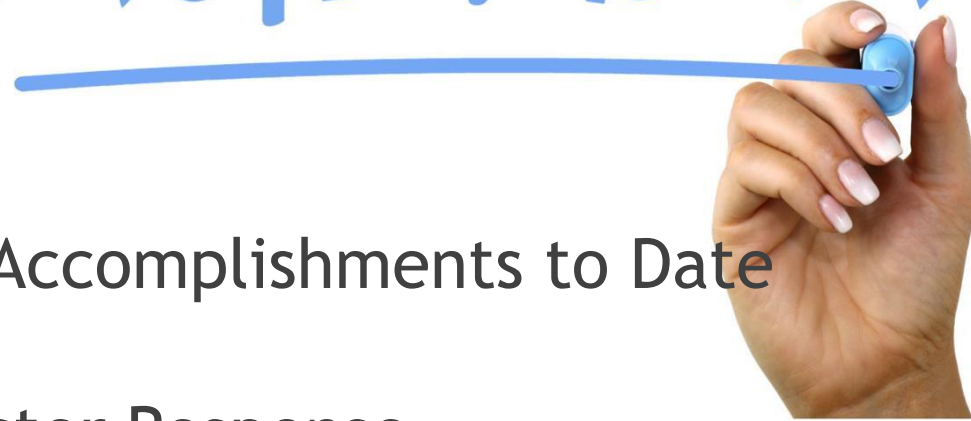


Alliance Water Resources, Inc. Operations Update

Martin County Water & Sanitation Districts

May 12, 2021

AGENDA



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

Key Accomplishments to Date

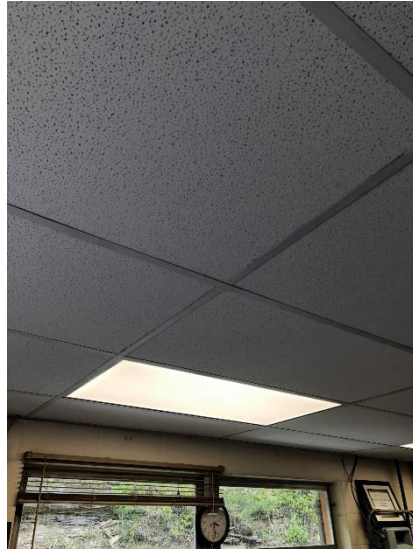


- ▶ Meter Audits
- ▶ Audits from 2016 - 2020 complete
- ▶ Created 90-day goals
- ▶ New billing software purchased and Implemented
- ▶ Identified failures at each WWTP and either corrected them or put together a plan for correction.
- ▶ QGIS and GEOSYNC CLOUD Implementation.
- ▶ 1300 meters GIS Mapped
- ▶ Leak Mapping³ 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 2nd pump at Turkey Booster Station
- ▶ Purchased New Trench Box for Safe Excavation





Key Accomplishments to Date

- ▶ Purchased new lab equipment for both Wastewater plants
- ▶ Replaced Ceiling Tile and Lighting in Plant Lab
- ▶ Discharge line from Digester 1 at the Tug Valley plant has had a blockage removed
- ▶ **Installed New Booster Station Building at Cassell Branch**
- ▶ **Purchased New Booster Station Building for Big Lick Booster Station**

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**
- ▶ **Rebuilt Inez WWTP drying bed #1**
- ▶ **Installed a new valve on ST RT 2032 to isolate a problem area in Wolfcreek area**
- ▶ **Inventory Control Program**
- ▶ **Cleaned Chlorine Contact Chambers**
- ▶ **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 28th - 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



