# RESOLUTION 2018-003

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE EAST CEDAR CREEK FRESH WATER SUPPLY DISTRICT ADOPTING A WATER CONSERVATON PLAN.

WHEREAS, Chapter 363.15 of the Texas Water Development Board Rules for Financial Assistance requires preparation and implementation of the Water Conservation Plan for financial assistance of greater than $500,000

WHEREAS, Section 13.146 of the Texas Water Code and applicable rules of the Texas Commission on Environment Quality require all public water supply systems in Texas to prepare Conservation plan: and

NOW, THEREFORE BE IT RESOLVED by the Board of Directors of East Cedar Creek Fresh Water Supply District;

Section 1. That the Conservation Plan approved by resolution 2006-004, amended by resolution 2009-005 and by resolution 2014-001 and approved by resolution 2018-003 hereto as Exhibit "A" Brookshire Conservation Plan and Exhibit "B" McKay Conservation Plan made part hereto for all purposes be, and the same is hereby, adopted as the official policy of the East Cedar Creek FWSD.

Section 2. That the General Manager is hereby directed to be the District's Conservation Coordinator to implement the Conservation Plan.

Section 3. That this resolution shall take effect immediately upon passage.

PASSED AND APPROVED THIS 16th day of May, 2018.

President, Board of Directors
**East Cedar Creek Fresh Water Supply District**

Attest:

Secretary, Board of Directors
**East Cedar Creek Fresh Water Supply District**

# East Cedar Creek Fresh Water Supply District (ECCFWSD)

**McKay PWS: 1070019**
**ECCFWSD CCN: 11682**

# McKay Conservation Plan

Approved by Resolution 2018-003
Date: 05/16/2018

# ECCFWSD: McKay Water System Conservation Plan

## Table of Content

# ECCFWSD MCKAY: CONSERVATION PLAN
# PWS: 1070019 / CCN: 11682

## Section I: Introduction & Utility Profile

### Creation

East Cedar Creek Fresh Water Supply District (ECCFWSD) is a local governmental entity created by the 65th Texas Legislature on June 25, 1977. The District's CCN covers approximately 20 square miles in northwest Henderson County, adjacent to the north and east banks of Cedar Creek Reservoir.

### McKay Water Source

Water supply source for the District's water treatment plant production of potable water comes from the Cedar Creek Lake managed by Tarrant Regional Water District (TRWD). The TRWD raw water allocation is based upon a 5-year annual running average not to exceed 8.91cubic feet per second (3,999-gpm). The District also has a contract with the City of Trinidad to purchase 750 acre feet annually. The combined above raw water source allocations are annual quantities available for the combined McKay and McKay Surface Water Treatment Plants for producing drinking water. The McKay raw water diversion report of 2016-17 was 303.1-MG and McKay raw water diversion report of 2016-17 was 111.2-MG for a total of 414.3. McKay Water Treatment Plant is capable of treating 4,000,000 gallons per day.

### McKay Drinking Water System

The Distribution system consists of a 300,000 gallon elevated water tower, (2) ground storage tanks with a combined capacity of 327,000 gallons for a total of 637,000 gallons of water storage capacity. The number of customer's accounts change monthly, in 2016 – 17 fiscal year the average customer base for water was 2,058 and 934 sewer customers. Much of the District's service area consists of municipal and rural residential subdivisions that were developed in the mid to late 1960s and early 1970s following construction of the reservoir. ECCFWSD's CCN is limited to growth on three boundary borders; City of Mabank Water Supply, City of Eustace Water Supply, Payne Springs WSC.

The McKay average customer base growth rate for the system in the past 5-years is an average of 0.4%. The expected growth rate for the next 2-years years is anticipated to be 0.4%. The district may experience an increase of growth beginning in 2020-21 due to possible migration of growth from the Dallas area to communities within a 1 hour drive for reasonable travel distance for employment in the Dallas area.

This Dallas area migration would increase growth rate to an estimated 0.08%. The inclining rate structure in place encourages water conservation and with the average water usage per capita reflecting a lower usage per meter unit than the TCEQ regulatory standard of 0.6-gpm/meter. The district continues to maintain a TCEQ 0.45-gpm/meter unit variance.

**Wastewater System**

East Cedar Creek Fresh Water Supply District (ECCFWSD) owns, operates and provides sewer service to the McKay water customers. The Wastewater Treatment Plant (SWWTP) was built in 1985. The facility is permitted to discharge up to 194,000 gallons per day. The current 5-year average for effluent discharge is 0.091 gallons per day.

Under the 2018 Bond Funding a portion of the funds will be to design and build a second SWWTP with a permit capacity of 0.120 MG. This will allow the original wastewater treatment facility to be taken out of service and refurbished

## Section II: Conservation Goals and Objectives

### Public Education

ECCFWSD advocates a positive public education program. The District's Website www.eastcedarcreek.net provides the reader with tips on conserving water and solving common household leaks under the Public Info tab. During National Water Week in May the District promotes selected kid and adult pamphlets which support the water Cycle and Conservation. All new accounts are provided with a customer packet which promotes conservation. Customer billing concerns are addressed in a manner to encourage conservation.

Through best practice management, rate structures and education it is ECCFWSD goal to maintain a water usage ratio to insure that the TCEQ 0.6-gpm per connection variance of 0.45-gpm remains in effect. This TCEQ approved variance, in itself, demonstrates that ECCFWSD and customers are very concerned about conserving our precious and valuable resource, water. This 0.45 gpm per connection variance represent a 25% overall system reduction of water usage when compared to the TCEQ regulated rule of 0.6 gpm per connection for system minimum design.

