



A Change of Pace

TABLE OF CONTENTS

Introduction.....	1
Water Supply Inventory.....	1
Present and Future Water Needs.....	2
Water Budgets.....	2
Water Problems, Conservation Measures and Goals.....	3
Evaluation of Water Conservation Measures.....	3
Current Water Rates.....	5
Rate Schedule.....	5

INTRODUCTION

In response to the rapid growth occurring throughout the state of Utah, Panguitch City citizens and leaders are becoming concerned for the future cost and availability of the water supply. A similar concern has been demonstrated by the state legislature in the Water Conservation Plan Act (House Bill 71) passed and revised in the 2004 legislative session (Section 73-10-32 Utah Code Annotated). This water conservation plan is written to address the concerns of leaders and citizens of both Panguitch City and the State of Utah.

Panguitch City, the county seat of Garfield County, with a population of 1600 +/- is presently experiencing a low growth rate relative to other areas within the State of Utah. Panguitch did experience significant growth in 2006 & 2007, but that growth has abated in 2008. As growth and development take place, the City's culinary water system must be improved and enlarged to support that growth. This creates a concern to the leaders of Panguitch City of the future costs and availability of water supply.

According to Panguitch City data, the existing number of culinary connections is 819. This number includes 735 residential connections and 84 commercial connections. Panguitch City supplies culinary water to the city office, city park and city baseball complex. Panguitch City has a detailed Management Plan, Source Protection Plan, and Emergency Culinary Water Plan on file.

WATER SUPPLY INVENTORY

Currently, according to the State Engineer's Database, Panguitch City has 615 gpm of water right. The water right on record is made up of:

#61-1023	2.00 cfs	or	420 gpm
#61-937	314 acre-feet	or	<u>195 gpm</u>
Total			615 gpm

Panguitch City has 390.40 shares of West Panguitch Irrigation water for secondary water, and some of this water could be converted to culinary water in the future if necessary.

PRESENT AND FUTURE WATER NEEDS

Panguitch City currently has 819 culinary water connections. This number includes 735 residential connections and 84 commercial connections.

Panguitch City also has a secondary water system available to most of its citizens for outside watering. However, in the last few years the secondary system has not been able to meet all of the City's outdoor watering needs due to the lack of available secondary water. New subdivisions are not allowed to hook on the secondary water system.

Panguitch City is a Gateway Community to Bryce Canyon National Park generating a large tourist economic base. This causes a large water usage during the summer months with drastic reduction in water demand in the winter months. Average motel water usage during peak season is 74,000 per month. Meter readings are taken monthly beginning May 15 with the final reading taken on September 15th of each year. This factor makes our water usage averages seem high with an average monthly per connection use of 29,116 gallons.

The present and future water needs are addressed in detail in Panguitch City's Culinary Water Master Plan completed by Sunrise Engineering Inc. A summary of the City's present and future culinary water needs are given below.

Existing Water Use	350 gpm
Projected Water Use (2017)	425 gpm

Panguitch City completed a Spring Rehabilitation Project in 2006. All of our springs were reworked, and we are recapturing 50 – 75 gpm that had been lost in the past. Panguitch also updated our water lines a few years ago. We have also added a 500,000 gallon water tank. Panguitch City captured an additional 20 gpm with a spring enhancement project completed in 2013.

In 2018 Panguitch City received funding to drill a new well as an emergency measure to increase source capacity. This is a 16" culinary well, drilled 700 feet deep, which will produce 2,000 gallons per minute.

Several new subdivisions have been added to the city over the past few years. They have yet to be developed, but the potential for additional growth is there. The improvements made to the water system will assure that Panguitch has plenty of clean and safe culinary water for many years in the future. The City has implemented impact fees on water. Impact fees for water are \$1000 / REU.

WATER BUDGETS

The following shows the amount of water delivered to water users for 2017. Data is not available for previous years due to a change in the water system program.

Water – in town 819 – connections usage – 286,152,000 gallons

The following is a copy of the City’s current budget (2018 / 2019) used to operate and maintain the culinary water system.

