

# Olivehurst Public Utility District



## Agenda Item Staff Report

**Meeting Date: 12/03**

**Item description/summary:**

Consider Accepting Grant Funds from DWR (if accepted) for Saddle Replacement Project

On 11/19 a Grant was submitted for 1203 Saddles to be Replaced in Olivehurst. One of the requirements from the Grant is a Resolution Submission within the District for acceptance of the Grant. Attached you can also find the Supplement Information Regarding the project and District needs for its updates.

**Fiscal Analysis:**

n/a

**Employee Feedback**

n/a

**Sample Motion:**

Acceptance of Grand Fund (if recipients) and Project.

Prepared by: Swarnjit Boyal, Public Work Engineer

**ATTACHMENT 1 – PROPOSED RESOLUTION FOR GRANT  
ACCEPTANCE AND EXECUTION FOR THE SADDLE REPLACEMENT  
PROJECT**

**RESOLUTION NO. 2382**

**A RESOLUTION OF THE BOARD OF DIRECTORS  
OF THE OLIVEHURST PUBLIC UTILITY DISTRICT AUTHORIZING THE GRANT  
APPLICATION, ACCEPTANCE, AND EXECUTION FOR THE SADDLE REPLACEMENT  
PROJECT**

**WHEREAS**, the Olivehurst Public Utility District proposes to implement Saddle Replacements throughout Olivehurst; and

**WHEREAS**, Olivehurst Public Utility District has the legal authority and is authorized to enter into a funding agreement with the State of California; and

**WHEREAS**, Olivehurst Public Utility District intends to apply for grant funding from the California Department of Water Resources for the Saddle Replacement Project;

**NOW, THEREFORE, BE IT RESOLVED** by the Board Members of the Olivehurst Public Utility District as follows:

1. That pursuant and subject to all of the terms and provisions of Budget Act of 2021 (Stats. 2021, ch.240, § 80), the Olivehurst Public Utility District, GENERAL MANAGER – JOHN TILLOTSON, or designee is hereby authorized and directed to prepare and file an application for funding with the Department of Water Resources and take such other actions necessary or appropriate to obtain grant funding.
2. The Olivehurst Public Utility District, GENERAL MANAGER – JOHN TILLOTSON, or designee is hereby authorized and directed to execute the funding agreement with the Department of Water Resources and any amendments thereto.
3. The Olivehurst Public Utility District, GENERAL MANAGER – JOHN TILLOTSON, or designee is hereby authorized and directed to submit any required documents, invoices, and reports required to obtain grant funding.

**PASSED AND ADOPTED** by the Board of Directors of the Olivehurst Public Utility District on this 16<sup>th</sup> day of December, 2021.

\_\_\_\_\_  
President, Board of Directors

ATTEST:

\_\_\_\_\_  
District Clerk and ex-officio Secretary

APPROVED AS TO FORM AND LEGAL  
SUFFICIENCY

\_\_\_\_\_  
Deirdre Joan Cox, Legal Counsel

\* \* \* \* \*

I hereby certify that the foregoing is a full, true, and correct copy of a Resolution duly adopted and passed by the Board of Directors of the Olivehurst Public Utility District, Yuba County, California, at a meeting thereof held on the 16<sup>th</sup> day of December, 2021, by the following vote:

AYES, AND IN FAVOR THEREOF :

NOES :

ABSTAIN :

ABSENT :

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District Clerk and ex-officio Secretary

**ATTACHMENT 2 – SADDLE REPLACEMENT PROJECT LETTER**

# **OLIVEHURST PUBLIC UTILITY DISTRICT**

*Our mission is to provide high quality services to enhance our community's quality of life.*



## **BOARD OF DIRECTORS**

Dennise Burbank James Carpenter John Floe Mary Jane Griego Christopher White

### **GENERAL MANAGER**

John Tillotson, P.E.