During water week the district holds a customer education awareness week and presents to grade school students the importance of conservation and protecting our water resources. On ECCFWSD's web site educational and promotional material are available for the customer education such as district design and capacity information, water rates design for conservation and links to federal and state educational web sites for additional research and reading.

### Water Usage Accountability

ECCFWSD has implemented a customer meter change out and meter accuracy program.
All customers are metered including ECCFWSD facilities. Meter change-out is determine by three criteria's; 1) Acceptable standards of the meter industry of 20-yrs of age or 1-million gallons, 2) Investigate meter reader records for no usage and or irregular registering of an active account, 3) Customer request for a meter accuracy test, if inaccurate more that 2% meter is changed. Employees maintain monthly records for water flushed, treatment process usage and other such usages which warrant validity.

## Water Loss

ECCFWSD is striving to reduce the amount of water loss by conducting water leak surveys, and promoting to our customers the value of reporting suspicious water ponding and small leaks. Infrastructure repairs are targeted toward long-term infrastructure improvements instead of fast repairs. The master water meters at the water treatment plant is tested for accuracy annually.

The 5-year averaged Water Loss from 2013 to 2018 is recorded as 23%. ECCFWSD employees strive to expedite repairs in the distribution system to prevent the waste of treated water. The district takes in account all unbillable water for district use at plants, office, line-flushing and fire dept. usage. Water Main Repair Crews use water leak calculator for determining water loss from water main repairs. . The District's Brookshire and McKay combined real Loss is reported as 11% for a 5-yr average (addendum 5).. This data is derived from the District's Fiscal Year Values of April through March. The TWDB annual report is from January to December. The TWDB online report reflects a combined real loss average of 13% for fiscal year 2016-17.

The district sums the billed metered, billed un-metered and authorized consumption usage plus the accounted for water loss of water leaks and subtracts that from the distribution master meter. This process quantifies all accounted for water and presents a total revenue loss. Each category is inserted as a line item and can be independently valued as retail or production monetary loss. The remainder of water is considered unaccounted for water loss. This may be due to unidentified seeping leaks, rubber gasket/joint leaks and aged district / customer meters

The district included the first phase of automated water meter installations in the 2018 bond series to retro fit 1,200 meters to automation. The goal is to obligate annual operating reserve funds to phase in approximately 1,000 meters per year until all customer water meters are automated.

## Evaluation process

All the above programs are monitored monthly and recorded electronically on the computer for evaluation and measuring the effectiveness of each program. Executive summary reports are generated for projections and as a measuring tool for staff and management.

## Water Conservation Targets and Goals

ECCFWSD is dedicated toward water conservation and promoting the protection of water quality within the Cedar Creek Watershed area. The District has been a stakeholder to the Cedar Creek Water Protection Plan since the plan's inception. The District will continue the 5-year goal for promoting water conservation and to decrease the District's un-accountable water percentage through best management practices mentioned above, while maintaining an active role as stewards and promoters of the adopted watershed plan. The District provides water conservation hand-out material in the office lobby and promotes conservation tips on the District's website.

**5-year Target and Goals**

The district's 5-year usage history reflects the average Meter per Day is 121 gallons/day and the 3 per family GPCD is 40. ECCFWSD goal is to maintain the current 5-yr water usage of 121 gallons per day per meter. Using the District's meter to population calculation of 3 family members per household this equates to 40 gallons per capita per day. These calculated figures will vary from year to year due to changes caused by the el-Nino and El-Nina events however in the past 5-years Texas has experienced some of both affects and within that 5-year period customers have reduced usage to below the past conservation plan's goal of 170 gallons per day per meter.

**10-year Targets and Goals**

ECCFWSD's goal is to reduce our maximum water usage from 121 to 115 gallons per day per meter. Using the District's meter to population calculation of 3 family members per household this equates to 38 gallons per capita per day. ECCFWSD also plans to maintain an un-accountable water loss goal of 10%. Addendum: ECCFWSD Annual Customer Unit Report.

**McKay Record Keeping Process** The district maintains detailed spreadsheets that record each fiscal year's distribution water pumped and customer meter usage. The addendums accompanying the Conservation Plan date from 2002 – 2003 to the current fiscal year end of 2017-2018. The district feels that the past 5 years of history are the most relevant for projecting current and future projections.

**Section III: Declaration of Policy, Purpose, and Intent**

In order to conserve the available water supply and protect the integrity of water supply facilities, with particular regard for domestic water use, sanitation, assisting fire protection, protect and preserve public health, welfare, and safety and minimize the adverse impacts of water supply shortage or other water supply emergency conditions, East Cedar Creek Fresh Water Supply District Board of Directors hereby adopts by resolution this 2018-19 Conservation Plan for the ECCFWSD McKay Water System.

