

## Utilities

The Town of Jamestown provides water service to the community although some properties are served by individual wells. Wastewater treatment is provided by individual on-site wastewater systems that are regulated and permitted by Boulder County. Other common utilities such as internet, cable, gas, and electricity are made available by private (non-town) providers.

### ~~Sewage~~Wastewater Treatment Disposal

Jamestown ~~sewage-wastewater~~ is disposed of primarily by individual onsite wastewater treatment septic (septic) systems. The permitting process for installation is under the jurisdiction of the Boulder County Health Department as is the enforcement to correct all malfunctioning systems and the monitoring of the water supply for contamination from wastewater treatment septic-system failure. The maintenance of a system is the responsibility of the individual property owner. Health hazards will be rectified by various actions of the County Health Department such as terminating the use of failing or illegal systems, discontinuing the issuance of new septic permits or mandating the construction of a community sewage-wastewater treatment disposal system.

### ~~Septic~~Onsite Wastewater System Treatment System Issues Problems

Terrain and soils are the major issues for onsite wastewater treatment systems:

- Improper soil may be too porous; sewage will run too fast to be purified.
- Improper soil may be too dense or wet; penetration of soil surfaces may be difficult or impossible.
- Too steep a slope: sewage will run too fast to be purified, even if the soil is good for septic systems.
- Septic tanks too close to a surface water source may infiltrate the water source may infiltrate the water table and contaminate the drinking water. ~~This risk is especially high for subdivisions.~~

### ~~Sewage Disposal~~Wastewater Treatment -Policy

- The ~~town~~Town should protect the quality of the town water supply and prevent other contamination resulting in health threats by cooperating with Boulder County Health Department to rectify the failure of individual septic-wastewater treatment systems and to allow installation of new septic-wastewater treatment systems only with proper registration for construction.

## Proposed Programs

1. Carefully~~The Town should assist in the careful~~ and judiciously monitoring of the water supply for contamination resulting from the increased density of septic-wastewater systems as development in-fill occurs ~~in the established part of town per land use policy (ies).~~ The Town should require wastewater treatment systems to be upgraded if they do

not meet County requirements.

2. Care should be exercised in permitting building in undeveloped areas "above" the town water sources to avoid. ~~Such building could result in~~ water supply contamination from the failure of individual septic systems. ~~(Refer to preferred development land use policy (ies).)~~

## Water

The Jamestown water supply is obtained from the James Creek ~~and~~ underground water by means of two wells and infiltration galleries via two distinct sources: an infiltration well and surface water off of the creek. ~~The Main Street well produces about 25% of the town water supply while the Mesa Street well provides 75%. Both pumping continuously 24 hours per day will yield 144,000 gallons of water. However, this is dependent on proper functioning of the Mesa Street well recharge system. If it malfunctions, the well will go dry in four hours.~~

The legal status of the town's water rights are as follows:

- Jamestown owns 24 shares of the Left Hand Ditch Company
- The Town maintains water rights associated with the town irrigation ditch

~~Adjudication of the two wells is being considered in the Water Court (legal request for water right)~~

~~Adjudication of the town irrigation ditch is also underway.~~

The water treatment plant was improved in 2014 as a result of damage caused by the 2013 flood event. The water treatment plant uses a sand filter system with a two chamber roughing filter to clean the water diverted to the plant. Water quality issues related less as factor of volume produced and more to a factor of seasonal effects such as raw water quality and health of filters. As of the date of this report, the treatment plant's sand filter system still needed to mature before desired water quality was obtained. The rated capacity of the plant exceeds 100,000 gallons per day (gpd); the 2016 production was approximately 21,000 gpd. Water production could be increased at the plant to support a larger population in Jamestown. However, capacity should be monitored over time to detect issues before they occur. Also during the time of this plan preparation, a second well location was being studied to allow for a backup to the primary gallery along Ward Street. The second well would build additional resiliency to the existing system particularly in the cases of emergency. With the new treatment facility, the water serve capacity has increased and can accommodate addition growth of at least 20 to 50 new residences.

~~The water distribution system was also updated for the majority of the town in 2015 and 2016. Improvements included water mains, valves, and hydrant replacement for systems along many of the town streets. The water lines were also extended to reach the Rose M Subdivision on the east end of town. The storage tanks were rehabbed and valves were replaced in 2016. installed in 1958 and was financed by a 30 year general obligation bond. The capacity of the system was to be 100 taps--all of which were sold immediately. Presently, there are an estimated 102 taps in private ownership of which only 80 are hooked up to the system and being billed. (The two extra taps "grew" out of a tap ownership transfer and may or may not be the only "new" taps since the system was installed.)~~

~~The ownership of 24 shares of Left Hand Ditch Company provides water rights sufficient for an additional 50 taps (150 total), but the present pumping system could not accommodate the demand of 50 more taps.~~

~~In 1978, the Jamestown has a Water-water Ordinance-ordinance was adopted and that is periodically updated. The ordinance -and- outlines a-procedures for water taps, installation expectations, and service fees. for transferring unused, privately owned taps:~~

~~The Town will buy back on unused tap at the owner's request for the original purchase price (Article I, Section 2)~~

