

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC APPLICATION OF )  
MARTIN COUNTY WATER DISTRICT )  
FOR ALTERNATIVE RATE ADJUSTMENT )

CASE NO. 2021-00154

**NOTICE OF FILING EXHIBIT TO BE UTILIZED  
BY MARTIN COUNTY WATER DISTRICT AT  
HEARING ON MAY 27, 2021**

\*\*\*\*\*

Comes the Martin County Water District, by counsel, and hereby gives Notice of Filing of the attached Exhibit #1, Alliance Water Resources, Inc. Operations Update Power Point to be utilized at the Public Service Commission hearing on May 27, 2021.



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**CERTIFICATE OF SERVICE**

This will certify that a true and correct copy of the foregoing was emailed on this the 25 day of May, 2021, to the following:

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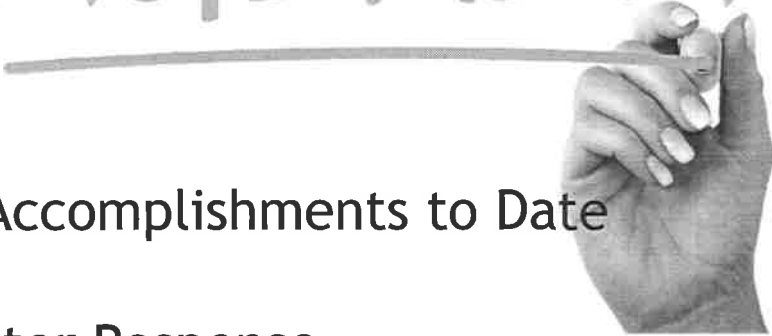


# Alliance Water Resources, Inc. Operations Update

**Martin County Water District**

May 27, 2021

# AGENDA



- ▶ Key Accomplishments to Date
- ▶ Disaster Response
- ▶ Water Loss
- ▶ Immediate Needs
- ▶ Discussion/Questions

# Key Accomplishments to Date



- ▶ Meter Audits
- ▶ Audits from 2016 - 2020 complete
- ▶ Created 90-day goals
- ▶ New billing software purchased and Implemented
- ▶ QGIS and GEOSYNC CLOUD Implementation.
- ▶ 1300 meters GIS Mapped
- ▶ Leak Mapping on GIS

# Key Accomplishments to Date



- ▶ Master Meter Zones Identified
- ▶ Critical Operational Equipment for Regulatory Compliance and Leak Detection
- ▶ Developed Meter Reading and Billing SOP
- ▶ Developed Customer Service SOP
- ▶ Repaired Crum Reservoir monument
- ▶ Installed 2<sup>nd</sup> pump at Turkey Booster Station
- ▶ Purchased New Trench Box for Safe Excavation



## Key Accomplishments to Date

- ▶ Replaced Ceiling Tile and Lighting in Plant Lab
- ▶ Installed New Booster Station Building at Cassell Branch
- ▶ Purchased New Booster Station Building for Big Lick Booster Station
- ▶ 3 Trucks brought from Alliance Water Resources and Provided for District Use
- ▶ Repaired the District Excavator and Purchased New Tracks
- ▶ Repaired District Dump Truck for Use During Leak Repairs

# Key Accomplishments to Date



- ▶ **Fixing Hydraulic and System Issues the Right Way**
- ▶ **5 Newly Acquired Licenses in the District**
- ▶ **Developed and implemented a Theft of Water SOP**
- ▶ **Installed a new valve on ST RT 2032 to isolate a problem area in Wolfcreek area**
- ▶ **Inventory Control Program**
- ▶ **Graveled Access Road for Clearwells**



# Disaster Response

- ▶ February Ice Storm - Power Lost to Inez Water Treatment Plant, 40 East Booster Station, and 40 West Booster Station.
  - ▶ Power Back at Treatment Plant - Pumping water
  - ▶ 40 East Booster Station Receiving Single Phased Power - Caused the VFD to fail
  - ▶ 40 West Booster Station Power Out
- ▶ Received Generator with Assistance From KRWA for the 40 West Booster Station
- ▶ VFD Moved from 40 West to 40 East to get Pump Station Running