# Addendum Section

# Addendum - 1

## Total Usage - McKay (South Side) Water System - (TCEQ PWS: 1070019)

| Budget Year | Gallons Pumped-MG | Gallons Sold-MG | Water Loss | Customer Units | Gal Pmp Cap/Day | Gal Sold Cap/Day | Unit + or - | Unit % + or - | Population Meters x 3 | Gal-Pmp. GPCD Pop. 3 | Gal-Sold GPCD Pop. 3 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 02-03 | 131 | 102 | 22% | 1,962 | 183 | 142 | | | 5,885 | 61 | 47 |
| 03-04 | 160 | 119 | 25% | 1,958 | 223 | 167 | -4 | -0.2% | 5,873 | 74 | 56 |
| 04-05 | 136 | 114 | 16% | 1,954 | 190 | 160 | -3 | -0.2% | 5,863 | 63 | 53 |
| 05-06 | 147 | 115 | 21% | 1,974 | 203 | 160 | 19 | 1.0% | 5,922 | 68 | 53 |
| 06-07 | 126 | 110 | 13% | 2,013 | 172 | 149 | 40 | 2.0% | 6,040 | 57 | 50 |
| 07-08 | 104 | 87 | 16% | 2,025 | 140 | 118 | 11 | 0.6% | 6,074 | 47 | 39 |
| 08-09 | 103 | 89 | 14% | 2,036 | 139 | 120 | 11 | 0.5% | 6,107 | 46 | 40 |
| 09-10 | 108 | 88 | 19% | 2,037 | 146 | 119 | 1 | 0.1% | 6,110 | 49 | 40 |
| 10-11 | 114 | 99 | 14% | 2,037 | 154 | 133 | 0 | 0.0% | 6,112 | 51 | 44 |
| 11-12 | 136 | 111 | 19% | 2,042 | 183 | 149 | 5 | 0.3% | 6,127 | 61 | 50 |
| 12-13 | 119 | 96 | 19% | 2,042 | 160 | 129 | 0 | 0.0% | 6,126 | 53 | 43 |
| 13-14 | 113 | 96 | 15% | 2,051 | 151 | 128 | 9 | 0.5% | 6,154 | 50 | 43 |
| 14-15 | 115 | 86 | 25% | 2,048 | 153 | 115 | -4 | -0.2% | 6,143 | 51 | 38 |
| 15-16 | 117 | 90 | 23% | 2,059 | 156 | 120 | 11 | 0.6% | 6,177 | 52 | 40 |
| 16-17 | **121** | **84** | **31%** | **2,075** | **160** | **111** | **16** | **0.8%** | **6,225** | **53** | **37** |
| 5-yr. Avg. | **117** | **90** | **23%** | **2,055** | **156** | **121** | **7** | **0.3%** | **6,165** | **52** | **40** |