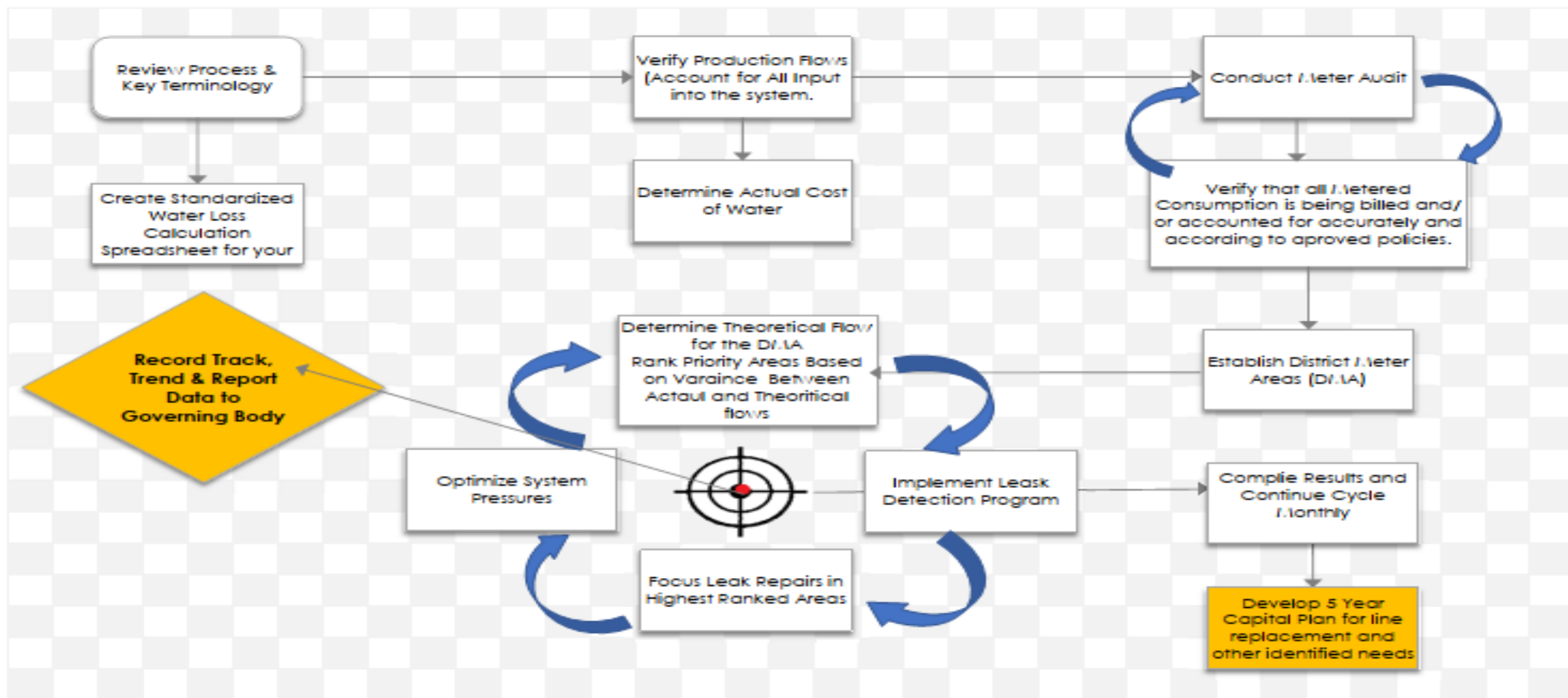
- ▶ Alliance Division's in Cape Girardeau, and Lincoln County Responded with Staff and Equipment for Assistance
- ▶ Poplar Fork Repaired with a Temporary Line Installation. Self Restraining Yellowmine was installed by Alliance Staff
- ▶ Turkey Creek Repaired Leaks in 6 different locations. A broken valve 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

