

Virgin Valley Water District



- About the District
- Where Our Water Comes From
- About the System



About the District - History

- 1800's water was pulled directly from the Virgin River, mixed with ashes, settled in cisterns and used for water
- First well drilled in 1930
- 1933 - first town piping installed near Bunkerville school that also served 10 homes
- Mid 1930's springs on Virgin Mountain developed and piped to both Bunkerville and Mesquite



Cabin
Canyon
Spring





About the District - History

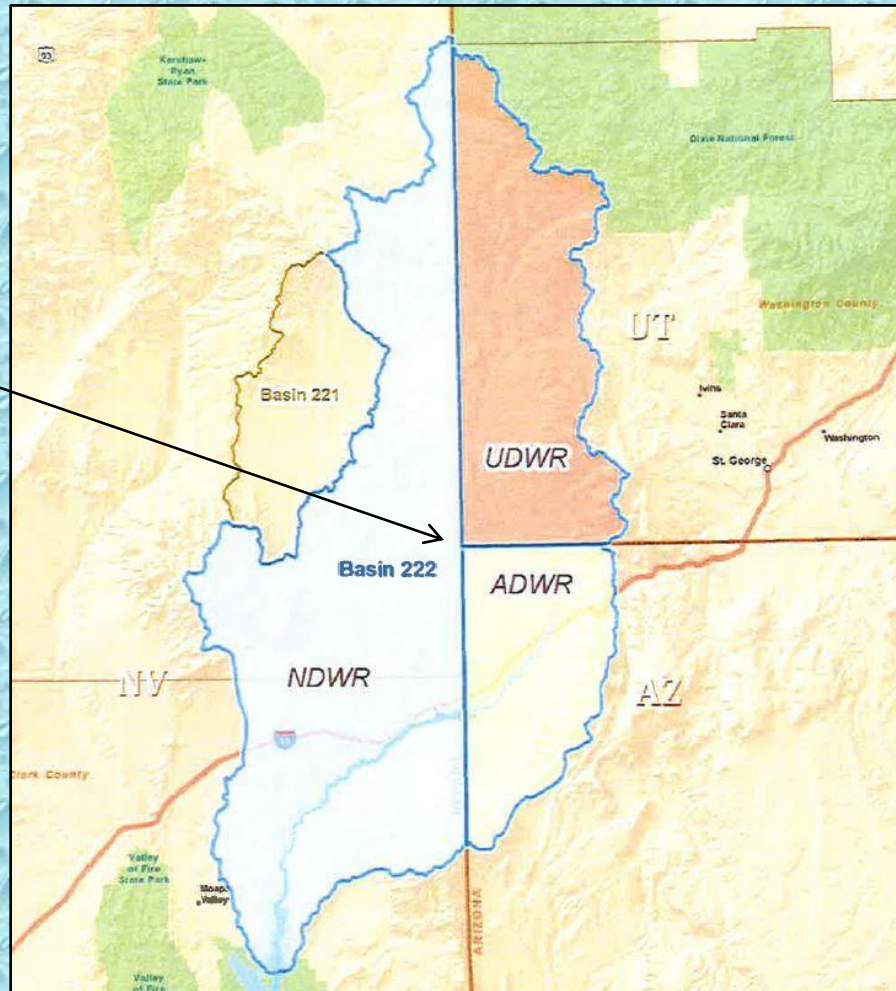
Bunkerville Park Well (Well 29 Site)

- 1940's Bunkerville Water User's and Mesquite Farmstead Water Associations were created and started supplying water
- Virgin Valley Water District Created in 1993 by State Legislature – Combined assets of the two water companies
- Hyper growth in late 90's to 2008
- Arsenic treatment plants installed in 2009
- Current operations