## Total Usage - McKay (South Side) Water System - (TCEQ PWS: 1070019)

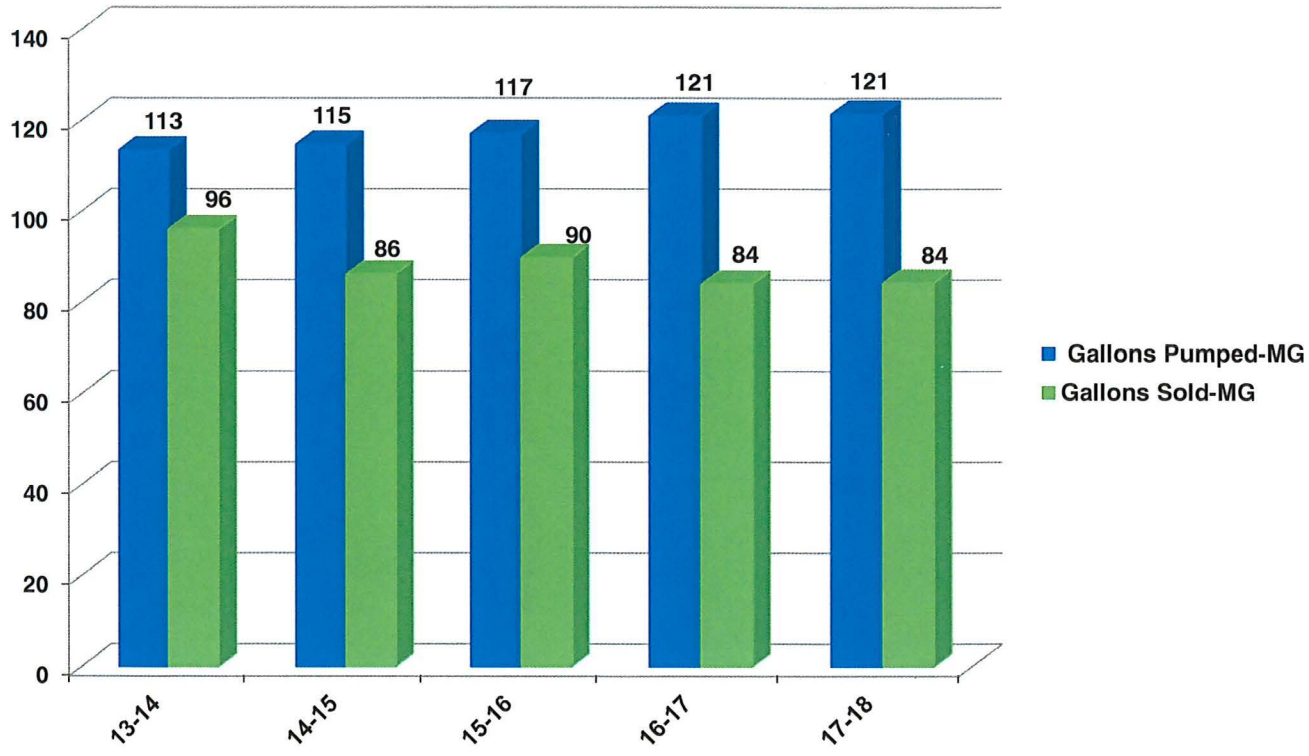
| Budget Year | Gallons Pumped-MG | Gallons Sold-MG | Water Loss | Customer Units | Gal Pmp Cap/Day | Gal Sold Cap/Day | Unit + or - | Unit % + or - | Population Meters x 3 | | GPCD Pop. 3 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Multiple Factor** | **1.004** | | | | | | | | | | |
| 17-18 | 121 | 84 | 31% | 2,083 | 160 | 111 | 8 | 0.4% | 6,250 | 53 | 37 |
| 18-19 | 122 | 85 | 31% | 2,092 | 160 | 111 | 8 | 0.4% | 6,275 | 53 | 37 |
| 19-20 | 122 | 85 | 31% | 2,100 | 160 | 111 | 8 | 0.4% | 6,300 | 53 | 37 |
| 20-21 | 123 | 85 | 31% | **2,108** | 160 | 111 | 8 | 0.4% | 6,325 | 53 | 37 |
| 21-22 | 123 | 86 | 31% | **2,117** | 160 | 111 | 8 | 0.4% | 6,350 | 53 | 37 |
| 22-23 | 124 | 86 | 31% | 2,125 | 160 | 111 | 8 | 0.4% | 6,376 | 53 | 37 |
| **1.08% Factor** | **1.008** | | | | | | | | | | |
| 23-24 | 125 | 87 | 31% | 2,142 | 160 | 111 | 17 | 0.8% | 6,427 | 53 | 37 |
| 24-25 | 126 | 87 | 31% | 2,159 | 160 | 111 | 17 | 0.8% | 6,478 | 53 | 37 |
| 25-26 | 127 | 88 | 31% | 2,177 | 160 | 111 | 17 | 0.8% | 6,530 | 53 | 37 |
| 26-27 | 128 | 89 | 31% | 2,194 | 160 | 111 | 17 | 0.8% | 6,582 | 53 | 37 |
| 27-28 | 129 | 90 | 31% | 2,212 | 160 | 111 | 18 | 0.8% | 6,635 | 53 | 37 |
| **% Factor** | **1.015** | | | | | | | | | | |
| 28-29 | 131 | 91 | 31% | 2,245 | 160 | 111 | 33 | 1.5% | 6,735 | 53 | 37 |
| 29-30 | 133 | 92 | 31% | 2,279 | 160 | 111 | 34 | 1.5% | 6,836 | 53 | 37 |
| 30-31 | 135 | 94 | 31% | 2,313 | 160 | 111 | 34 | 1.5% | 6,938 | 53 | 37 |
| 31-32 | 137 | 95 | 31% | 2,347 | 160 | 111 | 35 | 1.5% | 7,042 | 53 | 37 |
| 32-33 | 139 | 96 | 31% | 2,383 | 160 | 111 | 35 | 1.5% | 7,148 | 53 | 37 |
| 33-34 | 141 | 98 | 31% | 2,418 | 160 | 111 | 36 | 1.5% | 7,255 | 53 | 37 |
| 34-35 | 143 | 99 | 31% | 2,455 | 160 | 111 | 36 | 1.5% | 7,364 | 53 | 37 |
| 35-36 | 145 | 101 | 31% | 2,491 | 160 | 111 | 37 | 1.5% | 7,474 | 53 | 37 |
| 36-37 | 147 | 102 | 31% | 2,529 | 160 | 111 | 37 | 1.5% | 7,586 | 53 | 37 |
| 37-38 | 150 | 104 | 31% | 2,567 | 160 | 111 | 38 | 1.5% | 7,700 | 53 | 37 |
| 38-39 | 152 | 105 | 31% | 2,605 | 160 | 111 | 39 | 1.5% | 7,816 | 53 | 37 |
| 39-40 | 154 | 107 | 31% | 2,644 | 160 | 111 | 39 | 1.5% | 7,933 | 53 | 37 |
| **% Factor** | **1.020** | | | | | | | | | | |
| 2050 | 157 | 115 | 27% | 2,644 | 163 | 119 | 39 | 1.5% | 7,933 | 54 | 40 |
| 2060 | 162 | 124 | 23% | **2,684** | 165 | 127 | 40 | 1.5% | 8,052 | 55 | 42 |

| TCEQ Rule | GPM | GPD - MG | MGD Capacity | Yr.> Cap. |
|---|---|---|---|---|
| .6 Capacity | **1,265** | 1,821,657 | 1.80 | **1.82** |
| .45 Capacity | **1,208** | 1,739,228 | 1.80 | **1.74** |

