



# Mt. Charleston Town Advisory Board

July 28, 2022

## MINUTES

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Board Members: Brenda Talley – Chair Ernie Freggiaro – Vice Chair  
Olivia Vallee Misty Haji-Sheikh Curtis Alexander

Secretary: Meggan Holzer, 702-455-0341, meggan@clarkcountynv.gov

Town Liaison: Meggan Holzer, 702-455-0341, meggan@clarkcountynv.gov

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- I. Call to Order, Pledge of Allegiance, Roll Call  
The meeting was called to order at 6:07 p.m.  
Curtis Alexander and Misty Haji-Sheikh absent  
All other Board members - present
- II. Public Comment  
**None**
- III. Approval of Minutes for June 2, 2021  
**Moved by: Ernie Freggiaro**  
**Action: Approval**  
**Vote: 3-0/Unanimous**
- IV. Approval of Agenda for July 30, 2022  
**Moved by: Ernie Freggiaro**  
**Action: Approval**  
**Vote: 3-0/Unanimous**
- V. Informational Items
  1. Receive a report from Metro regarding activity and statistics during the past month and other area crime concerns (for discussion only)  
**Sgt. Marlow reported 34 calls for service, 29 citations, and 7 arrests during the last reporting period. They performed active shooter/active assailant training at the Indian Springs School and will be doing similar training at Lundy Elementary next Wednesday.**
  2. Receive a report from Mt. Charleston Fire District regarding calls for service during the past month and other fire prevention issues (for discussion only)  
**Chief Gonzalez reported 27 calls for service in July. The Pine Needle Pick Up was held on June 4<sup>th</sup> and 9.4 tons of debris was collected. The new water tender #853 is 99% operational. Chief will be inspecting the new brush unit in Florida next week. The Board of County Commissioners approved funding for 5 new positions – 1 Assistant Fire Chief, 1 Fire Fighter, and 3 Medics. It**

was discovered that there is a potential problem with the Medic alert system. A resident was pressing the button but the service company was calling the wrong number. The correct number for Medical/Fire emergency calls is (702) 382-3000. The draft Fire Restrictions for Private Properties was handed out.

3. Receive a report from LVVWD regarding the status of the water system (for discussion only)  
**See report under the General Business item**
4. Receive a report from Metro Volunteer Program regarding member activities and events (for discussion only)  
**Brenda Talley reported that the MVPs assisted with the Pine Needle Pick-Up and the Pine Dining events.**
5. Receive a report from Nevada Highway Patrol regarding activity and statistics during the last month and other public safety concerns (for discussion only)  
**Metro Sgt. Marlow shared that the NHP staff levels are down 50%.**
6. Receive a report from United State Forest Service regarding current issues and activities in the forest and other forest-related concerns (for discussion only)  
**Area Manager Deb MacNeill reported that the Visitor Center is now open 7 days a week. NV Energy and USFS personnel are assessing trees in the area and will be removing hazard trees. Fire Management Officer Ray Dombrowski reported that there were 6 fires since May. Year to date there have been 62 illegal campfires.**
7. Receive a report from Nevada Department of Transportation regarding road conditions, construction updates and other road related issues (for discussion only)  
**No report. Vivian Eddins asked why the vegetation was scraped away the Deer Spring and 157.**
8. Receive a report from NV Energy regarding updates to the Public Safety Outage Management program, vegetation management, and other energy-related issues (for discussion only)  
**Scott Kauffman reported 2 PSOM events during June. Fuses are being replaced with “non-explosion” fuses. Winds reached 62 mph during the 2<sup>nd</sup> event. They are close to finalizing the 2<sup>nd</sup> amendment of their PUC filing.**
9. Receive a report from Clark County Administrative Services regarding the maintenance of Old Town roads, Short Term Rentals, Transform Clark County and any other updates from Clark County (for discussion only)  
**Meggan Holzer reported that the Short Term Rental Ordinance was approved and the Mt. Charleston areas was exempted as requested. The License Plate Grants are going through the approved process with the Board of County Commissioners.**

VI. Planning & Zoning  
**None**

VII. General Business

1. The Las Vegas Valley Water District will present a Hydrological Study to inform residents of the current water conditions on the mountain. (for discussion only)  
**Jason Bailey shared that the system is still within the concerned range.**  
**Jim Prieur, Senior Hydrologist, handed out copies of his presentation. (see attached) He gave a brief overview of the area's hydro-geologic framework, groundwater system, the last water year, and the groundwater recharge dynamics. He share information about precipitation and its impact on recharging the well levels.**

VIII. Comments by the General Public  
**None**

IX. Next Meeting Date  
The next regular meeting will be **September 1, 2022**

X. Adjournment  
The meeting was adjourned at 7:52 pm



7/28/22

Kyle Canyon Water District

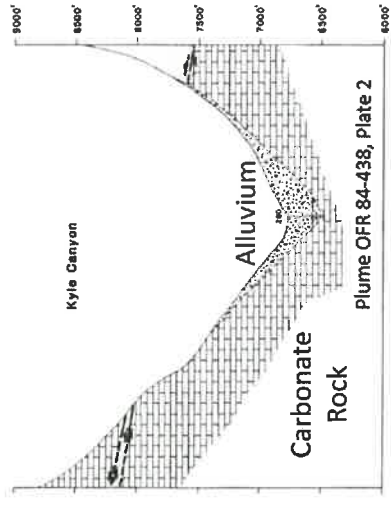
# Hydrologic Conditions and Outlook July 2022



