



SWIMS  
P.O. Box 1627  
Discovery Bay, CA 94505

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June 9th, 2021

Mr. Leo Cosentini  
California State Water Resources Control Board  
Division of Water Quality  
P.O. Box 100  
Sacramento, CA 95812-0100

Dear Mr. Consentini,

Stormwater Inspection & Maintenance Services, Inc. is the parent company of the STORMTEK device in which we are submitting our application. The STORMTEK ST3 and ST3G models are connector pipe screens (mounted to outflow pipe wall) that are designed to meet and exceed the "100% full trash capture" requirements. STORMTEK devices have been installed over the past 10 years and are still fully functional inside of catch basins today. Our manufacturing is done minutes away from our operations facility in Livermore, CA; where we can deliver both fast turn times and first glance at quality assurance.

This updated fact sheet is replacing the fact sheet previously submitted under Advanced Solutions named AS-1 and AS1-2. We sincerely appreciate your attention to make the following changes from the original fact sheet:

- Update Name: Stormtek ST3 & ST3G Connector Pipe Screen
- Remove "Advanced Solutions and update to SWIMS (Storm Water Inspection & Maintenance Services, Inc

Thank you for your consideration of this application. If any additional information is needed please contact Ric Campos per information provided below.

Respectfully,

Storm Water Inspection & Maintenance Services, Inc

Ric Campos  
President  
[Ric@swimsclean.com](mailto:Ric@swimsclean.com)  
(510) 773-5461

# 1. Cover Letter

## a. Product Name and General Description of Device

The Stormtek ST3 & ST3G is a Connector Pipe Screen filter used specifically for catch basin or curb inletsumps and installed in front of the outflow pipe at the bottom of the sump. The Stormtek device provides physical screening of pollutants such as solids, trash and debris. It is best used in central drains from paved surface areas in both arterial and non arterial along with commercial and residential areas.

## b. Applicant's Contact Information and Location

Chief Executive Officer: Keith Morgan  
Storm Water Inspection & Maintenance Services, Inc  
Chief Financial Officer and Office Manager  
[keith@swimsclean.com](mailto:keith@swimsclean.com)  
(925) 783-9092

Vice President: Todd Hudson  
Storm Water Inspection & Maintenance Services, Inc  
Vice President of Operations  
[todd@swimsclean.com](mailto:todd@swimsclean.com)  
(925) 570-4575

Authorized Representative: Ric Campos  
Storm Water Inspection & Maintenance Services, Inc  
President and Owner  
[ric@swimsclean.com](mailto:ric@swimsclean.com)  
(510) 773-5461

Mailing Address: Storm Water Inspection & Maintenance Services, Inc  
c/o Ric Campos  
PO Box 1627  
Discovery Bay, CA 94505

## c. Manufacturer's Website for Device

<https://swimsclean.com/stormtek/>

#### **d. Manufacturing Location for Device**

Manufacturer Name: Storm Water Inspection & Maintenance Services, Inc

Manufacturer Address: 698 Enterprise Court  
Livermore, CA 94550

Manufacturer Phone: (925) 516-8966

Manufacturer Representative: Ethan Purkey  
(925) 698-5417

#### **e. Summary of Field/Lab Testing Results**

All solids, trash and debris for any storm event is captured with the Stormtek device with it's full trash capture 5mm mesh screen. No lab testing has been recorded for the Stormtek ST3 or ST3G device.

#### **f. Summary of Device Limitations, and Operational, Sizing and Maintenance Considerations**

Each Stormtek unit is specifically designed for a specific catch basin or outflow pipe. We wake all elements into consideration for the design and build, which is for the benefit of both catching contaminants and utilizing the space for best possible flow rates. Our durable frame is mounted to the outflow pipe wall and is equipped with pins that will hold the device in place and can be easily removed for maintenance and vector control. The STORMTEK device is made with a high grade steel (S-304) and a 5mm mesh screen. Our welded mesh screen and framing throughout makes our device able to withstand the toughest of conditions and with a track record of doing just that. Please refer to our website [www.swimsclean.com/stormtek](http://www.swimsclean.com/stormtek) to see a list of cities that have trusted the STORMTEK device.