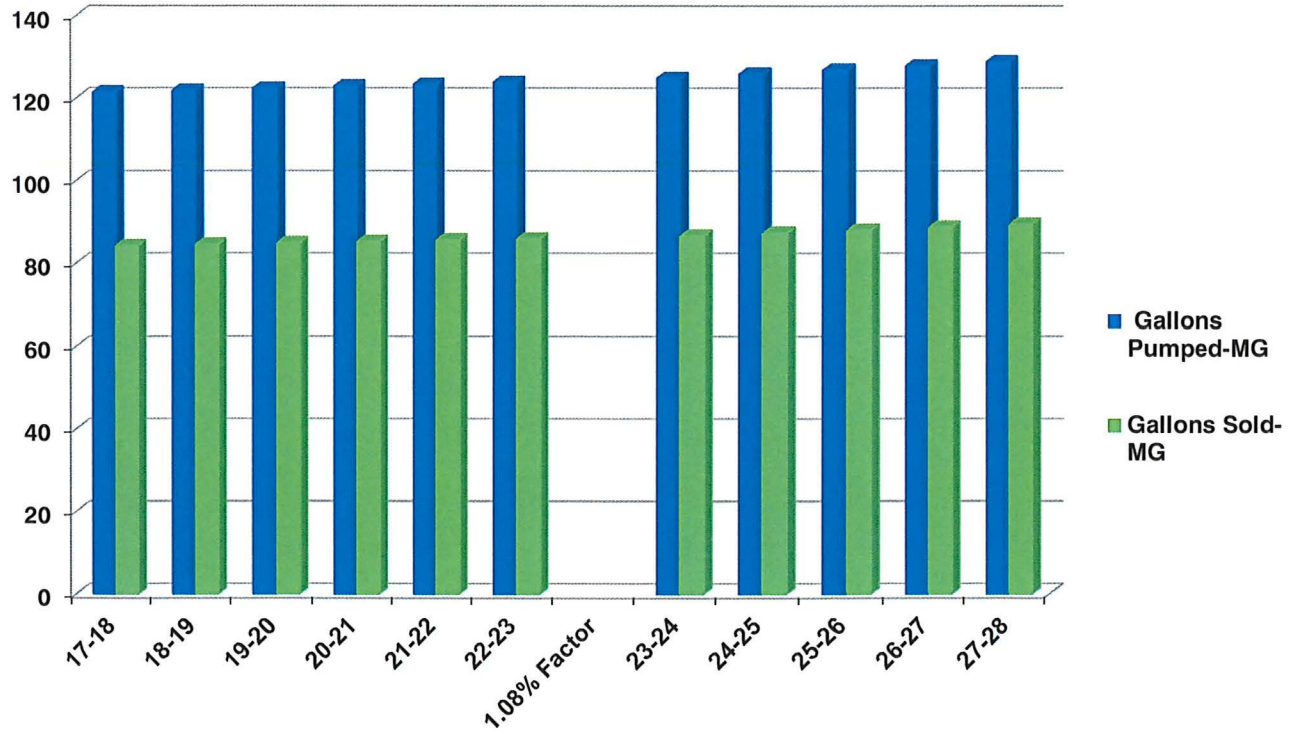
ECCFWSD has been approved by TCEQ to reduce .6 gal /meter capacity rule to .45 gal / meter

## Addendum - 2

### 5-Yr. McKay- Total Water Gal's Pumped vs Total Water Gal's Sold




### McKay Total Water Future Growth Projection to 2028



# Addendum - 3

**Residential Usage - McKay (South Side) Water System - TCEQ PWS: 1070019**

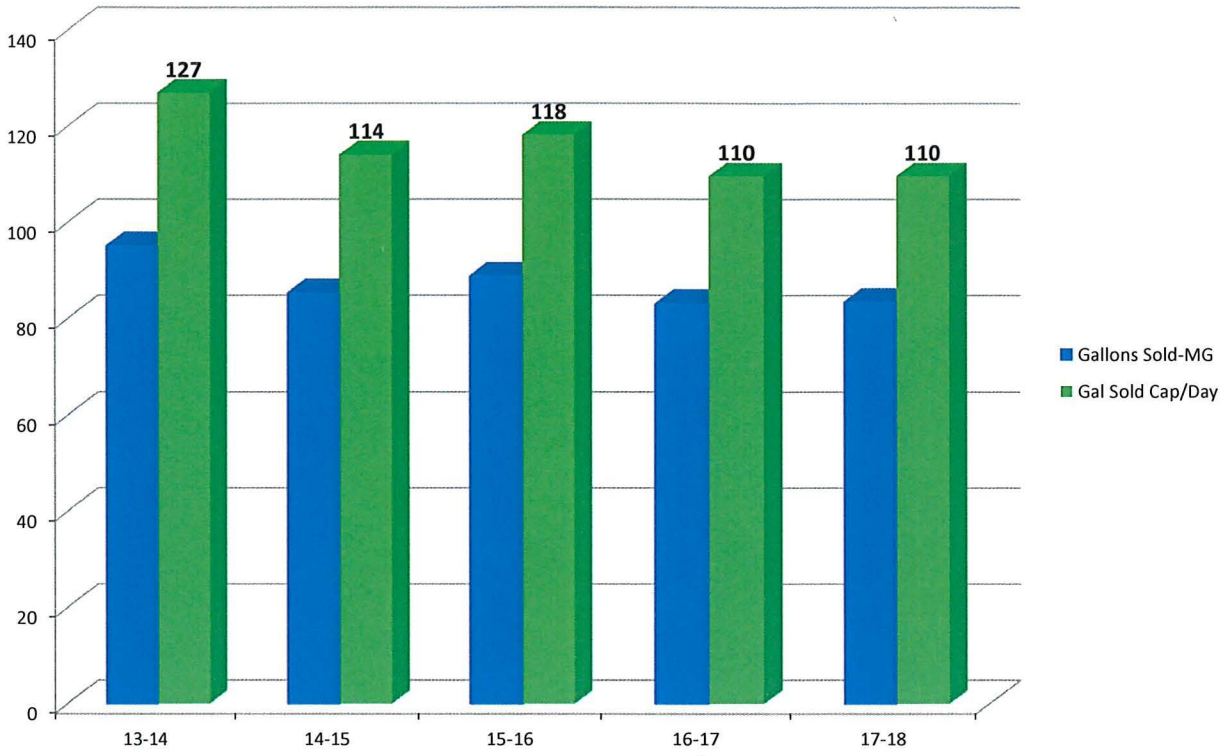
| Budget Year | Gallons Sold-MG | Customer Units | Gal Sold Cap/Day | Population Meters x 3 | GPCD Pop. 3 |
|---|---|---|---|---|---|
| 02-03 | 101 | 1,942 | 141 | 5,826 | 47 |
| 03-04 | 118 | 1,938 | 165 | 5,814 | 55 |
| 04-05 | 113 | 1,935 | 158 | 5,805 | 53 |
| 05-06 | 114 | 1,954 | 159 | 5,862 | 53 |
| 06-07 | 108 | 1,993 | 148 | 5,980 | 49 |
| 07-08 | 86 | 2,005 | 116 | 6,014 | 39 |
| 08-09 | 88 | 2,015 | 118 | 6,046 | 39 |
| 09-10 | 87 | 2,016 | 118 | 6,049 | 39 |
| 10-11 | 98 | 2,017 | 131 | 6,050 | 44 |
| 11-12 | 110 | 2,022 | 147 | 6,066 | 49 |
| 12-13 | 95 | 2,021 | 128 | 6,064 | 43 |
| 13-14 | 95 | 2,024 | 127 | 6,071 | 42 |
| 14-15 | 85 | 2,020 | 114 | 6,060 | 38 |
| 15-16 | 89 | 2,031 | 118 | 6,093 | 39 |
| **16-17** | **83** | **2,047** | **110** | **6,141** | **37** |
| 5-yr. Avg. | 93 | 2,027 | 124 | 6,082 | 41 |
| | | | | 6,141 | |