### **PUBLIC WORKS ENGINEER**

Swarnjit Boyal

November 18, 2021

To: California Department of Water Resources  
Division of Regional Assistance, Financial Assistance Branch  
715 P Street, 6<sup>th</sup> Floor, Mailbox 15  
Sacramento, CA 94236-0001

From: Swarnjit Boyal, Public Works Engineer  
RE: Saddle Replacement Project

### **Saddle Replacement Project – Historic Olivehurst**

Olivehurst is a community of diverse individuals and families from various backgrounds. One of the top priorities at the District is relieving our groundwater by reducing pumpage. Being categorized in the region of high priority for our groundwater basin region we wanted to tackle the issue on an educational and system improvement process. The first process is education and back in September We at OPUD formulated and strategized with lead official on an education program to non- English speaking residences, mostly Hispanic backgrounds via the TU-AGUA Grant program on categories that included CCR summary template for easy understanding of what's in one's water, Doorhangers, Spanish alert templates, education on water usage and the importance of conserving, etc. The second plan of action looks at reducing water loses through infrastructure failures. The District has identified a saddle replacement grant proposal for reduction/conservation of water losses. One of the funds being requested for is the saddle replacement for roughly 1,203 homes throughout Olivehurst. Olivehurst contains a large portion of residential homes that were built prior to the 1950's and one of the previous practices for water connections from the main to the lateral were to connect them via a cast iron saddle. Cast Iron is known to rust, corrode, and disintegrate over time which is what has occurred to most of the residence of older built homes with this form of fitting. The cast irons currently on site were made of cheap material and most of their life expectancy is passed due and need replacing by current industry practices. We would like to replace 1203 saddles via a two phase system replacement plan with Brass saddles which are more effective, longer lasting, and resistive to corroding.

This project would help reduce water loses. Per our latest water audits within the Olivehurst water system, the audit found that each service connection per day produced an average of 41.14 real losses per service connection per day. This portion of water losses is accounted for any water being lost coming off the main and into the consumer tap. From staff reporting, it's estimated of the 41.14

gallon/connection/ day loses, 2/3<sup>rd</sup> of those are accounted for in saddle losses. See attached 2020 water audit report for water losses. In terms of insufficient saddles, this is equivalent to 27.43 gallons of water loss/connection/day. Most of the water losses due to saddle have been identified in our two phase project replacement program which accounts for a total of 1,203 connections to be replaced. This would equate to a yearly water savings of 2,708,300. It's estimated roughly 12,044,375 gallons of treated water is being wasted due to leaks, crack, and broken infrastructure of the cast iron saddles. With a total of 660,492,513 gallons reported in the most recent 2020 annual report used within the Olivehurst Water System, this would be a savings of 1.8%.

Our understaffed Water Department have to constantly deal with customers complaining of leaks and water spilling out on the road on a regular basis and most of them have to do with old saddle and unfortunately at the moment all we really can only do is minor patches and tweaks as we don't have the sufficient funds to repair our community's saddles. We need your help to resolve this important but overlooked problem as it will allow us to conduct a sweeping reform of our outdated infrastructure within Olivehurst and allow for millions of gallons to be unwasted and reduce groundwater pumping.

Please see attachment D below of what we find out in the field and how important during the drought we would like to resolve this issue and conserve as much water as possible because every drop does truly count and just replacing one would save thousands of gallons of water and over millions in the years to come because our water crisis has no time table for an immediate resolution but having the sufficient funds to cover this project will help the healing process and help conserve our most important and abundant resource.

Please feel free to contact me, Swarnjit Boyal at (530) 682-0736 with any questions or if I can provide any further information.

Sincerely,



Swarnjit Boyal

*PUBLIC WORKS ENGINEER*

**Olivehurst Public Works Utility District**

Appendix:

Attachment A – Map of Saddle Replacements

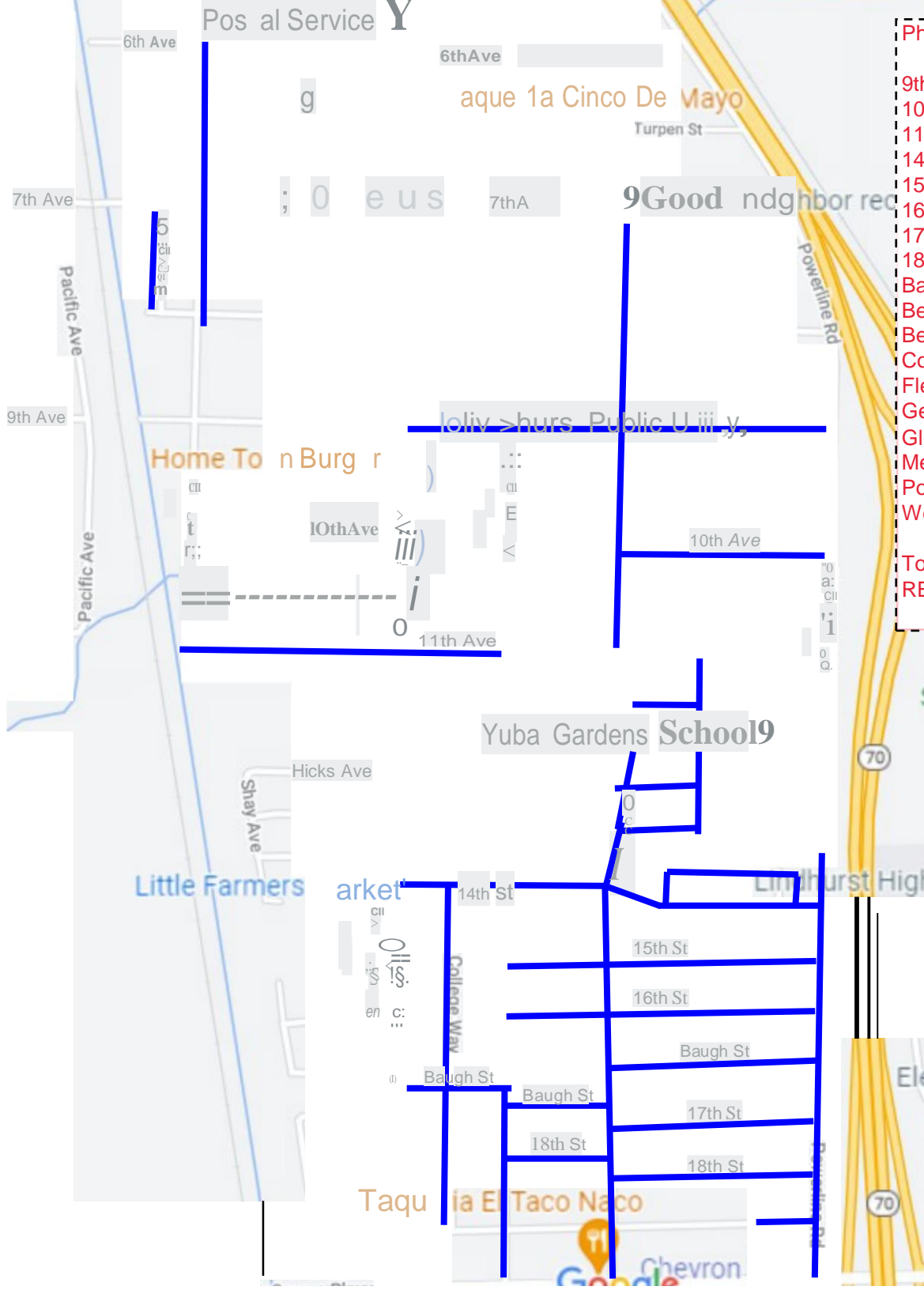
Attachment B – Cost Estimate

Attachment C – 2020 Olivehurst Water Losses Audit

Attachment D – Old Saddle Photos



## ATTACHMENT A – MAP OF SADDLE REPLACEMENTS



- Phase 1 - Saddle Replacement Project**
- 9th Ave. - 79 Saddle Replacements
  - 10th Ave. - 21 Saddle Replacements
  - 11th Ave. - 35 Saddle Replacements
  - 14th Ave. - 48 Saddle Replacements
  - 15th Ave. - 40 Saddle Replacements
  - 16th Ave. - 40 Saddle Replacements
  - 17th Ave. - 28 Saddle Replacements
  - 18th Ave. - 53 Saddle Replacements
  - Baugh St. - 50 Saddle Replacements
  - Beaver Ln. - 15 Saddle Replacements
  - Beverly Ave. - 10 Saddle Replacements
  - College Way - 45 Saddle Replacements
  - Fleming Way - 74 Saddle Replacements
  - Georgina Dr. - 10 Saddle Replacements
  - Glenmore Dr. - 24 Saddle Replacements
  - Meadow Way - 50 Saddle Replacements
  - Powerline Rd. - 20 Saddle Replacements
  - Western Ave. - 40 Saddle Replacements
- Total Saddle Replaced for Phase I - 682  
REMAINING ON 11TH**

