



**ATTACHMENT L:**

L1: TEMPLATE O&M MANUAL



## Post-Construction BMP Operations and Maintenance Guidelines



## Table of Contents

INTRODUCTION.....	3
STORMWATER FACILITY OPERATION AND MAINTENANCE RESPONSIBILITY.....	3
RECORDS.....	3
SAFETY.....	3
TOOLS.....	4
MAINTENANCE OF SOURCE CONTROLS.....	4
MAINTENANCE OF SITE DESIGN RUNOFF REDUCTION MEASURES.....	4
Runoff Reduction Measure Table.....	5
MAINTENANCE OF STORMWATER TREATMENT MEASURES (IF APPLICABLE).....	5
Stormwater Treatment Measures Table.....	5
Maintenance of Bioretention Facilities and Flow-Through Planters (If Applicable).....	5
Bioretention Facility Maintenance Table.....	6
Maintenance of Tree-Well Filters (If Applicable).....	9
Tree-Well Maintenance Visit Summary.....	9
Tree-Well Manufacturer’s Cut-Sheets.....	9
Maintenance of In-Vault Media Filters (If Applicable).....	9
In-Vault Media Filter Manufacturer’s Cut-Sheets.....	10
Maintenance of Trash Control Measures (If Applicable).....	10
Trash Control Device Manufacturer’s Cut-Sheets.....	10
APPENDIX A: FACILITIES MAP (SAMPLE).....	11
APPENDIX B: BIORETENTION INSPECTION FORM (SAMPLE).....	12
APPENDIX C: VTA APPROVED PESTICIDES (SAMPLE).....	17



## Introduction

Designer to include Project Title, project location and short project description. Include description of the type of Post-Construction Best Management Practices (BMPs) that will require on-going maintenance.

## Stormwater Facility Operation and Maintenance Responsibility

Designer to include language describing the responsibilities related to the Operation and Maintenance (O&M) of the project's Post-Construction Best Management Practices (BMPs). If VTA will be entering into an O&M agreement, state the responsibilities of each entity involved.

**Sample Language:** *VTA will enter into Operation and Maintenance (O&M) Agreements with the City of San Jose and the City of Milpitas to each maintain the BMPs that treat runoff from their respective right-of-way. Maps showing the locations of VTA and City BMPs including the two station areas can be found in Appendix A. The VTA O&M maintenance will be performed by in-house VTA staff or contractors at VTA's discretion.*

## Records

Designer to include language describing the responsible party for O&M inspections, as required by the Phase II Municipal Separate Storm Sewer System (MS4) Permit.

**Sample Language:** *The VTA O&M inspections will be performed by in-house VTA staff or contractors at VTA's discretion. Inspection and Maintenance checklists will be completed per in-house standard or contract requirements for each BMP. These will be submitted to the following address:*

*VTA Environmental Programs  
Attn: Name – VTA MS4 Stormwater Program Project Manager  
3331 North First Street  
San Jose, CA 95134*

*Oversight inspections will be performed by VTA Environmental Programs as part of the Municipal Stormwater (MS4) permit requirements. A sample inspection form is shown in **Appendix B**.*

## Safety

Designer to include language describing the safety concerns of related maintenance activity. Use of maintenance equipment shall be according to the manufacturer's procedures and instructions and according to VTA and Cal OSHA requirements.

**Sample Language:**

### General Safety Guidelines

- *Set up a safety perimeter and be aware of passing pedestrians, bicycles, and vehicles.*
- *Do not stand in the street when performing maintenance activities unless traffic control has safely blocked a lane.*



- *Make yourself visible. Wear bright colored clothing and a safety vest. Ensure safety color does not impede with current VTA light rail ROW safety requirements if maintenance is occurring near light rail ROW.*
- *Wear hard hats (as required), protective clothing, thick gloves, and sturdy shoes.*
- *Be aware when cutting plants and branches overhead or when working on an active construction site.*
- *Wear eye and ear protection.*
- *Be aware of broken glass, sharp objects, and other hazards.*
- *Be aware of needles and other biohazards. Use grabbers and gloves to remove needles and dispose of them properly.*
- *Be aware of loose material, standing water, tripping hazards, uneven ground, and other obstructions.*
- *Don't leave your tools unattended. Keep them out of the street and off the sidewalk so they don't pose a hazard to others.*
- *Perform maintenance on your facility during daylight hours and avoid peak traffic times.*

## Tools

Designer to include language describing the tools and equipment necessary to complete described maintenance activities.

### Sample Language:

*Ideal tools include: camera, tape measure, edging Spade, trash bags, work gloves, plant and weed photo ID sheet, tarp/buckets/trash cans (to remove leaf litter/debris), push broom, wheelbarrow, hand trowel, rake, hoe, manhole cover hook or lifter (for opening grates), flat shovel, wrenches and other tools required to unbolt manhole cover and grate locks, hedge shears and loppers, hand weeding tools, and hori-hori. Appropriate Personal Protective Equipment (PPE) should be used in accordance with local or company procedures. This may include impervious gloves where the type of trash is unknown, high visibility clothing, safety hats and shoes, and barricades when working near traffic. Additional mulch should be available as replenishment/replacement of mulch may be necessary. To maintain Tree-Wells, a T-Bar or crowbar should be used for moving the tree grates (up to 170 lbs. ea.).*

## Maintenance of Source Controls

Designer to include language describing the O&M related to the project's Source Control BMPs. Designer may refer reader to **Attachment D2** of the VTA Stormwater and Landscaping Design Criteria Manual, which includes O&M language regarding Source Controls.