Maintenance on the Stormtek unit is imperative for the function and durability of the device. The schedule of maintenance should be Two (2) Times Per Year (once in the dry season and once in the wet season) unless additional services are required in high traffic areas. The two cleanings are required to ensure correct trash capture and bypass does not occur.

#### **g. Description, or List of Locations, where Device has been installed**

The Stormtek device has been installed throughout California and nationally to meet various trash capture projects and applications. See list below with a few examples of installation areas:

<b>Example of Installations</b>		
<b>Project</b>	<b>Location</b>	<b>Contact</b>
City of San Jose	Various streets in city	Theresa Porter
City of Milpitas	Great Mall Pkwy, Milpitas Blvd	Julie Waldron
Apple Spaceship Campus	10955 N Tantau Ave, Cupertino, CA 95014	Preston Pipelines

## **h. Certification**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person(s) that manage the system or those persons directly responsible for gathering the information, to the best of my knowledge and belief, the information submitted is, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.



7/14/2021

Ric Campos  
Storm Water Inspection & Maintenance, Inc  
President/Owner  
ric@swimsclean.com  
(510) 773-5461

Date

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### **3. Physical Description**

#### **a. Trash Capture: Description of Device**

- The mounting frame can be made of coated or stainless steel. Frame members are made from 2" flat bars with a minimum thickness of 3/16 inch.
- The insert screen is made of heavy-gage sheet metal with 5 millimeter (mm) openings. Total openings constitute 50% of the screen surface. Top 4 inches of the screen is grated with bars spaced at 2 inches on center.
- Insert top cover is made of heavy-gage sheet metal screen with 5 mm openings and 1" support frames.
- Structural support members for the screen and top cover are made of coated or stainless steel. Members are made from 1" flat bars with a minimum thickness of 1/8 inch.
- Mounting frame members are welded
- Structural support frame members are welded
- Insert screens are welded onto structural support frames.
- Mounting frames are bolted onto the catch basin wall at the outlet opening. Mounting frames are to be anchored at all four corners with HILTI expansion anchors or equal.
- Inserts are installed vertically onto the mounting frame directly in front of the outlet opening.
- The insert is completely removable by lifting it off the mounting frame

Internal Bypass: The bypass can range anywhere between 6-8 inches of an opening near the top of the device for heavy flow rates. Once the flow reaches the bypass it can flow freely into bypass.

**b. Peak Flows / Trash Volumes**

The tables in Section 3 Hydraulic Capacities list Peak Flow and Trash (Storage) Volume capacities for 4 common sizes of the Stormtek ST3 & ST3G devices.

**c. Hydraulic Capacity**

1) Hydraulic Capacity Table

Stormtek ST3 & ST3G Connector Pipe Screen						
Stormtek device size	Hydraulic Capacity					
	Filtered Flow (CFS)				Peak/Bypass Flow (CFS)	Storage Capacity (CF)
	Empty	25% Full	50% Full	75% Full		
24 x 18 x 12r	5.86	3.81	2.07	.73	10.29	.95
24 x 24 x 12r	9.02	5.86	3.19	1.13	10.59	1.27
24 x 30 x 12r	12.61	8.19	4.46	1.58	10.59	1.58
24 x 36 12r	16.57	10.76	5.86	2.07	10.59	1.90

2) Alternative Configuration Hydraulic Capacity Table

Stormtek does not have alternative configurations

3) Hydraulic Capacity Calculations or Field Test Results

See Table Above

**d. Comparison Table**

The tables in table above lists storage and hydraulic capacities for 4 common sizes of the Stormtek device



### **e. Design Drawings**

Design drawings for Stormtek are included in Appendix A

### **f. Alternative Configurations**

Stormtek does not have alternative configurations

### **g. Internal Bypass**

The bypass on the Stormtek device is designed for the occasion when full capacity of the sump surrounding the device has occurred. The bypass is located on the upper area of the device right below the deflector plate. This bypass is equal to the flow rate based on the size of the outflow pipe. Note: Bypass should not occur when the device is properly maintained and on a regular maintenance schedule.