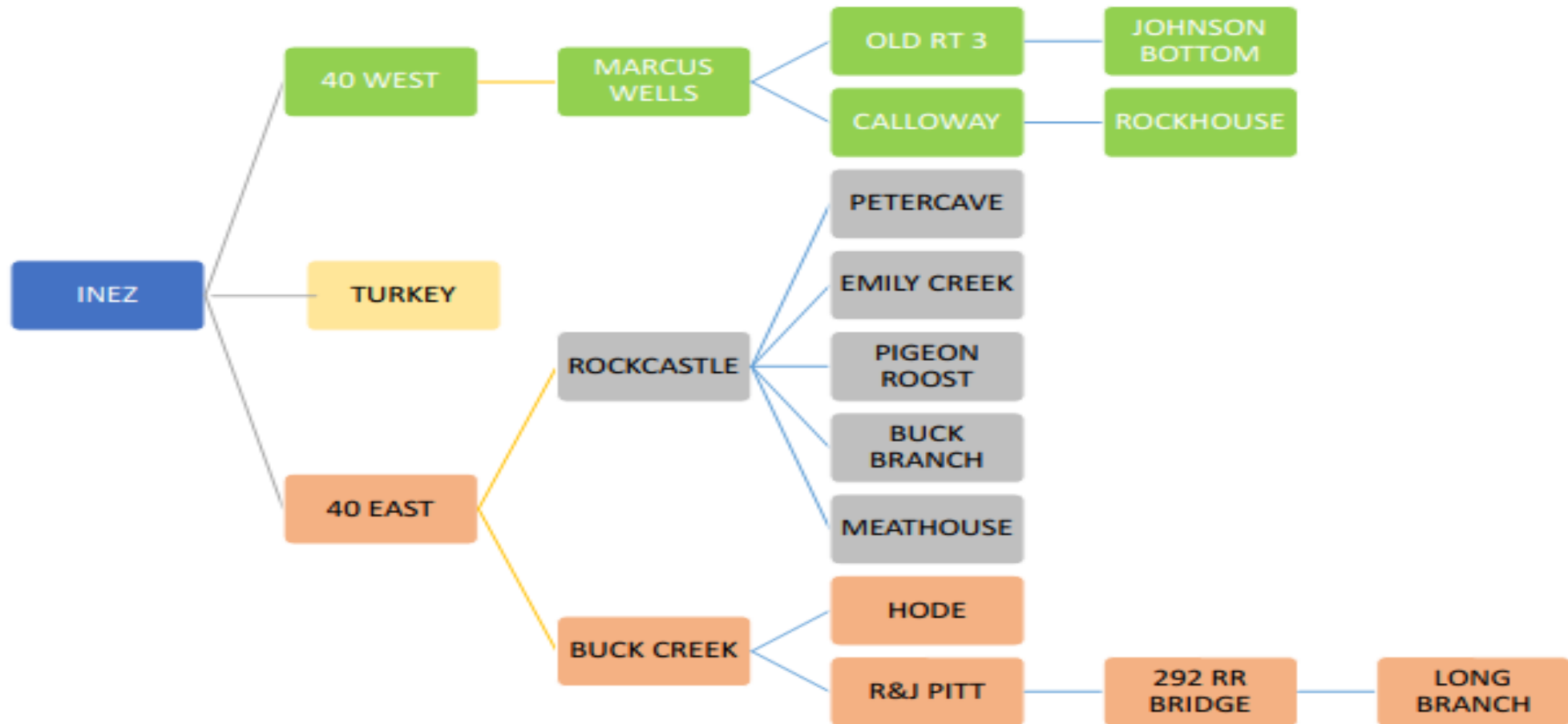
- ▶ GIS IMPLEMENTATION
 - ▶ District Master Meter Zones Established
 - ▶ Customer Meter Location
 - ▶ Leak Tracking
 - ▶ Reported Leaks
 - ▶ Active Leaks
 - ▶ Repaired Leaks
 - ▶ Trouble Zones For Replacement
- ▶ Water Loss SOP and M36 Manual
 - ▶ Strategic approach using GIS, PRV's, and District Meters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