# DISASTER RESPONSE



- ▶ Sunday February 28<sup>th</sup> - Flood
  - ▶ 40 East Booster Station Power Out
  - ▶ Multiple Slips Throughout the System Causing Water Line Failures
    - ▶ Turkey Hill - 6 Different Breaks in Main Line from Slip
    - ▶ 292 Multiple Slips Causing Water Line Failures
    - ▶ Poplar Fork Slip
  - ▶ Power Outages caused VFD Failure on 40 East Booster

# DISASTER RESPONSE

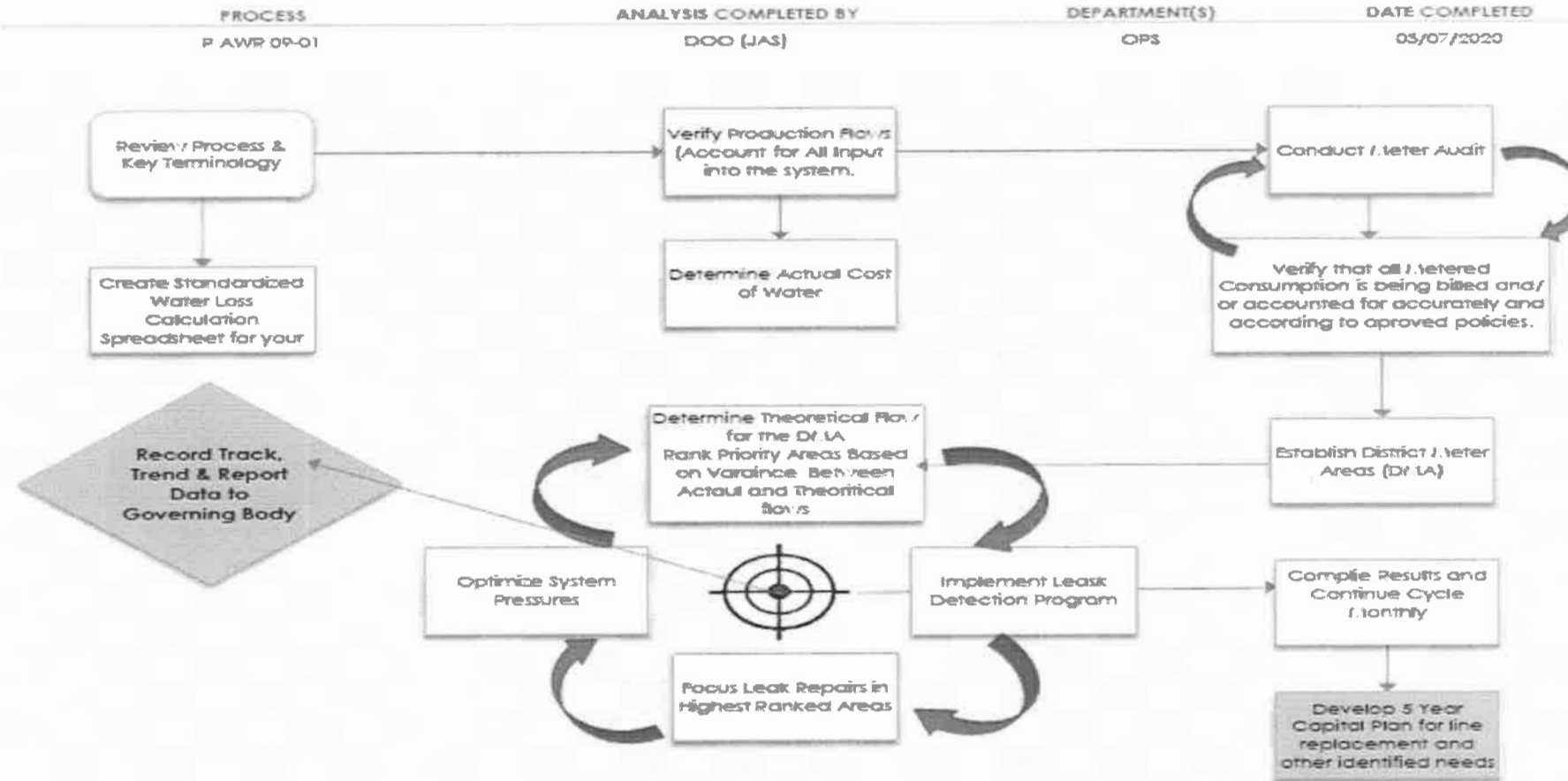


- ▶ Alliance Division's in Cape Girardeau, and Lincoln County Responded with Staff and Equipment for Assistance
- ▶ Poplar Fork Repaired with a Temporary Line Installation. Self Restraining Yellowmine was installed by Alliance Staff
- ▶ Turkey Creek Repaired Leaks in 6 different locations. A broken valve in the closed position was found with a 2" bypass.
- ▶ Emergency Connection with Mountain Water District was opened to provide water for customers on the southern side of 292.