### **h. Previously Trapped Trash**

The Stormtek device is designed with a semi circle shape to provide more of a storage area for trapped trash and helps roll trash to sides. This helps give more room for storing previously trapped trash. This trash only discharges downstream when there is no regular maintenance and the storage height has reached the bypass area.

### **i. Calibration Feature**

Stormtek does not have a calibration feature

**j. Photos**



*Figure 1. Installed Stormtek device*



*Figure 2. Installed Stormtek device*



*Figure 3. Installed Stormtek device*



*Figure 4. Installed Stormtek device*



*Figure 6. Installed Stormtek device in shallow sump*

## **k. Material Type**

The Stormtek device is made of all stainless steel 304 metal. The mounting frame are made of 2" flat bars with a minimum thickness of 3/16 inch. The insert screen is made of heavy gage sheet metal with less than 5mm openings. The top openings of 4" of the screen is grated with bars spaced 2" on center. The top cover is made of the same material as the insert screen. The structural support members for the screen is made of stainless steel and are made from 1" flat bars with a minimum thickness of 1/8".

## **l. Design Life**

The design life for the Stormtek device is 15 years. This is dependent on being correctly installed along with the recommended maintenance of at least (2x) per year or more depending on surrounding conditions.

## **4. Installation Guidance**

### **a. Installation Procedures**

STORMTEK is custom manufactured to fit each specific installation. Proper measurement is required prior to ordering the device. It is recommended that the catch basins are cleaned and inspected for any damage or irregularities prior to installing the STORMTEK device. If the installation surfaces on the catch basin/vault walls are irregular or damaged, some modifications may be needed to create a smooth mounting surface.

1. Set up all safety requirements prior to starting installation.
2. Remove the manhole cover or grate.
3. Clean CB/vault surfaces.
4. Center STORMTEK frame over effluent pipe.
5. Attach to CB/vault wall with expansion anchors.
6. The STORMTEK screen is placed on the frame locator pins and slide down to secure in place.
7. Reinstall manhole cover or grate.

### **b. Device Installation Limitations / Non-standard Installation Procedures**

Although the Stormtek device is manufactured to the specification of the catch basin/vault, occasionally the CB sump is too shallow to be practical. In this case we recommend relocation the device to an alternate CB. In the event of non-standard installation procedure the installer can contact Stormtek customer service at (925) 516-8966. Ask for Ethan or Todd.

### **c. Diagnosing and Correcting Installation Errors**

Stormtek has been designed for simple installation and maintenance. After installation, visually inspect frame for contact with CB/vault wall. Install and remove Stormtek screen from locator pins on frame for easy removal for maintenance. If there a problem exists, please review all steps in the above installation procedure. In the event of a problematic installation procedure the installer can contact Stormtek customer service at (925) 516-8966. Ask for Ethan or Todd.

## 5. Operation and Maintenance Information

### a. Device Inspection Procedures and Frequency Considerations

Inspection and Maintenance intervals will depend on many factors such as location, size/quantity, storm water runoff volume, surrounding vegetation and debris potential. The following is the minimum inspection recommendation, but inspection and maintenance may need interval increases, as necessary.

STORMTEK recommends two inspection per year minimum. The first inspection should take place at the start of the rainy season and the second inspection taking place near the end of the rainy season. \*\* Inspections in the first year of installation should be more frequent, 3-4 times per year, to establish a base line for debris loading. \*\* If the region of installation has no definitive rainy season, inspections should be spaced evenly throughout the year.

STORMTEK Connector Pipe Screens can be inspected without entry into the catch basin.

Follow all safety precautions, traffic control and PPE requirement for the specific work area.

SAFETY FIRST

1. Remove the manhole cover or grate.
2. Inspect the interior catch basin opening, walls and floor.
3. Inspect the STORMTEK connector pipe screen for damage or looseness.
4. Inspect vector control deflector plate for proper operation (if applicable)
5. Measure debris load with sludge judge, tape measure or equal.
6. Note findings and take photos as necessary.
7. Note if any vector problems.
8. Replace the manhole cover or grate.