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

PROCESS	ANALYSIS COMPLETED BY	DEPARTMENT(S)	DATE COMPLETED
P AWR 09-01	DOO (JAS)	OPS	03/07/2020



MASTER METER FLOW CHART



LOCATION	MASTER METER #	BOOK#	ACCOUNT TOTAL	PREVIOUS MONTHS FINAL READ	CURRENT READ	USAGE	CURRENT READ	USAGE	CURRENT READ	USAGE	CURRENT READ	USAGE	MONTHLY USAGE	MONTHLY BILLED CONSUMPTION	DIFFERENCE	BILLED AVG PER AREA
					4/28/2021		5/5/2021		5/12/2021		5/19/2021					
PRODUCTION/INEZ	1506821	1,3	126	628,052,000	639,871,000	8,336,604	651,551,000	8,521,197					16,857,801			133,792
Coldwater	62312310	2	286	582,927,990	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
TOTAL SUB METERS			691			1,244,211		1,103,809					2,348,020			3,398
Turkey	82829980001475	4	260	26,895,911	27,370,436	474,525	27,848,180	477,744					952,269			3,663
40 E Pump Station	62312312	5	174	98,169,370	98,169,370	0	98,169,370	0					0			0
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
Hode	62312335	10	238	421,433,440	422,007,300	573,760	422,525,210	518,010					1,091,770			4,788
292 S @ RR Bridge	70519212	12	74	125,807	125,806	-1	125,806	0					-1			0
R&J Pit	43640193	12		285,287,000	286,006,000	719,000	286,658,000	652,000					1,371,000			#DIV/0!
Long Branch (292)	62312313	16	156	162,054,360	162,054,360	0	162,054,360	0					0			0
TOTAL SUB METERS			997			1,292,759		1,824,414					3,117,173			3,127
Rockcastle on 2032	46384882			84,680,200	85,365,100	167,346	85,991,400	100,517					267,863			#DIV/0!
Pigeon Roost	62312242	14	229	2,602,870	2,667,960	65,090	2,776,140	108,180					173,270			757
Peter Cave of Wolf Crk	62312243	13	103	25,086,381	25,089,817	3,436	25,096,245	6,428					9,864			96
Meathouse	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			#DIV/0!
Big Branch	72103041	14	0	15,931,325	15,951,763	20,438	15,974,691	22,928					43,366			#DIV/0!
TOTAL SUB METERS			438			517,554		525,783					1,043,337			2,438
40 W Pump Station	60869002	8		62,938,050	64,701,710	1,763,660	66,278,960	1,577,250					3,340,910			
Marcus Walk	87860573	8	400	222,117,000	223,680,000	1,563,000	225,079,000	1,399,000					2,962,000			8,352
Calloway	62045452	8	95	103,427,370	104,573,380	1,146,010	105,569,660	996,280					2,142,290			22,550
Rockhouse	62312238	8		93,838,487	93,939,564	101,077	94,034,390	94,826					195,903			
Old Rt 3	62312241	7	393	2,515,877	3,388,386	872,509	4,131,124	742,738					1,615,247			498
Johnson Bottom	63786120	7	25	9,031,157	9,072,284	41,127	9,111,279	38,995					80,122			3,205
TOTAL			913			3,723,723		3,271,839					6,995,562			7,662
TOTALS			3,289			6,778,247		7,203,589					13,981,836			

