

# O&M (C.3.h) Inspections FY 2016/2017 Implementation

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# Outline of Presentation

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- Background on MRP
- MRP C.3.h Implementation
- MRP C.3.h Reporting
- Resources

# Municipal Regional Permit (MRP)

- Regional permit regulating municipal stormwater systems
- Applies to 76 cities, counties, and districts in:
  - Santa Clara, Alameda, Contra Costa, and San Mateo Counties, Fairfield and Suisun City (Solano County), Vallejo (Solano County)
- Provision C.3 covers requirements for new development and redevelopment projects, and inspection and reporting requirements



# Permanent Facilities that Require O&M Inspections

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- Provision C.3.h of the MRP requires agencies to conduct inspections to verify operation & maintenance (O&M) of:
  - Pervious pavement systems  $\geq 3,000$  sf
  - Stormwater treatment measures
  - Hydromodification management measures
- Applies to measures associated with a Regulated Development Project

# Pervious Pavement

- Interlocking pavers, permeable asphalt, pervious concrete, or grid pavers.



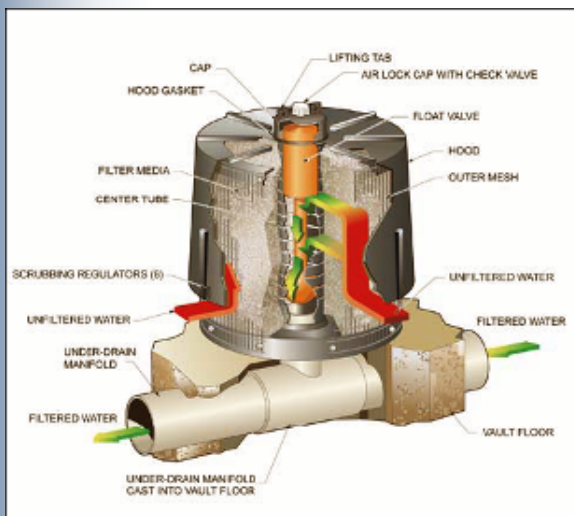
# Stormwater Treatment Measures

- Low impact development (LID) treatment systems (biotreatment, infiltration, rainwater harvesting systems)

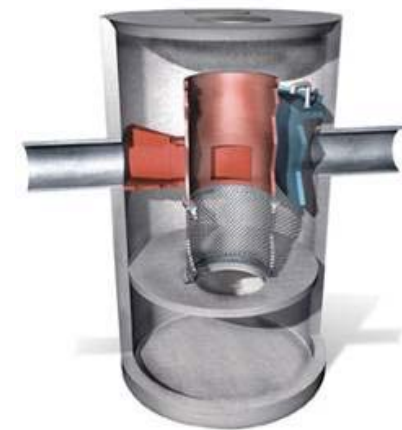
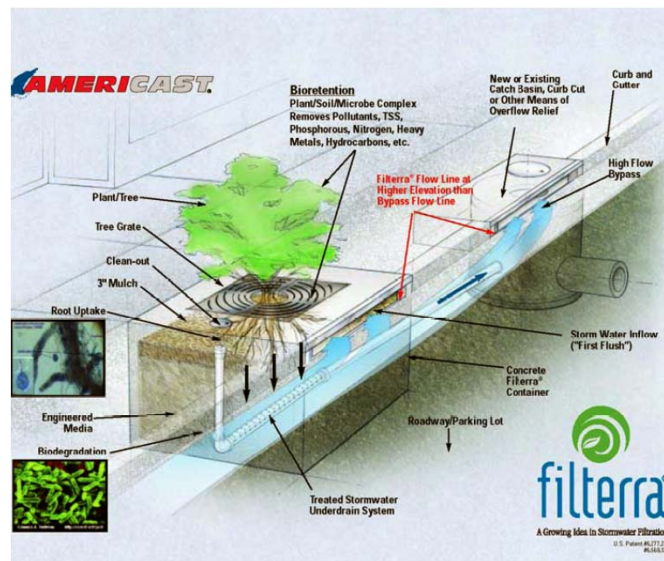


# Stormwater Treatment Measures

- Vault-based systems (hydrodynamic separators, media filters, proprietary tree well filters)



Media Filter Cartridge



Hydrodynamic Separator

# Hydromodification Management (HM) Facilities

- Basin, tank, pipe, or vault with specially designed outlet to slowly release water.



# O&M Verification Program

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- Require facility owners to conduct ongoing maintenance (e.g., maintenance agreement)
- O&M Verification Inspection Plan
  - Written Plan for installation and annual inspections
  - Applies to public (municipal) and private sites
  - Update with new requirements
- Conduct inspections

# O&M Verification Program

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- Enforcement Response Plan (ERP)
  - Guidance for inspectors to take consistent actions to bring sites into compliance
  - Certify completed by July 1, 2017 in upcoming Annual Report
- Track and Report on inspections
  - Database/Electronic Table
  - Annual Report
- Coordinate with County Mosquito and Vector Control District

# O&M Verification Inspection Plan

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- Update to include pervious pavement as of July 1, 2016
  - $\geq 3,000$  sq.ft.
  - Excludes private patios
  - Allows inspection of “representative no.” of pervious driveways in subdivisions
- Updated to include procedure for 3rd party inspection of vault-based treatment systems