# SADDLE REPLACEMENT PROJECT - PHASE 2A

## Street - Number Of Saddles Replaced

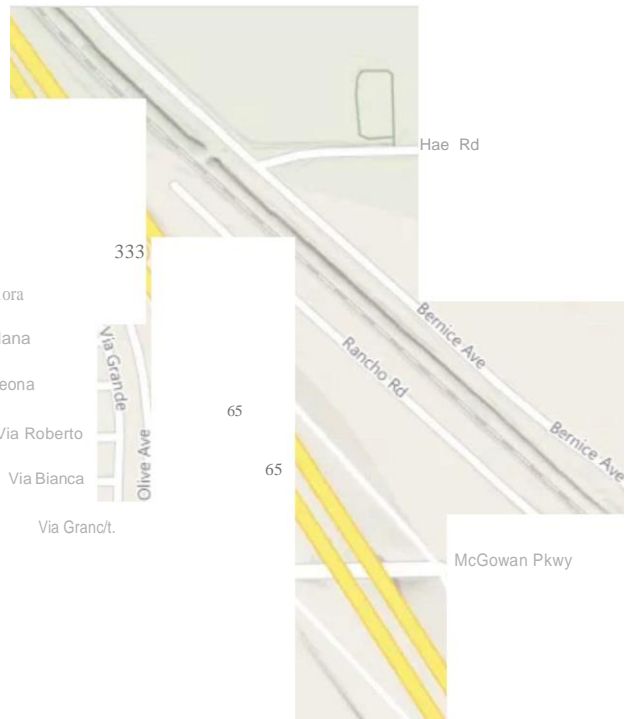
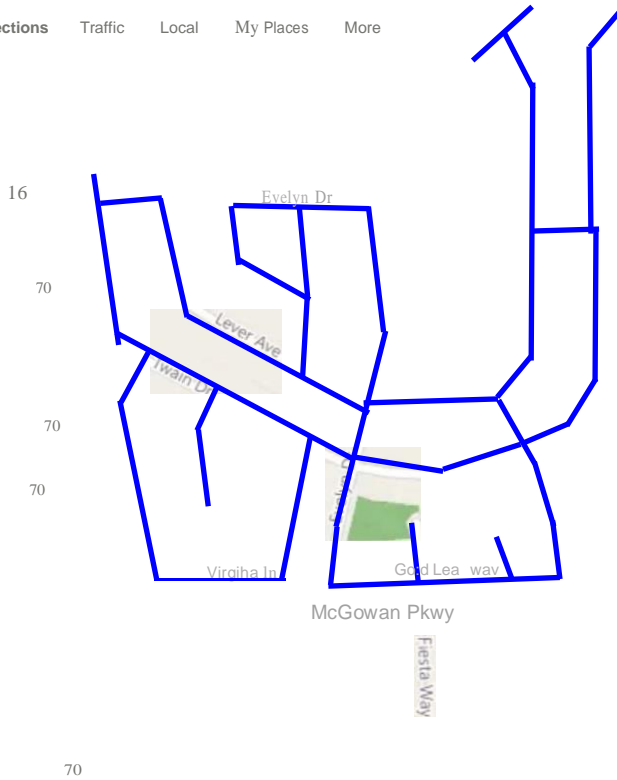
- Elton Ave. - 13 Saddle Replacements
- Evelyn Dr. - 45 Saddle Replacements
- Lever Ave. - 67 Saddle Replacements
- Twain Dr. - 39 Saddle Replacements
- Goldleaf Way - 20 Saddle Replacements
- Silverleaf Ct. - 5 Saddle Replacements
- Copperleaf Ct. - 3 Saddle Replacements
- Martel Dr. - 66 Saddle Replacements
- Olive Ct. - 3 Saddle Replacements
- Vigilia Ln. - 49 Saddle Replacements