### b. Device Maintenance Frequency Related to Hydraulic Capacity

Periodic maintenance is required to ensure proper function of the STORMTEK Connector Pipe Screen and to ensure continued protection of the receiving water bodies. A maintenance program should be based on the data from the previous inspection history as well the size and location of the STORMTEK device. A customized maintenance program provides the most benefit to operation while minimizing maintenance costs. Maintenance should be performed when the STORMTEK device reaches 75% height /volume capacity.

### c. Maintenance Procedures

Follow all safety precautions, traffic control and PPE requirement for the specific work area.

SAFETY FIRST. STORMTEK recommends the following maintenance procedures:

1. The manhole cover or grate shall be removed and set to one side.
2. The catch basin shall be visually inspected for defects and possible illegal dumping. If illegal dumping has occurred, the proper authorities and property owner representative shall be notified as soon as practicable.
3. Using an industrial vacuum, the collected debris/materials shall be removed from the catch basin/vault.
4. When all collected debris/materials have been vacuumed, the STORMTEK device can be easily removed by lifting the screen off of the locator pins. The STORMTEK screen can now be inspected and cleaned.
5. Reinstall the screen on to the locator pins and secure in place.
6. The manhole cover or grate shall be reinstalled.
7. All removed debris shall be disposed of in accordance with local, state, and federal agency requirements.

#### **d. Maintenance Equipment and Materials**

The following equipment should be used to conduct maintenance on the STORMTEK connector pipe screen.

- Personal Protective Equipment (PPE), Safety equipment and traffic control as needed.
- Lighting as needed
- Industrial vacuum
- Pressure washer (recommended)
- Tools for safe removal/reinstallation of manhole or grate.

#### **e. Effects of Deferred Maintenance**

Deferred maintenance may allow the STORMTEK device to achieve capacity and go into bypass. Once the system is in bypass, no additional trash or debris will be collected. If bypass occurs, the debris in the bypass flows will pass through the system and discharge in receiving waters.

#### **f. Repair Procedures**

If inspection of the STORMTEK device reveals damage and is in need of repair, the damage should be documented, photographed, and then submitted to STORMTEK (SWIMS) for assessment. STORMTEK personnel will evaluate the damage and recommend or initiate any warranty repair. Responsibility for the repair will depend on the cause of damage.



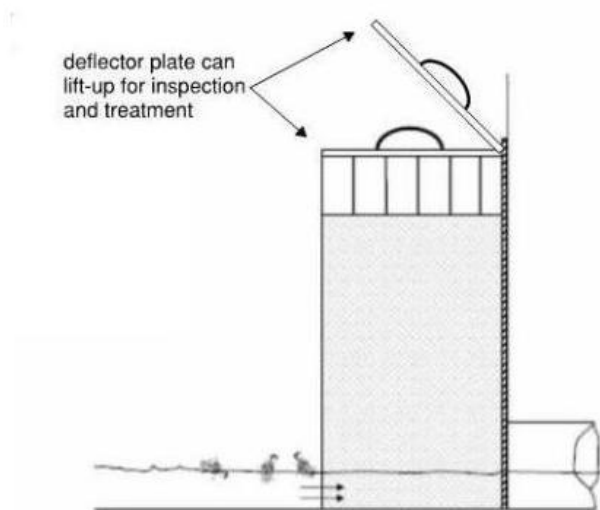
## 6. Vector Control Accesibility

### a. Date of Submittal to Mosquito Vector Control Association

The Application for the Mosquito and Vector Control Association of California approval of the Stormtek Device was submitted on August 4th of 2021.

### b. Description of Access for Vector Control Personnel

The StormTek ST3G device has a hinged deflector plate that can lift-up for mosquito or vector inspection, access, or treatment. This deflector plate can be lifted through the storm grate with a simple hook tool or equal. The deflector plate is light weight and easy to lift and return into position. The lid and hinges are made from stainless steel and therefore will not rust.



**DEFLECTOR PLATE  
LIFTS UP FROM HANDLE**

### c. Letter of Verification from Mosquito Vector Control Association

Refer to Appendix B for letter of verification from MVCAC

## **7. Reliability Information**

### **a. Estimated Design Life**

The estimated design life for the STORMTEK Connector Pipe Screen is 15 years. Design life estimate is dependent on the proper design, installation and maintenance of the system and assume no extraordinary circumstances.