**Residential Usage - McKay (South Side) Water System - TCEQ PWS: 1070019**

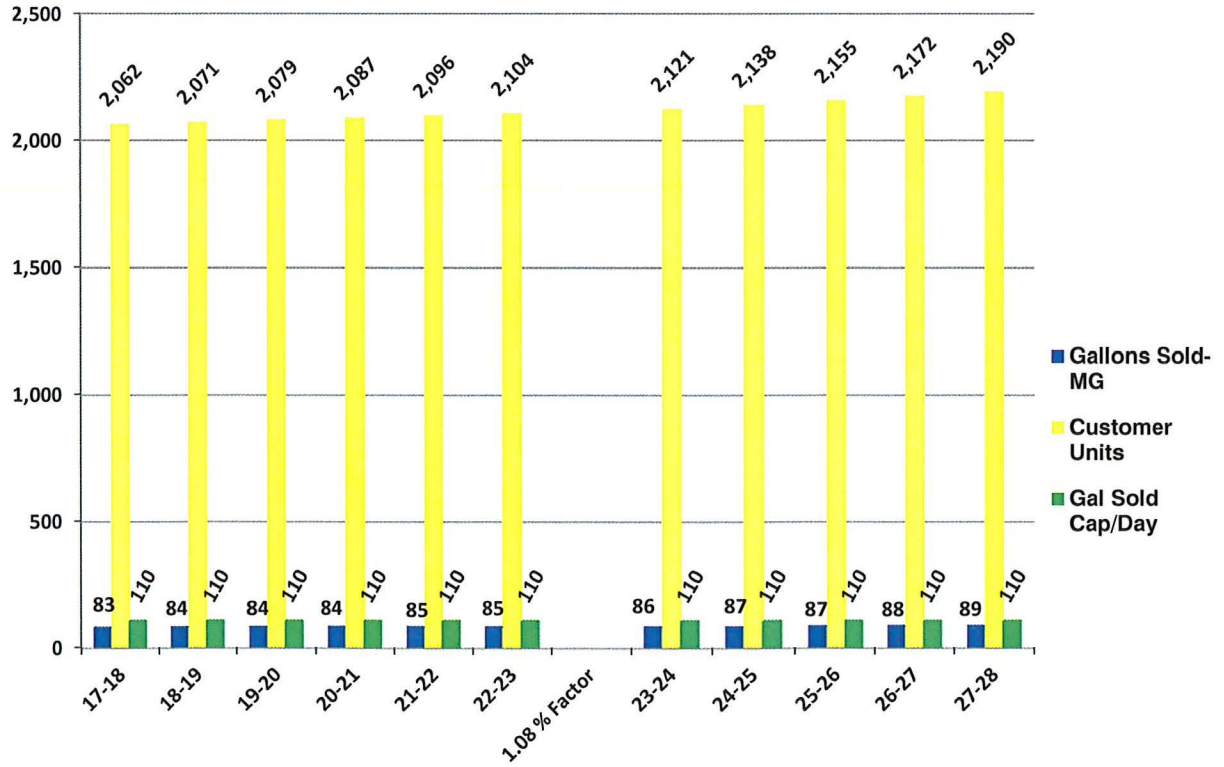
| Budget Year | Gallons Sold-MG | Customer Units | Gal Sold Cap/Day | Population Meters x 3 | GPCD Pop. 3 |
|---|---|---|---|---|---|
| **% Factor** | **1.004** | | | | |
| 17-18 | 83 | 2,062 | 110 | 6,187 | 37 |
| 18-19 | 84 | 2,071 | 110 | 6,212 | 37 |
| 19-20 | 84 | 2,079 | 110 | 6,237 | 37 |
| 20-21 | 84 | 2,087 | 110 | 6,262 | 37 |
| 21-22 | 85 | 2,096 | 110 | 6,287 | 37 |
| 22-23 | 85 | 2,104 | 110 | 6,312 | 37 |
| **1.08 % Factor** | | | | | |
| 23-24 | 86 | 2,121 | 110 | 6,363 | 37 |
| 24-25 | 87 | 2,138 | 110 | 6,414 | 37 |
| 25-26 | 87 | 2,155 | 110 | 6,465 | 37 |
| 26-27 | 88 | 2,172 | 110 | 6,517 | 37 |
| 27-28 | 89 | 2,190 | 110 | 6,569 | 37 |
| **% Factor** | **1.010** | | | | |
| 29-30 | 89 | 2,200 | 109 | 6,600 | 36 |
| 30-31 | 90 | 2,233 | 109 | 6,699 | 36 |
| 31-32 | 92 | 2,266 | 109 | 6,799 | 36 |
| 32-33 | 93 | 2,300 | 109 | 6,901 | 36 |
| 33-34 | 95 | 2,335 | 109 | 7,005 | 36 |
| 34-35 | 96 | 2,370 | 109 | 7,110 | 36 |
| 35-36 | 97 | 2,406 | 109 | 7,217 | 36 |
| 36-37 | 99 | 2,442 | 109 | 7,325 | 36 |
| 37-38 | 100 | 2,478 | 109 | 7,435 | 36 |
| 38-39 | 102 | 2,515 | 109 | 7,546 | 36 |
| 39-40 | 103 | 2,553 | 109 | 7,659 | 36 |
| 39-40 | 105 | 2,591 | 109 | 7,774 | 36 |
| | | | | | |
| 2050 | 113 | 2,591 | 117 | 7,774 | 39 |
| 2060 | 122 | 2,630 | 124 | 7,891 | 41 |