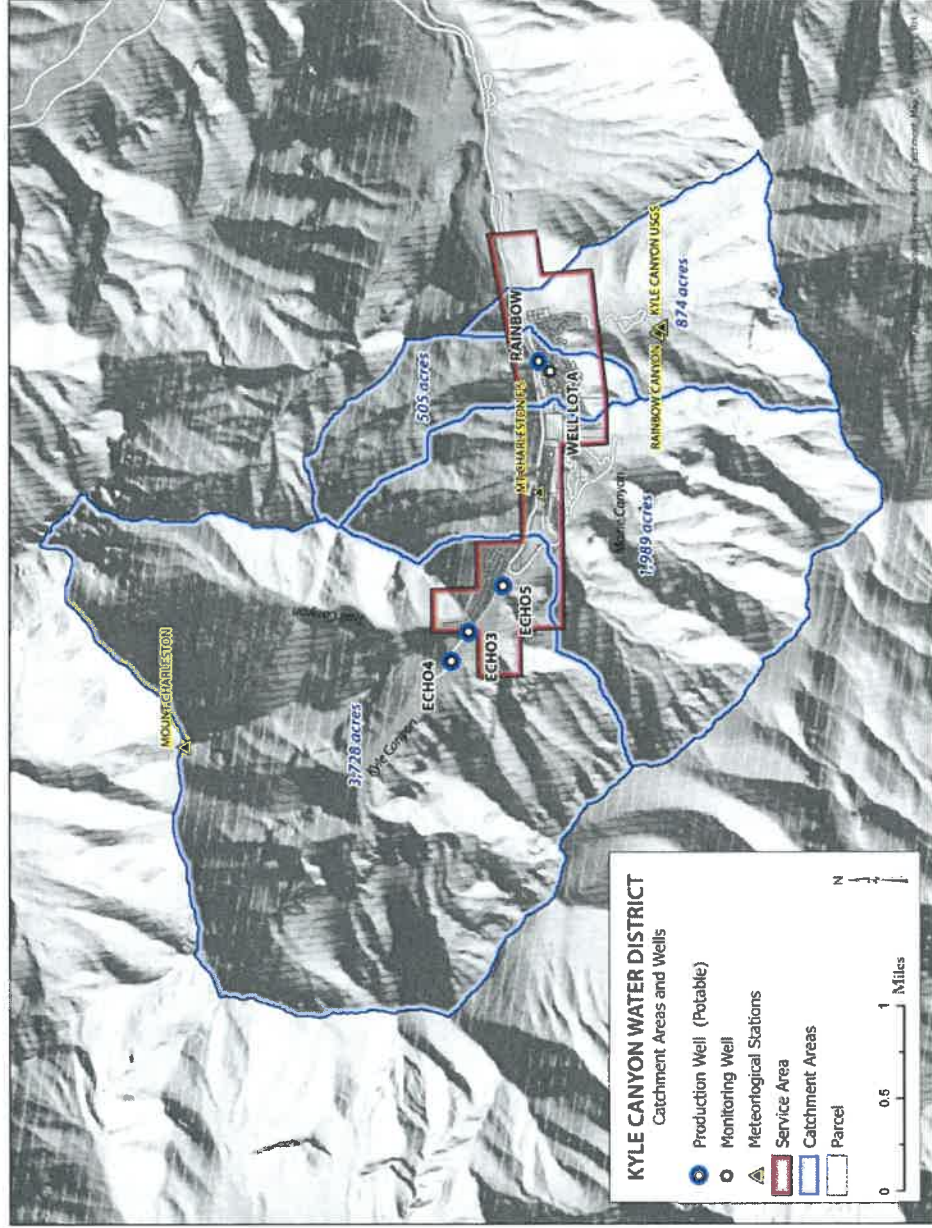
## **Presentation Topics**

- Overview of Kyle Canyon Hydrogeologic Framework and Groundwater System
- Current and Historical Hydrologic Conditions
- Groundwater Recharge Dynamics and Water Levels
- Water System Production Well Network
- Water Resource Outlook