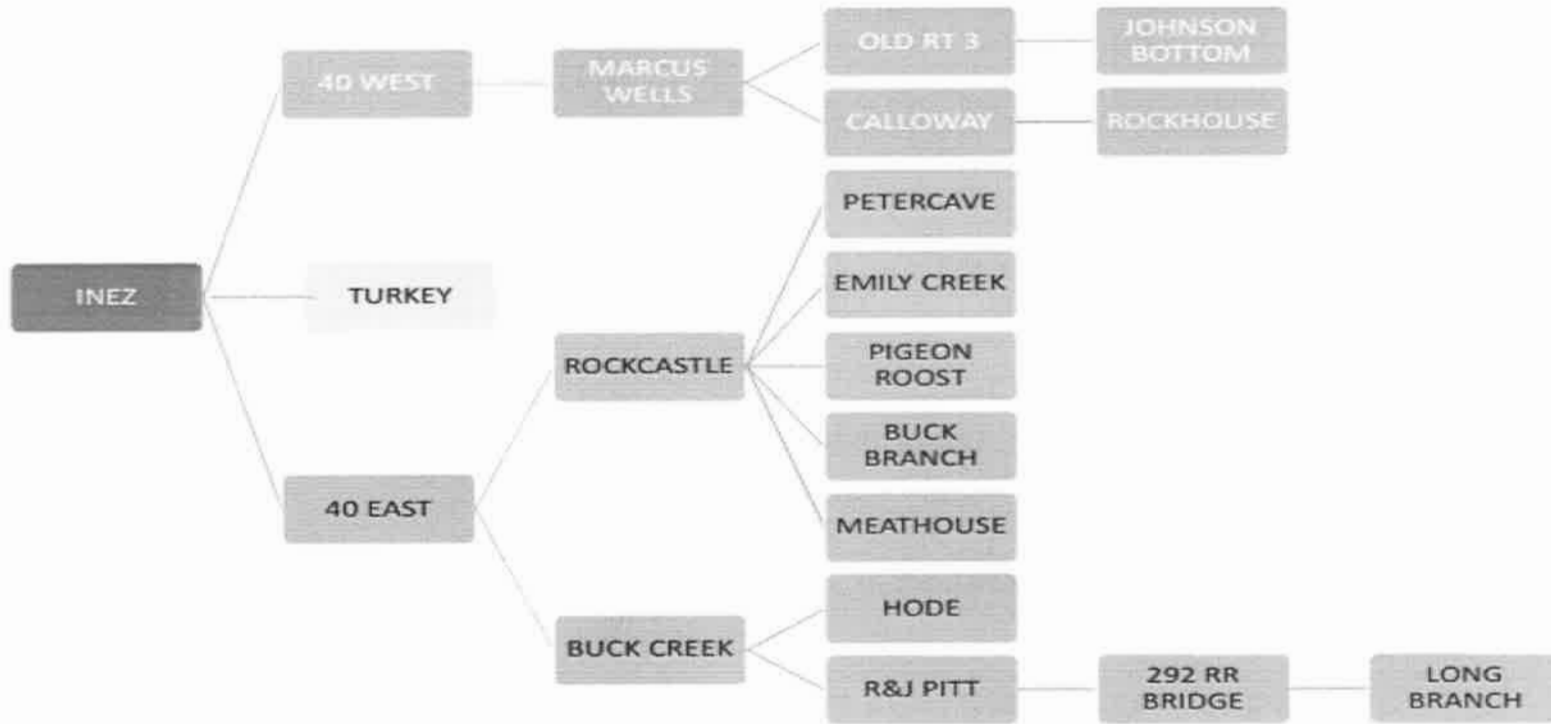
# WATER LOSS REDUCTION

- ▶ GIS IMPLEMENTATION
  - ▶ District Master Meter Zones Established
  - ▶ Customer Meter Location
  - ▶ Leak Tracking
    - ▶ Reported Leaks
    - ▶ Active Leaks
    - ▶ Repaired Leaks
    - ▶ Trouble Zones For Replacement
- ▶ Water Loss SOP and M36 Manual
  - ▶ Strategic approach using GIS, PRV's, and District Meters for Leak Detection
  - ▶ Established Leak Detection Team
  - ▶ Water Meter Replacement

