Odor Control Program

- Odors are a nuisance that can lead to complaints

**ODOR CALLS**

- JAN FEB MAR APR MAY JUN JUL AUG SEPT OCT NOV DEC

Odor Control Program

- In some cases odors may be a health hazard to employees and the public.
- Most odors are a nuisance (bad smell). The chemical compounds are present at a concentration well below hazardous levels.
- In some instances H2S can be present at values above 100 parts per million (PPM).
- Odorous compounds can cause corrosion and damage to equipment and infrastructure.
Odor Control Program
How do we address Sewer Odors

- **Liquid Phase Treatment**

- **Low pH releases H2S, high pH maintains it in solution**

- **Thioguard (Magnesium Hydroxide) (6)**
  - Raises the sewage pH
  - Long lasting
  - Interceptors far from the Treatment Facilities

- **Chlorine (3)**
  - Quick acting oxidizer to prevent formation of H2S
  - It also kills the bacteria that produces H2S
  - Small area of influence
Odor Control Program
How do we address Sewer Odors

- Vapor Phase Treatment
  - Remove H2S from the structures air space
  - Biofilters (13)
    - H2S is the food source of Bacteria living in the media
    - High removal efficiency
    - Low cost
    - Low Maintenance
  - Granulated Activated Carbon (3)
    - Carbon adsorbs the H2S in the processed air
    - High removal efficiency
    - High Maintenance and Operation Cost
Odor Control Program
Odor Control Team

- **PERSONNEL AND TASK ORGANIZATION**
  - The Pumps and Odor Control Sections is headed by the Odor Control Program Manager Alan Showalter supported by a Public Works Crew Supervisor, Bill Moore
  - Odor Control Team consists of 4 Field Technicians that manage specific odor control facilities throughout Pima County
  - Work Tasks include continuous odor monitoring, chemical delivery coordination, and site maintenance that includes repairs/construction work
Odor Control Program

- **WAY FORWARD**
  - Replace all GAC Units with Biofilters
    - Lower operation and maintenance costs
    - Silverbell Golf Course Biofilter scheduled for replacement in Q3 of this Fiscal Year
  - Thioguard CDUs on Major Interceptors
    - Valencia Q4 of this Fiscal Year
      - Service the South West Interceptor
    - Marie Ann Cleveland Way FY 21-22
      - Service the South East Interceptor
Odor Control Program

- **WAY FORWARD**
  - Fine tune chemical dosage of all CDUs
    - Implemented SmartLevel to provide low cost, real time tank level readings
    - Implemented the SmartH2S sensor to provide low cost, real time H2S level readings
  - May eliminate the need for existing Chlorine sites and reduce the load on biofilters
Questions?