# Kyle Canyon Area Hydrogeology



# Kyle Canyon Area Watersheds and Monitoring Network

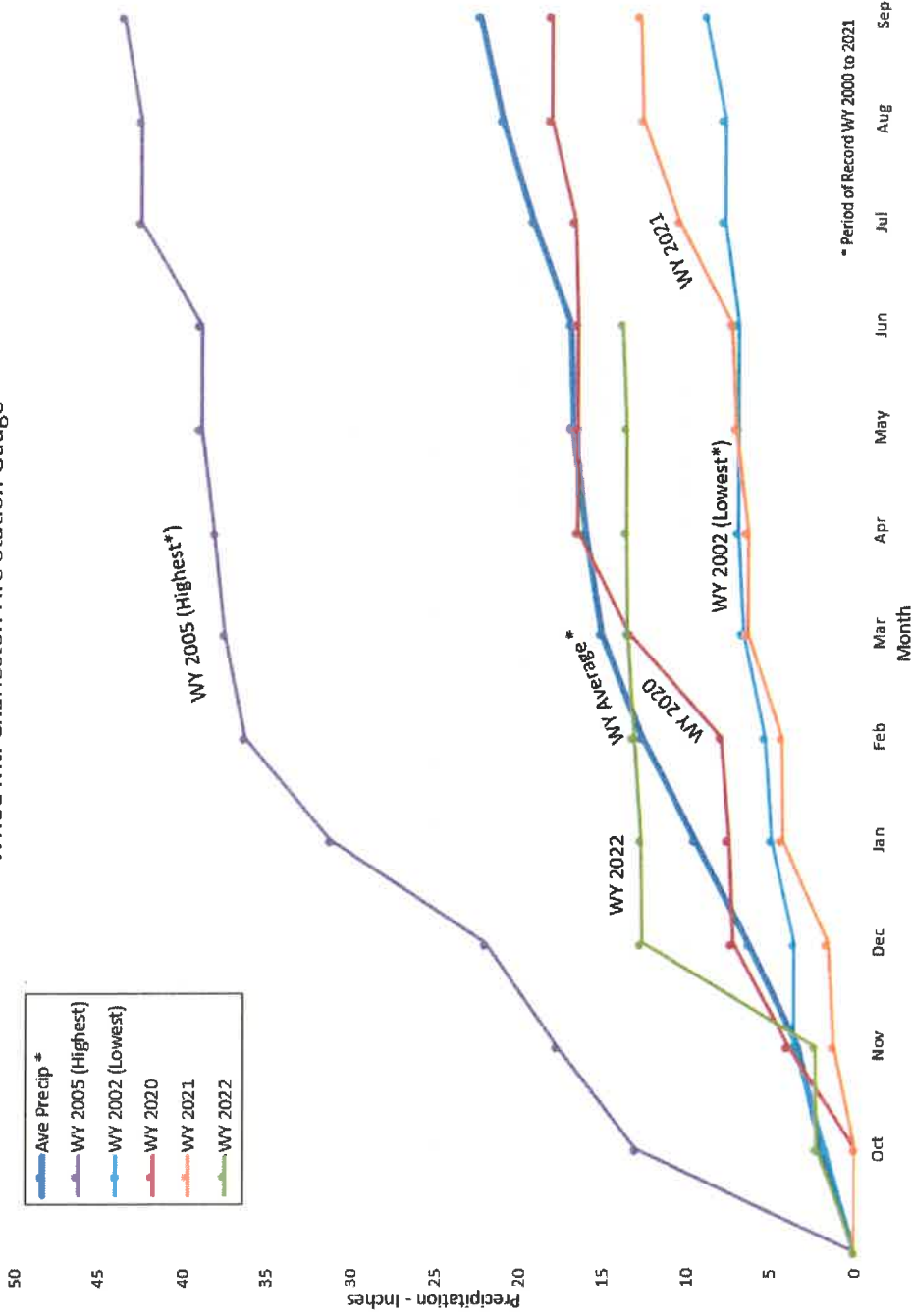




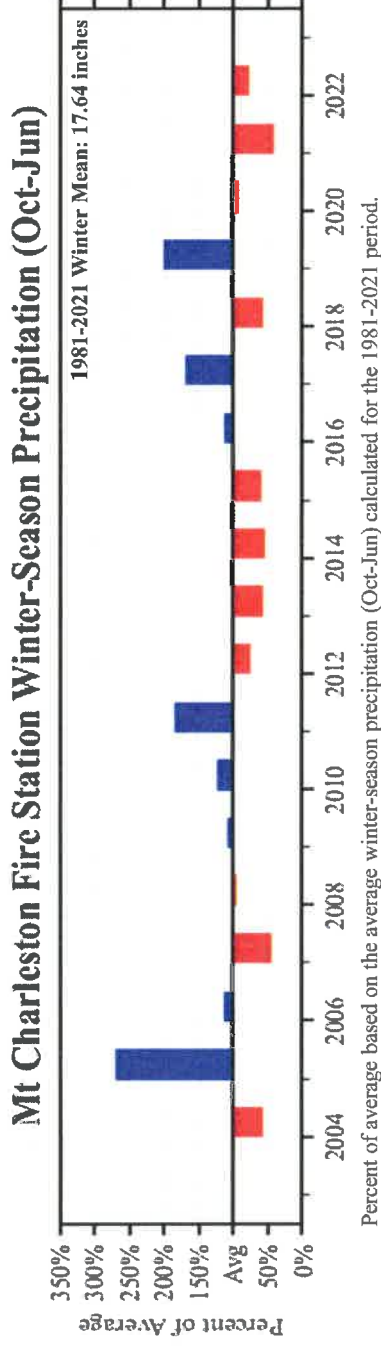
# Comparison of WY 2022 to Recent Years

- Water Year Oct. 1 through Sept. 30
- Average Annual Precipitation 1981 - 2021 = 24.27 inches
- Average Winter Season (Oct - Jun) Precipitation = 17.64 Inches Highest Groundwater Recharge Period
- Average Summer Season (July - Sept) Precipitation = 6.63 Inches

Monthly Cumulative Water-Year Precipitation  
WRCC Mt. Charleston Fire Station Gauge



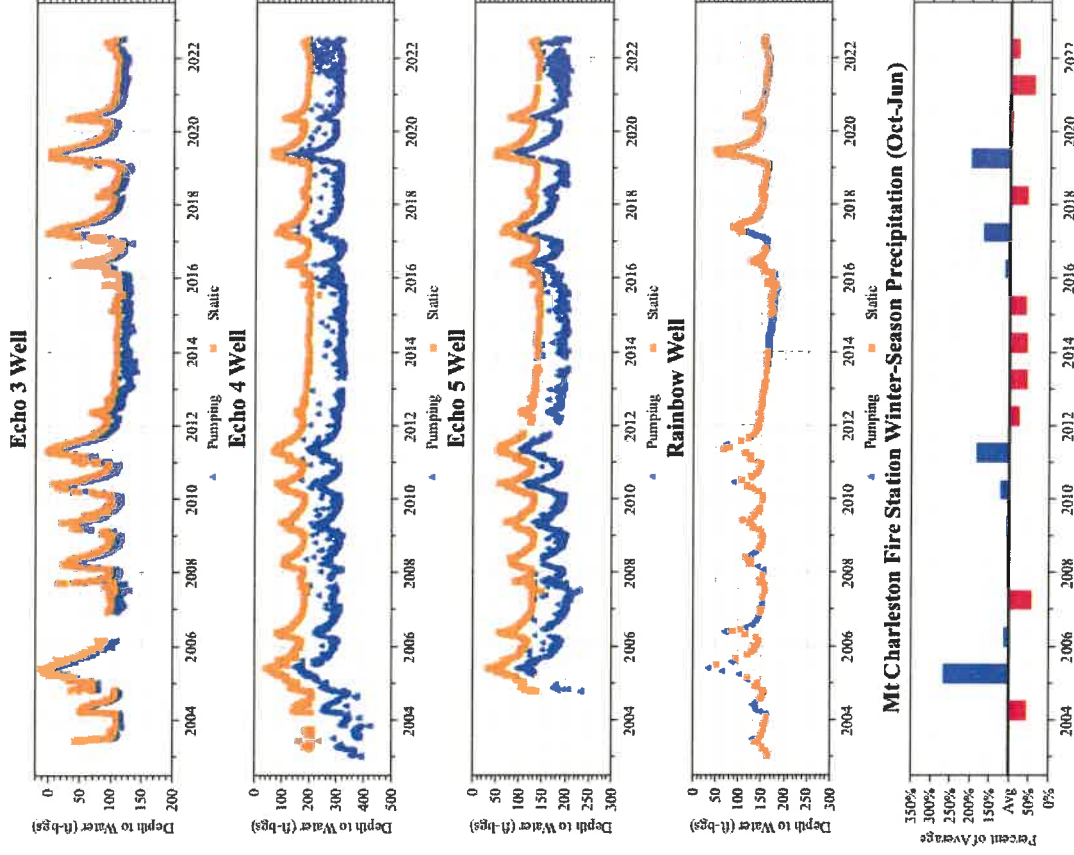
# Winter Season Precipitation Over Past 30 Years