Addendum - 4

**5-Yr. McKay Residential Gal's Sold vs Gal's Sold Cap/Day**




**McKay - Residential Future Growth Projection to 2028**



# Water for Life

# Activity Book



East Cedar Creek
Fresh Water Supply District

ECC FWSD

$H_2O$ for Life

# Water Facts Quiz

Test your knowledge of water by circling the correct answer to the questions below. Once you have finished, use the key at the bottom of the page to check your answers.

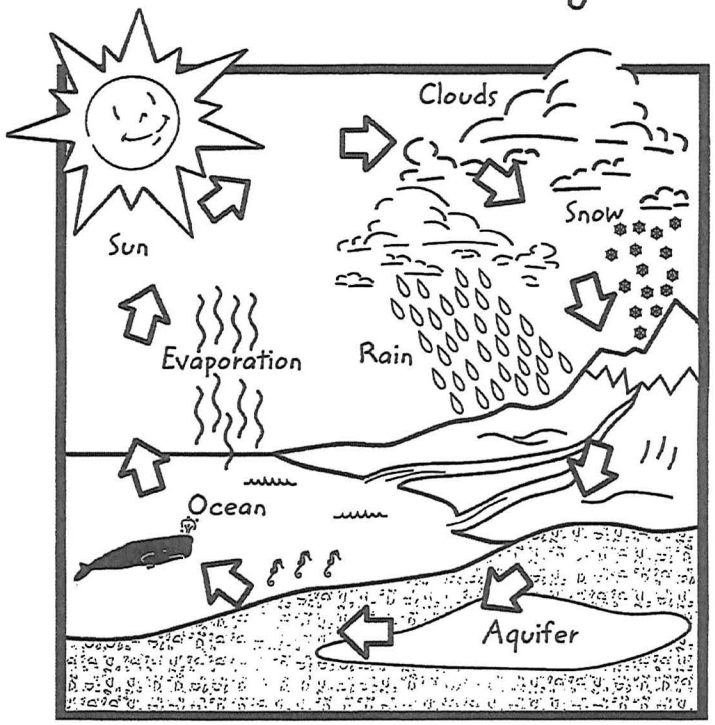
| | |
|---|---|
| It takes 1 gallon of water to process a quarter pound of hamburger. How much water does it take to produce one serving of french fries? | A. 9 gallons<br>B. 4 gallons<br>C. 6 gallons<br>D. 3 gallons |
| It takes 4-7 gallons of water to flush a toilet. How much water is used to take a shower? | A. 15-25 gallons<br>B. 9-12 gallons<br>C. 28-72 gallons<br>D. 2-4 gallons |
| How much water is used to brush your teeth? | A. 5 gallons<br>B. Less than 1 gallon<br>C. 3 gallons<br>D. 1 gallon |
| We use water in many ways. How much water does one person use daily? | A. 200 gallons<br>B. 100 gallons<br>C. 45 gallons<br>D. 123 gallons |
| Water covers 80% of the earth's surface. How much of that water is suitable to drink? | A. 10%<br>B. 25%<br>C. 1%<br>D. 5% |
| Water makes up roughly two-thirds (66%) of the human body. How much of a chicken is water? | A. 90%<br>B. 64%<br>C. 75%<br>D. 87% |

Now that you are a water expert, share your knowledge with your family and friends!