## Maintenance of Site Design Runoff Reduction Measures

Designer to include language describing the O&M related to the project's Runoff Reduction Measures.

**Sample Language:** *\*Note if extensive measures and related maintenance are incorporated, designer may want to include table as an Appendix.*



### Runoff Reduction Measure Table

Runoff Reduction Measures and Maintenance (Example)		
Runoff Reduction Measure	Location	Operations & Maintenance
Tree Planting	50 ft NW of Great Mall Transit Center	Inspect irrigation system monthly from June- Oct. for first 3 years of establishment. Inspect tree health quarterly and prune as needed.
Permeable Pavement	Parking Lot at Milpitas Station	Inspect pavement monthly to ensure it is clean of debris and sediments and de-waters between storms. Keep the pervious pavement surface free of sediment by blowing, sweeping or vacuuming as needed. Annually Inspect the pervious pavement surface for deterioration or spalling.

### Maintenance of Stormwater Treatment Measures (If Applicable)

Designer to include language describing the types of Stormwater Treatment Measures implemented in the project.

**Sample Language:** \*Note if extensive measures and related maintenance are incorporated, designer may want to include table as an Appendix.

### Stormwater Treatment Measures Table

Stormwater Treatment Measures- Index (Example)			
Location	Type of Treatment	VTA BMP#:	Map#:
South of 237, Industrial Rd (STA 289+70 to 296+68, on exhibit)	Bioretention Basin	ID- BR-01	Exhibit 5c
Piper Drive (STA 359+70 to 364+00)	Bioretention Basin	PR-BR-02	Exhibit 5d
Series of basins along the Montague Bus entrance	Bioretention Basin	MS-BR-03	Exhibit 4
North West Basin in the Bus Circle	Bioretention Basin	MS-BR-04	Exhibit 4
Milpitas Station Park and Ride (North)	Flow-Through Planter	MS-FP-01	Exhibit 4
Milpitas Station Park and Ride (Middle)	Filtterra® Tree Well Box	MS-TW-02	Exhibit 4
Milpitas Station Park and Ride (South)	Filtterra® Tree Well Box	MS-TW-03	Exhibit 4

### Maintenance of Bioretention Facilities and Flow-Through Planters (If Applicable)

Designer to include language describing the O&M activities related to the bioretention basins installed.

**Sample Language:** Bioretention facilities remove pollutants by filtering runoff slowly through an active layer of soil media. Dissipation rock placed at the inlets helps to prevent erosion of the mulch at the bioretention facilities. In addition, the media is held together by plant roots which help to biologically remediate some of the pollutants. To ensure continued effectiveness, regular maintenance is needed and consists of the following:



- a. *Inspect the dissipation rock area at the inlets for channels, exposed soils, or other evidence of erosion. Clear any obstructions such as trash or debris and remove any accumulation of foreign sediment. Examine dissipation rock and replenish if necessary.*
  - i. *If the inlet is not a standard street drain inlet or a concrete structure, then inspect the transition area (from the paved treated area to the basin) for erosion.*
  - ii. *Inspect side slopes for evidence of instability or erosion and correct as necessary.*
- b. *Observe soil at the bottom of the bio-retention facilities for uniform percolation throughout. If portions of the planter do not drain within 24-72 hours after a storm event, the soil should be tilled and replanted.*
- c. *Confirm that check dams and flow spreaders are in place and level and that channelization within the bioretention facility is effectively prevented.*
- d. *Examine the vegetation to ensure that it is healthy and dense enough to provide filtering and to protect soils from erosion.*
- e. *Replenish mulch as necessary, remove accumulated leaves, trash and debris, prune shrubs or trees, and mow turf areas. When mowing, remove no more than 1/3 of the grass height. Confirm that irrigation is adequate and not excessive. Replace dead plants and remove noxious and invasive weeds.*
- f. *Abate any potential vectors by filling holes in the ground in and around the bioretention facility and by insuring that there are no areas where water stands longer than 24-72 hours following a storm. If mosquito larvae are present and persistent, contact the Santa Clara County Vector Control for information and advice. Any mosquito larvicides should be applied only when absolutely necessary and only by a licensed individual or contractor.*

### Bioretention Facility Maintenance Table

Designer to include a Table or equivalent that effectively details the frequencies associated to each Bioretention Facility maintenance activity.

**Sample Language:** \*Note if extensive measures and related maintenance are incorporated, designer may want to include table as an Appendix.