Total - 310 Saddle Replacements



Microsoft Bing

Directions Traffic Local My Places More



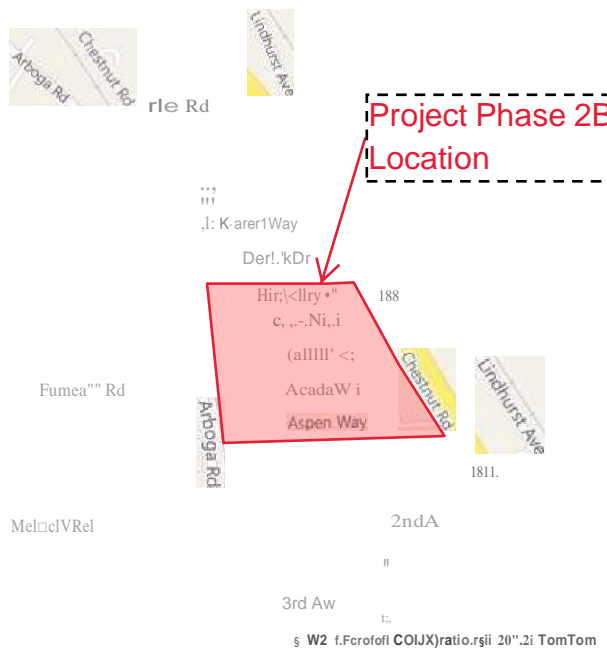
500 feet 100m © 2021 TomTom, © OpenStreetMap