# WATER LOSS CONTROL PROGRAM FLOW CHART (FC AWR 09-02)



MASTER METER FLOW CHART



LOCATION	MASTER METER #	BOOK#	ACCOUNT TOTAL	PREVIOUS MONTHS FINAL READ	CURRENT READ 4/23/2021	USAGE	CURRENT READ 5/5/2021	USAGE	CURRENT READ 5/12/2021	USAGE	CURRENT READ 5/19/2021	USAGE	MONTHLY USAGE	MONTHLY BILLED CONSUMPTION	DIFFERENCE	BILLED AVG PER AREA
<b>PRODUCTION/INEZ</b>	<b>1506821</b>	<b>1,3</b>	<b>126</b>	<b>628,052,000</b>	<b>639,871,000</b>	<b>8,336,604</b>	<b>651,551,000</b>	<b>8,521,197</b>					<b>16,857,801</b>			<b>133,792</b>
Coldwater	62312310	2	286	582,927,900	583,846,900	918,910	584,686,900	840,000					1,758,910			6,150
Otto Brown	62312309	6	405	15,340,290	15,665,591	325,301	15,929,400	263,809					589,110			1,455
<b>TOTAL SUB METERS</b>			<b>691</b>			<b>1,244,211</b>		<b>1,103,809</b>					<b>2,348,020</b>			<b>3,398</b>
<b>Turkey</b>	<b>821990001475</b>	<b>4</b>	<b>260</b>	<b>26,895,911</b>	<b>27,370,436</b>	<b>474,525</b>	<b>27,848,180</b>	<b>477,744</b>					<b>952,269</b>			<b>3,663</b>
<b>40 E Pump Station</b>	<b>62312312</b>	<b>5</b>	<b>174</b>	<b>98,169,370</b>	<b>98,169,370</b>	<b>0</b>	<b>98,169,370</b>	<b>0</b>					<b>0</b>			<b>0</b>
Buck Creek	89211330	9,11,17,18	365	7,784,000	8,190,000	406,000	8,844,404	654,404					1,060,404			2,905
Hadi	62312235	30	278	471,833,440	422,007,200	573,760	422,525,210	518,010					1,091,770			4,788
2925 @ RR Bridge	70519212	12	74	125,807	125,806	-1	125,806	0					-1			0
RSJ PK	43640193	12		285,287,000	286,006,000	719,000	286,658,000	652,000					1,371,000			RDV/DI
Long Branch (292)	62312313	16	156	162,054,360	162,054,360	0	162,054,360	0					0			0
<b>TOTAL SUB METERS</b>			<b>997</b>			<b>1,292,759</b>		<b>1,824,414</b>					<b>3,117,173</b>			<b>3,127</b>
Rockcastle on 2032	46384882			84,680,200	85,365,100	167,346	85,991,400	100,517					267,863			RDV/DI
Pigeon Roost	62312242	14	229	2,607,870	2,667,960	60,090	2,776,140	108,180					173,270			757
Peter Cove of Wolf Crk	62312243	13	103	25,086,381	25,089,817	3,436	25,096,245	6,428					9,864			96
Weathouse	62312239	15	96	18,664,159	19,055,748	391,589	19,407,044	351,296					742,885			7,738
Emily Creek	70915637	14		32,120,588	32,157,589	37,001	32,194,540	36,951					73,952			RDV/DI
Big Branch	72101041	14	0	15,931,325	15,951,763	20,438	15,974,691	22,928					43,366			RDV/DI
<b>TOTAL SUB METERS</b>			<b>428</b>			<b>517,554</b>		<b>525,783</b>					<b>1,043,337</b>			<b>2,438</b>
<b>40 W Pump Station</b>	<b>60869002</b>	<b>8</b>		<b>62,938,050</b>	<b>64,701,710</b>	<b>1,763,660</b>	<b>66,278,960</b>	<b>1,577,250</b>					<b>3,340,910</b>			
Marcus Wells	87860573	8	400	222,117,000	223,680,000	1,563,000	225,079,000	1,399,000					2,962,000			8,352
Calhoun	62045452	8	95	103,827,370	104,573,380	1,146,010	105,569,660	996,280					2,142,290			22,550
Rockhouse	62312238	8		93,838,487	93,930,564	101,077	94,034,390	94,826					195,901			
Old # 3	62312241	7	393	2,515,877	3,388,386	872,509	4,131,124	742,738					1,615,247			498
Johnson Bottoms	63786120	7	25	9,031,157	9,072,284	41,127	9,111,279	38,995				13	80,122			3,205
<b>TOTAL</b>			<b>913</b>			<b>3,723,723</b>		<b>3,271,839</b>					<b>6,995,562</b>			<b>7,662</b>
<b>TOTALS</b>			<b>3,289</b>			<b>6,778,247</b>		<b>7,203,589</b>					<b>13,981,836</b>			

