# AGREEMENT FOR MAINTENACE OF STORM WATER DETENTION SYSTEM BETWEEN 633 SOUTH BOULEVARD, LLC AND THE CITY OF ROCHESTER HILLS

(SIGNATURES ON FOLLOWING PAGES)

# AGREEMENT FOR MAINTENANCE OF STORM WATER DETENTION SYSTEM

This agreement is made on May 29, 2019, by 633 South Boulevard, LLC, (f/k/a 663 South Boulevard, LLC) whose address is 30000 Northwestern Hwy, Farmington Hills, MI 48334; and the CITY OF ROCHESTER HILLS (the City), whose address is 1000 Rochester Hills Drive, Rochester Hills, MI 48309.

#### **RECITALS:**

WHEREAS, Developer owns and occupies the property described in attached Exhibit A; and

WHEREAS, Developer has proposed, and the City has approved, a storm water drainage and detention system (the system), which includes a detention basin, for the property as described and depicted in the attached Exhibit B: and

WHEREAS, the parties will benefit from the proper use and maintenance of the System and desire to enter into this agreement to provide for the same.

THEREFORE, the parties agree:

#### 1. Use of the System:

Components of the System, including the detention basin, shall be used solely for the purpose of detaining storm and surface water on the property until such time as: (i) The City may determine and advise Developer or Developer's successors, grantees or assigns, in writing that it is no longer necessary to use the detention basin to detain storm or surface water; and (ii) An adequate alternative for draining storm and surface water has been provided which is acceptable to the City and which includes the granting of such easements to the City or third parties for the alternative drainage system as may be necessary.

#### 2. Maintenance:

- A. Developer shall be responsible for the proper maintenance, repair and replacement of the System and any part thereof, including the detention basin as detailed in the Maintenance Plan attached as Exhibit C.
- B. Proper maintenance of the System shall include, but not limited to: (i) Keeping the bottom of the detention basin free from silt and debris; (ii) Removing harmful algae; (iii) Maintaining steel grating across the basin's inlets; (iv) Controlling the effects of erosion; and (v) Any other maintenance that is reasonable and necessary in order to facilitate or accomplish the intended function and purpose of the System.
- 3. Action by City: In the event Developer or Developer's successors, grantees, or assigns, neglects or fails at any time to properly maintain the System or any part thereof, the City may notify Developer or Developer's successors, grantees or assigns, in writing, and the notice shall include a listing and description of maintenance deficiencies and a demand that they must be corrected within thirty (30) days.

The notice shall further specify the date and place for a hearing to be held at least fourteen (14) days after the date of the notice before the City Council, or such other board or official to whom the City Council may delegate responsibility. At the hearing, the City Council (or other board or official) may endorse or modify the listing and description of deficiencies to be corrected and, for good cause, may extend the time within which the deficiencies must be corrected.

Thereafter, if the maintenance deficiencies are not corrected within the time allowed, the City may undertake and make the necessary corrections, and may maintain the System for a period not to exceed one (1) year. Such maintenance of the System by the City shall not be deemed a taking of the property, nor shall the City's actions be deemed to vest in the public any right to use the property. If the City determines maintenance of the system by the City should continue beyond one year, the City shall hold, and provide advance written notice of, a further hearing at which Developer or Developer's successors, grantees or assigns, will not or cannot properly maintain the System, the City may continue to maintain the System for another year, and subject to a similar hearing and determination, in subsequent years.

In the event the City determines an emergency condition caused by or relating to the System threatens the public health, safety or general welfare, the City shall have the right to immediately and without notice enter the property and undertake appropriate corrective action.

- 4. <u>Charges</u>: The City shall charge to the current owner of the property the cost of maintenance or other corrective action undertaken by the City in accordance with this agreement, plus a ten percent (10%) administrative fee. If not timely paid, the City may assess the charges on the City □s tax roll, which charges shall be a lien on the real property and shall be collectable and enforceable in the same manner general property taxes are collected and enforced.
- 5. **Notice:** Any notices required under this agreement shall be sent by certified mail to the address for each party set forth below, or to such other addresses as such party may notify the other parties in writing:

To 633 South Boulevard, LLC.	30000 Northwestern Hwy
	Farmington Hills, MI 48334
	Attention: Allen Glasser
To the City:	Clerk City of Rochester Hills 1000 Rochester Hills Drive Rochester Hills, MI 48309
and their respective successors, grantees and	nent shall bind and inure to the benefit of the parties d assigns. The rights, obligations and responsibilities and all current and future owners of the property.
7. Recording of Agreement: This agreement of Deeds.	ent shall be recorded at the Oakland County Register
	633 South Boulevard, LLC
Ву:	1 Lampu
Print or type name:	HAROLD MARGOLIS
Title:	MEMBER
	CITY OF ROCHESTER HILLS
Ву:	Bryan K. Barnett, Mayor
Ву:	Tina Barton, City Clerk
STATE OF MICHIGAN COUNTY OF COLUMN 1	
This agreement was acknowledged before me on	
of 633 South Boulevard LL	is the <u>member</u> Ca <u>Limited Lindility</u> company.  michigan
KARLA SHELTON Notary Public - State of Michigan County of Wayne	Koula Shelton
My Commission Expires Jan 10, 2026 Acting in the County of October 1	Woyne County, Michigan My commission expires: 1-10-2026
STATE OF MICHIGAN COUNTY OF OAKLAND	
This agreement was acknowledged before me on	, 20,
by Bryan K. Barnett, Mayor, and Tina Barton, Clerk, of the	City of Rochester Hills, on behalf of the City.
Orafted By:  Patricia Ellingson  275 W Girard Ave.  Madison Heights, MI 48071	notary public County, Michigan commission expires:
	Steral red Lel11/19

#### **EXHIBIT A**

# AGREEMENT FOR MAINTENANCE OF STORM WATER DETENTION SYSTEM

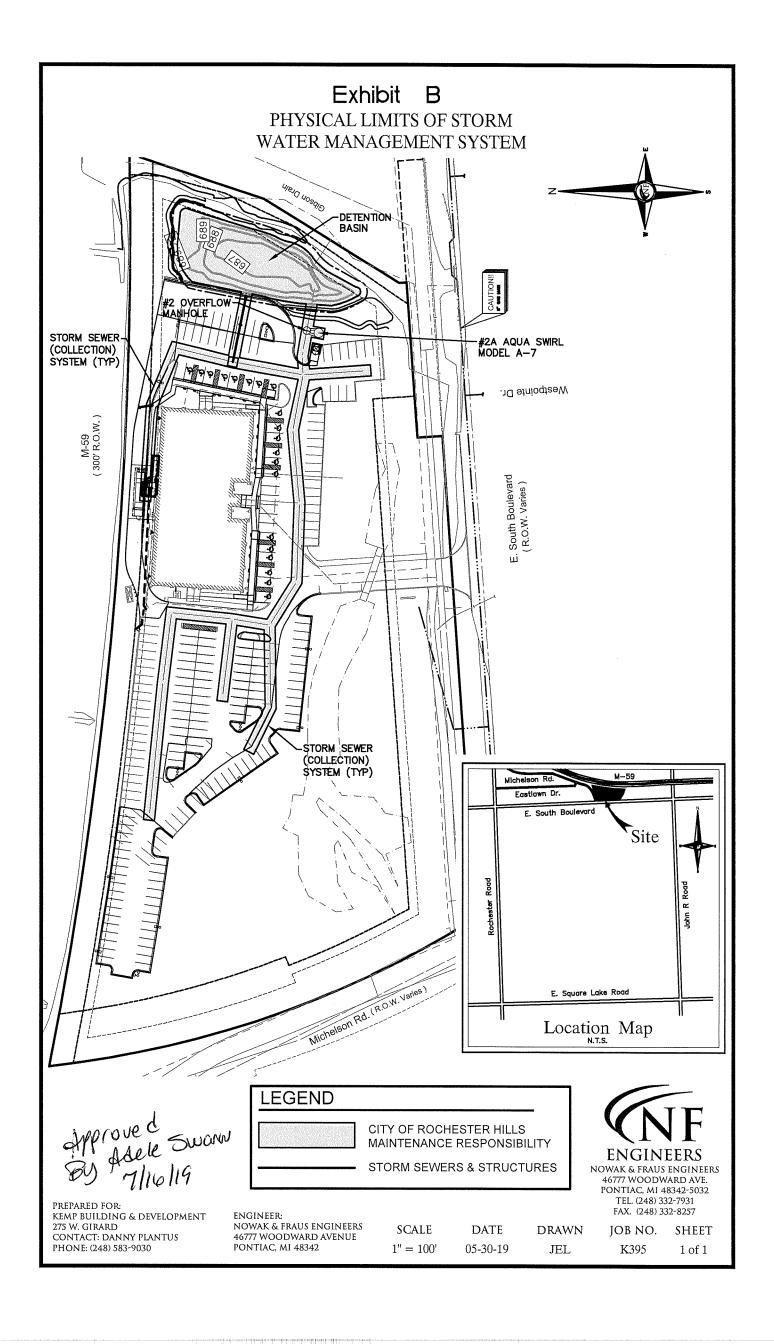
#### LEGAL DESCRIPTION - PROPERTY (PER TAX RECORD)