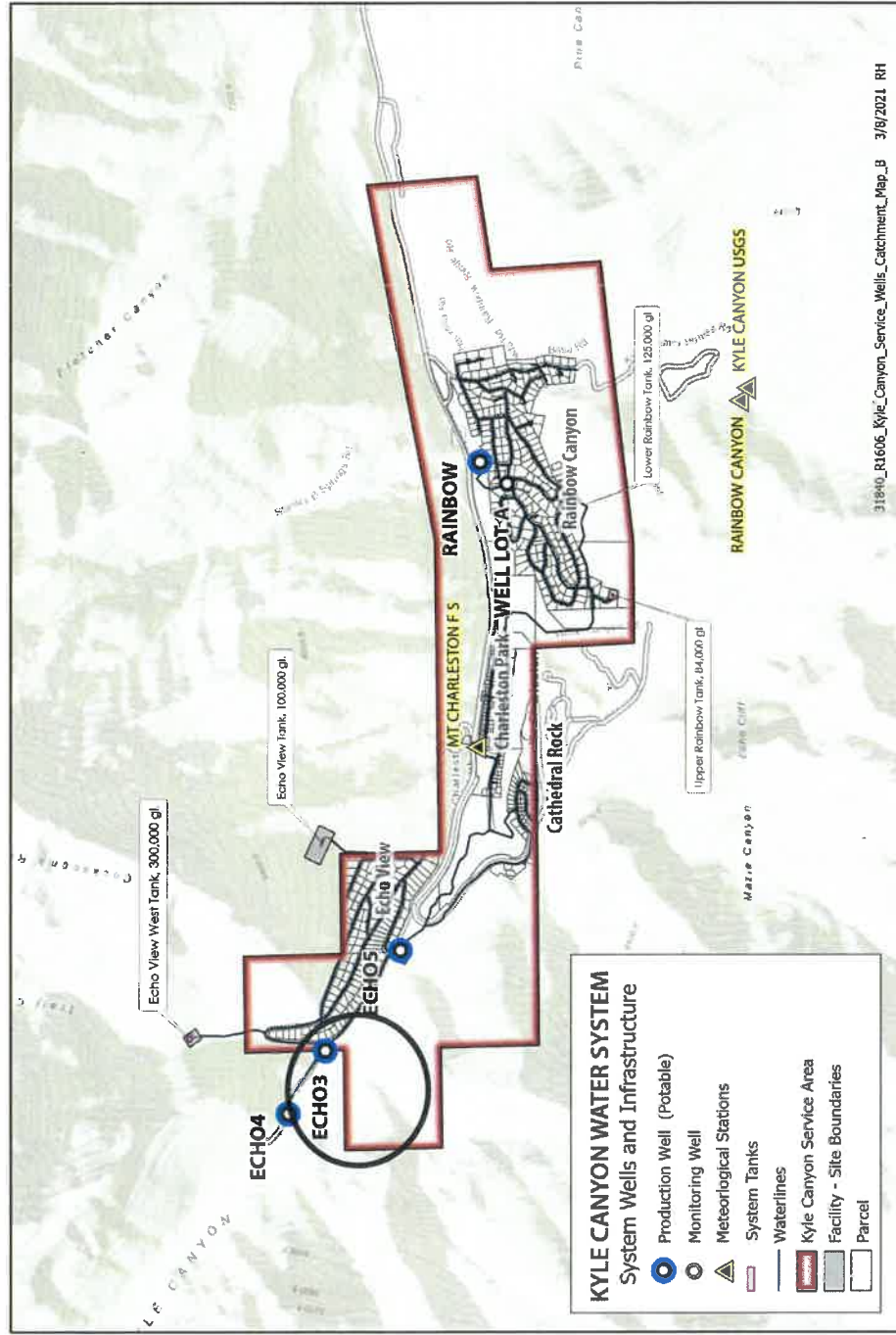
- **High Water Years: 2005, 2011, 2017 and 2019**
- **Low Water Years: 2002, 2007, 2012-2015, 2018, 2021, and 2022**
- **2012 – 2015 consistently below normal with 4-yr period averaging approximately 60% of normal**

# Groundwater Recharge Dynamics

- Hydrographs of the four KCWD production wells compared to winter precipitation
- Production well water levels linked to winter precipitation
- March to May recharge pulse
- Lack of recharge pulse with significant below normal precipitation

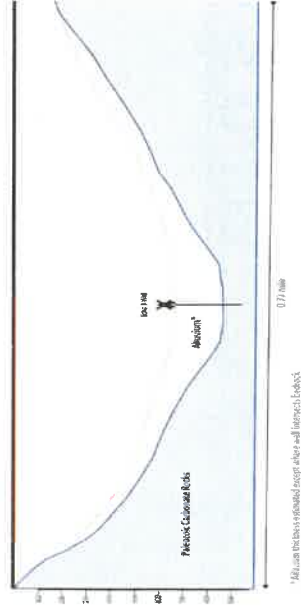


# ECHO 3 Well Attributes and Groundwater Levels

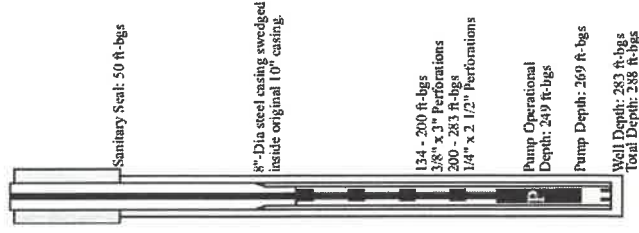
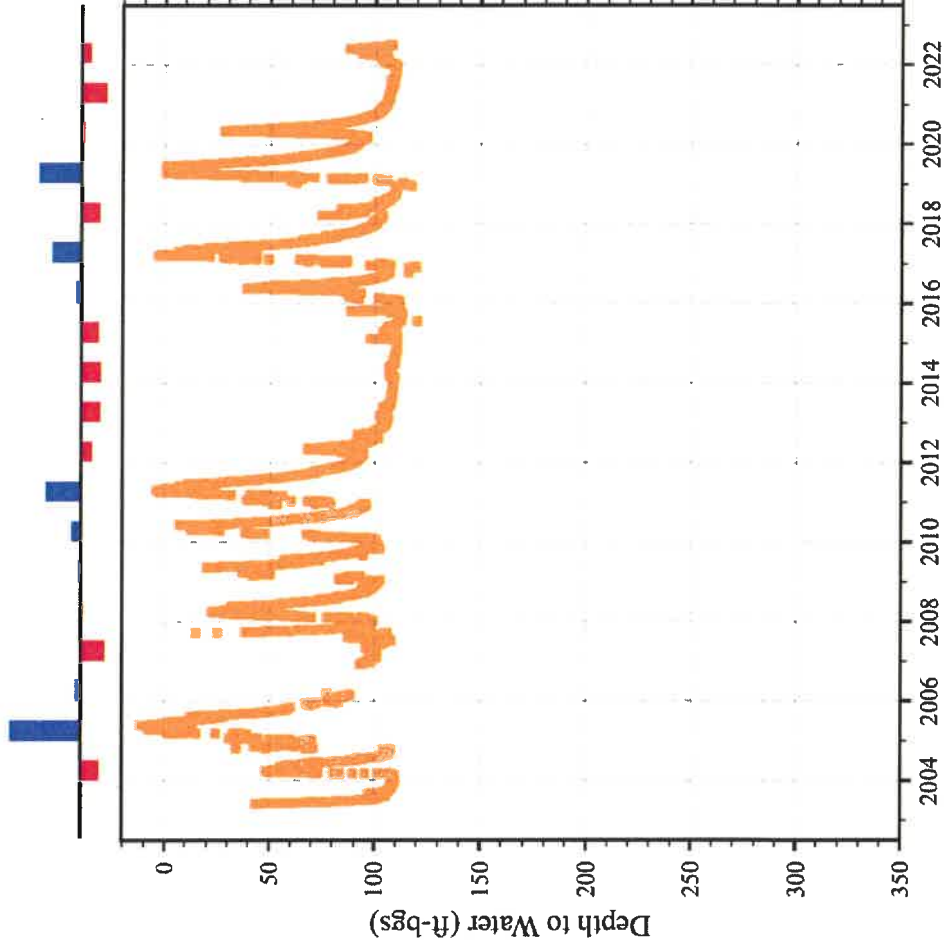


# Echo 3 Well

- Drilled 1964/66
- Depth 283 ft
- Pumping rate 310-380 gpm
- Completed in Carbonate and Alluvium