Bioretention Maintenance		
Frequency	Observation	Maintenance Activity
Yearly	<i>Inspect the bioretention facility mulch and media elevations.</i>	<i>If mulch has floated to one side or media elevation is too low, adjust the elevations and re-spread the media.</i>
	<i>Inspect the elevation of the dissipation rock.</i>	<i>If the dissipation rock is spread out or sunk into the media, rearrange in front of the</i>



		<i>inlet or transition area between the paved area and the facility.</i>
	<i>Inspect the growth of trees and look for trunk pitch.</i>	<i>If tree is leaning, check the support pole connections, remove any large branches to offset weight, or replant if the pitch is too great to correct.</i>
<b>Monthly</b>	<i>Inspect the bioretention facility for litter, debris, leaves, dead vegetation and anything else that might interfere with flow, filtration or growth of the plants.</i>	<i>Remove all litter, debris, leaves, dead vegetation, etc.</i>  <i>Replace dead vegetation as appropriate.</i>
	<i>Inspect for growth of invasive plants.</i>	<i>Remove any invasive plants, weeds or shrubs by hand in the basin.</i> <i>Do not apply herbicides or pesticide within the basin area, as they are a direct MS4 connection.</i>  <i>Spray minimum amount necessary to control pests near the basin. If pesticides must be used, then pesticide application is to be performed by a licensed professional pest control contractor trained in Integrated Pest Management (IPM) techniques (see list of VTA approved pesticides in <b>Appendix C</b>.)</i>
	<i>Inspect the condition of plantings. Plantings must be maintained in a healthy condition without use of conventional fertilizers or pesticides. Grass must be of sufficient density and health to provide filtration and to protect from erosion.</i>  <i>Inspect the condition of other vegetation found in the bioretention facility. Vegetation must be of sufficient density and health to provide filtration and protect from erosion.</i>	<i>Reseed bare spots and mow as necessary.</i>
<b>Before each rainy season</b>  (early October or prior to significant storm)	<i>Look for any obstructions that will prevent water from flowing into the bioretention facility such as: trash/debris and vegetation.</i>	<i>Remove obstructions, clean up litter and maintain vegetation.</i>
	<i>Inspect bioretention facilities. Look for gullies, washouts, evidence of uncontrolled surface water flow or any other evidence of erosion in the bioretention facilities.</i>	<i>Replacement soil to be placed by hand tools only and avoid compaction. Any basin compaction should be due to watering only.</i>
	<i>Determine whether the bioretention facility is draining correctly (i.e. drains in less than 24-72 hours after a storm event). Inspect</i>	<i>Determine the cause of poor drainage (i.e. siltation of engineered soil mix, blocked</i>





	<i>adjacent infrastructure, such as retaining walls, curbs and pavement for signs of failure caused by water intrusion into the surrounding soil. This is a sign of poor drainage from the bioretention facility.</i>	<i>subdrains, blocked catch basin, blocked storm drain) and repair.</i>
	<i>Inspect each subdrain where it enters the catch basin to see whether the subdrain pipe is dry or is clogged. Ensure that the subdrain is flowing by testing with water from the cleanout end.</i>	<i>If water does not flow through the subdrain, rod or flush the line to ensure flow.</i>
	<i>Inspect all subdrain cleanouts. Ensure that all cleanout caps are present. Look for obstructions, debris, trash, leaves, vegetation, etc., growing inside the subdrain or covering the cleanout.</i>	<i>Remove any obstructions by hand (if near the cleanout entrance) or by flushing (with pressurized water) if too far down the pipe. Replace missing caps and secure to prevent unauthorized removal or accidental displacement.</i>
	<i>Inspect the entire storm drain system from the upstream end to the outfall, including all catch basins. Observe the flow of water. Any evidence of ponding in the catch basins may indicate a blockage or high groundwater.</i>	<i>Find and remove any obstructions. Flushing (with pressurized water) may be necessary.</i>
	<i>Inspect all catch basins. Look for obstructions, vegetation, debris, litter, sediment, etc. blocking the catch basins.</i>	<i>Remove obstructions and clean drain inlets and catch basins.</i>
<b>After the first heavy rain</b> (a rain event more than 0.5")	<i>Determine whether the bioretention facility is draining correctly. Look for standing water or soggy, saturated soil. Look for holes containing standing water that encourage mosquitoes. This is a sign of poor drainage from the bioretention facility. Water should drain from bioretention planter within 24-72 hours. After 72 hours, there should be no patches of standing water. Bioretention facility should drain evenly.</i>	<i>Determine the cause of poor drainage (i.e. siltation of engineered soil mix, blocked subdrains, blocked catch basin, blocked storm drain) and repair. Fill holes containing water with proper soil mix. Tilling of soil mix may be required, after several years, the soil medium may become impermeable because of silt deposition, in which case removal and replacement of the soil mix and rock material will be required.</i>
<b>Before each dry season and each month throughout the dry season</b>	<i>Test the irrigation system. Observe whether all ground cover areas within the bioretention facilities are receiving the correct amount of water. Observe whether excessive irrigation is creating flow in the subdrains (irrigation should not create any flow in the subdrain)</i>	<i>Clean out all plugged sprinkler heads and filters. Straighten any displaced sprinkler heads. Replace any damaged sprinkler heads. Adjust for direction and throw distance. Prevent over spray into catch basin. Set the sprinkler timer to provide enough water, depending on the anticipated weather, until the next irrigation inspection. Reduce the watering time if excess water flows from the subdrains.</i>