PART OF LOT 52, BROOKLANDS SUBDIVISION, PART OF SECTION 35 AND 36, TOWN 3 NORTH, RANGE 11 EAST, AVON TOWNSHIP (NOW CITY OF ROCHESTER HILLS), OAKLAND COUNTY MICHIGAN, ACCORDING TO THE PLAT THEREOF AS RECORDED IN LIBER 25 OF PLATS, PAGES 10, 10A AND 10B, OAKLAND COUNTY RECORDS, BEING MORE PARTICULARLY DESCRIBED AS: COMMENCING AT THE SOUTHEAST CORNER OF SAID LOT 52; THENCE N.88\*17'20"W. 1403.00 FEET; THENCE N.01\*42'40" 27.00 FEET; THENCE N.88\*17'20"W. 132.00 FEET TO THE POINT OF BEGINNING; THENCE N.88\*17'20"W. 168.00 FEET; THENCE S.01\*42'40"W. 27.00 FEET; THENCE N.88\*17'20"W. 522.50 FEET; THENCE ALONG THE ARC OF A CURVE CONCAVE TO THE FAST HAVING A RADIUS OF 1096.95 FEET, CHORD BEARS N.13\*30'45"W. 489.56 FEET, A DISTANCE OF 493.72 FEET; THENCE ALONG THE ARC OF A CURVE CONCAVE TO THE NORTH, HAVING A RADIUS OF 4686.66 FEET, CHORD BEARS S.79\*13'23"E. 991.30 FEET, A DISTANCE OF 993.16 FEET; THENCE S.24\*27'40"W. 153.54 FEET; THENCE S.37\*27'40"W. 172.00 FEET; THENCE S.01\*42'40"W. 8.00 FEET TO THE POINT OF BEGINNING.

TAX ID NO. 15-35-477-002

ADDRESS: 633 E. SOUTH BOULEVARD, ROCHESTER HILLS, MI 48307

gh 7/2/19



### Exhibit C

# STORM WATER MANAGEMENT SYSTEM LONG TERM MAINTENANCE PLAN

		TAB	LE	1					
STORM WATER MANAGEMEN	TS	YSTEM	LO	IG-T	ERM	MAIN	TENA	NCE	SCHEDULE
MAINTENANCE ACTIVITIES	SYSTEM COMPONENTS	Storm Collection System (Sewers, Swales, Catch Basins, Manholes)	Detention Forebay	Inlets to Forebay & Detention Basin	Detention Basin	Outlet Control Structures & Outlet Pipe	Buffer Strip, Ripraps	Pavement Areas	FREQUENCY
Monitoring/Inspection	_							_	
Inspect for Sediment Accumulation**/Clogging of stones		X	Χ	X	X	Х			Annually
Inspect For Floatables, Dead Vegetation & Debris		X	Χ	Χ	Χ	Х	Х		Annually & After Major Events
Inspect For Erosion And Integrity of System		Χ		Х	Χ	X	Х		Annually & After Major Events
Inspect All Components During Wet weather & Compare to As-Built Plans		Х	Х	Х	Х	Х	Х		Annually .
Ensure Maintenance Access Remain Open/Clear		Χ	Χ	X	Χ	X	X		Annually
Preventative Maintenance									
Mowing					Χ		Х		As Needed, select areas only*
Remove Accumulated Sediments		Χ	Χ	Χ	Χ	Х			As needed**
Remove Floatables, Invasive & Dead Vegetation & Debris		Χ	Χ	Χ	Χ	Х	Х		As Needed
Replace or Wash & Reuse Risers Stone Filters					Χ				Every 3 years, or as needed***
Sweeping of Paved Surfaces								Χ	As Needed
Remedial Actions									·
Repair/Stabilize Areas of Erosion, Reseed Bare Areas		Χ					Χ		As Needed
Replace Dead Plantings, brushes & trees. Reseed Bare Area	IS	Х							As needed
Structural Repairs		Х	Χ	Х	Χ	Х	Χ		As Needed
Make Adjustments/Repairs to Ensure Proper Functioning		Х	Χ	Х	X	Χ	Х		As Needed

NOTES: \*Not to exceed the length allowed by local community ordinance. \*\*Manufactured Treatment System & detention basin to be cleaned whenever sediments accumulate to a depth of 6-12 inches, or if sediment resuspension is observed. \*\*\* Replace stones if they cannot be adequately cleaned.