## Winter Precipitation



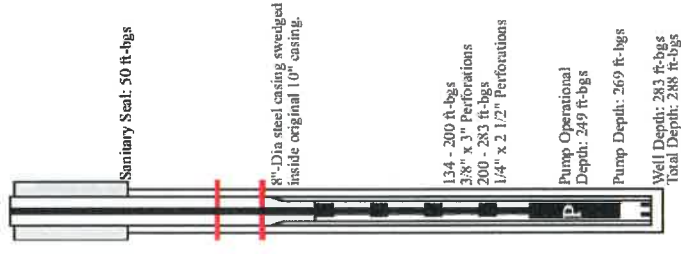
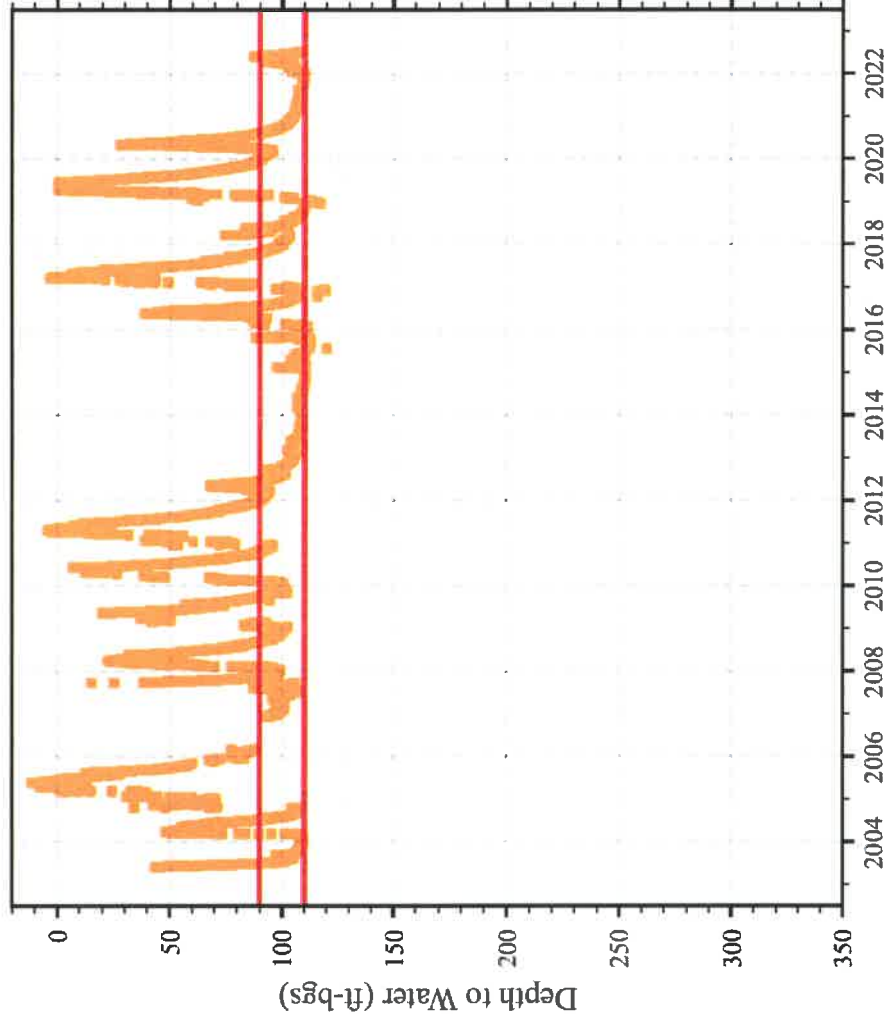
# Echo 3 Well Management Action Levels

**Static Depth to Groundwater:**

**Concerned = 90 ft**

**Critical = 110 ft**

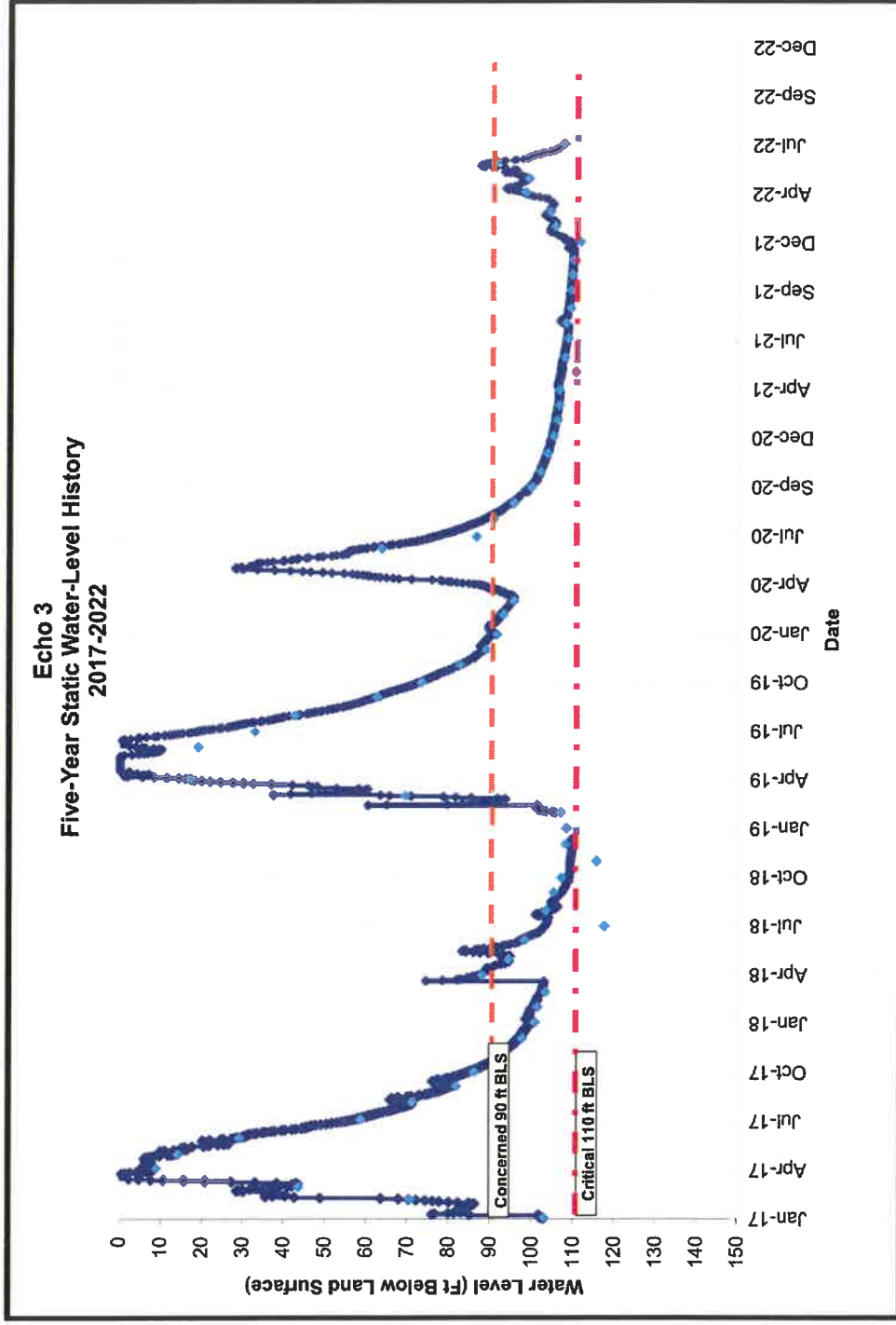
| Well Description         | feet, bgs |
|--------------------------|-----------|
| Screened Interval:       | 134 - 283 |
| Pump Intake Depth:       | 269       |
| Pump Operational Buffer: | 249       |
| Bottom of Casing:        | 283       |
| Depth of Well:           | 288       |