1-C, 2-B, 3-D, 4-D, 5-C, 6-C



# The Water Cycle



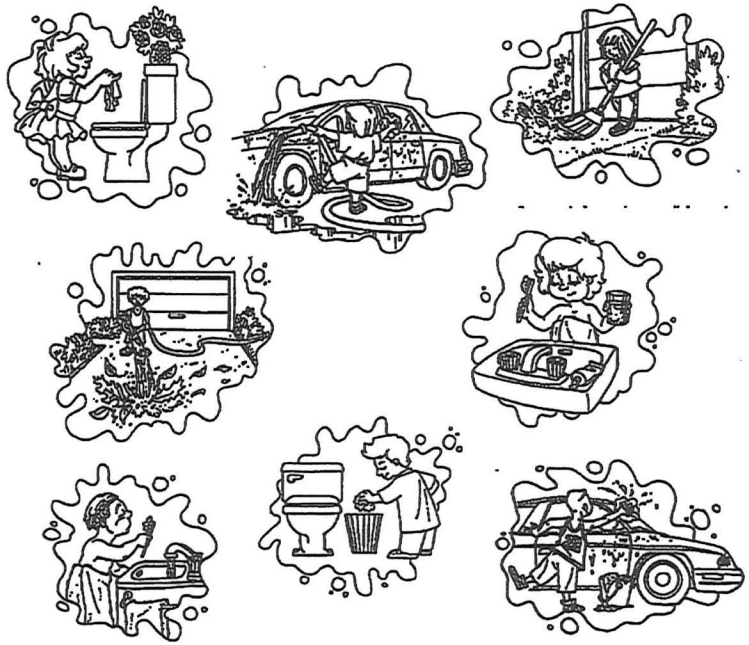

Water moves in a cycle. Color the different parts of the water cycle.

# Water and our Environment

Professor Monte says, "Water Quality Starts at the Source. Help Protect Our Rivers and Streams."



# Who's Conserving Water?



Look carefully at each of these pictures. Cross-out the pictures that show someone wasting water. Circle the pictures that show someone conserving water.

# Conservation


② Color in the girl brushing her teeth.

# $H_2O$ for Life

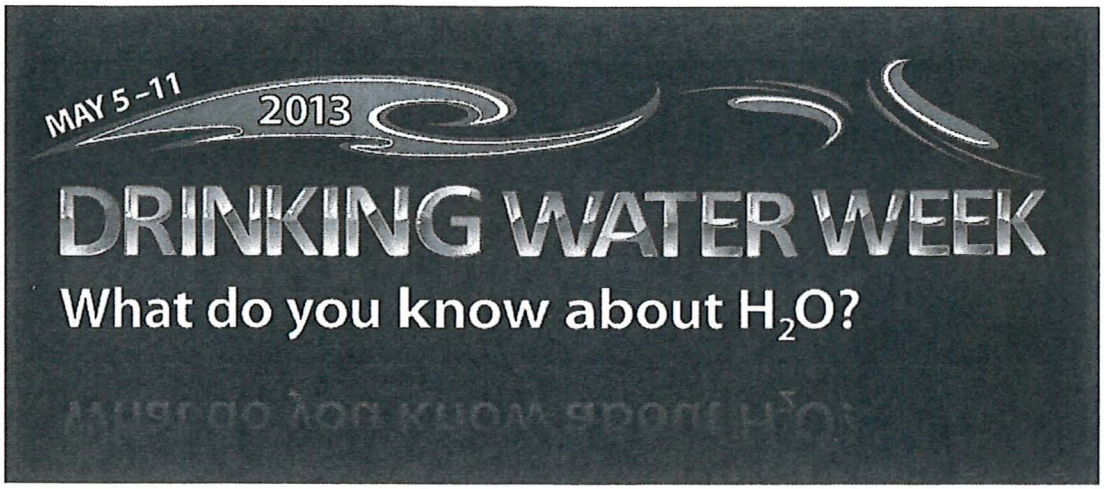
Water is used in many different ways!

Think about what you did yesterday. Where you went. Then write a list of all the different ways that you used water.

⑧ Now count the many different ways you used water yesterday and put the total in the drop.

Addendum 9

**Addendum 10**




# ECCFWSD Celebrates National Drinking Water Week 2013

### Local Water, Global Impacts

In an age of globalization, we must stop and think about the incredible significance our local waterways has not only on our lives, but on the lives of many others that depend on it. In the reverse, we also must recognize how our local decisions may impact the quality and supply of other water sources abroad. The way we treat our water today has immense impacts not only for future generations living here, but even for those in the present living in far reaches from our own homes.

## What is National Drinking Water Week?

For more than 30 years, communities across the United States have joined the American Water Works Association (AWWA) in recognizing the essential role that water plays in our daily lives by celebrating National Drinking Water Week. Throughout the week, AWWA and its partners provide information and host activities to highlight how important water is for us all

## Protecting Water Quality at Home!!!

After water enters a home, conditions in the home plumbing system can affect the water's quality. "Our water providers work very hard to be sure that the water leaving the treatment plant meets all federal and state standards," said AWWA Executive Director David LaFrance. "As consumers, it's up to us to help protect that water quality by maintaining our homes' pipes and faucets."

# Addendum 11

To assist homeowners, AWWA has provided these top tips for maintaining water quality at home:

1. Clean faucets and aerators regularly
2. Clean and disinfect sinks and drains regularly
3. Keep drains clear and unclogged
4. Use cold water for drinking and preparing food
5. Replace old plumbing and install certified "lead free" fixtures
6. Flush cold water taps after household plumbing work or when the water hasn't been used for several days
7. Drain and flush your hot water heater annually
8. Follow the manufacturer's instructions for the water heater, filters, treatment devices, softeners and any other products attached to the water system
9. Do not connect hoses or other devices intended for non-drinking purposes to household drinking water faucets
10. Keep hazardous chemicals and unsanitary materials away from drinking water faucets

Additional information about maintaining water quality at home is available at **DrinkTap.org**.