(April to October)		
<b>When the bioretention facility is reaching its estimated replace date</b> (10-15 years)	<i>Bioretention facilities are failing to drain and normal maintenance activities have failed to rectify problem.</i>	<i>Thorough inspection of bioretention facilities by a licensed professional (i.e., landscape contractor, landscape architect, civil engineer, etc.), replacement of failed components and repair of bioretention facilities to design specifications per the details developed by a registered professional.</i>
	<i>Observe if tree roots are exposed, or if tree is in poor health.</i>	<i>Replace tree as needed.</i>

### Maintenance of Tree-Well Filters (If Applicable)

Designer to include a Table or equivalent that effectively details the frequencies associated to each Tree Well maintenance activity. Include language indicating the Tree-Well Manufacturer. Maintenance instructions should be based on the Manufacturer’s recommendation.

**Sample Language:** *\*Note if extensive measures and related maintenance are incorporated, designer may want to include table as an Appendix.*

#### Tree-Well Maintenance Visit Summary

*Tree well maintenance visits are scheduled seasonally, once after winter rains and once in the fall to prepare for coming storms. The [Project Title] uses [Manufacturer] tree wells. Maintaining a tree well and surrounding area includes:*

- 1. Inspect drainage area and flow-line draining to tree well.*
- 2. Remove tree grate and erosion control stones.*
- 3. Remove debris, trash, and mulch in tree well.*
- 4. Replace mulch with manufacturer’s approved mulch only (Gro-Well Premium Black Colored Mulch).*
- 5. Check tree health, and prune or replace as necessary.*
- 6. Clean area around tree well.*
- 7. Complete log/documentation of maintenance.*

#### Tree-Well Manufacturer’s Cut-Sheets

Designer to include the Manufacturer’s recommended maintenance procedures, inspections, and checklists related to the Tree-Wells installed.

### Maintenance of In-Vault Media Filters (If Applicable)

Designer to include language that effectively details the frequencies and maintenance activity associated with each in-vault media filter. Include language indicating the In-Vault Media Filter Manufacturer. Maintenance instructions should be based on the Manufacturer’s recommendation.



### In-Vault Media Filter Manufacturer's Cut-Sheets

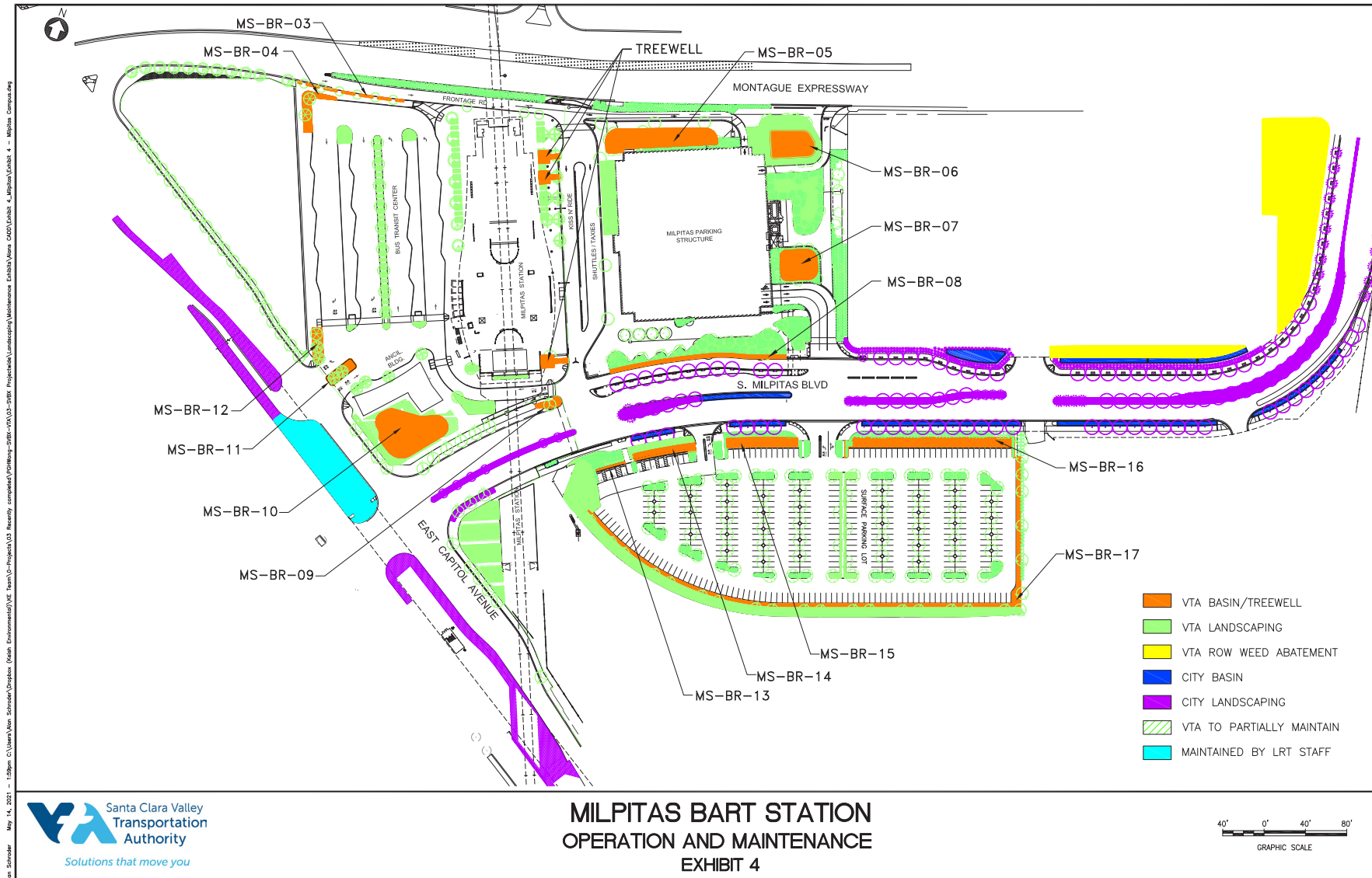
Designer to include the Manufacturer's recommended maintenance procedures, inspections, and checklists related to the In-Vault Media Filters installed.