### **b. Warranty Information**

STORMTEK warrants the ST3 and ST3G models to be free from manufacturing defects for a period of one (5) year from the date of purchase. Abusive treatment, lack of routine maintenance, neglect or improper use of the will not be covered by this warranty.

### **c. Customer Support Information**

STORMTEK (and SWIMS) offers full customer service and support for all STORMTEK products. Customer Support contact information:

STORMTEK and Storm Water Inspection and Maintenance Services, Inc.

PO Box 1627

Discovery Bay, CA 94505

(925) 516-8966

Web site: [www.swimsclean.com](http://www.swimsclean.com)

E-mail: [info@swimsclean.com](mailto:info@swimsclean.com)



## **8. Field/Lab Testing Information and Analysis**

### **a. Available Field/Lab Testing Information - Devices with 5mm Screen**

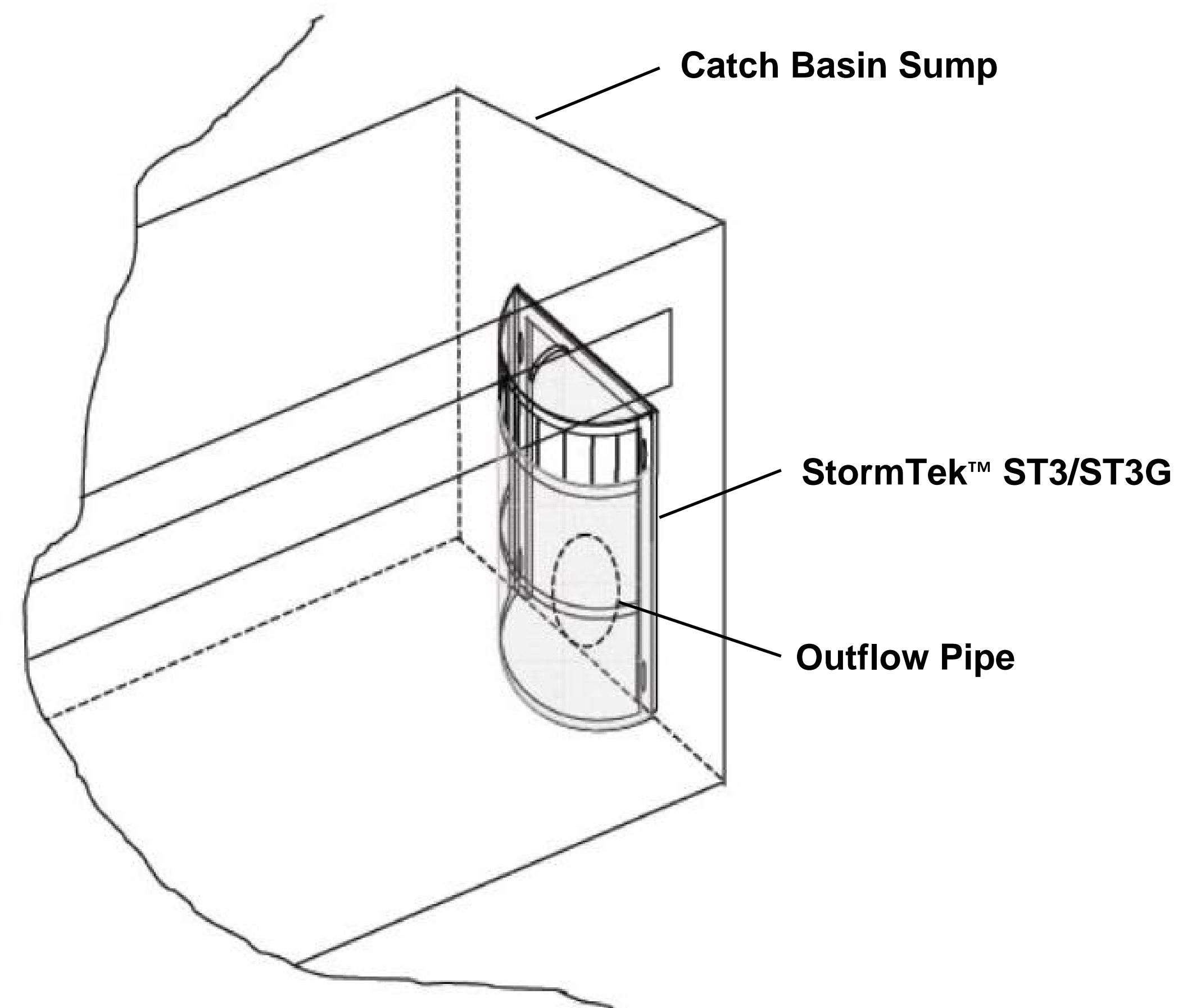
STORMTEK includes a screen with 4.9mm apertures through which all treatment flow must pass to travel downstream; therefore, testing is not required to demonstrate trash capture performance because particles 5mm in diameter and larger cannot physically pass through the screen.

