

EIGHT: WATER AND SEWER SERVICE



Extension of Water Lines to Areas Served by Potable Water Wells is a Priority in Nokomis

Potable Water

One of the top priorities of the Nokomis Center Revitalization Plan is to extend water lines to Nokomis Center residents. Nearly all the residents and businesses in the Nokomis Center rely on individual potable water wells for water service. Figure 8-1, Water and Sewer Service Areas Map, shows where water mains and water transmission lines provide central potable water service in the Nokomis area. Water mains are connected to the Sarasota County water distribution system and the treatment plant located on the T. Mabry Carlton, Jr. Memorial Reserve. All other areas are served by individual wells, “community” and “non-community” potable water wells, or are undeveloped. Sarasota County will install water lines on Albee Road, Edmondson Road, Colonia Lane and U.S. 41, when these roadways are reconstructed in the future. See Table 6-1 for scheduled road reconstruction in the Transportation Chapter. Areas where water lines are being extended through the County’s Water Line Extension Program are also shown on Figure 8-1.

Current Water Service Capacity

Existing water lines in the Nokomis Center are adequate to serve existing and new development located within current water service areas. Water service, however, is not available for most of the Nokomis Center, and new development in these areas must install individual potable water wells or pay for extending water lines. New development, except residential homes on lots one acre or greater, is required by the Sarasota County Land Development Regulations to connect to a central water system, when available. Many homes within the water service area are not connected to central water and continue to use potable water wells. Sarasota County does not require existing homes to connect to new water service.

Ground Water Quality

Nokomis residents contend daily with poor well water quality. Some have experienced severe well failures due to a temporary loss of water. Nokomis is known for high iron and chloride in the water. Water quality varies significantly in each subdivision or area. The high iron may have been caused by some of the old abandoned wells not being properly plugged by the property owners. At present, no one knows the location of the unplugged wells. The abandoned wells may have been constructed in the 1940's and 1950's, having an average total depth of sixty-five feet and a cased depth of twenty-one feet. These wells are contributors to high iron.

The intermediate aquifer system is an important water resource for the Nokomis area, because the water is less mineralized than the deeper aquifer (Floridan Aquifer). Many private and public supply wells are completed into the intermediate aquifer system. Average total depth of the wells is 100-160 feet with a cased depth of forty to fifty feet. Most of the irrigation and public supply wells are open to the intermediate aquifer. Productivity of water producing zones within the intermediate aquifer system is variable from site to site. The surficial aquifer is an unconsolidated system that overlies the intermediate aquifer system and ranges from a few feet to over forty feet in thickness in the area. Ground water wells tapping the intermediate aquifer in these areas have very hard water (calcium bicarbonate and calcium sulfate) and the average total dissolved solids (TDS) is higher than 1000 PPM (parts per million). The EPA (Environmental Protection Agency) has a recommended maximum contaminant level for public water systems of 500 PPM, but has not recommended a standard for private domestic wells.

Wells in Nokomis, especially around Dona Bay, have a history of saltwater problems. Some residents use reverse osmosis treatment systems to reduce the chloride level. There is a history of naturally occurring radium 226 and gross alpha contamination in the water associated with phosphate material in the subsurface strata. Properly functioning softeners are very effective removing these contaminants.

Water Line Extensions

The Sarasota County Water Line Extension Program and the United States Housing and Urban Development (HUD) Community Development Block Grant (CDBG) program are the two primary sources for funding assistance to extend water service to existing development in Sarasota County. A third option is that residents or business owners can join together to finance, design, and construct the water lines themselves and then turn the lines over to the County.