PROPERTY INFORMATION: PROPERTY OWNER: ENGINEER:

PROPERTY INFORMATION 633 E. South Boulevard Rochester Hills, MI 48307

PROPERTY OWNER: Kemp Building & Development 275 W. Girard Contact: Danny Plantus Phone: (248) 583-9030 ENGINEER: Nowak & Fraus Engineers 46777 Woodward Ave. Pontiac, MI 48342 Contact: Brad Brickel Phone: (248) 332-7931

9k ARS 6/3/19



PREPARED FOR: KEMP BUILDING & DEVELOPMENT 275 W. GIRARD CONTACT: DANNY PLANTUS PHONE: (248) 583-9030

ENGINEER: Nowak & Fraus Engineers 46777 Woodward Avenue Pontiac, MI 48342

SCALE

DATE

DRAWN

JOB NO.

SHEET 1 of 1

1" = 100' 05-30-19

JEL

K395



# Aqua-Swirl® Stormwater Treatment System

# **Inspection and Maintenance Manual**



AquaShield<sup>™</sup>, Inc. 2705 Kanasita Drive Chattanooga, TN 37343 Toll free (888) 344-9044

Phone: (423) 870-8888 Fax: (423) 826-2112

Email: info@aquashieldinc.com www.aquashieldinc.com

March 2013

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AquaShield<sup>TM</sup>, Inc. 2705 Kanasita Drive Chattanooga, Tennessee 37343 Toll free (888) 344-9044 Fax (423) 870-2112 www.aquashieldinc.com



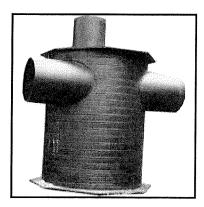
# AquaShield™, Inc Stormwater Treatment Solutions

The highest priority of AquaShield<sup>TM</sup>, Inc. (AquaShield<sup>TM</sup>) is to protect waterways by providing stormwater treatment solutions to businesses across the world. These solutions have a reliable foundation based on over 20 years of water treatment experience.

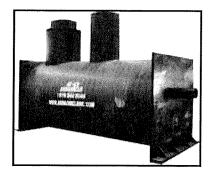
Local regulators, engineers, and contractors have praised the AquaShield<sup>TM</sup> systems for their simple design and ease of installation. All the systems are fabricated from high performance, durable and lightweight materials. Contractors prefer the quick and simple installation of our structures that saves them money.

The patented line of AquaShield™ stormwater treatment products that provide high levels of stormwater treatment include the following:

- Aqua-Swirl® Stormwater Treatment System: hydrodynamic separator, which provides a highly effective means for the removal of sediment, floating debris and free-oil.
- Aqua-Filter<sup>TM</sup> Stormwater Filtration System: treatment train stormwater filtration system capable of removing gross contaminants, fine sediments, waterborne hydrocarbons, heavy metals and total phosphorous.



Aqua-Swirl® Stormwater Treatment System



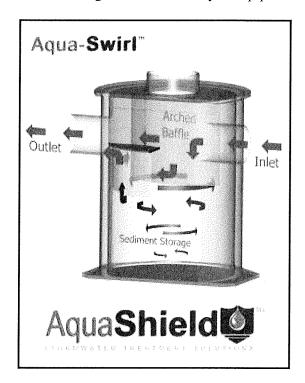
Aqua-Filter™ Stormwater Filtration System



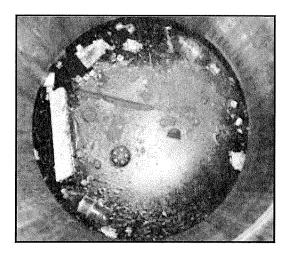
# **Aqua-Swirl® Stormwater Treatment System**

The patented Aqua-Swirl® Stormwater Treatment System is a single chamber hydrodynamic separator which provides a highly effective means for the removal of sediment, free oil, and floating debris. Both treatment and storage are accomplished in the swirl chamber without the use of multiple or "blind" chambers. Independent laboratory and field performance verifications have shown that the Aqua-Swirl® achieves over 80% suspended solids removal efficiency on a net annual basis.

