500, or if the budgetary and staff resource needs are greater than available in the Health Department budget, the Orange County Health Director will recommend to approve or deny the study and present the recommendation to the Orange County Board of Health for consideration. The Board of Health's recommendation will

be presented to the Orange County Board of County Commissioners for final decision and funding source identification if approved.

The Health Director is recommending that the Department proceed with requesting funding to conduct the study.

- Recommended Action:**
- Approve
 - Approve & forward to Board of Commissioners for action
 - Approve & forward to _____
 - Accept as information
 - Revise & schedule for future action
 - Other (detail):

**ORANGE COUNTY HEALTH DEPARTMENT
Board of Health Policy and Procedure Manual**

Section I: Board Adopted Policies
Policy D: Requests for Environmental Services and Assessments
 Reviewed By: Board of Health & Health Director
 Approved By: Board of Health

Policy 1.0 Requests for Environmental Services and Assessments

Policy :

This policy covers processing and budgetary considerations regarding requests from citizens and communities for environmental services and assessments to determine whether environmental contaminants are present, environmental degradation has occurred or for the applicant's information for future reference.

Purpose: The purpose of this policy is to determine when environmental services, surveys or assessments will be conducted and also to set forth the funding mechanisms for those actions. Also covered within the policy scope is the decision tree for when community assessments will be considered and the ensuing financial responsibilities for those expanded efforts. This policy is not intended to cover nor does it cover applications, inspections, approvals or other processes for regulatory programs generally administered in the Environmental Health Services Division.

Section I Policy Overview

- 1.0 Environmental Health routinely receives concerns and queries from Orange County residents regarding environmental investigations to determine whether an environmental exposure exists and also whether unusual disease prevalence is occurring. These requests may arise from an individual or from communities. This policy addresses general and specific practices for these requests and assigns responsibilities for their dispensation.

Section II Individual Requests

- 1.0 Individual residents may request services and environmental assessments for their property, whether owned outright, leased, rented, or otherwise legally occupied. These services include septic inspections, water samples, indoor air quality (IAQ) assessments, vector control inspections, single disease case investigations, or other services germane to current or future environmental health programs.

Section III Community or Collective Requests

- 1.0 The following types of community or collective studies and assessments will be considered and acted upon by staff with the appropriate approval(s) when environmental conditions are suspected as a causative factor:
- 1.1 Acute and Chronic Disease
- a. Airborne, vector borne and waterborne diseases are environmentally related in their transmissions and may affect a community as a whole. Chronic diseases such as asthma and cancer can have causative factors related to environmental conditions and exposures.

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The investigation of acute and chronic diseases would be indicated with confirmed cases of those diseases in rates extraordinary to baseline rates for Orange County or statistically expected rates for that community. Investigations will be carried out in accordance with best epidemiological practices established by the EPI Team* in each individual response.

- b. OCHD will conduct community studies for acute and chronic diseases suspected of originating from environmental exposures and for wells and septic systems failures when data or reports indicate that study beyond the individual level is needed to confirm or deny multiple sources of contamination leading to acute and/or chronic disease under investigation.

1.2 Wastewater and Well Water Studies

- a. Community studies will be considered and acted on or deferred by OCHD based on several risk factors and other defined considerations. Those include the following:
 - 1. The study area consists of more than 5 households.
 - 2. Known disease-causing environmental contamination (chemical releases, improper biosolids applications, underground storage tanks, junkyards, etc.) that could adversely affect a natural resource (groundwater, stream, etc.) or negatively impact more than a single property in that community.
 - 3. Known geophysical conditions (e.g., underlying rock structure that might lead to high levels of natural radon release, severe disturbances of the underlying structure) with a scientifically documented negative environmental impact potential that could affect the intended use and sustainability of property in the community.
 - 4. More than 30% of the individual wells in a given geographical community were drilled prior to 1981 or more than 30% of the septic systems in the community are more than 20 years old.
 - 5. Protection of water supply resources (protected water supply watersheds, water quality critical areas, wellhead protection areas, etc.).
- b. Statistical Studies may be considered in order to gain important information about septic system failure rates or groundwater quality or quantity characteristics. **Examples** in this category might include:

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- comparing septic system failure rates in mobile home parks with those of neighborhoods with stick built construction;
- examining the existing data for septic system repairs to identify common characteristics of failed systems;
- studying the effect of water softener systems on septic system failures;
- exploring the relationship between well water quality and the age of the well, length of casing, landscape position, etc.
- gathering baseline water quality data and tracking water quality over time in a defined geographical study area near a suspected environmental hazard (such as a biosolid application site)

Section IV Funding

- 1.0 **Individual Requests:** The cost recovery for individual testing and assessments will come from fees for service administered according to the Environmental Health Division's Fee and Application Policy and from the fee schedule approved by the Board of Health and the Board of County Commissioners. In the case of an individual disease investigation that is a direct follow-up to an outbreak, the individual charge is waived.
- 2.0 **Community Surveys:** The direct operational costs for materials needed for community related surveys, assessments and other studies will be paid for by Orange County **if:**
- a. surveillance data or other confirmed and documented medical or scientific reports indicate a potentially environmentally caused or transmitted disease prevalence at abnormal levels in that community, or
 - b. at least three of the five items in Section III. 1.2a are met.
- 3.0 Studies requested by other governmental agencies will be evaluated by the Health Director and County Manager as appropriate.

Section V Community Study Funding Approvals

- 1.0 When estimated operational costs are less than or equal to \$250, the Orange County Health Director will approve or deny the study and the study will be funded through the Environmental Health Services budget.
- 1.1 When estimated operational costs are greater than \$250 but less than or equal to \$2,500, the Orange County Health Director will approve or deny the study based on current availability of budgetary and staff resources and present it to the Orange County Board of Health for final decision. The Health Director will determine the specific funding source for an approved study.

ORANGE COUNTY HEALTH DEPARTMENT
Board of Health Policy and Procedure Manual

Section I: Board Adopted Policies

Policy D: Requests for Environmental Services and Assessments

Reviewed By: Board of Health & Health Director

Approved By: Board of Health

- 1.2 When estimated operational costs are greater than \$2,500, or if the budgetary and staff resource needs are greater than available in the Health Department budget, the Orange County Health Director will recommend to approve or deny the study and present the recommendation to the Orange County Board of Health for consideration. The Board of Health's recommendation will be presented to the Orange County Board of County Commissioners for final decision and funding source identification if approved.

*The EPI Team is the interdisciplinary health department staff team that is responsible for all outbreak investigations.

**LANDFILL AREA
ENVIRONMENTAL ASSESSMENT PLAN
October 2009**

DRAFT

Sequence of Actions with Associated Timelines

◆ RENA submits a request to the Health Director for the Health Department to conduct a well and septic survey in the defined area of interest.	◆ October 2, 2009
◆ Orange County Board of Health considers the request and forwards to the BOCC	◆ October 22, 2009
◆ Funding identification	◆
◆ Survey organizers will present the planned survey to the area residents at a community meeting. Community member will have a chance to hear about the proposed survey, ask questions, and request participation.	◆
◆ Application for water samples will be filled out and signed by each property owner or tenant who wishes to participate in the survey. RENA representatives will assist in distribution and collection of the survey applications.	◆
◆ Survey begins - A resource list for financial assistance in repairs of wells and septic systems will be prepared for distribution during the survey.	◆
◆ Compilation of results	◆
◆ Presentation to the community, BOCC, BOH.	◆

Survey Team

There will be two to three survey teams each made up of an Environmental Health Specialist from the OCHD, a member of Engineers without Borders, and a community representative from RENA. Each team will collect water samples (OCHD,EWB), administer a short survey (EWB, RENA), and assess the wastewater system (OCHD). Samples will be delivered by OCHD to the State Laboratory for Public Health by 4:30 each afternoon. Samples can be taken only MTW each week. The survey is expected to be completed in 9 days over a three week period.