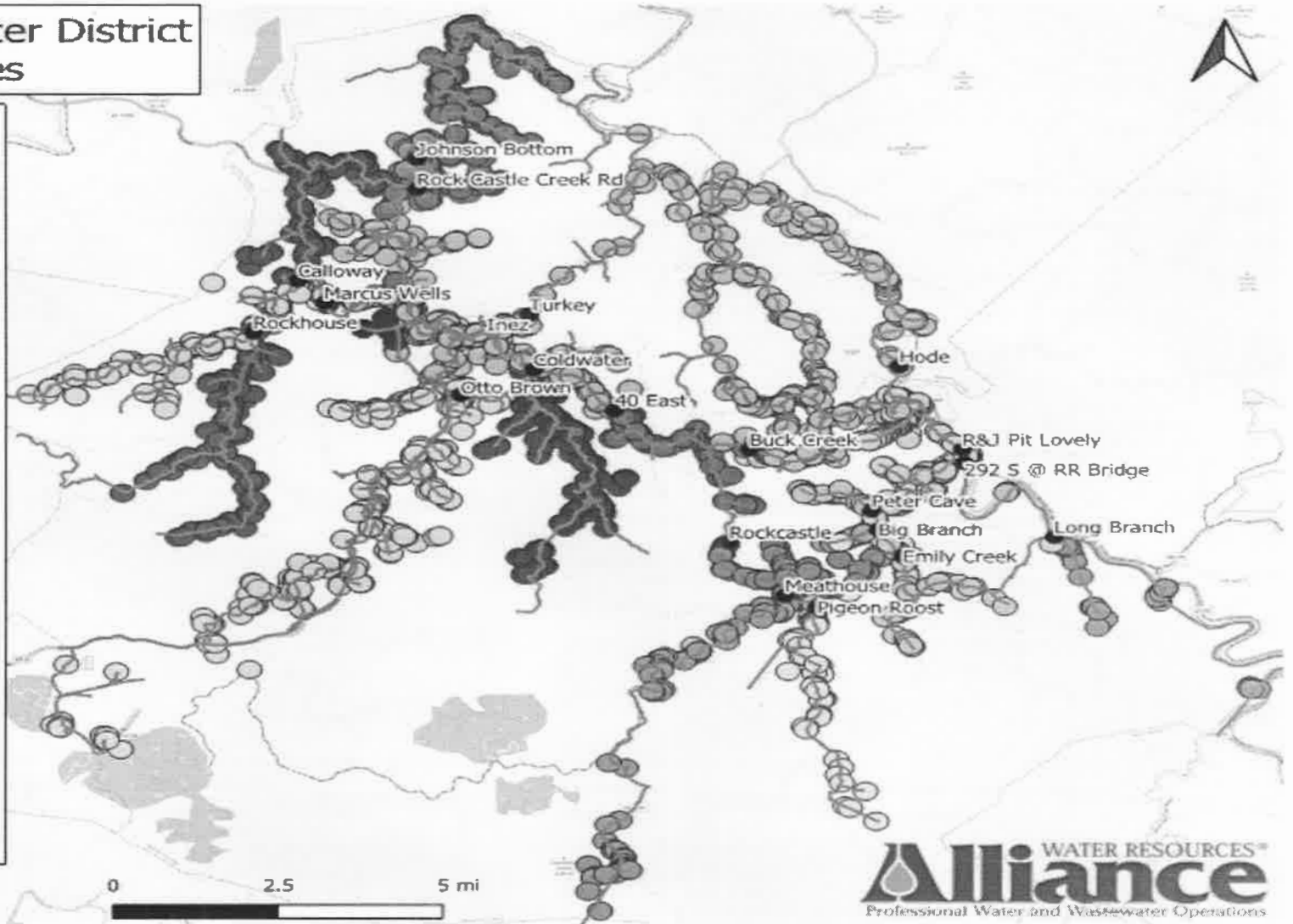
# Martin County Water District Master Meter Zones