The Aqua-Swirl® is most commonly installed in an "off-line" configuration. Or, depending on local regulations, an "in-line" (on-line) conveyance flow diversion (CFD) system can be used. The CFD model allows simple installation by connecting directly to the existing storm conveyance pipe thereby providing full treatment of the "first flush," while the peak design storm is diverted and channeled through the main conveyance pipe.



The patented Aqua-Swirl® Stormwater Treatment System provides a highly effective means for the removal of sediment, floating debris, and free oil. Swirl technology, or vortex separation, is a proven form of treatment utilized in the stormwater industry to accelerate gravitational separation.



Floatable debris in the Aqua-Swirl®

Each Aqua-Swirl® is constructed of high performance, lightweight and durable materials including polymer coated steel (PCS), high density polyethylene (HDPE), or fiberglass reinforced polymer (FRP). These materials eliminate the need for heavy lifting equipment during installation.



# **System Operation**

The treatment operation begins when stormwater enters the Aqua-Swirl<sup>®</sup> through a tangential inlet pipe that produces a circular (or vortex) flow pattern that causes contaminates to settle to the base of the unit. Since stormwater flow is intermittent by nature, the Aqua-Swirl<sup>®</sup> retains water between storm events providing both dynamic and quiescent settling of solids. The dynamic settling occurs during each storm event while the quiescent settling takes place between successive storms. A combination of gravitational and hydrodynamic drag forces encourages the solids to drop out of the flow and migrate to the center of the chamber where velocities are the lowest.

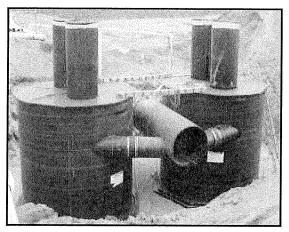
The treated flow then exits the Aqua-Swirl® behind the arched outer baffle. The top of the baffle is sealed across the treatment channel, thereby eliminating floatable pollutants from escaping the system. A vent pipe is extended up the riser to expose the backside of the baffle to atmospheric conditions, preventing a siphon from forming at the bottom of the baffle.



# **Custom Applications**

The Aqua-Swirl® system can be modified to fit a variety of purposes in the field, and the angles for inlet and outlet lines can be modified to fit most applications. The photo below demonstrates the flexibility of Aqua-Swirl® installations using a "twin" configuration in order to double the

water quality treatment capacity. Two Aqua-Swirl® units were placed side by side in order to treat a high volume of water while occupying a small amount of space.



Custom designed AS-9 Twin Aqua-Swirl®



## **Retrofit Applications**

The Aqua-Swirl® system is designed so that it can easily be used for retrofit applications. With the invert of the inlet and outlet pipe at the same elevation, the Aqua-Swirl® can easily be connected directly to the existing storm conveyance drainage system. Furthermore, because of the lightweight nature and small footprint of the Aqua-Swirl®, existing infrastructure utilities (i.e., wires, poles, trees) would be unaffected by installation.

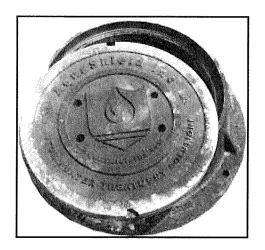


# AquaShield™ Product System Maintenance

The long term performance of any stormwater treatment structure, including manufactured or land based systems, depends on a consistent maintenance plan. Inspection and maintenance functions are simple and easy for the AquaShield<sup>TM</sup> Stormwater Treatment Systems allowing all inspections to be performed from the surface.

It is important that a routine inspection and maintenance program be established for each unit based on: (a) the volume or load of the contaminants of concern, (b) the frequency of releases of contaminants at the facility or location, and (c) the nature of the area being drained.

In order to ensure that our systems are being maintained properly, AquaShield<sup>TM</sup> offers a maintenance solution to all of our customers. We will arrange to have maintenance performed.





## **Inspection**

All AquaShield<sup>TM</sup> products can be inspected from the surface, eliminating the need to enter the systems to determine when cleanout should be performed. In most cases, AquaShield<sup>TM</sup> recommends a quarterly inspection for the first year of operation to develop an appropriate schedule of maintenance. Based on experience of the system's first year in operation, we recommend that the inspection schedule be revised to reflect the site-specific conditions encountered. Typically, the inspection schedule for subsequent years is reduced to semi-annual inspection.