### ***Maintenance of Trash Control Measures (If Applicable)***

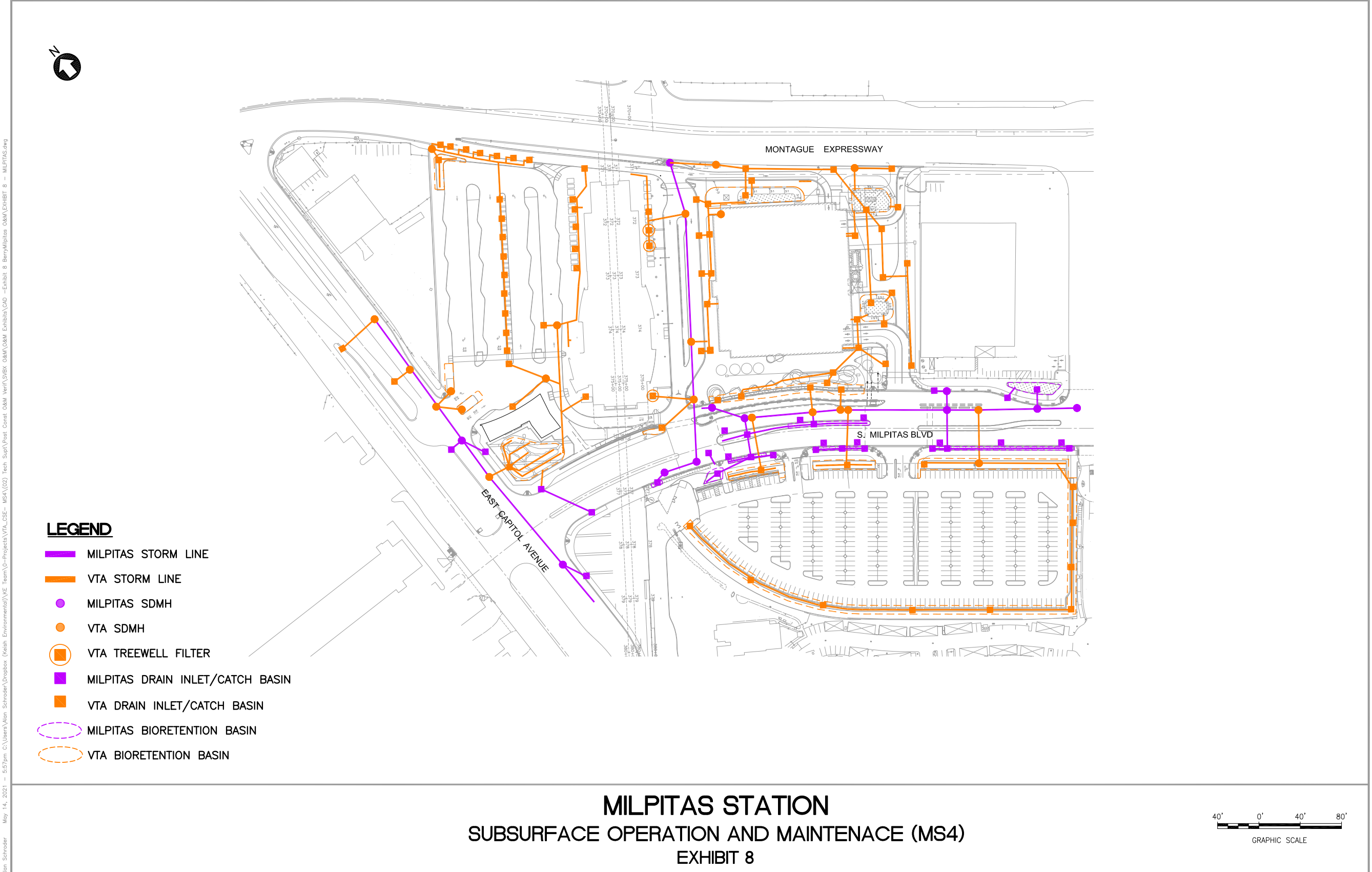
Designer to include language that effectively details the frequencies and maintenance activity associated with each source control measure, if not already described in the Bioretention Facility language. Include language indicating the device Manufacturer, if applicable. Maintenance instructions should be based on the Manufacturer's recommendation.

