ADS - FLEXSTORM
24137 111th Street – Unit A
Naperville, IL 60564

May 20, 2024

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

Re: Trash Full Capture System Certification for ADS Connector Pipe Screens (CPS)

Dear Mr. Cosentini,

Thank you for the opportunity for Advanced Drainage Systems, Inc. to submit the following revision to our application for the ADS 1 Connector Pipe Screen (CPS) as a Trash Full Capture System.

The following updates and improvements have been made and are being submitted for approval:

1. Contact information and manufacturer's website
2. Hydraulic capacity and comparison information
3. Screen flow and bypass flow calculations
4. Design drawings
5. Installation guidance
6. Maintenance information
7. Warranty
8. Customer support information

While our hydraulic calculations have changed, we improved our methodology and have not changed our product design. There is no change to vector control access.

Thank you for your time to review this application. If any additional information is required, please contact me.

Regards,

Amanda Toth
Product Manager, FlexStorm
Advanced Drainage Systems, Inc

1. COVER LETTER

A. Device Product Name & General Description

The ADS 1 Connector Pipe Screen (CPS) is a prefabricated trash retention screen manufactured by the FlexStorm division of Advanced Drainage Systems (ADS). The CPS is installed into selected catch basins and mounted in front of the basin's outlet pipe trapping trash and debris larger than 5mm within the catch basin. All ADS CPS are comprised entirely of 304 stainless steel and are brought into the field as pre-configured assemblies for easy installation. ADS CPS is a rolled screen that may be fabricated into a “U” or “L” configuration based on the outlet pipe location, basin dimensions, and desired hydraulic capacity.

B. Applicant’s Contact Information and Location

The device is manufactured by Advanced Drainage Systems™

Executive Contact at Corporate Headquarters:
Joseph Chylik, Product Director for Water Treatment
4640 Trueman Blvd
Hilliard, OH 43026
(800) 821-6710
joseph.chylik@adspipe.com

Authorized Representative(s) Contact Information:
Amanda Toth, Product Manager, Treatment
4640 Trueman Blvd
Hilliard, OH 43026
(614) 202-3723
amanda.toth@adspipe.com

C. Manufacturer’s Website Page for Device

https://www.adspipe.com/water-management-solutions/water-quality/pretreatment/connector-pipe-screens

D. Device’s Manufacturing Location

Advanced Drainage Systems - FlexStorm
24137 111th Street – Unit A
Naperville, IL 60564

E. Brief Summary of Field/Lab Testing Results

No field/lab testing has been performed.

The ADS CPS is constructed of perforated stainless steel with round punched 3/16” (5mm) openings, ensuring particles larger than 5mm cannot pass through.

F. Description or list of locations, if any, where Device has been installed

Thousands of ADS CPS have been successfully installed throughout California and the United States. Below are some recent California installations:

Project	Contact
Pomona	Julie Carver Julie_carver@ci.pomona.ca.us 909-620-3628
El Segundo	Chris Anguiano canguiano@ocean-blue.com 562-235-7472
Oceanside	Robert Carr robertc@downstreamservices.com 760-746-2544

G. If the System is designed to operate outside of a typical stormwater catch basin and is able to trap trash from high flows, indicate a preference to be listed as a high flow capacity System on the State Water Board's website.

Do not list as "high flow capacity trash full capture system".

H. Certification Clause

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 or persons 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.

Amanda Toth, Product Manager, Treatment
Advanced Drainage Systems, Inc
ADS FlexStorm Division

Amanda Toth

2. Table of Contents

Appendices

3. Physical Description

A. Trash Capture

The ADS CPS device is installed within the catch basin protecting the outlet pipe. It is comprised of 304 stainless steel using 5mm perforated screen which blocks all solids, trash and debris larger than 5mm from moving past the screen, retaining them in the catch basin area. The product also has a deflector screen when the CPS is installed directly below the curb opening inlet that prevents solids, trash and other debris from falling between the screen and connector pipe.

See Appendix A for detailed drawings.

B. Peak Flows/Trash Volumes

ADS CPS are fabricated to fit varying catch basin sizes, depths and outlet pipe locations. The screen length and height are determined by the amount of flow required to pass relative to the catch basin width or flow rate requirements. The CPS includes a protective bypass deflector lid that prevents trash from falling behind the main base screen directly into the outlet pipe. The bypass height may be adjusted to increase bypass flows as required by the purchaser. Maximum solids storage capacity varies based the size of the catch basin. Refer to Table 3.1 in section 3.C. for hydraulic capacity pertaining to treated and bypass flows.