# O&M Verification Inspection Plan

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- Installation Inspections (beginning 7/1/16):
  - Initial inspection of stormwater controls required “at the completion of installation”
    - Replaces requirement to inspect within 45 days of installation

# O&M Verification Inspection Plan

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- O&M Inspections (beginning 7/1/16):
  - Inspect an average of 20% of Regulated Project sites per year (minimum 15%)
  - Inspect all Regulated Projects at least once every five years
  - 3<sup>rd</sup> party vault inspections must be completed annually
    - Collect inspection records

# O&M Enforcement Response Plan (ERP)

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- ERP by 7/1/17
- Guidance for inspectors to take consistent actions to bring sites into compliance
  - Identify enforcement tools
  - Roles and responsibilities of staff
  - Time period for implementing corrective actions
- Corrective actions must be implemented within 30 days of inspection
  - Actions can be temporary and more time allowed for permanent corrections (with explanation)

# Tracking & Reporting Requirements

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- O&M Verification Inspection Checklist
- Database/Electronic Table
  - Can be requested by Regional Board at any time
  - Track stormwater treatment systems and HM controls installed and inspected
  - Updated to include tracking pervious pavement as of July 1, 2016
  - Updated to include tracking 3rd party vault inspections

# Tracking & Reporting Requirements

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- Annual Report Inspection Summary
  - Inspection tracked by Regulated Project sites NOT treatment systems/HM controls/pervious pavement

# FY 15/16 AR Inspections

<b>Permittee</b>	<b>Regulated Projects FY 14-15</b>	<b>Regulated Projects FY 15-16</b>	<b>O&amp;M inspections FY 15-16</b>
Santa Clara County	41	52	15
Campbell	20	22	7
Cupertino	28	33	14
Los Altos	16	18	16
Los Altos Hills	0	0	0
Los Gatos	20	23	5
Milpitas	12	24	3
Monte Sereno	0	0	0
Mountain View	70	80	15
Palo Alto	68	73	64
San Jose	253	288	76
Santa Clara	12	19	12
Saratoga	1	2	1
Sunnyvale	112	126	126

# FY 15/16 Inspection Findings

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- Reduced irrigation at bioretention cells and grassy swales due to drought conditions leads to inadequate, missing and invasive/nuisance vegetation
- Change in owners
  - Difficulty finding new owners
  - Record keeping and annual reporting
  - Maintenance providers not fully aware of the maintenance required
- Litter/debris

# FY 15/16 Inspection Findings

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- Smaller residential projects (<10 units)
  - treatment vaults installed are out of sight out of mind.
  - Loosely organized HOAs are not effective at maintaining vault facilities
- Clogged drains in bioretention units
- Biotreatment systems with pumps to direct runoff to the system were inspected during rain events to verify pumps are working

# FY 15/16 Inspection Findings

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- Bio-swales subject to excessive foot traffic and heat from the pavement caused grasses to die. Swales revegetated and protected by a small two-rail fence. No signs of problems during subsequent inspections.
- Mosquito larvae found and Vector Control staff sprayed vaults

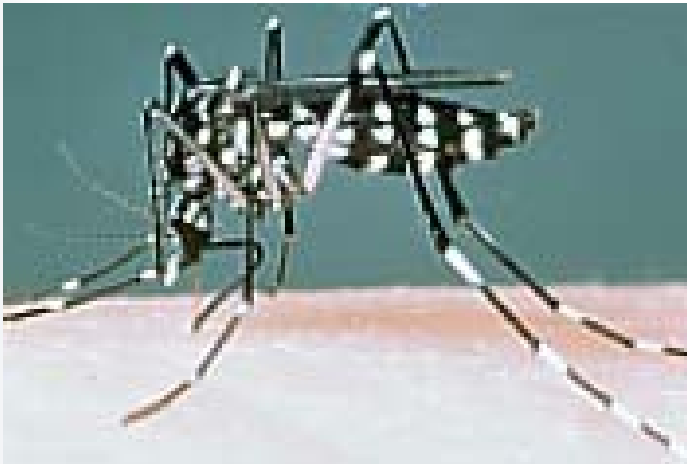
# FY 15/16 Inspection Findings

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- Installation inspections
  - Berm surrounding the bioretention area needed to be raised
  - Inlets at both ends of the bioretention area needed to be lowered one foot and grates needed to be installed on both inlets
  - Initial hydroseeding not entirely successful

# Vector Control District Coordination

- List of newly-installed facilities must be submitted each year:
  - To the County Mosquito and Vector Control District and Regional Water Board
  - Submitted before October 1



- Countywide Program can make the submittal based on info in your Annual Report

# Vector Control District Coordination

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- City scheduled inspections with County Vector Control District staff to make sure District staff know where all systems are located for mosquito inspection and abatement

# For More Information...

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- SCVURPPP New Development Webpage:  
[http://www.scvurppp-w2k.com/new\\_dev.shtml](http://www.scvurppp-w2k.com/new_dev.shtml)
  - Stormwater Treatment BMP Inspection Data Form
  - Model Maintenance Agreement
- ERP Outline
- SF Bay Municipal Regional Stormwater Permit (Google it!)

# Questions?

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