Water Line Extension Program

In February 1999, the Sarasota County Board of County Commissioners approved the establishment of a uniform fee for central water distribution lines, a uniform method of collecting the fees, and a procedure for establishing a priority for installing and funding distribution lines through the Sarasota County Water Line Extension Program. The program can provide water lines to approximately 400 to 500 homes a year. The first year, Utilities staff surveyed residents for water quality problems and their interest in the County's Water Line Extension Program in twelve neighborhoods in the Nokomis Center and immediate area. Five of these areas were subsequently funded for water line extensions. Of the seven areas not funded, five are within the Nokomis Center: Scotties Place, Ravenna Street, Shady Lawn, Adriatic Avenue, and Jessica Street. The other two, Pinto Circle and Roberts Road, are north of Laurel Road. In 2000, staff surveyed sixteen additional neighborhoods. Four of these neighborhoods were funded, with construction expected to begin in 2001. Figure 8-1 shows the areas within Nokomis that were surveyed for the County's water line extension program.

Even if the County's Water Line Extension Program continues in future years, the amount of money available each year will fund water lines to serve about 400 homes. With over 12,000 homes on still private wells in the County, the line extension program cannot provide water lines to everyone in a reasonable time. The most logical, efficient and timely manner of providing water service to the Nokomis area is to design and construct a single project to serve all areas. A Special Assessment District can be created by the Board of County Commissioners based on the interest of the community. The County can fund the construction and recover its costs through annual reassessments on tax bills to everyone whose property is served by the new lines. (See Project Sheet UT-1.)

FIGURE 8-1

(see table of contents for link to document)

Community Development Block Grants

Housing and Community Development staff administers funding for community improvements through the Community Development Block Grant (CDBG) program, a federally funded grant program used to fund projects to benefit low and moderate-income areas. Portions of the Nokomis Center are eligible for CDBG funding, but funding has not been approved for any water line extension project in Nokomis.

SEWER SERVICE

Another top priority of the Nokomis Center Revitalization Plan is to extend sewer lines to Nokomis Center residents. Nearly all residents and businesses within the Nokomis Center and adjacent area rely on individual on-site Septage Treatment and Disposal Systems (OSTDS) for sewer service (i.e., septic tanks). Figure 8-1 shows the location of areas served by central sewer service and by franchised utilities, as well as the locations of sewer lines and other wastewater treatment plants. All other areas are served by septic tanks or wastewater treatment plants or are undeveloped. Wastewater treatment plants are described in the Franchised Utilities section of this chapter.

The County is scheduled to construct sewer lines on U.S. 41 to serve the commercial and residential areas along the highway south of Laurel Road and dry sewer lines on Albee Road. The Albee Road sewer lines will be installed in Fiscal Year 2001, but will not be operational for several years until additional storage and treatment facilities are constructed. The U.S. 41 sewer lines will be completed prior to the reconstruction of U.S. 41 beginning in Fiscal Year 2003. Utilities staff will evaluate options for sewer lines along Edmondson Road and Colonia Lane as part of a sewer line extension program concept plan being completed in fiscal year 2001. Funding alternatives are needed to implement the concept plan in the Nokomis Center. (See Project Sheet UT-2.)

Current Sewer Service Capacity

Residents and businesses in the Nokomis Center that are connected to central sewer service are served by the City of Venice's East Side Wastewater Reclamation Facility. The reclamation facility is located south of Laurel Road on the eastside of I-75 and has a permitted treatment capacity of 3 Million Gallons Per Day (MGD). The County is funding an expansion of the plant's capacity to 6 MGD. A portion of the expanded reclaimed water disposal capacity will be allocated to the County and tied to reclaimed water distributed through the County's Central County and Bee Ridge reclamation facilities. Although the reclamation facility will have adequate capacity, some existing sewer lines in the Nokomis Center do not. The developer installed sewer line along Albee Farm Road was sized to serve only the Bay Lakes Mobile Home Park and can not handle additional capacity. The developer installed sewer line on Dona Way serves only the Gulf Coast Chapel on Albee Farm Road and residents in the Shakett Island Subdivision.