C. Hydraulic Capacity for both L and U Configurations - Table 3.1

STANDARD CPS SIZING*							
MODEL	LINEAR SCREEN WIDTH	ROLLED SCREEN LENGTH	SCREEN HEIGHT	SCREEN NET OPEN AREA[1]	MAX. TREATED FLOW[2]	50% CLOGGED TREATED FLOW[3]	BYPASS CAPACITY[4]
	(IN)	(IN)	(IN)	(FT^2)	(CFS)	(CFS)	(CFS)
12L12H-L	12	18	12	0.49	1.19	0.73	3.40
18L12H-L	18	24	12	0.69	1.67	1.02	4.54
24L12H-L	24	30	12	0.89	2.14	1.31	5.67
30L12H-L	30	36	12	1.09	2.62	1.60	6.81
36L12H-L	36	42	12	1.29	3.10	1.90	7.94
42L12H-L	42	48	12	1.48	3.57	2.19	9.08
48L12H-L	48	54	12	1.68	4.05	2.48	10.21
60L12H-L	60	66	12	2.08	5.00	3.06	12.48
72L12H-L	72	78	12	2.47	5.96	3.65	14.75
84L12H-L	84	90	12	2.87	6.91	4.23	17.02
24L18H-L	24	30	18	1.45	4.28	2.62	5.67
30L18H-L	30	36	18	1.78	5.24	3.21	6.81
36L18H-L	36	42	18	2.10	6.19	3.79	7.94
42L18H-L	42	48	18	2.42	7.14	4.37	9.08
48L18H-L	48	54	18	2.74	8.09	4.96	10.21
60L18H-L	60	66	18	3.39	10.00	6.12	12.48
72L18H-L	72	78	18	4.04	11.90	7.29	14.75
84L18H-L	84	90	18	4.68	13.81	8.45	17.02
12L12H-U	12	24	12	0.69	1.67	1.02	4.54
18L12H-U	18	30	12	0.89	2.14	1.31	5.67
24L12H-U	24	36	12	1.09	2.62	1.60	6.81
30L12H-U	30	42	12	1.29	3.10	1.90	7.94
36L12H-U	36	48	12	1.48	3.57	2.19	9.08
42L12H-U	42	54	12	1.68	4.05	2.48	10.21
48L12H-U	48	60	12	1.88	4.53	2.77	11.35
60L12H-U	60	72	12	2.28	5.48	3.36	13.62
72L12H-U	72	84	12	2.67	6.43	3.94	15.89
84L12H-U	84	96	12	3.07	7.39	4.52	18.16
24L18H-U	24	36	18	1.78	5.24	3.21	6.81
30L18H-U	30	42	18	2.10	6.19	3.79	7.94
36L18H-U	36	48	18	2.42	7.14	4.37	9.08
42L18H-U	42	54	18	2.74	8.09	4.96	10.21
48L18H-U	48	60	18	3.07	9.05	5.54	11.35
60L18H-U	60	72	18	3.71	10.95	6.71	13.62
72L18H-U	72	84	18	4.36	12.85	7.87	15.89
84L18H-U	84	96	18	5.01	14.76	9.04	18.16

*All values are conservative estimates accounting for site specific limitations. Custom sizing available upon request when standard configurations do not apply.

1. "Screen Net Open Area" is listed as the product of rolled screen length or perimeter and screen height subtracting support bracing and brackets while accounting for a 50% reduction in perforated net open area to physical screen area.

2. "Maximum Treated Flows" utilize an orifice flow equation where the orifice coefficient (C) has a value of 0.6 and downstream head has an assumed maximum of 50% of screen height when calculating head on the centroid of screen.

3. "50% Clogged Treated Flows" utilize an orifice flow equation where the orifice coefficient (C) has a value of 0.6 and downstream head has an assumed maximum of 25% of screen height when calculating head on the centroid of screen. Screen clogging is assumed to be uniform across the height of the screen.

4. "Bypass Capacity" calculated with an installed lid/deflector height of 8" over the top of the screen and a maximum water elevation of 10" over the installed screen height.

Screen Flow Calculations:

Model:

Screen flow through can be calculated using an orifice flow calculation while accounting for both upstream and downstream head on both sides of the screen. Screen flows are to be published with a safety factor of two accounting for a clogging factor of up to 50% prior to maintenance.

$$Q_{Screen} = \frac{C_{Screen} A_{Screen} \sqrt{2gH}}{Clogging\ Factor}$$

Equation 1: Flow through an Orifice Plate

Variables:

Q_{Screen} = Screen Flow Rate (CFS)

C_{Screen} = Screen Orifice Coefficient of Discharge (0.6 unitless)

A_{Screen} = Net Open Area of Screen (ft^2)

g = Gravitational Acceleration (32.2 ft/s^2)

H = Depth to Centroid of Screen; Accounting for Downstream Depth (Assumed Max. 50% H_{Screen} without clogging factor, 25% when 50% clogged)

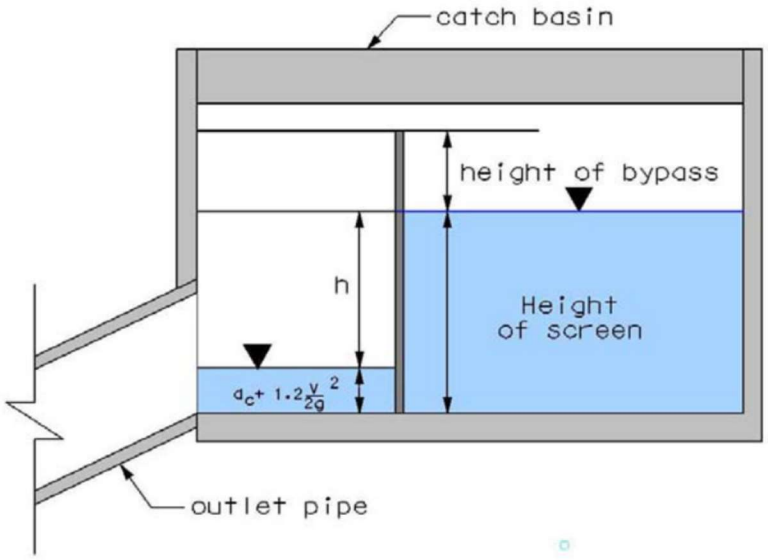


Figure 4: LA County Connector Pipe Screen Design Technical Report, April 2007

Calculation:

Using a 36L18H-U model screen at full capacity before reaching bypass mode and accounting for a clogging factor of 50%. Note, screen model lengths are linear lengths not rolled screen perimeter lengths.

$$Q_{Screen} = \frac{C_{Screen} A_{Screen} \sqrt{2gH}}{Clogging\ Factor}$$

Equation 1: Flow through an Orifice Plate

Variables:

Q_{Screen} = Screen Flow Rate (CFS)

C_{Screen} = Screen Orifice Coefficient of Discharge (0.6 unitless)

A_{Screen} = Net Open Area of Screen (ft^2); $(L_{Screen} * H_{Screen})$ – (Framing Stiffeners – Mounting Brackets) * 50% Perforated Open Area

= (48" * 18") – ((45" * 1.25" * 2) – (18" * 1.5" * 2")) * 0.5 = 2.42 ft^2

g = Gravitational Acceleration (32.2 ft/s^2)

H = Depth to Centroid of Screen; Accounting for Downstream Depth (Assumed Max. 50% H_{Screen} without clogging factor, 25% when 50% clogged)

= $(18" - 18" * 0.25)/2$ = 0.56 ft

$$Q_{Screen} = \frac{0.6*2.42\sqrt{2*32.2*0.56}}{2} = 4.37 \text{ CFS}$$

Bypass Flow Calculations:

Model:

An orifice equation can be used to determine the bypass flow calculations since maximum surface level elevations will exceed the installed height of the CPS lid.

$$Q_{Bypass} = C_{Bypass} A_{Bypass} \sqrt{2gH}$$

Equation 2: Bypass Flow Calculation

Variables:

Q_{Bypass} = Bypass Flow Rate (CFS)

C_{Bypass} = Bypass Orifice Coefficient of Discharge (0.6 unitless)

A_{Bypass} = Area of Bypass (ft^2) = $L_{Screen} * H_{Bypass}$

g = Gravitational Acceleration (32.2 ft/s^2)

H = Depth of water to Centroid of Bypass (ft); Maintaining a 6" Freeboard

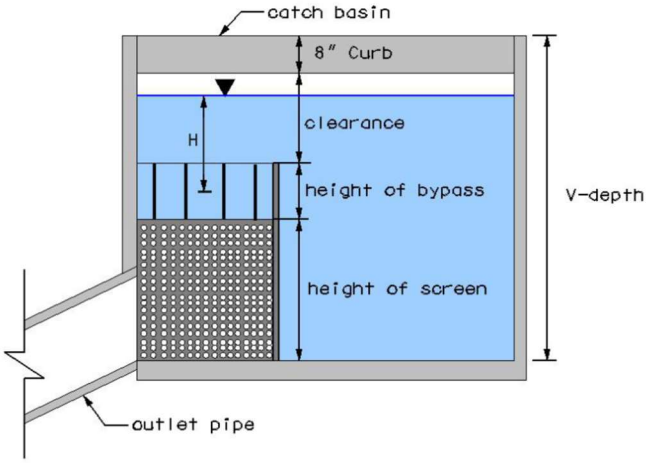


Figure 4: LA County Connector Pipe Screen Design Technical Report, April 2007

Example:
Using a 36L18H-U model screen with an installed lid height of 8" (H_{Bypass}) in a basin with a v-depth of 3.5'.

$$Q_{Bypass} = C_{Bypass} A_{Bypass} \sqrt{2gH}$$

Equation 2: Bypass Flow Calculation

Variables:

Q_{Bypass} = Bypass Flow Rate (CFS)

C_{Bypass} = Bypass Orifice Coefficient of Discharge (0.6 unitless)

A_{Bypass} = Area of Bypass (ft^2) = $L_{Screen} * H_{Bypass}$

= 48" x 8" = 2.67ft^2

g = Gravitational Acceleration (32.2ft/s^2)

H = Depth of water to Centroid of Bypass (ft); Maintaining a 6" Freeboard

= Clearance + $H_{Bypass}/_2$ – 6" Freeboard

Clearance = V-depth - H_{Screen} - H_{Bypass} - Curb Height

= 42" – 18" – 8" – 8" = 8"

= 0.66' + $0.66'/_2$ – 0.5' = 0.5' (Equivalent to Water Elevation of 10" Over Screen)

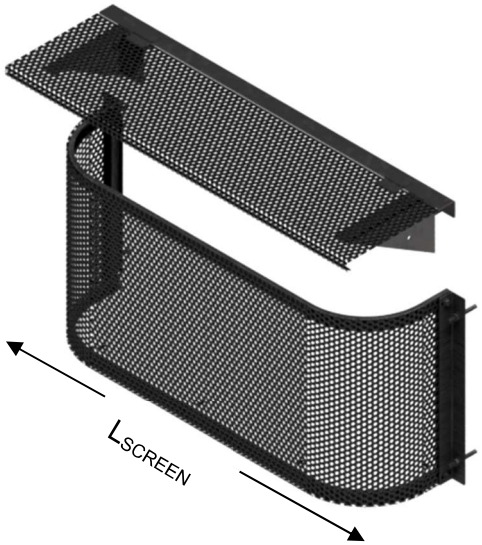
$$Q_{Bypass} = 0.6 * 2.67\sqrt{2 * 32.2 * 0.5} = 9.08 \text{ CFS}$$

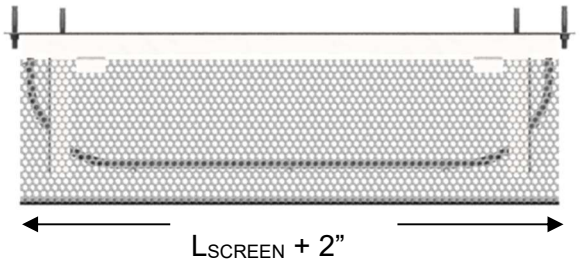
D. Comparison Table

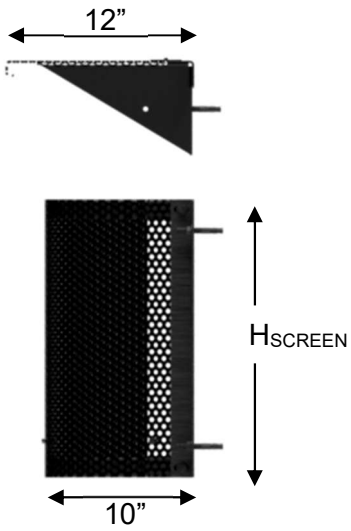
See Table 3.1 in section 3.C. for peak flow rates.

E. Design Drawings for U and L Configurations

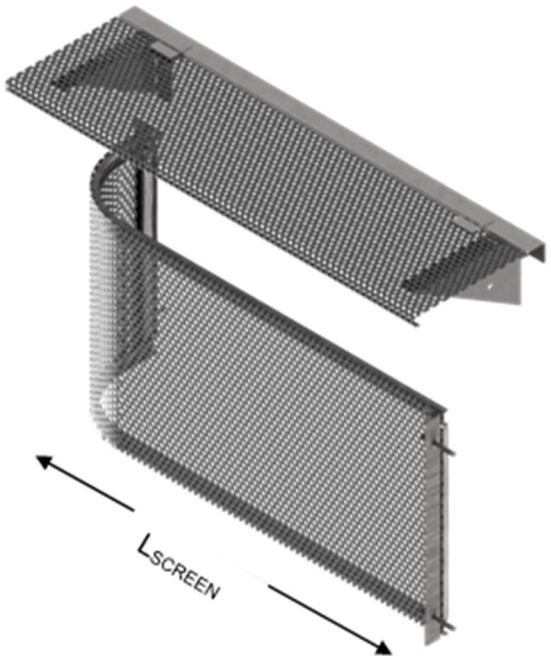
Engineering drawings for all standard configurations are found in Appendix A.