### Trash Control Device Manufacturer's Cut-Sheets

Designer to include the Manufacturer's recommended maintenance procedures, inspections, and checklists related to the trash control measures installed, if applicable.



May 14, 2021 - 1:09pm C:\Users\james\_schroeder\Desktop (Public Environment)\VTA - Team\Bart-Project\03\_Reports\_and\_Information\Stormwater-03BR-03A-03B-03C-03D-03E-03F-03G-03H-03I-03J-03K-03L-03M-03N-03O-03P-03Q-03R-03S-03T-03U-03V-03W-03X-03Y-03Z-03AA-03AB-03AC-03AD-03AE-03AF-03AG-03AH-03AI-03AJ-03AK-03AL-03AM-03AN-03AO-03AP-03AQ-03AR-03AS-03AT-03AU-03AV-03AW-03AX-03AY-03AZ-03BA-03BB-03BC-03BD-03BE-03BF-03BG-03BH-03BI-03BJ-03BK-03BL-03BM-03BN-03BO-03BP-03BQ-03BR-03BS-03BT-03BU-03BV-03BW-03BX-03BY-03BZ-03CA-03CB-03CC-03CD-03CE-03CF-03CG-03CH-03CI-03CJ-03CK-03CL-03CM-03CN-03CO-03CP-03CQ-03CR-03CS-03CT-03CU-03CV-03CW-03CX-03CY-03CZ-03DA-03DB-03DC-03DD-03DE-03DF-03DG-03DH-03DI-03DJ-03DK-03DL-03DM-03DN-03DO-03DP-03DQ-03DR-03DS-03DT-03DU-03DV-03DW-03DX-03DY-03DZ-03EA-03EB-03EC-03ED-03EE-03EF-03EG-03EH-03EI-03EJ-03EK-03EL-03EM-03EN-03EO-03EP-03EQ-03ER-03ES-03ET-03EU-03EV-03EW-03EX-03EY-03EZ-03FA-03FB-03FC-03FD-03FE-03FF-03FG-03FH-03FI-03FJ-03FK-03FL-03FM-03FN-03FO-03FP-03FQ-03FR-03FS-03FT-03FU-03FV-03FW-03FX-03FY-03FZ-03GA-03GB-03GC-03GD-03GE-03GF-03GG-03GH-03GI-03GJ-03GK-03GL-03GM-03GN-03GO-03GP-03GQ-03GR-03GS-03GT-03GU-03GV-03GW-03GX-03GY-03GZ-03HA-03HB-03HC-03HD-03HE-03HF-03HG-03HH-03HI-03HJ-03HK-03HL-03HM-03HN-03HO-03HP-03HQ-03HR-03HS-03HT-03HU-03HV-03HW-03HX-03HY-03HZ-03IA-03IB-03IC-03ID-03IE-03IF-03IG-03IH-03II-03IJ-03IK-03IL-03IM-03IN-03IO-03IP-03IQ-03IR-03IS-03IT-03IU-03IV-03IW-03IX-03IY-03IZ-03JA-03JB-03JC-03JD-03JE-03JF-03JG-03JH-03JI-03JJ-03JK-03JL-03JM-03JN-03JO-03JP-03JQ-03JR-03JS-03JT-03JU-03JV-03JW-03JX-03JY-03JZ-03KA-03KB-03KC-03KD-03KE-03KF-03KG-03KH-03KI-03KJ-03KK-03KL-03KM-03KN-03KO-03KP-03KQ-03KR-03KS-03KT-03KU-03KV-03KW-03KX-03KY-03KZ-03LA-03LB-03LC-03LD-03LE-03LF-03LG-03LH-03LI-03LJ-03LK-03LL-03LM-03LN-03LO-03LP-03LQ-03LR-03LS-03LT-03LU-03LV-03LW-03LX-03LY-03LZ-03MA-03MB-03MC-03MD-03ME-03MF-03MG-03MH-03MI-03MJ-03MK-03ML-03MM-03MN-03MO-03MP-03MQ-03MR-03MS-03MT-03MU-03MV-03MW-03MX-03MY-03MZ-03NA-03NB-03NC-03ND-03NE-03NF-03NG-03NH-03NI-03NJ-03NK-03NL-03NM-03NO-03NP-03NQ-03NR-03NS-03NT-03NU-03NV-03NW-03NX-03NY-03NZ-03OA-03OB-03OC-03OD-03OE-03OF-03OG-03OH-03OI-03OJ-03OK-03OL-03OM-03ON-03OO-03OP-03OQ-03OR-03OS-03OT-03OU-03OV-03OW-03OX-03OY-03OZ-03PA-03PB-03PC-03PD-03PE-03PF-03PG-03PH-03PI-03PJ-03PK-03PL-03PM-03PN-03PO-03PP-03PQ-03PR-03PS-03PT-03PU-03PV-03PW-03PX-03PY-03PZ-03QA-03QB-03QC-03QD-03QE-03QF-03QG-03QH-03QI-03QJ-03QK-03QL-03QM-03QN-03QO-03QP-03QQ-03QR-03QS-03QT-03QU-03QV-03QW-03QX-03QY-03QZ-03RA-03RB-03RC-03RD-03RE-03RF-03RG-03RH-03RI-03RJ-03RK-03RL-03RM-03RN-03RO-03RP-03RQ-03RR-03RS-03RT-03RU-03RV-03RW-03RX-03RY-03RZ-03SA-03SB-03SC-03SD-03SE-03SF-03SG-03SH-03SI-03SJ-03SK-03SL-03SM-03SN-03SO-03SP-03SQ-03SR-03SS-03ST-03SU-03SV-03SW-03SX-03SY-03SZ-03TA-03TB-03TC-03TD-03TE-03TF-03TG-03TH-03TI-03TJ-03TK-03TL-03TM-03TN-03TO-03TP-03TQ-03TR-03TS-03TT-03TU-03TV-03TW-03TX-03TY-03TZ-03UA-03UB-03UC-03UD-03UE-03UF-03UG-03UH-03UI-03UJ-03UK-03UL-03UM-03UN-03UO-03UP-03UQ-03UR-03US-03UT-03UU-03UV-03UW-03UX-03UY-03UZ-03VA-03VB-03VC-03VD-03VE-03VF-03VG-03VH-03VI-03VJ-03VK-03VL-03VM-03VN-03VO-03VP-03VQ-03VR-03VS-03VT-03VU-03VV-03VW-03VX-03VY-03VZ-03WA-03WB-03WC-03WD-03WE-03WF-03WG-03WH-03WI-03WJ-03WK-03WL-03WM-03WN-03WO-03WP-03WQ-03WR-03WS-03WT-03WU-03WV-03WW-03WX-03WY-03WZ-03XA-03XB-03XC-03XD-03XE-03XF-03XG-03XH-03XI-03XJ-03XK-03XL-03XM-03XN-03XO-03XP-03XQ-03XR-03XS-03XT-03XU-03XV-03XW-03XX-03XY-03XZ-03YA-03YB-03YC-03YD-03YE-03YF-03YG-03YH-03YI-03YJ-03YK-03YL-03YM-03YN-03YO-03YP-03YQ-03YR-03YS-03YT-03YU-03YV-03YW-03YX-03YY-03YZ-03ZA-03ZB-03ZC-03ZD-03ZE-03ZF-03ZG-03ZH-03ZI-03ZJ-03ZK-03ZL-03ZM-03ZN-03ZO-03ZP-03ZQ-03ZR-03ZS-03ZT-03ZU-03ZV-03ZW-03ZX-03ZY-03ZZ