Groundwater Basin 222

Shared between
Nevada, Utah,
and Arizona



Groundwater Basin 222 – Where VVWD Gets it's Groundwater From

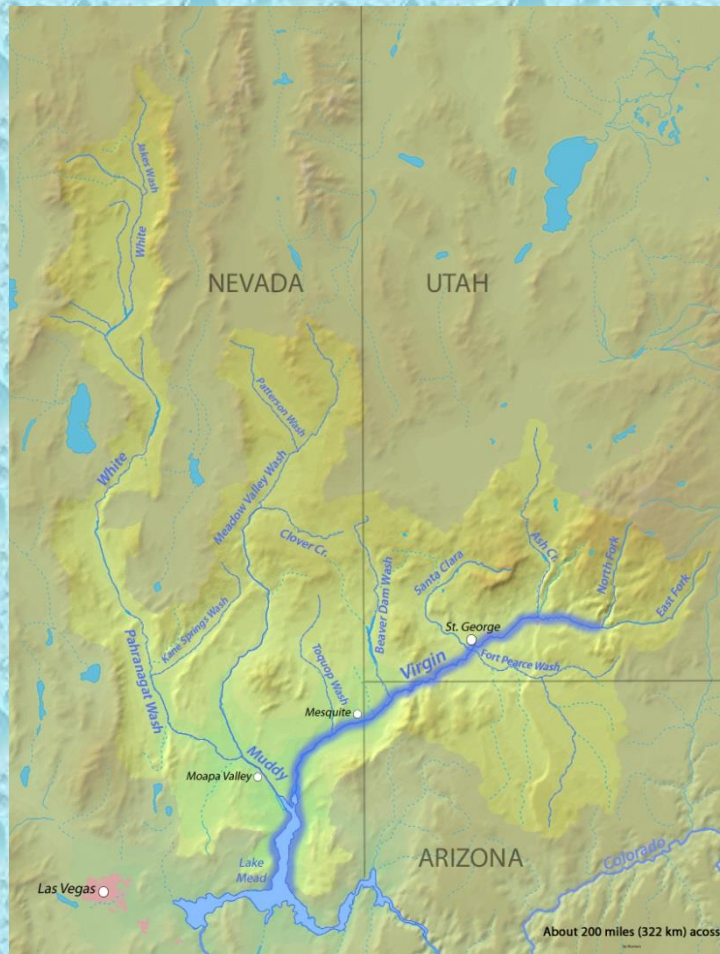


Colorado River Water Basin

The Colorado River Water Shed