## Legend

- District Master Meter
- Water Line

## Addresses by Master Meter Zone

- Inez
- R&J Pit
- Rockcastle on 2032
- 40 W Pump Station
- Calloway
- Hode
- Rockhouse
- Meathouse
- Old Rt 3
- Pigeon Roost
- Peter Cave of Wolf Crk
- Otto Brown
- Coldwater
- 40 E Pump Station
- Long Branch (292)
- Johnson Bottom
- 292 S @ RR Bridge
- Emily Creek
- Big Branch
- Buck Creek
- Marcus Wells





## IMPORTANT WATER LOSS NOTES

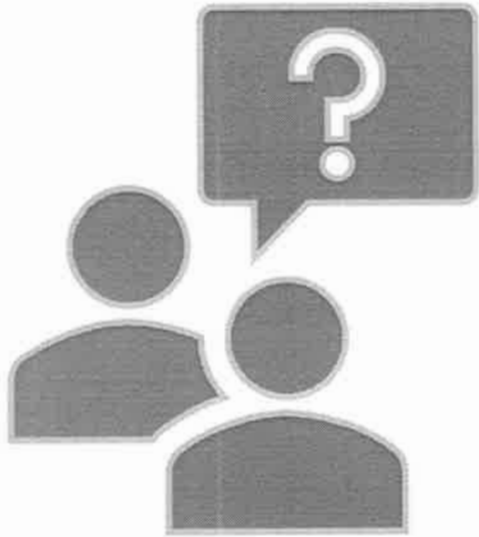
- ▶ February Water Loss **67.7%**, March Water Loss **76.59%**, April Water Loss **65.3%**
- ▶ Plant Has Averaged **1.68 MGD** For the Past 5 Weeks
- ▶ Shutting Plant Down for **4 Hours** Every Other Day
- ▶ Water Pumped to Prison was 3.2 Million for April and on track for 3.5 million in May
- ▶ ***Estimated*** 40 Million Gallons Recovered In the Month of March From Repaired Leaks

# IMMEDIATE NEEDS LIST FOR MARTIN COUNTY

- ▶ AMI/AMR METER READING SYSTEM
- ▶ GENERATORS FOR ALL CRITICAL INFRASTRUCTURE
- ▶ PUMP REDUNDENCY
- ▶ SCADA AND TELEMETRY UPGRADES FOR PLANT AND REMOTE SITES
- ▶ WATER LINE REPLACEMENT AT MULTIPLE LOCATIONS
- ▶ HIGH SERVICE PUMP REPAIRS/UPGRADES IN PLANT
  
- ▶ ALL PROJECTS HAVE BEEN ESTIMATED AND RFQ'S HAVE GONE OUT

**Martin County Water and Wastewater Projects**

<b>No.</b>	<b>WRIS</b>	<b>Project Description</b>	<b>Amount</b>
1	WX21159013	Meter Replacement	\$ 1,716,000.00
2		Fixed/Portable Generator Project for RWI, 40E & 40W Booster Stations 60 HP Motor Duplex Stations	\$ 429,000.00
3		Telemetry/booster station upgrade at Route 292	\$ 358,000.00
4	WX21159009	SCADA upgrade at WTP with VTScada and Allen Bradley PLC's/System wide Telemetry upgrade, plant equipment/online turbidity meters, CL17, online fluoride meter bench top meter and high service pump VFD replacement	\$ 1,324,000.00
5	WX21159020	Water line replacement at City of Inez, Blacklog Road Line Replacement from Turkey Creek 40E Booser Station, WTP to Turkey Creek, Old Route 3 from Inez to Milo, Coldwater Line Replacement	\$ 36,428,000.00
6		Inez Sewer Line Replacement/lining/smoke testing	\$ 14,915,000.00
7		WTP High Service Pump Replacement	\$ 750,000.00
		<b>TOTAL</b>	<b>\$ 55,920,000.00</b>



Questions?