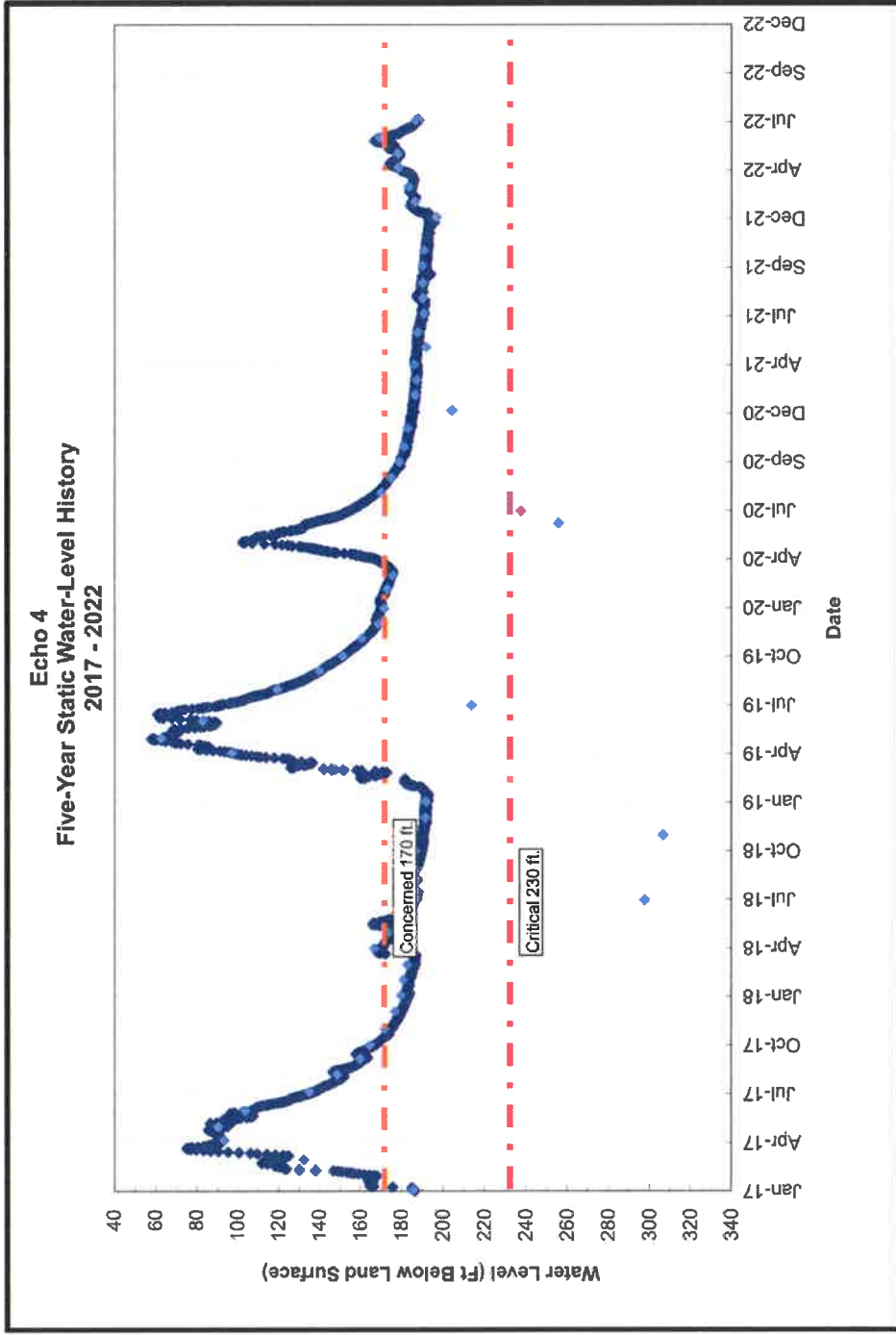
# Echo 3 Well Five-Year Hydrograph

2022 Operational status:

Concerned



# Echo 4 Well Five-Year Hydrograph

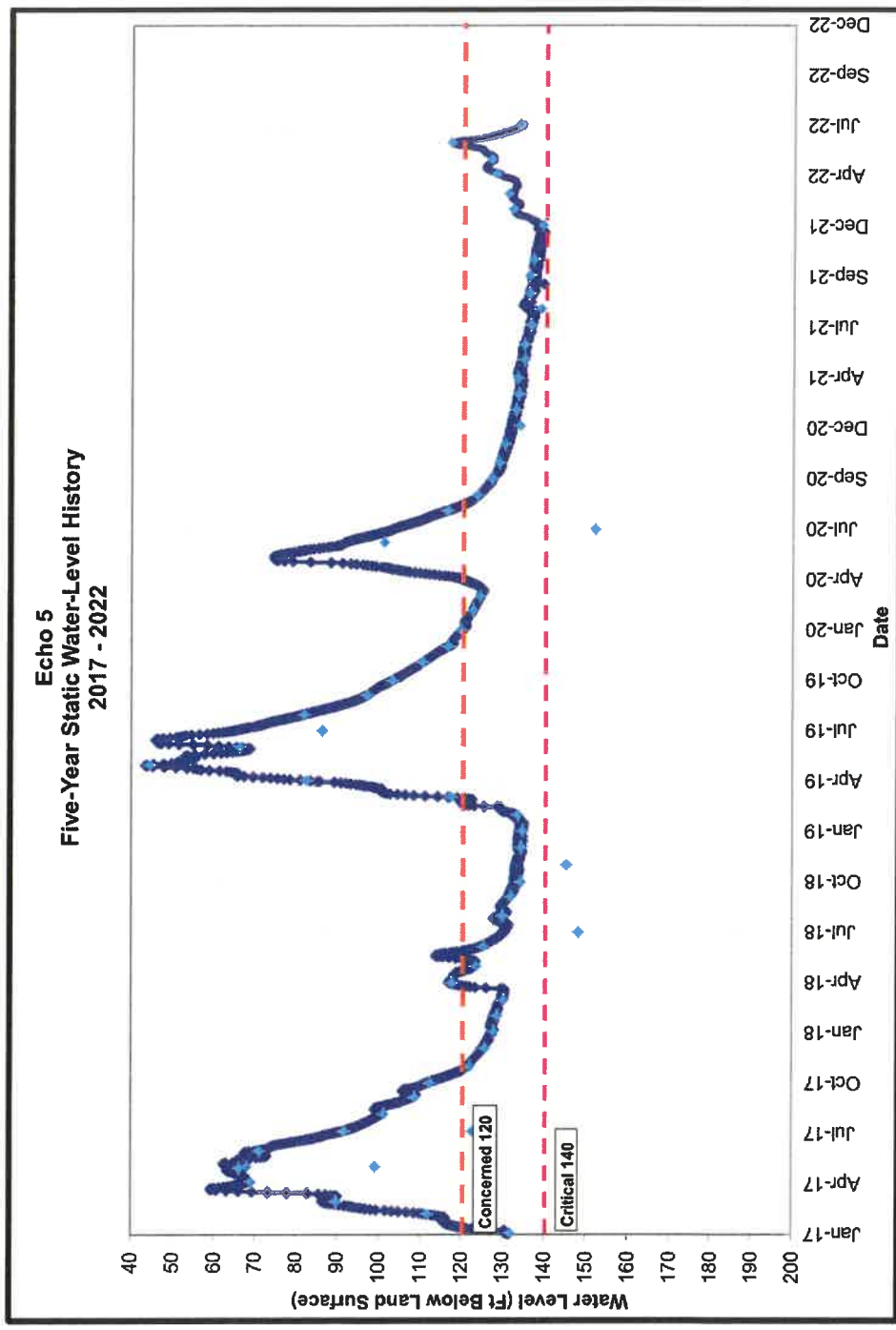


2022 Operational  
status:

**Concerned**



# Echo 5 Well Five-Year Hydrograph

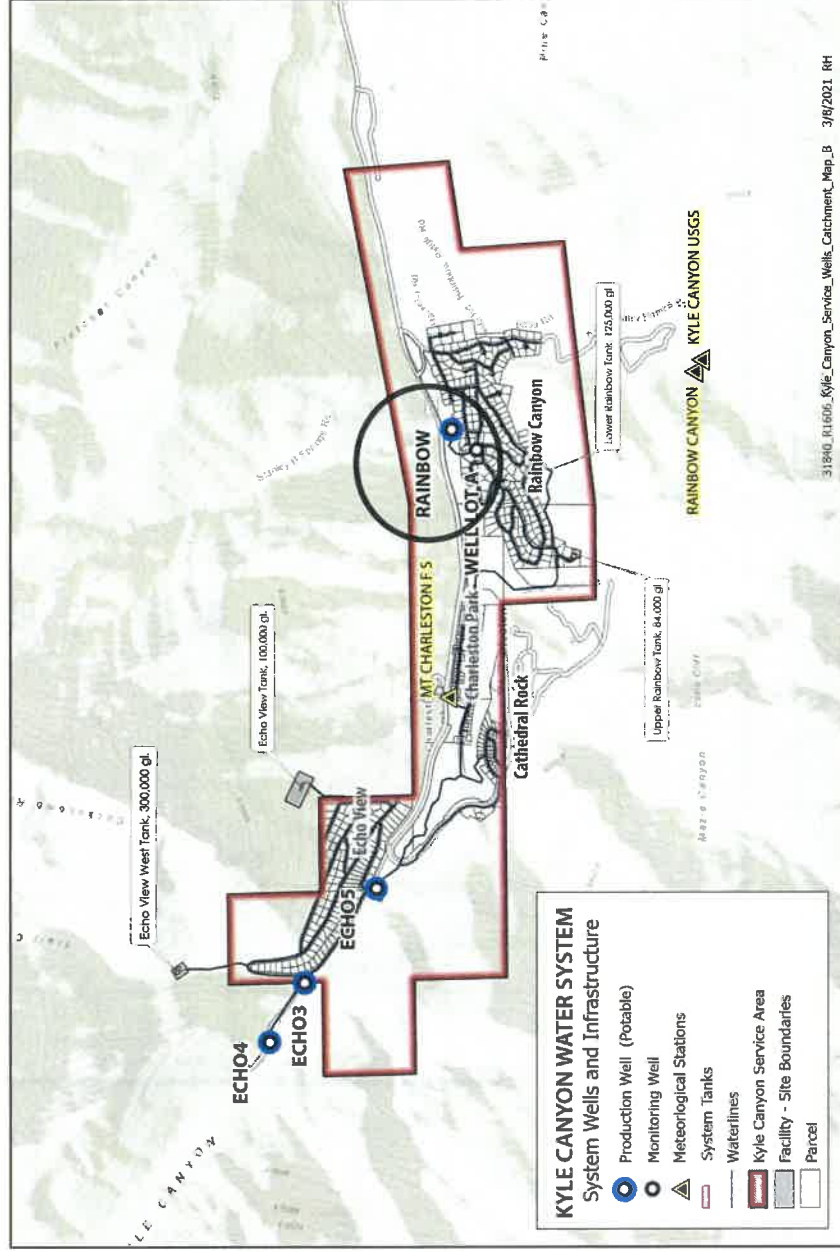


**2022 Operational**

**status:**

**Concerned**

# Rainbow Well Attributes and Groundwater Levels

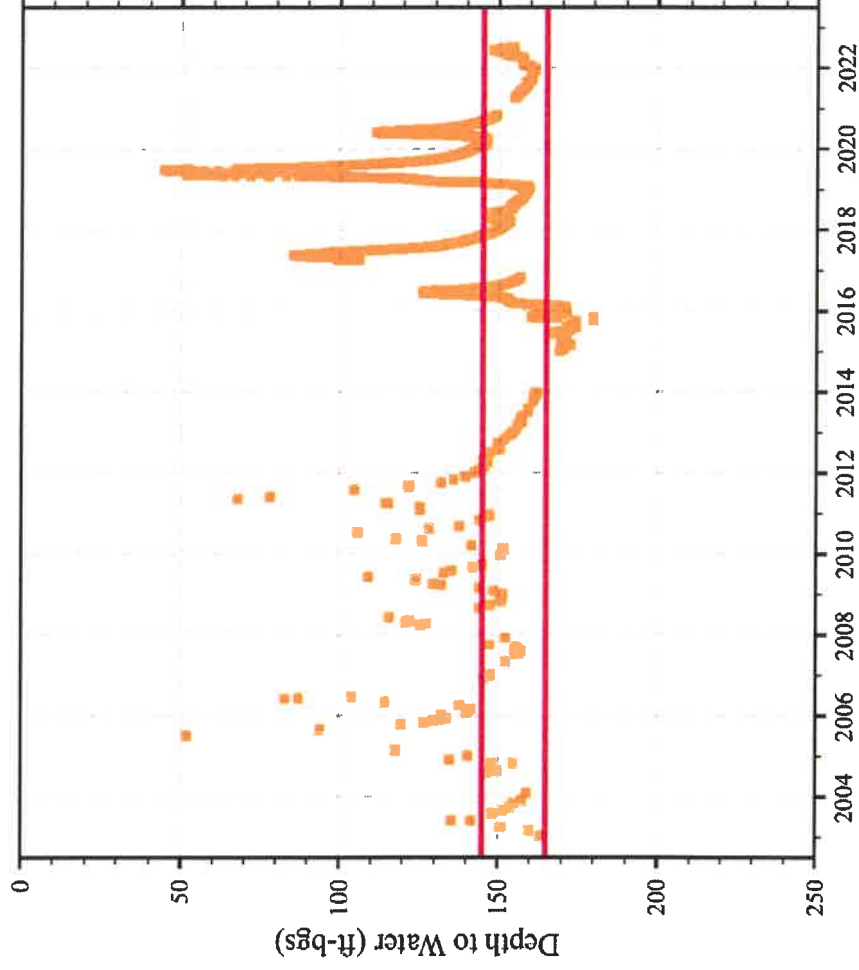


# Rainbow Well Management Action Levels

## Static Depth to Groundwater:

- Concerned = 145 ft
- Critical = 165 ft

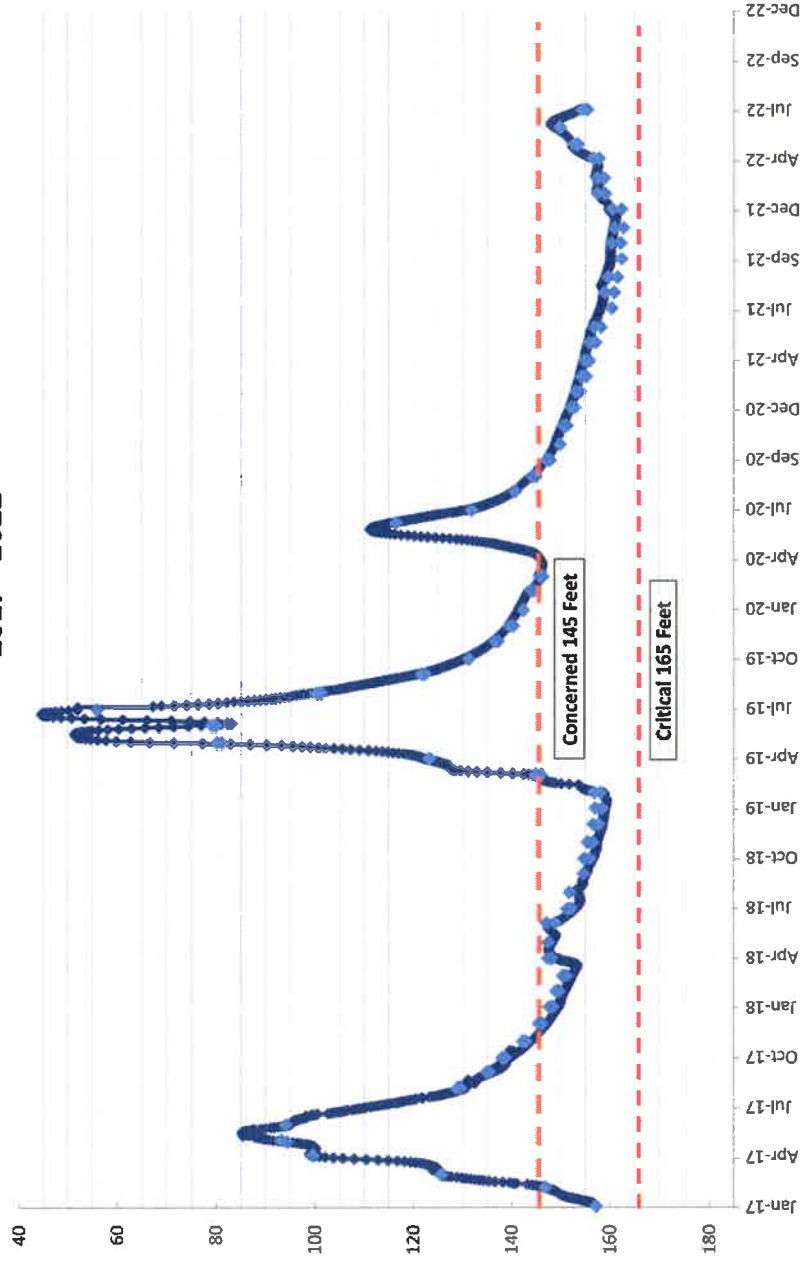
| Well Description         | feet bgs       |
|--------------------------|----------------|
| Screened Interval:       | 142-245 ft bgs |
| Pump Intake Depth:       | 230 ft bgs     |
| Pump Operational Buffer: | 210 ft bgs     |
