

## Low Pressure Sanitary Sewer Policy for New Development

Approved: January 25, 2011

### I. Guiding Principles for Sewer Policies

1. To improve the water quality in the City's streams and river.
2. To lessen environmental and neighborhood impacts.
3. To minimize the impacts of new development and new sanitary sewer customers on current rate payers.
4. To make technical and economic decisions based on life cycle cost analyses for all stakeholders.
5. To promote the reasonable development of unused land in the city.
6. To recognize that there are inherent benefits to the common good when the operation of a community system is shared by all.

### II. Low Pressure Sanitary Sewer Policies

#### *Permitted Alternative Sewer Systems*

1. Gravity sanitary sewer collection systems are preferred by the City of Lynchburg.
2. The only alternative public system accepted by the City of Lynchburg is a low pressure sewer system (LPSS). Septic tanks are permitted as prescribed in the Subdivision Ordinance.

#### *Conditions Allowing Low Pressure Sewers*

1. Where a developer wants to use LPSS, the developer must conduct and submit to the Department of Utilities an engineering economic analysis comparing the life cycle costs of the gravity and pressure alternatives and a mixed hybrid system, if appropriate.
2. LPSS service will be permitted only where the economic analysis indicates that the proposed LPSS is more economical than gravity service.
3. The economic analysis shall consider the costs to all stakeholders, including at least the developer, the homeowner, and the city.
4. The economic analysis can be based on either detailed engineering estimates or broad general parameters.
  - a. If broad parameters are used, unit cost values specified by the Utilities Department shall be used along with a specific alignment for both the gravity and pressure.
  - b. In all cases the economic analysis shall be for 50 years and shall use an annual discount rate equal to the latest US Office of Management and Budget Nominal Discount Rate on Treasury Notes and Bonds.
5. The LPSS must not inhibit the reasonable expansion of the gravity system as determined by the Director of Utilities.
  - a. If the presence of an LPSS will impact potential gravity sewer service to either upstream or downstream development, the economic analysis shall include the affected properties.

#### *Requirements of Low Pressure Sewer Systems*

1. All pumps shall be individually owned and maintained by the property owner.
2. Each pump shall serve only one property.
3. The City will have no involvement with the maintenance of pumps serving individual properties.
4. Any development proposed to be served by a LPSS shall have recorded covenants or deed restrictions explaining the responsibilities of the property owners and that the City will have no responsibility for the operation or maintenance of components located on private property.

5. Pressure sewer lines from individual properties shall be owned and maintained by the property owner from the pump station to a point of demarcation immediately prior to the line's discharge into either a public gravity line or a public force main. This point of demarcation will be located at the edge of the City easement or the edge of the right-of-way.
6. Public force mains serving more than one property shall be installed by the developer but will be owned and maintained by the City.
7. The preferred location for public force mains shall be in the public right-of-way or, alternately, in a public easement.
8. As with gravity systems, all pressure systems must be designed according to the Manual of Specifications and Standard Details.