Operation & Maintenance	
Salaries & Wages	\$96,000.
Employee Benefits	\$67,000.
Books, Subscriptions/Memberships	\$ 1,000.
Travel	\$ 4,500.
Office Expense & Supplies	\$ 3,000.
Equipment, Supplies & Maintenance	\$ 8,000.
Utilities	\$15,000.
Telephone	\$ 3,000.
Professional & Technical Services	\$15,000.
Insurance	\$ 6,000.
Misc. Supplies	\$ 9,000.
Misc. Services	\$ 7,000.
Water Stock Assessment	\$ 6,000.
Capital Purchase – Truck	\$10,000.
Total Operation & Maintenance	\$250,500.
Debt Service	
Principal on Bonds	\$74,000
Interest on Bonds	\$12,000.
Total Debt Service	\$96,000.
Total Expenses	\$333,500.

Water Problems, Conservation measures and goals

Some problems that can be identified and prioritized are:

- The current water pricing and billing system, while adequate to cover a deficit in the water enterprise account, has minimal incentives and sufficient information for residents and businesses to use water more efficiently.
- Citizens lack information and understanding of landscaping water requirements and efficient water use habits and practices: Very few residents know how much water is required to maintain healthy landscaped areas and how to consistently use water efficiently indoors. Most citizens' irrigation and indoor practices are based on convenience rather than plant needs and water supply considerations.

Each problem represents an opportunity. However, opportunity exists to solve the above problems through a well thought out water pricing program.

The opportunity exists to prepare a new generation of wise water users. This can be accomplished with a strong sustained water education program in the public and private schools.

EVALUATION OF WATER CONSERVATION MEASURES

Some water conservation measures that can be used to help alleviate the problems identified above are mentioned below.

- Encourage users not to water lawns from 10:00a.m. to 6:00 p.m. (Implemented)
- Eliminate watering on City property from 10: a.m. to 6:00 p.m. (Implemented)
- Eliminate watering on City property in cases of severe shortages.
- Educate the public on the water supply situation.
- Instigate voluntary public conservation measures.
- Issue information to all customers on conservation procedures each customer can accomplish around their own property and within their own homes
- Instigate mandatory public conservation measures (Emergency Water Plan)
- Enforce outside watering restrictions, watering times, and quantities.
- Instigate new rate structure that increases fees for overage (Completed)
- Instigate emergency conservation measures*
- Strictly enforce all conservation policies with significant fines for non-compliance
- Physically restrict water supplies to (in order of priority)
 - All outside irrigation systems.
 - Park properties and other non-essential support facilities

- Commercial businesses, restricting largest users first
- Residential areas
- Any other “non-life support” areas, insuring water supplies to hospitals, hospices, all other health care facilities, and controlled designated area water facilities.

Current Water Rates

Panguitch City’s current water rate structure consists of seven different categories. The base rates for these categories range from \$22.00 to \$44.00 for the first 12,000 gallons; the overage rate for all of these categories is the same at \$1.00 per 1,000 gallons for an unlimited amount of gallons.

*Panguitch City has created and adopted an Emergency Conservation Plan.

<u>Connection Categories</u>	<u>Base Rate</u>
Residential City	\$28.08
Commercial	\$28.08
<u>Overage Rate</u>	
12,000 Gallons up	\$ 1.00 / 1000 gallons

RATE SCHEDULE

Designing an appropriate rate schedule is a complex task. Rate design is a process of matching the costs of operating the water system to the unique economic, political and social environments in which the city provides its service. The cost of delivering the service must be evaluated and understood. Each water system has unique assets and constraints. Based on the characteristics of the system, and past capital and operating costs, revenue requirements can be estimated. The rate schedule shown below has been introduced to help promote conservation by increasing the cost of all water over 12,000 gallons. Panguitch City has implemented an annual increase of 2% each year.

<u>Connection Categories</u>	<u>Base Rate</u>
Residential City	\$28.08
Commercial	\$28.08
<u>Overage Rate</u>	
12,001 +	\$1.00 / 1000 gallons

This rate schedule is designed to increase revenue and encourage conservation by lowering the amount of gallons included with the base rate and increasing the overage cost.

PANGUITCH CITY

CULINARY WATER CONSERVATION AND MANAGEMENT PLAN

Updated 10/26/2018