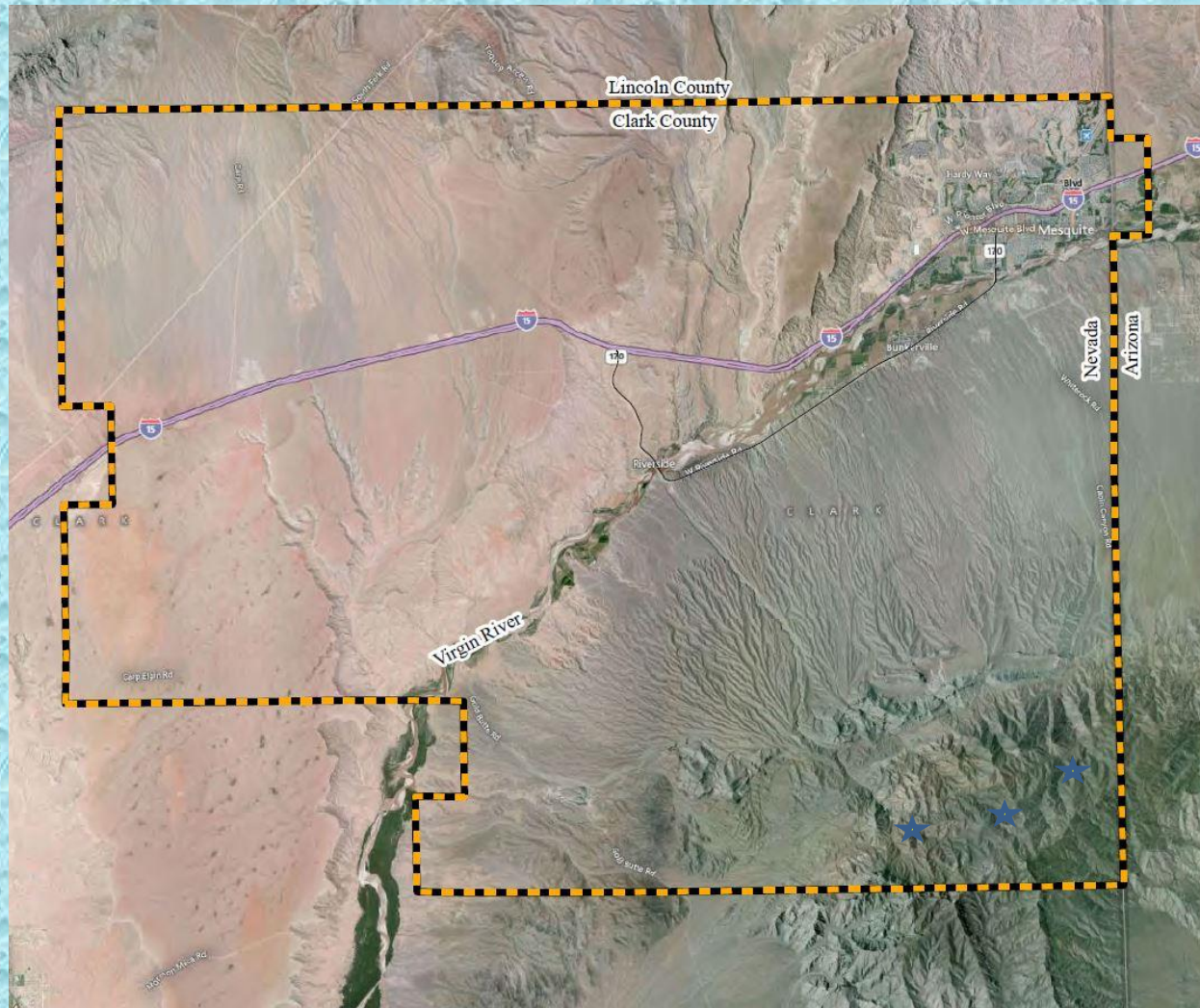
Virgin River Water Basin



The Virgin River Arm of the Colorado River Watershed



About the System



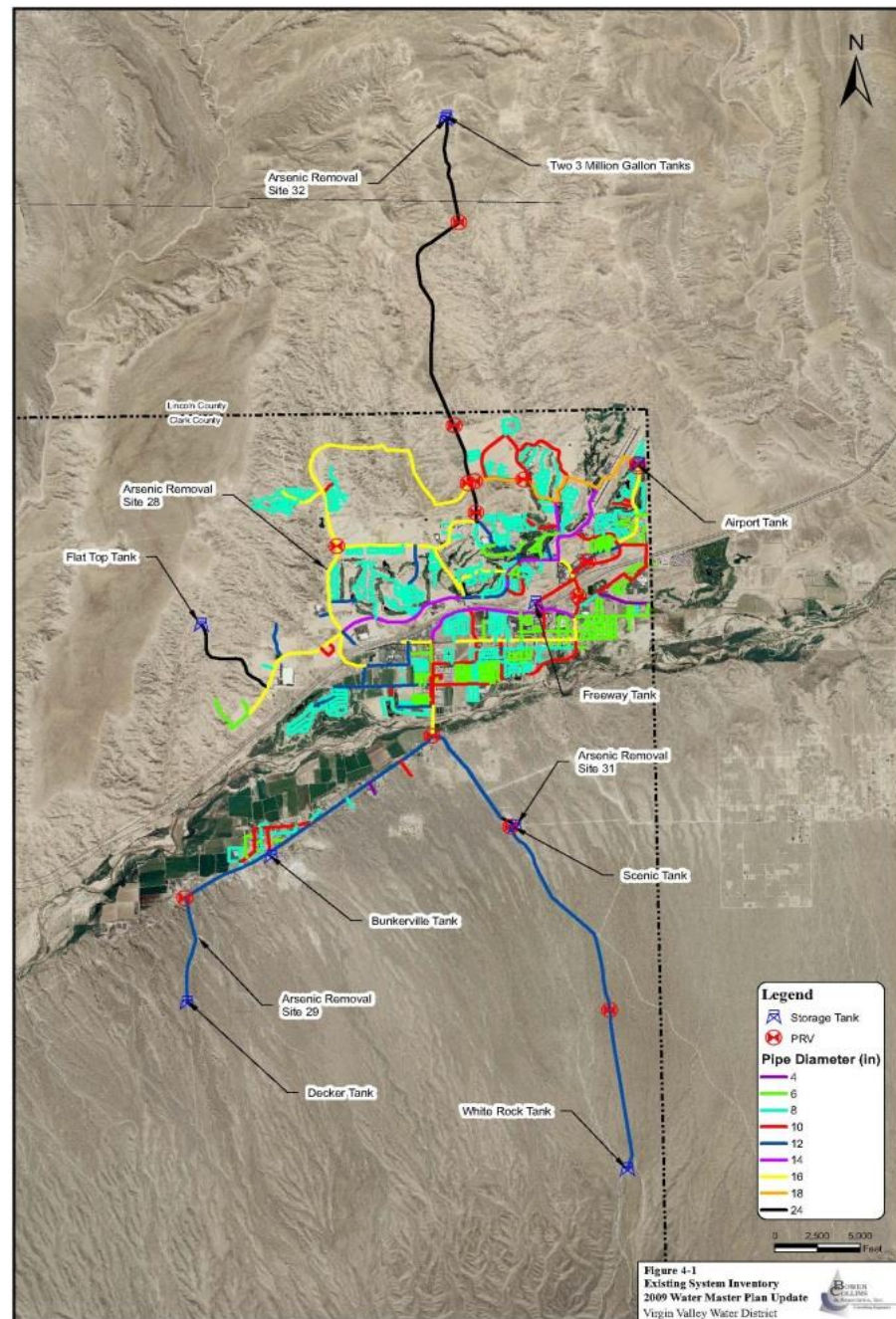
VVWD Service Boundary and Springs Location