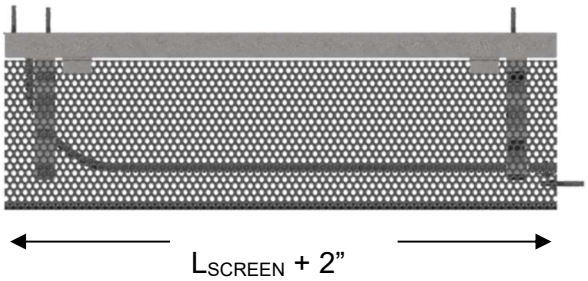


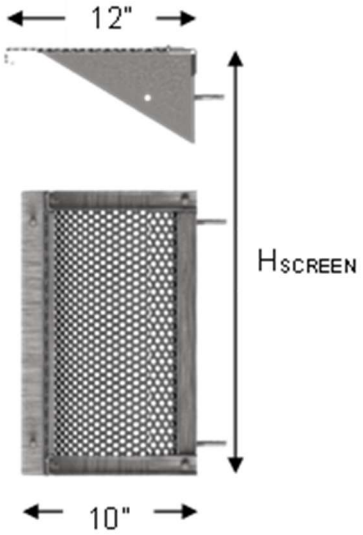




SCREEN SIZING CHART				
MODEL	**Lscreen**	**LROLLED**	**HSCREEN**	**OPEN AREA**
	(IN)	**(IN)**	**(IN)**	**(FT^2)**
12L12H-U	12	18	12	0.69
18L12H-U	18	24	12	0.89
24L12H-U	24	30	12	1.09
30L12H-U	30	36	12	1.29
36L12H-U	36	42	12	1.48
42L12H-U	42	48	12	1.68
48L12H-U	48	54	12	1.88
60L12H-U	60	66	12	2.28
72L12H-U	72	78	12	2.67
84L12H-U	84	90	12	3.07
24L18H-U	24	30	18	1.78
30L18H-U	30	36	18	2.10
36L18H-U	26	42	18	2.42
42L18H-U	42	48	18	2.74
48L18H-U	48	54	18	3.07
60L18H-U	60	66	18	3.71
72L18H-U	72	78	18	4.36
84L18H-U	84	90	18	5.01





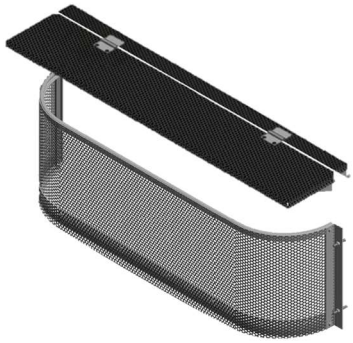


SCREEN SIZING CHART				
MODEL	L_{screen}	L_{ROLLED}	H_{SCREEN}	OPEN AREA
	(IN)	(IN)	(IN)	(FT^2)
12L12H-L	12	18	12	0.49
18L12H-L	18	24	12	0.69
24L12H-L	24	30	12	0.89
30L12H-L	30	36	12	1.09
36L12H-L	36	42	12	1.29
42L12H-L	42	48	12	1.48
48L12H-L	48	54	12	1.68
60L12H-L	60	66	12	2.08
72L12H-L	72	78	12	2.47
84L12H-L	84	90	12	2.87
24L18H-L	24	30	18	1.45
30L18H-L	30	36	18	1.78
36L18H-L	26	42	18	2.10
42L18H-L	42	48	18	2.42
48L18H-L	48	54	18	2.74
60L18H-L	60	66	18	3.39
72L18H-L	72	78	18	4.04
84L18H-L	84	90	18	4.68

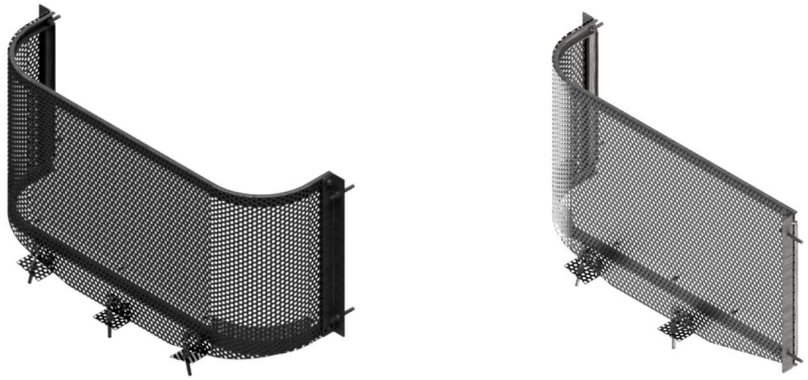
F. Optional Components

Several additional options are available for specialized applications:

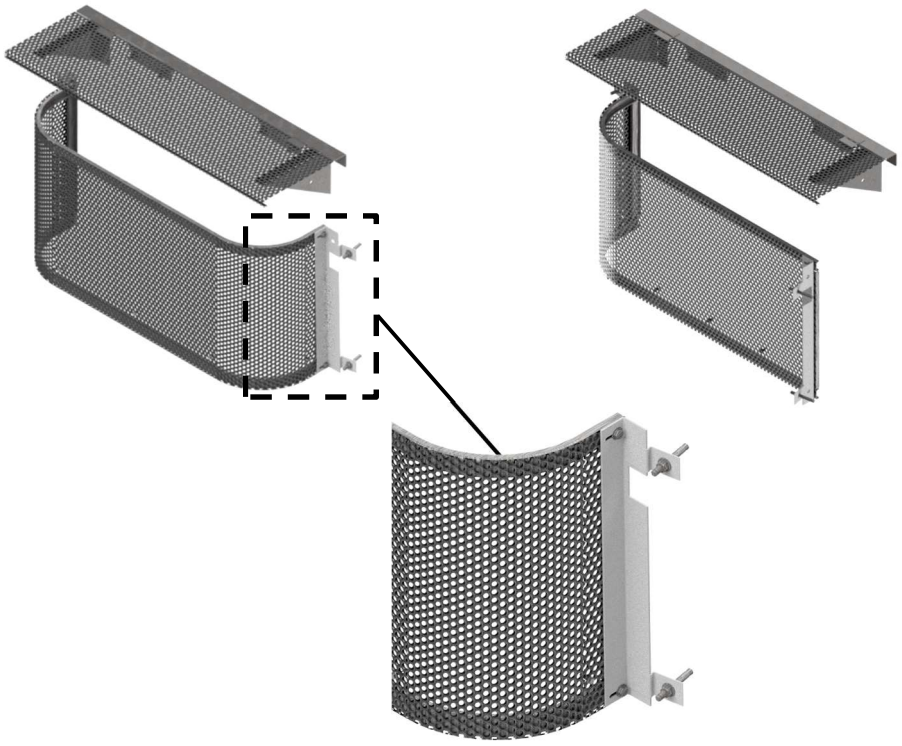
Lid – Hinged lids are mandatory whenever flow from above can enter any portion of the CPS. Hinged lids are required for Vector Control visual access to the bottom of the catch basin. Lids are secured with concrete anchors to the same wall as the screen.



Extension Panel – Extension panels are needed for catch basins and junction boxes with inconsistent bottoms or troughs. Panels may be cut in the field and secured with concrete anchors to the bottom of the catch basin.



Quick Release – Quick release is required when a city, municipality, or other government entity has specified it for flood control or maintenance purposes. Quick release is available for both lids and screens upon request. To use quick release function, raise screen until holding tab aligns with gap in the flange on the screen. Then pull the screen away from the outlet pipe.



G. Internal Bypass

The bypass region of the CPS is the area above the base screen panel and below the hinged lid. The stormwater may travel over the base screen and enter the bypass area if the screen openings are completely blinded by trash and debris, or in the case of a significant rain event.

The engineer is responsible for confirming the ultimate bypass capacity of the CPS exceeds the maximum design flow to the catch basin for a chosen rain event. The bypass area may be expanded to meet the engineers design requirements by either increasing screen length (L) or increasing the height of the bypass between base screen panel and the protective lid, noting limitations of open area behind screen and outlet pipe diameter.

See Table 3.1 in section 3.C. for bypass capacity.

H. Previously Trapped Trash

The ADS CPS is designed to capture and retain all trash and debris larger than 5mm. The device may re-introduce trash previously captured if the unit is not properly installed or maintained. If laden trash accumulates above the maximum trash capture capacity, the water level rises to reach the bypass allowing floatable, suspended, or buoyant trash and debris to pass.

I. Calibration Feature

The ADS CPS does not include or require any additional calibration.

J. Photographs, if any, of pre-and post-installation examples

Below are sample photos of ADS CPS installed:

K. Material Type

All ADS CPS are comprised entirely of high strength, non-corrosive 304 stainless steel.

- Filter Screen: 14GA perforated 304 stainless steel screening is uniformly punched with 3/16” dia. Holes (5mm) in a staggered pattern that has 50% net open area and retains any particles 5mm or larger.
- Channel Stiffeners: 0.5” x 1.25” x 0.5” U-channel stiffeners are made of 12GA stainless.
- Mounting Brackets: 13GA 304 stainless steel on screen. 16GA 304 stainless steel on deflector lids.
- Anchor Bolts: 3/8” x 3” 316 stainless steel.

L. Design Life

The estimated design life for ADS CPS is 20 to 40 years. All components are made from 304 Stainless Steel to extend the service life. The true design life of the product is dependent upon proper application use and regular maintenance.

4. Installation Guidance

A. Standard Device Installation Procedures and Considerations

All ADS CPS are brought to the field pre-configured for easy assembly based on the specific dimensions provided by the installer.

A typical installation follows the steps below:

1. Lower the CPS through the manhole or curb face opening.
2. Position the CPS evenly around the connector pipe (when configuration allows) ensuring a minimum of 4” (102 mm) wall clearance and not encroaching the manhole access opening by more than 4”.
3. Loosen the bolts in the slotted holes which connect the screen to the upright mounting brackets until the screen bottom is flush with the floor.
4. Tighten the bolts and mark the hole locations on the wall for the stainless anchor bolts.
5. Drill 3/8” pilot holes ½” deeper than provided anchor length, hammer the anchor bolts in place, and secure the connector pipe screen using provided stainless anchor nuts.
6. If the bottom of the screen base exposes more than a 3/16” (5mm) gap, an additional extension panel may be fastened to or above the base channel using stainless self-tapping screws or rivets.

When a deflector screen lid is needed, a typical installation follows the instruction steps below:

1. Verify the minimum bypass height needed and mark the “B” bypass height location on the wall centered directly over the screen.
2. Lift the lid in place and mark the hole locations for the lid mounting bracket anchor bolts.
3. Drill holes, hammer the anchor bolts in place, and secure the lid using the provided stainless anchor nuts.

B. Description of Device Installation Limitations and/or Non-Standard Device Installation Procedures

The ADS CPS has limitations in shallow catch basins that do not provide adequate space for entry or installation. Since ADS CPS are prefabricated, there must be an adequate opening for the device to fit through.

C. Methods for Diagnosing and Correcting Installation Errors

After completion of installation a final visual inspection should occur for each installed screen and lid assembly ensuring adequate mounting point contact and location.

If the bottom of the base exposes more than a 5mm gap, then an additional extension panel may be fastened to the base channel using stainless self-tapping screws or rivets. This extension panel should meet the basin floor and match the length and contour of the primary screen.

5. Operation and Maintenance Information

A. Device Inspection Procedures and Inspection Frequency Considerations

ADS CPS inspections should occur three times per year (every four months) in areas with year-round rainfall. Wall markers and staff gauges may be used to determine the level of trash and debris accumulated in the catch basin as shown in these photos. Adjusted intervals may be required on a per site basis dependent on localized conditions.