Alan Schroder May 14, 2021 - 5:57pm C:\Users\Alan\_Schroder\Dropbox (Kishah Environmental)\KE\_Team\0-Projects\VTA\_CSE-MSA\02\_Tech\_Sup\Post\_Const\_0&M\_Verif\SVBX\_0&M\O&M\_Exhibits\CAD-Exhibit\_8\_BerryMilpitas\_0&M\EXHIBIT\_8 - MILPITAS.dwg





Inlets/Outlets/Pipes

How many inlet structures are present?

- 0 1 2 3 4 5  > 5

Are any of the inlet structures clogged? If yes, mark the location on your site map and fill in the boxes below with the cause of the clogging (i.e., debris, sediment, vegetation, etc.)

- No Partially Completely NA

Are any of the inlet structures altered from the original design or otherwise in need of maintenance? If yes, write in reason (i.e., frost heave, vandalism, unknown, etc.)

Notes

Are any trash screens, overflows, or subdrain/underdrains clogged?

- No  Partially  Completely  NA

- a. If yes, mark the location on your site map and fill in the boxes below with the cause of the clogging (i.e., debris, sediment, vegetation, etc.)
- b. Are any of the overflow or bypass structures altered from the original design or otherwise in need of maintenance? If yes, write in reason (i.e., frost heave, vandalism, unknown)

Notes



Vegetation

What is the approximate vegetation survival rate?\_\_\_\_\_%

a. Does the current vegetation match the original design?

- Yes  No  Unknown

b. Is there the presence of:

Diseased plants

Weeds

Noxious weeds

None of the above

Other: \_\_\_\_\_

c. Does the vegetation appear to be healthy?

- Yes  No (If no, describe below)

d. Is the vegetation the appropriate size and density?

- Yes  No (If no, describe below)

e. Does the current vegetation match the original design?