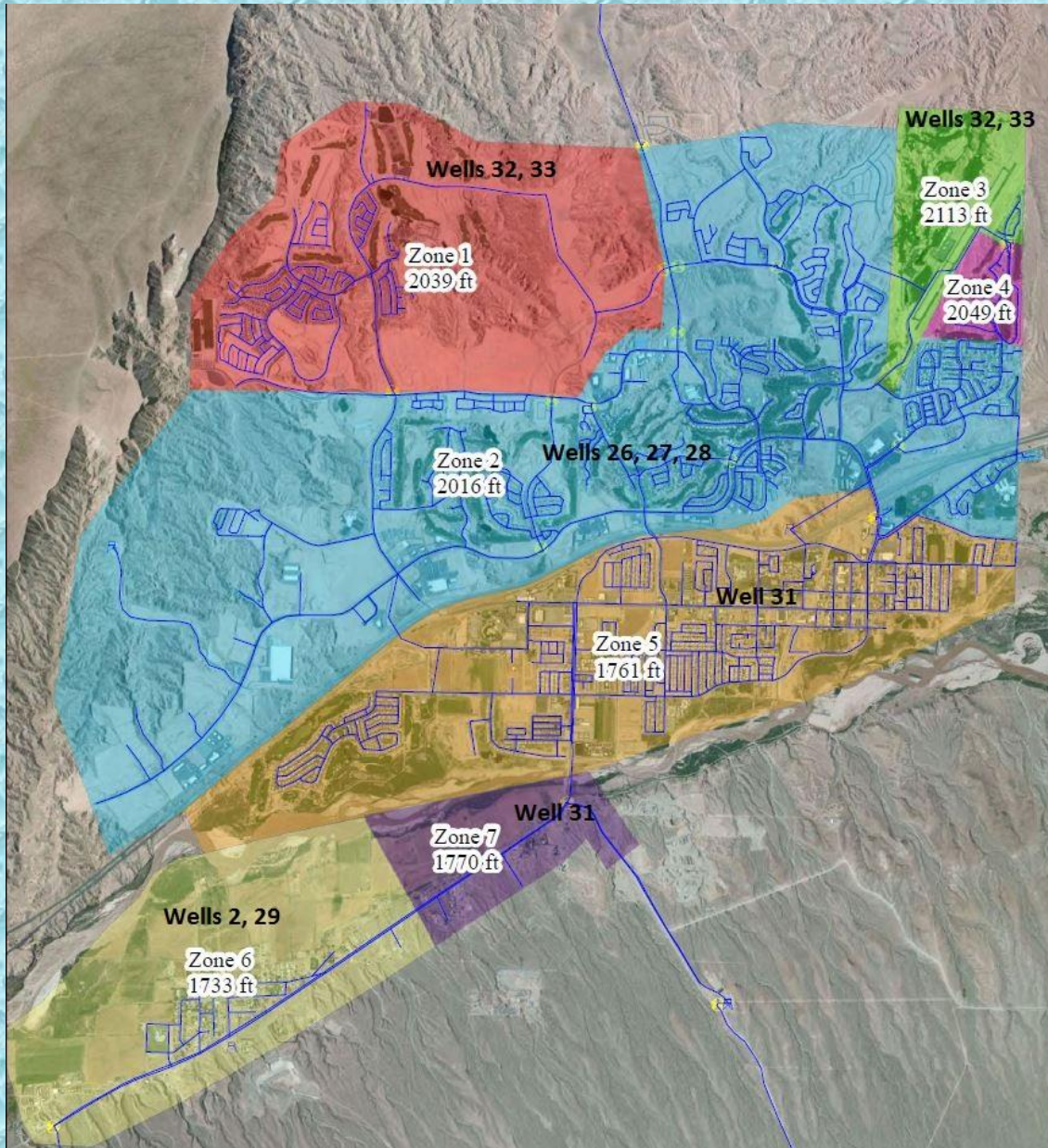
About the System

Major Transmission Lines:

- Black 24"
- Burnt Orange 18"
- Yellow 16"
- Purple 14"
- Blue 12"



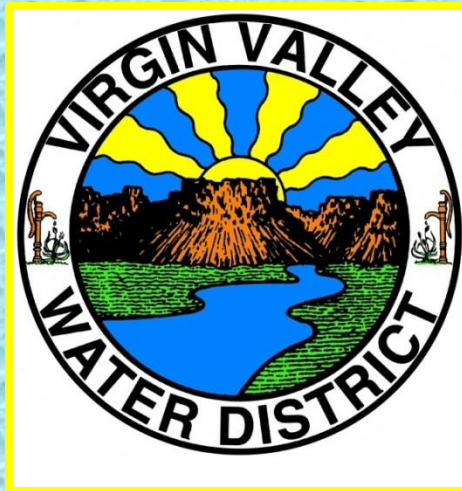
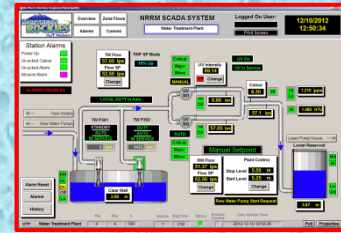
About the System



System
Pressure Zone
and Well
Feeding Map



Consultants, Vendors & Contractors



The Cost of Providing Water to the Public



What the Public Expects:



Maintenance and Repair: Things Eventually Wear Out

Pipe, Booster Pumps, Meter Vaults, Wells, Valves, Hydrants, Much More



Failed Pump Impeller



Well Casing Failure



Pioneer Blvd.
Pipe Failure



Pipe Break Falcon
Ridge Parkway



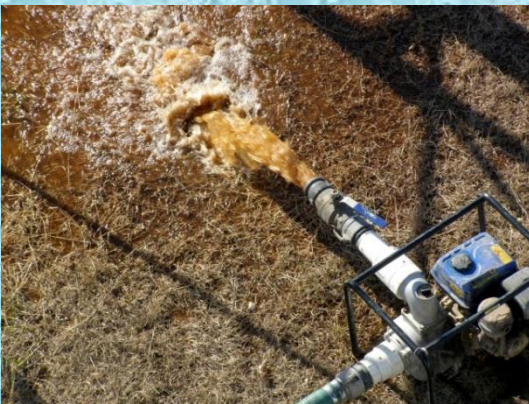
Underground
Meter Vault



Failing Valve



Failed Large
Meter Assembly



Tank Cleaning

Constructing Our System in Today's Dollars

Item	Amount	Cost Per Unit	Total
Pipe, Valves, Tees	792,000 lf	\$150/lf	\$119,000,000
Tanks	14,300,000 gallons	\$1.00/gallon	\$14,300,000
Wells	8	\$2,000,000/well	\$16,000,000
Meters	8,400	\$350/meter	\$2,940,000
Fire Hydrants	1,000	\$1,500/hydrant	\$1,500,000
PRVs	8	\$70,000/PRV	\$560,000
Treatment	29 Treatment Units	\$966,000/unit	\$28,000,000
Admin & Shop	10,000 sf	\$150/sf	\$1,500,000
Booster Stations	2	500,000/each	\$1,000,000
Subtotal:			\$184,800,000
10% Contingency			\$18,480,000
GRAND TOTAL			\$203,280,000

Plus \$22,000,000 of Water Rights



Hot Topics

- Lead
- Conditional Commitment for Water Service Status
- Main Pipe Breaks/Repairs



What's Next?

- Construct new storage tank to serve Sun City area
- Replace failing pipe
- Plan and construct infrastructure to minimize low pressure areas
- Rehabilitate/replace existing wells
- Provide second transmission line across Virgin River
- Study springs on Virgin Mountain
- Develop future wells north of City as growth dictates
- Develop springs on Virgin Mountain as growth dictates
- Develop future Virgin River water as growth dictates