### **b. Available Field/Lab Testing Information - Devices without 5mm Screen**

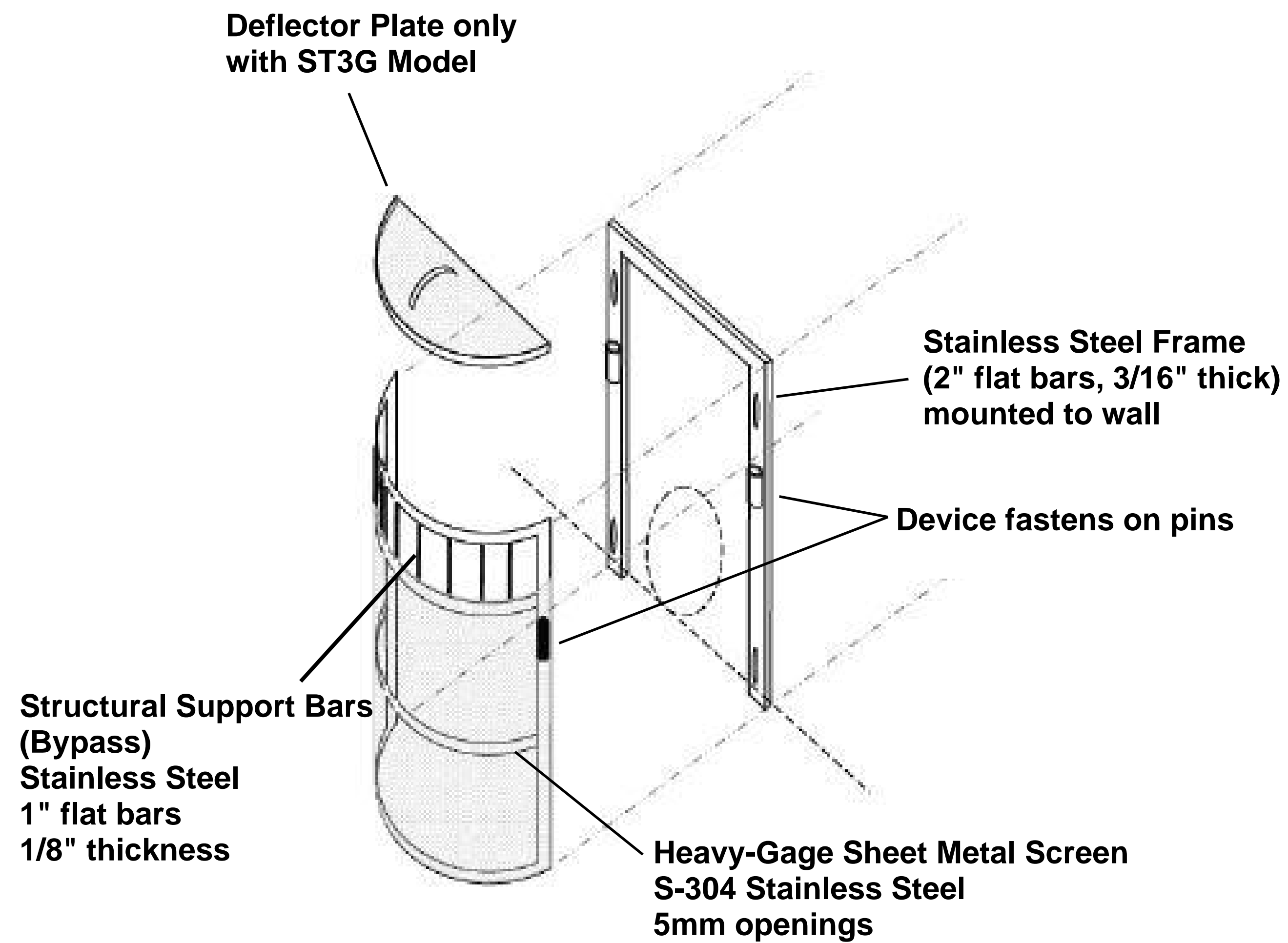
STORMTEK without the trash capture (4.9mm aperture) screen do not have testing or field data available and will not be used for trash capture applications.