At this time, visual inspection of the screen, deflector lid, extension panels, and mounting brackets should occur. Checking for damage and unfastened or insecure hardware.

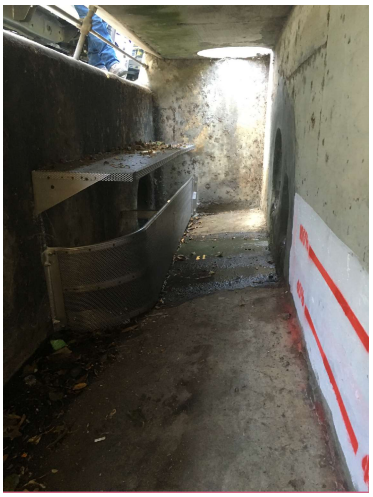


Figure 5.1: Installed CPS Unit

Figure 5.2: Accumulated Trash and Debris in CPS Unit

B. Maintenance Frequency

ADS advises that catch basins be cleaned out at least two (2) times per year and/or if debris has filled above a 40% level of screen height. Sites with large amounts of foliage, high trash loads, or smaller CPS devices may need to be cleaned at more frequent intervals. Purchasers must also comply with any minimum maintenance requirements in the applicable Municipal stormwater permit for which the purchaser is regulated.

As with all storm water BMPs, inspection and maintenance must occur on a regular basis, or the filtering mechanism can be overloaded and rendered useless. In such a case, the catch basin may become completely filled with trash and debris, lowering the treated flow rate and retention capacity of the CPS. Any trash and debris entering the catch basin may escape directly into the storm sewer system over the top of the CPS if bypass mode is reached.

C. Maintenance Procedures

ADS suggests that its CPS be maintained per this set of industry accepted conditions.

Description of Maintenance Actions:

1. Clear trash and debris located immediately in front of curb opening or side opening of the catch basin and on top or between metal grates of grated basin.
2. Remove vegetation growing across and/or blocking the catch basin opening.
3. Remove all trash, debris, and vegetation from within the catch basin.
4. Remove trash and debris in the connector pipe opening, upstream or downstream.
5. Remove all debris that covers the perforated openings of the connector pipe screen.
6. Ensure there is no standing water inside of catch basin (indicates the device is not properly draining)

Trash and debris shall include, but is not limited to, mud, vegetation, and garbage. Upon completion of a cleanout operation at a catch basin and before leaving it, the Contractor shall sweep the top surface of the catch basin and surrounding area and shall remove any trash and debris resulting from the cleanout operations. No debris is to be left at a catch basin for future pick-up.

Method of Removal: All trash and debris required to be removed from the catch basin shall be removed in a manner to be determined by the Contractor. This can be done by hand or with a truck mounted vacuum. If entering the catch basin, ensure that local and federal confined space entry procedures are followed. The Contractor shall not allow any trash or debris to enter the connector pipe or main line as a result of the cleanout operations.

Debris Disposal: All trash and debris removed under this Contract shall become the property of the Contractor and shall be legally disposed of away from the catch basin sites. The Contractor is responsible for proper disposal of the trash and debris, including obtaining approvals from all jurisdictional agencies, as applicable. The contractor shall be responsible for contacting and coordinating with local Animal Care and Control for pickup and disposal of dead animals.

D. Essential equipment and materials for proper maintenance activities.

Suggested method for maintenance is utilization of a vacuum truck combined with a power washer / high pressure hose. If a vacuum truck is not available, the catch basin may be cleaned manually with a shovel, trash receptacle, and broom.

E. Description of the effects of deferred maintenance on device structural integrity, performance, odors, etc.

In the event of deferred maintenance, the screen openings may become blocked creating higher loads across the entire screen surface. Deferred maintenance may also allow the basin to fill with trash and debris above the maximum trash level, trash which could be reintroduced into the water system during a major storm event.

F. Repair procedures for the device's structural and screening components.

If the perforated steel CPS screen, lid, or extension panel is damaged or detached, fasten or secure in place. A slight offset relocation of screen and lid is acceptable if anchor holes are unable to be reused or filled. In the event the system is damaged to the point where the base of the CPS does not sit flush with the catch basin floor, the contractor may fasten a new or existing extension panel using stainless steel self-tapping screws or rivets. Inspection should occur immediately after repairs checking the integrity of the device. If the damage is beyond repair, it is recommended to replace the entire unit.

6. Vector Control Accessibility

A. Description of Vector Control Accessibility

Personnel can administer vector control treatment to the bottom of the catch basin by flipping the hinged deflector screen of the CPS up to where it rests against the catch basin wall. This will provide a clear visual to the invert of the connector pipe and vector control personnel can administer necessary treatment. The lid can easily be flipped back down once complete.

B. System Drawings of Vector Control Accessibility

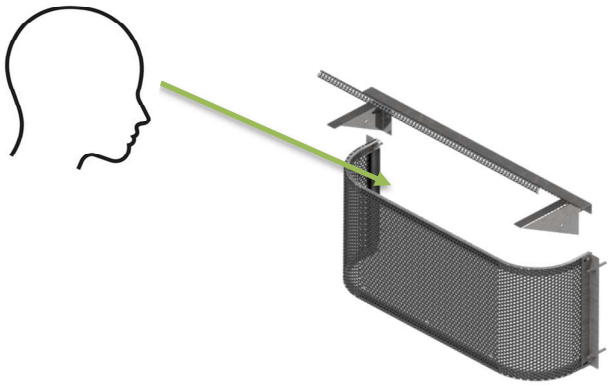


Figure 6.1*: *Hinged Lid Showcase

C. Date of Application Submittal to Mosquito Vector Control Association

ADS CPS vector control design details were verified by MVCAC and the Trash Treatment Control Committee on May 16, 2024.

D. Mosquito Vector Control Association of California Letter of Verification

Refer to Appendix B for the MVCAC verification letter.