| Bottom of Casing:        | 245 ft bgs     |



142 - 245 ft-bgs  
 3/16" x 12" Perforations  
 Pump Operational  
 Depth: 210 ft-bgs  
 Pump Depth: 230 ft-bgs  
 Well Depth: 245 ft-bgs  
 Total Depth: 245 ft-bgs

# Rainbow Well Five-Year Hydrograph

Rainbow Well  
Five-Year Static Water-Level History  
2017 - 2022



2022 Operational  
status:  
**Concerned**

## **Effects of Increased Temperature on Groundwater Recharge**

- Increasing temperature trend especially nighttime lows
- Snowmelt and groundwater recharge dynamics may shift
- Fall and Spring seasons longer
- Higher elevation of snowpack

## **Effects of Increased Temperature on Groundwater Recharge**

- Shift in rain vs snow precipitation
- Faster snowmelt resulting in more surface runoff and less infiltration
- Increase in snow sublimation – snow moves directly into air as water vapor common in arid areas
- Higher evapotranspiration

## **Summary and Water Resource Outlook**

- Water Year 2022 is characterized by high winter precipitation in December followed by little precipitation the rest of the year
- Historical record of snowpack, water levels and well performance under drought and above normal precipitation conditions
- Groundwater levels are affected by infiltration of winter period precipitation
- Spring recharge pulse observed with near normal or higher winter precipitation

## Summary and Water Resource Outlook

- Given current hydrologic conditions, wells are anticipated to operate within historical ranges in the near term
- Precipitation, snowmelt and groundwater recharge dynamics may shift in future
- Long-term groundwater levels remain uncertain if extended drought persists