



# Town of Oro Valley Community Academy Stormwater Utility Presentation

November 9, 2016

Town of Oro Valley

# Stormwater Utility Mission

- ▶ **We are here to provide safe and efficient management of Stormwater within the Town of Oro Valley. Thereby ensuring the promotion & protection of life, safety, water quality, & the Town's working and natural environments.**

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# Stormwater Quality Is The Overarching Reason For the Utility's Existence

- ▶ Stormwater Utility established in 2004
- ▶ Federally mandated by The U.S. Environmental Protection Agency (EPA) & The Clean Water Act
- ▶ Administered by the Arizona Department of Environmental Quality (ADEQ)
- ▶ Required permits
  - ▶ Municipal Separate Storm Sewer Systems (MS4) permit
  - ▶ National Pollutants Discharge Elimination System (NPDES) General Permit
  - ▶ Construction General Permit (CGP)



# MS4 Program Requirements

## Minimum Control Measure Elements

- ▶ Illicit Discharge Detection and Elimination
- ▶ Construction Site Runoff Control
- ▶ Post-Construction Runoff Management
- ▶ Municipal Pollution Prevention/Good Housekeeping
- ▶ Public Education & Outreach
- ▶ Public Involvement & Participation





# STORMWATER

# QUALITY

Town of Oro Valley

# First Flush Filtration



This is an example of first flush filtration. A catch basin insert such as this will filter out many contaminants from the water before they reach the MS4.



Our job at the utility is to ensure that devices such as this are in place & working properly.



# Water Quality Sampling



Examples Of Water Quality Tests We Conduct:

- Turbidity
- Multiple Chemical Compounds Potentially Washing Off Of The Streets (Oil, Grease & Detergents)



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# Construction Site Runoff Control



At the utility we also routinely inspect construction sites, making sure that runoff control measures such as these are in place & working properly, thus keeping contaminants onsite & out of the MS4.



# Current Fee Structure



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This fee Structure plays an integral role in our ability to provide effective management and services to the Town of Oro Valley and it's citizens.

- ▶ Resident fee:  
\$4.50 per month per single family residence
- ▶ Commercial fee:  
\$4.50 per month per ERU (Equivalent Residential Unit)

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Business Calculation = Impermeable sf / 4000

10,000sf building & 20,000sf of parking/sidewalks = 7.5 ERU

- ▶ \$4.50 per month x 7.5 ERU's = \$34.00 per month



# STORMWATER

# QUANTITY

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# Typical Stormwater Activities Include:

- ▶ Street Sweeping (Quality & Quantity)
- ▶ Storm Cleanup
- ▶ Drainage Channel Vegetation Maintenance
- ▶ Storm Conveyance System Inspections (I.E. Channels, Culverts, & Pipes)
- ▶ Public Education and Outreach
- ▶ Technical Support
- ▶ Minor Construction and Repair Projects
- ▶ Prioritize and Submit Major Projects For Funding Consideration By the Pima Regional Flood Control District
- ▶ Hydrologic and Hydraulic Studies and Designs
- ▶ Review of Development Related Stormwater Infrastructure Plans & Construction
- ▶ Preparing and Revising Town Ordinances and Manuals



# Cleanup & Repair of Storm Damage

At the Stormwater Utility we assess & repair storm damage which occurs after large storm events.



# Vegetation Cleanup Improving Conveyance And Eliminating Other Potential Hazards



**Before**



**After**



Flow in this wash was greatly restricted & unseen ponding of water was leading to a larger mosquito population.

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# Small Construction & Drainage Improvements



This is an example of the Stormwater Utility at work. Storm damage assessed in 2015 has resulted in infrastructure upgrades & more efficient conveyance of water during storm events.





# THE ORGANIZATION

Town of Oro Valley

# Stormwater Utility Division Manager

Registered Professional Engineer

Reports to Asst. Public Works Director & the Town Engineer

Responsibilities Include:

- Compliance With MS4 Permit Program
- Compliance With General Construction Permit Program
- Enforcement of Town Code & Standards
- Assists Director in:
  - Development of Strategic Goals & Plans
  - Recommendations Regarding Stormwater Issues
  - Preparing & Prioritizing the Town's Capital Improvement Program
- Coordinates with Operations Division on Maintenance Needs
- Provides Updates & Information to the Stormwater Utility Commission

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# Senior Stormwater Engineer

Registered Professional Engineer & Certified Floodplain Manager  
Reports to Stormwater Utility Division Manager

## Responsibilities Include:

- Act As Primary Liaison With ADEQ & EPA Regarding
  - Annual MS4 Report
  - Preparation of Town Wide Stormwater Management Plan
- Coordinates with PCRFCO, ADWR, & FEMA On
  - Floodplain Ordinance Compliance
  - Erosion Hazard Ordinance Compliance
  - Regulatory Requirements & Updates To Town Code
  - Floodplain Mapping & Revisions
- Reviews, Recommends, & Prepares Revisions to Town Standards
- Technical Reviews Of Hydrologic & Hydraulic Reports For Private Development Projects
- Technical Reviews Of Drainage Plans for Private Development Projects
- Performs Hydrologic & Hydraulic Studies Drainage Reports & Concept Designs For In House Projects

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# Stormwater Utility Project Manager

Registered Professional Engineer  
Reports to Stormwater Utility Division Manager

Responsibilities Include:

- Designing Of In House & External Stormwater Infrastructure Projects
- Preparation & Review of Survey Design & Construction Scopes Of Work & Contracts
  - Coordinates with Town Procurement & Legal Staff
- Provides Opinions On Probable Cost Of Construction Projects
- Assists In Preparing & Prioritizing Capital Improvement Program
- Prepares Capital Improvement Proposals For Funding By PCRFC
- Coordinates With Operations Division & Oversees Stormwater Maintenance Project Quality
- Participates In Public Meetings & Coordinates With The Public On Stormwater Issues

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# Stormwater Utility Analyst

M.S.

Reports to Senior Stormwater Engineer

Responsibilities Include:

- Inventory & Mapping of Town MS4 Assets
- Organization & Management Of Stormwater Utility Data
- Organizing & Implementing The Public Outreach & Education Program For The Stormwater Utility
- Assist Senior Stormwater Engineer With Local Floodplain Mapping
- Create Publication Quality Figures & Maps For Proposals & Reports
- Provide Geographic Data & Analysis For Staff Engineers
- Prepare & Update the Stormwater Utility's Web Page Content
- Create Tools To Efficiently Handle & Automate Everyday Office Tasks
- Assist With Preparation Of Annual MS4 Report & Stormwater Management Plan Revisions

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# Stormwater Utility Inspector

Reports to Senior Stormwater Engineer

Responsibilities Include:

- Inspection of Channels, Culverts, pipes, Inlets & Outlets, Ensuring Efficient Stormwater Conveyance.
- Notifying Property Owners Regarding Any Necessary Maintenance Or Repairs To Their System.
- Testing For Water Quality
- Responding To Citizen Complaints & Questions.

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# Questions?



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