Survey Plan

The survey will consist of the three following components:

1. Well Inspection and water sampling

Each well supplying drinking water to the homes (n=36) will be inspected for adequate protection and notes made regarding location of the well and any improvements needed. Water samples will be collected at the point of use where possible. If indoor sampling locations are not available, outdoor spigots or well sampling taps will be utilized.

Wells will be sampled for the following parameters:

- Total Coliform Bacteria
- Fecal coliform bacteria (E.coli)
- Nitrates
- Nitrites
- Inorganic Chemicals
- Pesticides
- Volatile Organics (petroleum)
- Radon (need to check on cost for this)

After results are returned and tabulated, a report will be prepared and mailed to each well owner giving them the results of the analyses and any recommendations for correction of problems. The standard operating procedure for sample reporting through the OCHD will be followed. Follow-up sampling where indicated will be provided. Where well construction may be suspect, the well video camera will be available to assess wells that have a potential to be repaired with a liner or other improvement.

OCHD will consult with state toxicologists and environmental specialists to determine if any additional sampling is indicated or warranted. All the homes involved in the study along with sample results will be logged into the GIS system for further regional evaluation and for future consideration regardless of the outcomes and findings of this study.

2. Septic System Evaluation

Each of the homes served by a septic system (n=85) will be visited by the OCHD and EWB members. OCHD will bring copies of any extant file information regarding the system location. The system will be located and evaluated using standard OCHD protocol. If accessible, the solids level in the tank and condition of the filter (where present) will be reported. Pumps and alarms will be tested, and drainfields will be evaluated for saturation levels, proper performance, or failures. The standard OCHD inspection form (as modified) will be used to document system conditions. System performance and any recommendations for improvement will be reported to the homeowner and included in the tabulated data.

3. Homeowner Survey

During the site visit, EWB and RENA members will administer the homeowner survey that will include gathering information regarding reported septic system and well water problems, maintenance and repair history for the wells and septic systems, and demographic information. Survey results will be tabulated for survey analyses.

Follow-up

- ◆ Possible collaboration with EWB will be pursued for contracting volunteer labor and donated materials to implement solutions for well and septic repairs.

- ◆ A packet of information will be prepared outlining any available grants or loans for implementing well or septic repairs.

Organizers - Known and Potential collaborators

- ◆ NC State Laboratory of Public Health
- ◆ NC Department of Health and Human Services, Division of Public Health, Occupational and Environmental Epidemiology Section
- ◆ Engineers Without Borders
- ◆ RENA
- ◆ UNC School of Public Health
- ◆ NC Septic Tank Association or local contractors
- ◆ NC Well Drillers Association or local contractors
- ◆

Contacts

- ◆ Rosemary Summers, MPH, DrPH, Orange County Health Director, 919-245-2411
- ◆ Tom Konsler, Environmental Health Director, 919-245-2360
- ◆ Chris Heaney, UNC School of Public Health & EWB
- ◆ Dr. Don Lauria, Engineers Without Borders
- ◆ Tara Fikes, Director of Housing & Community Development
- ◆ Robert Campbell, RENA
- ◆ David Caldwell, RENA

Funding

Anticipated operating expenses to the county is estimated to be \$3,500 for supplies, water sample kits, and travel. Staff resources are estimated to be 130 hours.

In accordance with the Environmental Assessment Policy adopted by the Orange County Board of Health:

When estimated operational costs are greater than \$2,500, or if the budgetary and staff resource needs are greater than available in the Health Department budget, the Orange County Health Director will recommend to approve or deny the study and present the recommendation to the Orange County Board of Health for consideration. The Board of Health's recommendation will be presented to the Orange County Board of County Commissioners for final decision and funding source identification if approved.

The Board of Health will discuss the response to the request for the survey at their October 22nd 2009 meeting.

1. Sample of Application for water sample and participation in the survey

2. SAMPLE OF WELL/SEPTIC INTERVIEW FORM

A standardized survey form regarding septic systems will be adapted from one used in the Creekwood study.