~~Via application by the owner to the Town Board of Trustees, a request to transfer the tap to another piece of real property may be approved if the Board determines that the denial of the requested transfer would result in undue hardship to the permittee.~~

~~The total cost of installation of the service, including pipe and curb box for taps purchased under schedules a., b., and c. will be paid by the applicant for the service. Installation costs for the portion of the water service between the main and curb box, including the cost of the curb box will be paid by the Town for services purchased under schedules d. and e. All service connections from the water main to the curb box including the curb box become the property of the Town.~~

~~Also, Section 6 — Installation of Service Lines~~

~~Installation of all service lines for use of water from the private property line shall be at the water user's expense, subject to inspection and approval by the Water Commissioner.~~

~~Jamestown has an irrigation ditch that is used to transfer water for irrigation of private property that serves to relieve stress on the Town's potable water system. The west end of the irrigation ditch was damaged in the 2013 flood event. The head gate and damaged section are scheduled to be replaced in 2016.~~

~~Consideration to extend the water services lines was discussed during the 2015 Long Term Recovery Plan. The purpose was to explore opportunities for new development to help offset the homes lost during the 2013 flood event. There was also support for providing water as a fire protection measure for the area. A formal assessment was not conducted but a rough estimate suggested that the cost would be substantial due to length of pipe, terrain, and the grade of the land being higher than the core of town where the existing water service area is. Without an external funding source, the Town would not be able to pay for such extensions. Many of the residences lost in the flood have been replaced and other options, such as accessory dwelling units and subdivision of land closer to the center of town, to accommodate new residences allow for some growth without adding the cost of water extension at this time.~~

~~The majority (86 percent) of the respondents in the Fall 19782015 Household Land Use and Housing Study household Survey survey found the existing water system satisfactory, felt no additional money should be spent, and indicated that upgrading the system for more taps was not important, but upgrading for the existing taps was desirable. The majority (sixty-nine percent) indicated that they were satisfied with the availability of services and (fifty-seven percent) the cost of services. There was a significant minority (35%) who registered on interest to spend money to expand the existing system to allow~~

for growth. Fifty-six percent of respondent to the survey indicated support for extending water service west of Ward Street and seventy-seven percent supported water service to the Rose M Subdivision on the east end of town.

(Table of Water / Tap Fees)

~~The town meeting September 1979 raised the following issues:~~

~~Capacity of the present water system~~

~~Quality of Little James Creek water~~

~~Legal issues surrounding town water rights~~

~~Using water as a method of limiting growth.~~

~~The meetings with the planning committee brought forth concern regarding the following:~~

~~Fiscal capability of the Town to spend any money for expansion of the system until after the 1988 water bond debt is retired~~

~~Transfer of privately owned unused water taps from one real property to another~~

~~Responsibility of the Town to provide water for new building/development~~

~~Enforcement of the water ordinance.~~

~~The results of these sources of input are incorporated in the following policy and proposed programs.~~

## **Current Regulations and Programs**

The Town has the following ordinances and committees that pertain to Town utilities:

- Ordinance 1, Series 2012 Growth Impact Fee – The Town adopted a Growth Impact Fee in 2012 for the purposes of offsetting impacts related to the growth in population and housing to Town parks and recreation, water plant capacity, streets and bridges, and fire and emergency medical technician safety services. The ordinance establishes a fee to apply to new residential and non-residential development/construction and details the distribution of that fee among the four areas of concern including utilities.
- Ordinance 1, Series 2015 and Resolution 33, Series 2015 set the parameters for water service including taps fees, water rates, and relief programs.
- Water Committee – the Town’s water committee oversees water maintenance and planning for the Town water system.

## **Water Policy**

Jamestown should control all taps to the present water system as provided for in the Town water ordinance to ensure that all persons requesting hook-up to the current water system will be treated equally under the law. The Town will ~~also be able to better~~ monitor the location of new hook-ups and, what extensions are needed to accommodate them, ~~and determine at whose cost the extension should be made.~~ Unless otherwise declared, all costs for water line extensions and water tap installations are to be borne by the property owner and/or water user.

The Town's ability to treat and distribute water should be considered with the extent of future development. The Town should continue to monitor water capacity as new development occurs to ensure adequate supply is available. The expense of water extension should be borne by the developer or water service recipient.

## Proposed Programs

~~Future sales of taps should be considered pursuant to the Town water ordinance and land use policy (ies).~~

~~After the tap capacity of the current system is realized (as specified in the 1958 engineering report), the Town should re-evaluate if the system should be expanded or if new building/development should provide its own water supply. (Also treatment and distribution, if appropriate.)~~

~~The town irrigation ditch should be adjudicated. Every effort should be made to identify exactly who is holding unused taps to establish a complete list of those using the existing system and those who feel they have a right to hook onto it.~~

The Town should develop a Capital Improvements Plan for the water system in order to be prepared for future updates to the plant and distribution lines and / or any other maintenance or improvements that are found necessary.

The Town should continue to monitor the water system capacity to ensure use does not exceed capacity of treatment or distribution.

The Town should continue to explore ways to create a more resilient and redundant water system including the potential for a second well for emergency purposes.

The Town should continue to explore ways to improve the effectiveness and efficiency of the water treatment plant's sand filter system.