Franchised Utilities and Other Wastewater Treatment Plants

Figure 8-1 shows the location of wastewater treatment plants in the Nokomis area. In 1993, the Sarasota County Board of County Commissioners adopted a Franchise Acquisition, Consolidation, and Implementation Plan to acquire and consolidate existing franchise utilities and connect smaller package plants to more efficient regional plants. The consolidation plan addresses problems associated with small wastewater treatment facilities, such as inability to permit and finance facility expansions and upgrades. When sewer lines are extended in Nokomis, existing wastewater treatment plants can be taken off-line.

Septic Tank Systems

Septic tank systems in the Nokomis Center have a history of failures dating back to 1972, when permit records were first kept. There have been 668 recorded failures, although because of the age of many of these homes, it is assumed that a significant number of systems may have failed prior to record keeping. These systems are similar to those found in such areas as Newtown and Phillippi Creek, with significant environmental and public health concerns. Concerns include excessive septic tank system density (i.e.

number of systems per acre), undersized lots, inadequate seasonal high water table separation, and, in many cases, inadequate setbacks from neighboring drinking water wells.

As many as 19 % of the lots in the Nokomis Center have not been developed. Repair permits are generated through complaint investigation and by homeowner-initiated request. Perhaps most significant, of approximately 2250 existing systems, only 294 were permitted under current standards which began in 1983. In essence, this means that approximately 87 % of the existing systems have less than the two-foot separation now required between the seasonal high water table and the bottom of the drain field. From a public health standpoint, the Nokomis Center needs sewer service to eliminate septic systems, the overwhelming majority of which are substandard.

Sewer Line Extensions

Three programs are discussed in the subsections below for funding sewer line extensions and services to existing developments. Sewer line extension costs depend on the proximity of development to existing or planned sewer treatment facilities and sewer lines and can only be determined on a case-by-case basis. State law (Chapter 381.00655, Florida Statutes) requires residents to connect to a sewer system one year after being notified that sewer service is available, but the County has no local ordinance to enforce the state statute. Currently, where sewer lines are available, Environmental Engineering staff will not grant septic tank permits to new development and existing houses with failed septic tank systems and residents must connect. The Sarasota County Board of County Commissioners has indicated that they will address mandatory connection in the near future.

Septic Tank Replacement Program

In 1998, the Sarasota County Board of County Commissioners approved a Septic Tank Replacement Program to extend sewer lines to areas with existing septic tanks throughout Sarasota County. The program will be funded in part through the County's One Cent Infrastructure Surtax. Utilities staff is seeking additional state and federal funding for the program. The first phase is within the Phillippi Creek area in North County and is expected to be completed within ten years. Other areas with septic tanks will not be addressed until the Phillippi Creek area is completed, and funding for sewer lines in the Nokomis Center is decades away. At this time, the only opportunity to change the timing of the County's Septic Tank Replacement Program outside of the Phillippi Creek area is if CDBG Program funds are approved for sewer lines within the Nokomis Center.

Community Development Block Grants

In 1997, Sarasota County began funding water and sewer service to the Newtown area in North County through a multi-year Community Development Block Grant (CDBG) grant. Like Newtown, portions of the Nokomis Center are eligible for CDBG funding based on 1990 Census income data. A separate survey of the Nokomis Center may be needed to determine if other areas within the Nokomis Center can be considered eligible for grants. CDBG funding for a project of this magnitude will not be available until the Newtown project is completed, possibly after FY 2001/2002. State Housing Initiative Partnership (SHIP) funds are available to pay sewer and water utility connection and impact fees for low and moderate-income households.

Assessment and Planned Improvement Districts

It is generally cost-prohibitive for an individual resident or business owner to extend sewer lines and to construct the sewer pump station facilities required to connect an existing home or business to an existing sanitary sewer force main. However, it may be economically feasible for residents to form a Utilities Assessment District to fund the cost of sewer line extensions, or possibly a Public Improvement District (PID) to fund sewer line extension costs as part of roadway improvements. Under an Assessment District, the County will design and construct the lines and the residents will receive an annual assessment on their tax bill to reimburse the County's cost. Any group of homeowners or businesses interested in forming an assessment district should contact Utilities Planning for information.