7. Reliability Information:

A. Estimated design life of device components before major overhaul.

As mentioned in section 3.L., the 304 Stainless Steel components in the ADS CPS have a 20–40-year design life when used in storm water applications exposed to moderate levels of salt and other naturally occurring roadway contaminants.

B. Warranty information.

ADS warrants the Connector Pipe Screen (CPS) to be free of defects in material and workmanship in accordance with proper installation, normal use, and service for a period of five (5) years from the date of shipment.

This warranty is limited to repair or replacement of any part or components that, upon examination by ADS, have been defective in material or workmanship. Damaged CPS due to negligence or lack of maintenance are not covered.

C. Customer Support Information

For any technical information or support, customers may reach out to:
Advanced Drainage Systems, Inc.
24137 111th Street
Naperville, IL 60564
Email: flexstorm@adspipe.com
Website: www.adspipe.com/support/contact-us

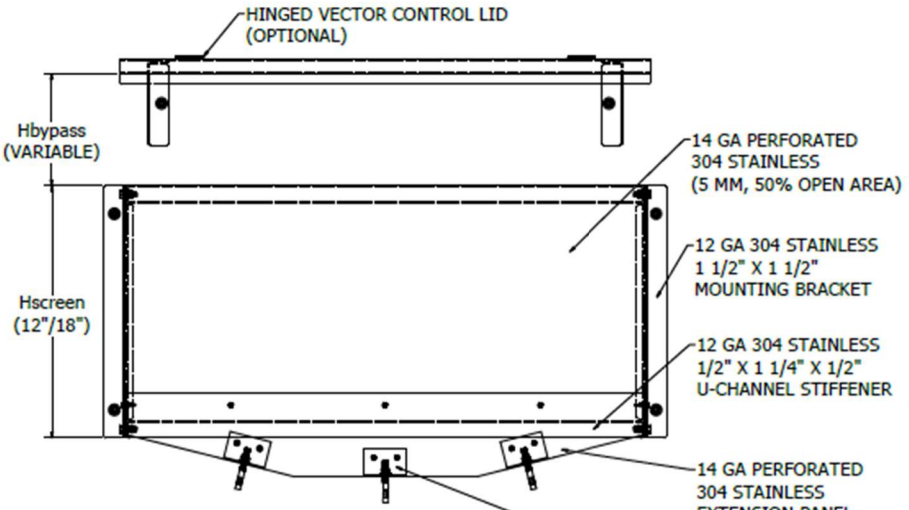
8. Field/Lab Testing Information and Analysis

A. For devices with 5mm screening, any available field/lab testing information that demonstrates the device functionality and performance.

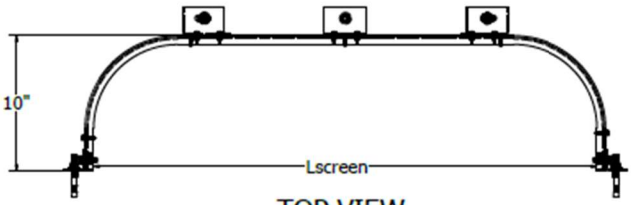
All ADS CPS units are made of screen with 3/16” (5mm) openings. Field/lab testing is not required because all particles and debris larger than 5mm would be trapped by the screen.

APPENDIX A

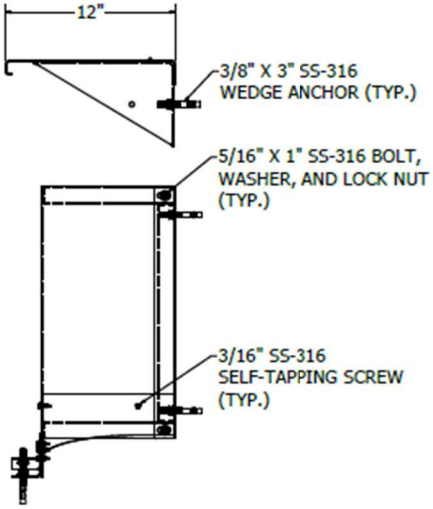
ADS FLEXSTORM U-SHAPE CONNECTOR PIPE SCREENS (CPS)



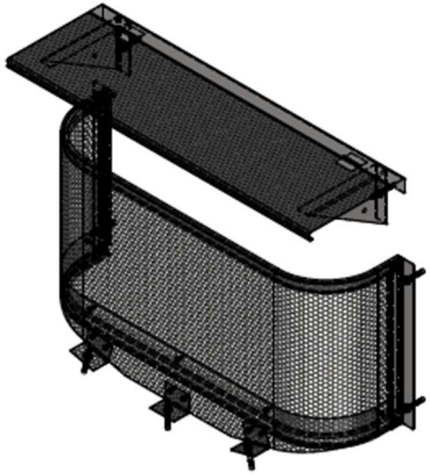
FRONT VIEW



TOP VIEW



SIDE VIEW



REFERENCE VIEW

DESCRIPTION	P/N
SMALL CPS (< 4' SCREEN LENGTH)	62CPSHD-S
LARGE CPS (> 4' SCREEN LENGTH)	62CPSHD-L

NOTES:

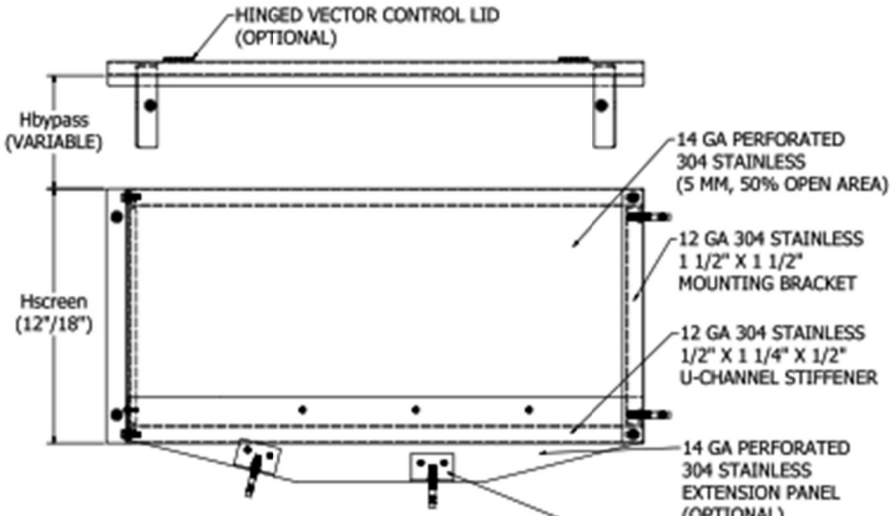
1. CONNECTOR PIPE SCREEN AND LID ASSEMBLIES CONSTRUCTED OF 304 STAINLESS AND 316 STAINLESS HARDWARE.
2. TOTAL BYPASS CAPACITY, TREATED FLOW RATES, AND CONTAINMENT WILL VARY WITH EACH SIZE DRAINAGE STRUCTURE AND APPLICABLE SCREEN SIZE SELECTED.
3. UPON ORDERING, A CPS ORDER FORM MUST BE COMPLETED DICTATING SPECIFIC MODEL SIZING, OPTIONAL COMPONENTS/FEATURES, AND INLET IDENTIFICATION.
4. VECTOR CONTROL HINGED LIDS, EXTENSION PANELS (FOR UNEVEN, TROUGHED, OR SLOPED FLOORS), AND BASE SUPPORT BRACKETS OPTIONAL OR WHEN REQUIRED.
5. CPS ARE NOT APPLICABLE FOR MANHOLES OR BASINS WITH SUMPS.
6. FOR WRITTEN SPECIFICATIONS, INSTALLATION, AND MAINTENANCE GUIDELINES VISIT WWW.ADSPIPE.COM.

ALL PRODUCTS MANUFACTURED
BY ADVANCED DRAINAGE SYSTEMS
WWW.ADSPIPE.COM
PH. 1-800-821-6710

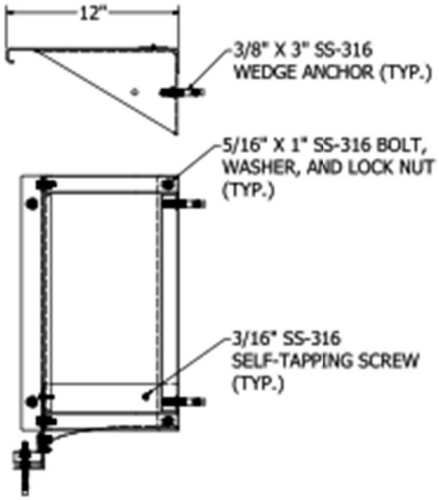
SIZE	DATE	DWG NO	REV
C	06/16/2023	ADS FLEXSTORM CPS-U	A

SCALE N/A SHEET 1 OF 1

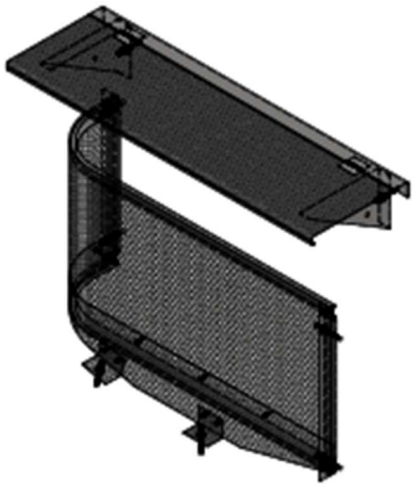
ADS FLEXSTORM L-SHAPE CONNECTOR PIPE SCREENS (CPS)



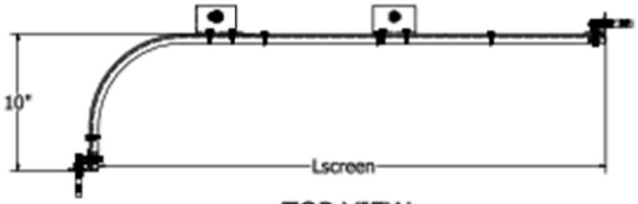
FRONT VIEW



SIDE VIEW



REFERENCE VIEW



TOP VIEW

DESCRIPTION	P/N
SMALL CPS (< 4' SCREEN LENGTH)	62CPSHD-S
LARGE CPS (> 4' SCREEN LENGTH)	62CPSHD-L

NOTES:

1. CONNECTOR PIPE SCREEN AND LID ASSEMBLIES CONSTRUCTED OF 304 STAINLESS AND 316 STAINLESS HARDWARE.
2. TOTAL BYPASS CAPACITY, TREATED FLOW RATES, AND CONTAINMENT WILL VARY WITH EACH SIZE DRAINAGE STRUCTURE AND APPLICABLE SCREEN SIZE SELECTED.
3. UPON ORDERING, A CPS ORDER FORM MUST BE COMPLETED DICTATING SPECIFIC MODEL SIZING, OPTIONAL COMPONENTS/FEATURES, AND INLET IDENTIFICATION.
4. VECTOR CONTROL HINGED LIDS, EXTENSION PANELS (FOR UNEVEN, TROUGHED, OR SLOPED FLOORS), AND BASE SUPPORT BRACKETS OPTIONAL OR WHEN REQUIRED.
5. CPS ARE NOT APPLICABLE FOR MANHOLES OR BASINS WITH SUMPS.
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WWW.ADSPIPE.COM
PH. 1-800-821-6710

SIZE	DWG NO	REV
C	ADS FLEXSTORM CPS-L	A

SCALE: NTS | DATE: 05/16/2023 | SHEET 1 OF 1

APPENDIX B

MVCAC
Mosquito and Vector Control Association of California
One Capitol Mall, Suite 320 • Sacramento, CA 95814 • p: (916) 440-0826 • f: (916) 444-7462 • e: mvcac@mvcac.org

ADS - Flexstorm
4640 Trueman Blvd
Hilliard, OH 43026

May 16, 2024

Dear Ms. Toth,

Thank you for the submission of the ADS Connector Pipe Screen full trash capture device 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 ADS Connector Pipe Screen full trash capture device and verifies that provisions have been included in the design 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 ADS Connector Pipe Screen 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,

Megan MacNee
MVCAC Executive Director