

## 7. DOMESTIC WATER

Livingston Parish has high quality domestic water that is primarily obtained from the Southern Hills Aquifer system. That system extends beneath Livingston and East Baton Rouge Parishes.

Water from the aquifer is delivered to parish residents through a variety of entities.

**Ward 2 Water District (W2WD)** is a special district that was created in 1975 to improve water quality for the resident of Livingston Parish. W2WD maintains 14 water wells and serves the residents in the Watson, north Denham Springs, and north Walker areas.

**The municipalities** in the Parish operate their own domestic water systems. These municipalities typically service the residents within their boundaries and often extend services to unincorporated areas outside of their boundaries. These municipalities include:

- City of Denham Spring
- City of Walker
- Town of Livingston
- Villages of Albany, Killian, and Port Vincent

**Privately-owned water companies** also supply over 1.5 MGD to the more rural areas of the Parish where municipal systems do not service. They include:

- Diversion Water Company
- French Settlement Water Company
- Colyell Community Water Association
- Fourth Ward Water Works

## Challenges

### *Growing water demand outstripping capacities*

The major parish water entities currently supply a total of approximately 11.7 MGD. With the projected growth in the Parish, the demand is expected to increase to 18.0 MGD by the year 2030.

Based upon a 2007 assessment<sup>18</sup> contracted by the U.S. Army Corps of Engineers (USACE), the water districts are currently pumping at or near their maximum capacity. As the population of Livingston Parish continues to grow, additional drinking water resources will be required.

With most of the growth occurring in the west and northwestern areas of the Parish, the City of Denham Springs, Ward 2 Water District, and the City of Walker will require the most significant improvements to meet the increase in demand.

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<sup>18</sup> "Master Plan – Water and Wastewater System Improvement and Enhancement, 2007 for Livingston Parish", U.S. Army Corps of Engineers, Forte & Tablada, URS.

### *Long-range water quality*

Though it is not an immediate concern, salt water intrusion into the aquifer appears to be beginning, as East Baton Rouge Parish has seen recent issues. Apparently, significantly higher volumes of water extracted from the aquifer have caused a drawdown in fresh water levels in the aquifer. This in turn has increased the amount of salinity migrating into the aquifer from south to north. Although there is significantly less water demand in Livingston Parish, there is less concern for aquifer drawdown. However, with the projected growth of the parish the situation should continue to be monitored.

The USACE report indicated that the Amite River also has the capability to provide water to the parish, though quality would decrease and treatment and distribution costs would significantly increase.

### *Low water pressure in rural areas*

Fire Safety is also a concern, particularly in the rural areas of the Parish. The areas that are not served by public water suppliers, particularly in the southern areas of the Parish, often have low water pressure that does not meet fire standards. The lack of water pressure for fire protection is a public safety concern.

## **A proposed alternatives for increased water supply**

The 2007 USACE report evaluated several approaches for supplying additional domestic water and recommended the preferred alternative described below:

### **USACE Alternative 5: Clusters Option and Connection with Ascension Parish.**

Construct smaller localized water wells, storage units, and distribution systems located throughout the Parish, also construct a new 3 MGD well to connect and service areas of Ascension Parish. Alternative 5 was identified in the Report as the preferred alternative for the Parish.

The benefits to this alternative include the creation of a comprehensive domestic water system throughout the Parish. This alternative provides positive revenue to the parish from the sale of domestic water to Ascension Parish, which would help to fund improvements to the water system.

The primary challenges faced by this approach:

1. Given that multiple agencies and private companies will be involved, this will require very high level of coordination and cooperation, including inter-governmental agreements for the connection of existing systems into regional distribution systems that cross multiple municipal boundaries.
2. The cost of implementation will be far greater than the parish has heretofore faced. The USACE-recommended plan had a construction cost estimate of \$36 million (estimated in 2005). Livingston Parish is currently facing financial burdens and must consider the possibilities of passing a tax or bond measure to provide water. Grants and low interest loans could also be applied for and used a revenue source to help fund the water improvements.

## Implementation

### *Strategies*

1. In the recommended approach, Livingston Parish is the primary agency responsible for implementation. Duties include:
  - the establishment of a new parish-wide regional water district.
  - development and execution of agreements with existing private and municipal systems to combine services.
  - construction of new infrastructure.
  - operations and maintenance.
2. Ward 2 Water District has the trained personnel to operate and maintain water treatment facilities and could take on the role as the Parish-wide water service provider.
3. The Parish could potentially benefit from the re-use of reclaimed water from the LPSD treatment system to reduce the cost of water in landscaping and industrial applications and provide a revenue source to the Parish.
4. Consider augmenting the informal cooperation between sewer and water systems regarding fee collection, with a more formal combined structure that will assure a high level of collections fees to fund the sewer systems.

### *Actions*

1. Retain an engineer to update and confirm the findings of the 2007 ASCE report with regard to domestic water supply.
2. Convene a “summit meeting” of the Livingston Parish water providers to:
  - a. Discuss the findings and implications of the ASCE report (as confirmed above).
  - b. Form a working group to develop recommendations regarding cooperation and eventual implementation of a regional wastewater including the combination of services with domestic water system.