# SADDLE REPLACEMENT PROJECT - PHASE 2B

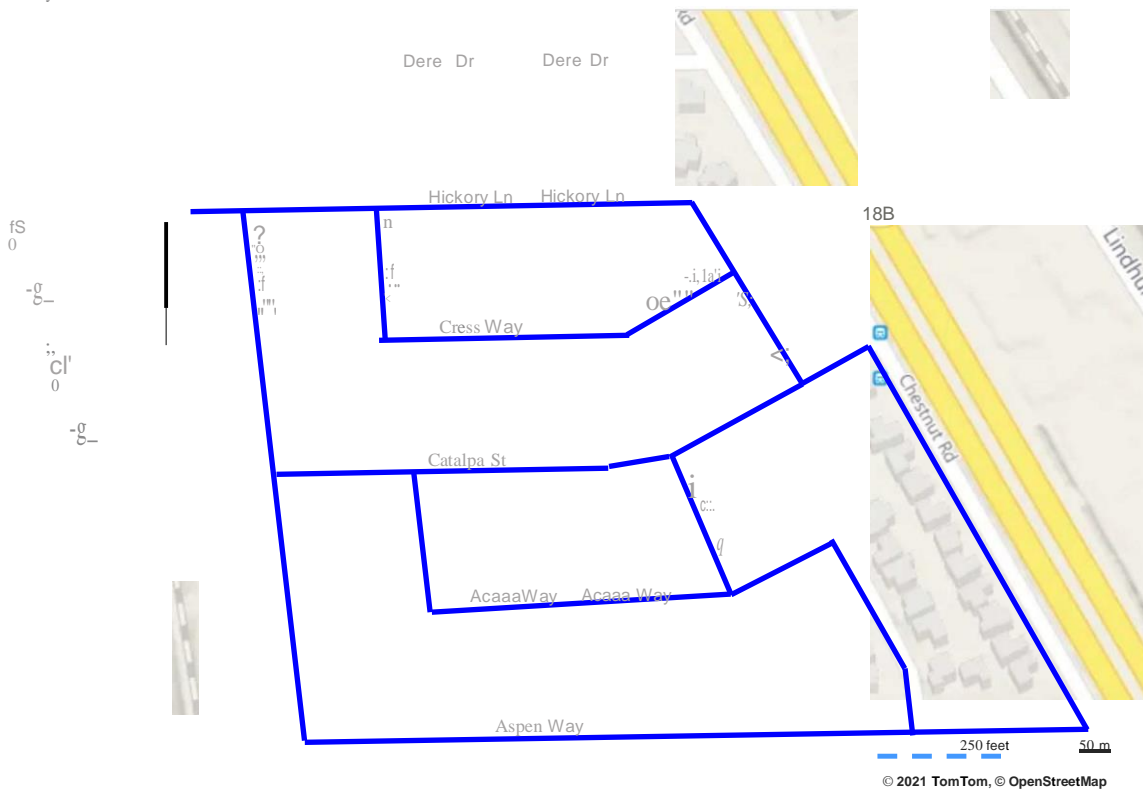
## Street - Number Of Saddles Replaced

- Aspen Way - 74 Saddle Replacements
- Acacia Way - 34 Saddle Replacements
- Catalpa St. - 26 Saddle Replacements
- Chestnut Rd. - 24 Saddle Replacements
- Cress Way - 22 Saddle Replacements
- Hickory Ln - 31 Saddle Replacements

Total - 211 Saddle Replacements



Directions Traffic Local My Places More



## ATTACHMENT B – COST ESTIMATE

**OLIVEHURST PUBLIC UTILITY DISTRICT**

*Our mission is to provide high quality services to  
enhance our community's quality of life.*



**SADDLE REPLACEMENT PROJECT - PARTS & LABOR COST  
ESTIMATE**

Item	Parts Number	Description	Units	Price	Total
1	MUEB25028N1	1 MIP X 110 CTS LF 300 BALL CORP	1203	\$90	\$108,270
2	MUEBR2B1104IP100	11.04-12.12 X 1 IP DS BRS SADDLE	1203	\$265	\$318,795
3		110 1" CTS COMPRESSION X CTS COMPRESSION Straight 3-Part UNION COUPLING	1203	\$100	\$120,300
4		1" K Copper	1203	\$25	\$30,075
5		Labor - Includes 4'x4' Asphalt removal and replacement with new bedding material and asphalt, Saddle replacement, crew members, etc...	1203	\$2,000	\$2,406,000
6	<b>TOTAL</b>				<b>\$2,983,440</b>

*Swarnjit Boyal*

11/18/2021

OPUD - PUBLIC WORKS ENGINEER

DATE

# ATTACHMENT C – 2020 OLIVEHURST WATER LOSSES AUDIT

AWWA Free Water Audit Software:		WAS v5.0
System Attributes and Performance Indicators		American Water Works Association. Copyright © 2014, All Rights Reserved.
Water Audit Report for: <b>Olivehurst PUD (CA5810003)</b>		
Reporting Year: <b>2020</b>   <b>1/2020 - 12/2020</b>		
<b>*** YOUR WATER AUDIT DATA VALIDITY SCORE IS: 54 out of 100 ***</b>		
<b>System Attributes:</b>		
	Apparent Losses:	17.141 MG/Yr
	+ Real Losses:	64.913 MG/Yr
	= <b>Water Losses:</b>	<b>82.054 MG/Yr</b>
	? Unavoidable Annual Real Losses (UARL):	20.90 MG/Yr
	Annual cost of Apparent Losses:	\$53,308
	Annual cost of Real Losses:	\$34,746
		Valued at <b>Variable Production Cost</b> <small>Return to Reporting Worksheet to change this assumption</small>
<b>Performance Indicators:</b>		
Financial:	Non-revenue water as percent by volume of Water Supplied:	10.4%
	Non-revenue water as percent by cost of operating system:	4.3%
Operational Efficiency:	Apparent Losses per service connection per day:	10.86 gallons/connection/day
	Real Losses per service connection per day:	41.14 gallons/connection/day
	Real Losses per length of main per day*:	N/A
	Real Losses per service connection per day per psi pressure:	0.69 gallons/connection/day/psi
	From Above, Real Losses = Current Annual Real Losses (CARL):	64.91 million gallons/year
	? Infrastructure Leakage Index (ILI) [CARL/UARL]:	3.11
* This performance indicator applies for systems with a low service connection density of less than 32 service connections/mile of pipeline		

ATTACHMENT D – OLD SADDLE PHOTOS