- Yes  No (If no, describe below)

f. Is there the presence of:

Diseased plants

Weeds

Noxious weeds

None of the above

Other:

g. Does the current vegetation match the original design?

- Yes  No  Unknown

h. Does the vegetation appear to be healthy?

- Yes  No (If no, describe below)









## Appendix C: VTA Approved Pesticides (Sample)

VTA APPROVED GENERAL USE PESTICIDES						
Product Name	Type	EPA #	Ingredients	Precautionary Label	Use Limitation Type*	Suggested Use Limitations**
Alpine Dust Insecticide	Insecticide	499-527	1 Guanadine, N"-methyl-N-nitro'- [(tetrahydro-3-furanyl)methyl]-, 0.25%; Iron Oxide, 103%; aluminum oxide, 307%; diatomaceous earth, 99%	NA	NA	NA
Cardinal Food Plant 5-1 Insecticide	Insecticide	8536-35	Pyrethrins, Piperonyl Butoxide, Petroleum distillates	Danger	NA	NA
Dimension Ultra 40WP Specialty Herbicide	Herbicide	62719-445	dithiopyr: 3,5 pyridinedicarbothioic acid, 2 (difluoromethyl)-4-(2-methylpropyl)- 6-(trifluoromethyl)- S,S-dimethyl ester, 40%	Caution	NA	NA
Drione	Insecticide	432-992	Pyrethrin, Piperonyl butoxide, amorphous silicon dioxide hydrate, isoparaffinic petroleum solvent	Caution	NA	NA
Gentrol Point Source Roach Control Device	Insecticide	2724-469	Hydroprene 96%	Warning	Contractor Use Only	NA
Maxforce FC Professional Insect Control Ant Killer Bait Gel	Insecticide	432-1264	Fipronil 0.001%	Caution	More Limited	Not for use in outdoor areas with potential rain exposure

\*Use limitation type is determined by VTA

\*\* Suggested use limitations is determined by considering a product's hazard tier rating, formulation, likely exposure, and typical uses. Excerpt from 2017 San Francisco Reduced-Risk Pesticide List



VTA APPROVED GENERAL USE PESTICIDES						
Product Name	Type	EPA #	Ingredients	Precautionary Label	Use Limitation Type*	Suggested Use Limitations**
Maxforce FC Professional Insect Control Roach Killer Bait Gel	Insecticide	432-1259	Fipronil 0.01%	Caution	Contractor use only.	Not for use in outdoor areas with potential rain exposure
Milestone	Herbicide	62719-519	Aminopyralid, tri-isopropanolamine salt (5928) 40.6%	Caution	More Limited	For invasive species in natural areas or parklands where other alternatives are ineffective, especially for invasive legumes and composites such as yellow star thistle and purple star thistle.
NIBAN-FG	Pesticide Bait	64405-2	Orthoboric Acid, 5%	Caution	NA	NA
Phantom Termiticide	Insecticide	241-392	Chlorfenapyr, 21.45%; Propylene glycol, 7.5%	Danger	Contractor Use Only	NA
Prescription Treatment Brand Wasp-Freeze Wasp and Hornet Killer Formula 1	Insecticide	499-362	Phenothrin 12%, d-trans allethrin .129%, CO2	Danger	Most Limited	Use only when a concern for public safety, and in situations where use of EcoExempt product is inadequate or unsafe.
PT 565 Plus XLO Pressurized Contact Insecticide	Insecticide	499-290	Pyrethrins, 0.5%; Acetone, 50-75%; Petroleum, 1-3%; Piperonylbutoxide, 1-3%; n-Octyl bicycloheptene dicarboximide, 1-3%	Danger	Contractor Use Only	NA
PT Ultracide Pressurized Flea Insecticide	Insecticide	499-404	Pyriproxyfen, 0.10%; pyrethrins, 0.05%; n-octyl bicycloheptene dicarboximide, 0.40%; permethrin, 0.40%	Caution	Vendor Use Only- Terminix	NA
Roundup Pro Herbicide	Herbicide	524-529	isopropylamine salt of N-(phosphonomethyl) glycine	Caution	NA	NA

\*Use limitation type is determined by VTA

\*\* Suggested use limitations is determined by considering a product's hazard tier rating, formulation, likely exposure, and typical uses. Excerpt from 2017 San Francisco Reduced-Risk Pesticide List



VTA APPROVED GENERAL USE PESTICIDES						
Product Name	Type	EPA #	Ingredients	Precautionary Label	Use Limitation Type*	Suggested Use Limitations**
<b>Roundup Promax Herbicide</b>	Herbicide	524-579	Glyphosate, isopropylamine salt 48.7%	Caution	Most Limited	Use of Aquamaster + Competitor is preferred except in situations where rainfastness is needed.
<b>Talstar EZ Gracular Insecticide</b>	Insecticide	279-3168	Bifenthrin, 0.2%	Caution	NA	NA
<b>Wasp Freeze</b>	Herbicide	NA	d-trans Allethrin, d-Phenothrin, Distillates (petroleum), hydrotreated light, Carbon dioxide	Danger	NA	NA