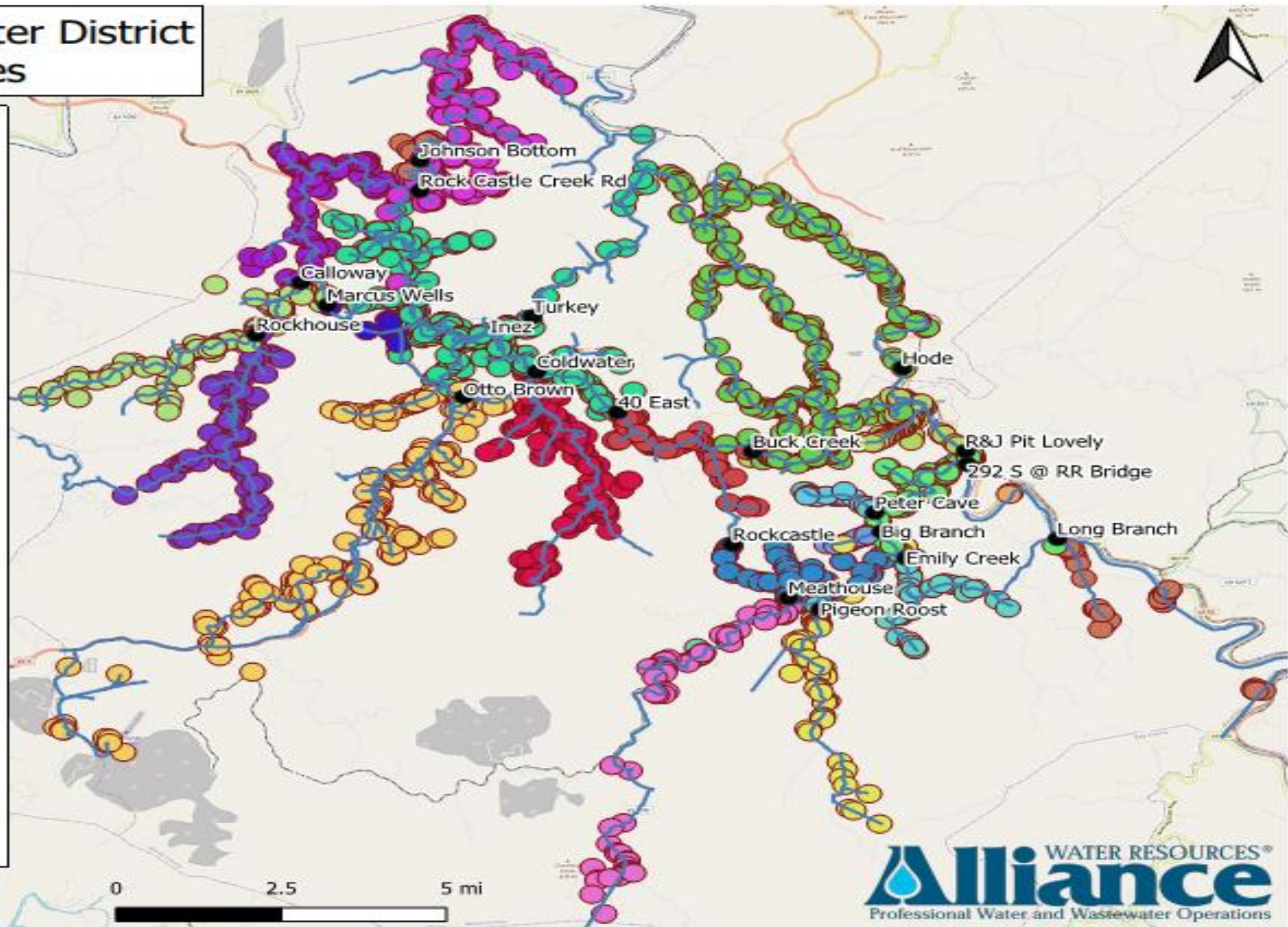
Martin County Water District Master Meter Zones

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 3 Weeks
- ▶ Shutting Plant Down for **4 Hours** Every Other Day
- ▶ Water Pumped to Prison is Averaging 12 hours a day
- ▶ ***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
- ▶ LIFT STATION REPLACEMENT FOR SAVE-A-LOT
- ▶ INEZ WASTEWATER TREATMENT PLANT UPGRADES
- ▶ 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

No.	WRIS	Project Description	Amount
1	SX21159012	Inez WWTP Upgrades	\$ 5,200,000.00
2	WX21159013	Meter Replacement	\$ 1,716,000.00
3		Fixed/Portable Generator Project for RWI, 40E & 40W Booster Stations 60 HP Motor Duplex Stations	\$ 429,000.00
4		SAV A LOT Lift Station Replacement	\$ 143,000.00
5		Telemetry/booster station upgrade at Route 292	\$ 358,000.00
6	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
7	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
8		Inez Sewer Line Replacement/lining/smoke testing	\$ 14,915,000.00
9		WTP High Service Pump Replacement	\$ 750,000.00
10	SX21159014	Warfield WWTP Upgrade	\$ 2,000,000.00
		TOTAL	\$ 63,263,000.00



Questions?