## **APPENDIX A**

# StormTek™ ST3/ST3G Installation: Connector Pipe Screen Filter



**Plan View**



**Section A**


- a) StormTek™ ST3/ST3G
- b) StormTek™ is installed in front of the outflow pipe is supported by the frame mounted on the existing catch basin wall
- c) This device is designed to capture trash, sediment and debris from entering the storm water system.

General Notes:

- Bypass has equivalent or greater flow rate as outflow pipe
- Device is retro-fitted to catch basin specifications
- Deflector plate is the only difference between ST3 & ST3G

1	10/25/2018	
No.	Revision/Issue	

Company Name and Address:



P.O. Box 1627  
Discovery Bay, CA 94505

Product Name and Address:

StormTek™ Pipe Screen  
Model ST3/ST3G

Project:  
StormTek™

Scale:  
No Scale



P.O. Box 1627  
Discovery Bay, CA 94505  
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## **APPENDIX B**



**MVCAC**  
Mosquito and Vector Control Association of California

One Capitol Mall, Suite 800 • Sacramento, CA 95814 • p: (916) 440-0826 • f: (916) 444-7462 • e: mvcac@mvcac.org

Stormwater Inspection and Maintenance Services, Inc.  
PO Box 1627  
Discovery Bay, CA 94505

August 4, 2021

Dear Mr. Campos,

Thank you for the submission of the SWIMS Stormtek ST3 & ST3G Connector Pipe Screen full trash capture devices for review by the Mosquito and Vector Control Association of California pursuant to the SWRCB Trash Treatment Control Device Application Requirements. The Association has reviewed the conceptual drawings for the Stormtek ST3 & ST3G Connector Pipe Screens and verifies that provisions have been included in the designs that allow for full visual access to all areas for presence of standing water, and when necessary, allows for treatments of mosquitoes.

While this verification letter confirms that inspection and treatment for the purpose of minimizing mosquito production should be possible with the Stormtek ST3 & ST3G Connector Pipe Screens as presented, it does not affect the local mosquito control agency's rights and remedies under the State Mosquito Abatement and Vector Control District Law. For example, if the installed device or the associated stormwater system infrastructure becomes a mosquito breeding source, it may be determined by a local mosquito control agency to be a public nuisance in accordance with California Health and Safety Code sections 2060-2067.

"Public nuisance" means any of the following:

1. Any property, excluding water that has been artificially altered from its natural condition so that it now supports the development, attraction, or harborage of vectors. The presence of vectors in their developmental stages on a property is prima facie evidence that the property is a public nuisance.
2. Any water that is a breeding place for vectors. The presence of vectors in their developmental stages in the water is prima facie evidence that the water is a public nuisance.
3. Any activity that supports the development, attraction, or harborage of vectors, or that facilitates the introduction or spread of vectors. (Heal. & Saf. Code § 2002 (j).)

Declaration of a facility or property as a public nuisance may result in penalties as provided under the Health and Safety Code. Municipalities and the vendors they work with are encouraged to discuss the design, installation, and maintenance of stormwater trash capture devices with their local mosquito control agency to reduce the potential for disease transmission and public nuisance associated with mosquito production.

Sincerely,

Bob Achermann,  
MVCAC Executive Director