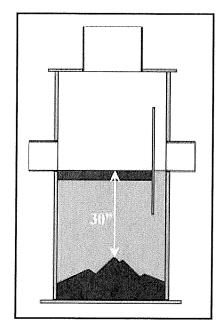


# **Aqua-Swirl® Maintenance**

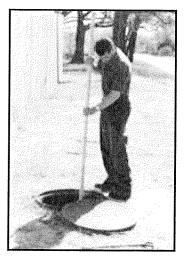
The Aqua-Swirl® has been designed to minimize and simplify the inspection and maintenance process. The single chamber system can be inspected and maintained entirely from the surface thereby eliminating the need for confined space entry. Furthermore, the entire structure (specifically, the floor) is accessible for visual inspection from the surface. There are no areas of the structure that are blocked from visual inspection or periodic cleaning. Inspection of any free-floating oil and floatable debris can be directly observed and maintained through the manhole access provided directly over the swirl chamber.

### Aqua-Swirl® Inspection Procedure

To inspect the Aqua-Swirl<sup>®</sup>, a hook is needed to remove the manhole cover. AquaShield<sup>TM</sup> provides a customized manhole cover with our distinctive logo to make it easy for maintenance crews to locate the system in the field. We also provide a permanent metal information plate affixed inside the access riser which provides our contact information, the Aqua-Swirl<sup>®</sup> model size, and serial number.



Maintain system when sediment is 42-48 inches below water surface. Maximum sediment storage capacity reached when sediment is 30 inches below water surface.



Sediment inspection using a stadia rod in a single chamber

The only tools needed to inspect the Aqua-Swirl® system are a flashlight and a measuring device such as a stadia rod or pole. Given the easy and direct accessibility provided, floating oil and debris can be observed directly from the surface. Sediment depths can easily be determined by lowering a measuring device to the top of the sediment pile and to the surface of the water. When the sediment pile is within 42 to 48 inches of the water surface (or sediment pile thickness is 18 to 24 inches as measured from the base), the system should be maintained. The maximum sediment storage capacity of the Aqua-Swirl® is reached when the sediment pile is within 30 inches of the water surface (or sediment accumulation is 36 inches thick as measured from the base).

It should be noted that in order to avoid underestimating the volume of sediment in the chamber, the measuring device must be carefully lowered to the *top* of the sediment pile. Keep in mind that the finer sediment at the top of the pile may offer less resistance to the measuring device than the larger particles which typically occur deeper within the sediment pile.

The Aqua-Swirl® design allows for the sediment to accumulate in a semi-conical fashion as illustrated above. That is, the depth to sediment as measured below the water surface may be less in the center of the swirl chamber; and likewise, may be greater at the edges of the swirl chamber.

#### Aqua-Swirl® Cleanout Procedure

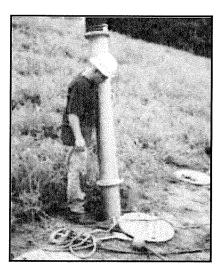
Cleaning the Aqua-Swirl® is simple and quick. Free-floating oil and floatable debris can be observed and removed directly through the 30-inch service access riser provided. A vacuum truck is typically used to remove the accumulated sediment and debris. An advantage of the

Aqua-Swirl® design is that the entire sediment storage area can be reached with a vacuum hose from the surface (reaching all the sides). Since there are no multiple or limited (hidden or "blind") chambers in the Aqua-Swirl®, there are no restrictions to impede on-site maintenance tasks.

#### **Disposal of Recovered Materials**

Disposal of recovered material is typically handled in the same fashion as catch basin cleanouts. AquaShield<sup>TM</sup> recommends that all maintenance activities be performed in accordance with appropriate health and safety practices for the tasks and equipment being used.

AquaShield<sup>TM</sup> also recommends that all materials removed from the Aqua-Swirl<sup>®</sup> and any external structures (e.g, bypass features) be handled and disposed in full accordance with any applicable local and state requirements.



Vacuum truck quickly cleans the Aqua-Swirl® from a single chamber

Aqua-Swirl® Inspection and Maintenance Work Sheets on following pages

# Aqua-Swirl® Inspection and Maintenance Manual Work Sheets

		SITE and OWNER INFORMATION
Site N	ame:	
Site L	ocation:	
Date:		Time:
Inspec	tor Name:	
Inspector Company: _		Phone #:
Owner	Name:	
Owner	Address:	ı .
Owner	: Phone #:	Emergency Phone #:
		INSPECTIONS
		ole lid to expose liquid surface of the Aqua-Swirl®.
2. 3.		ble debris with basket or net if any present. t, measure its depth. Clean liquids from system if one half (½) inch or more
	the surroundin accompanied measured with	Aqua-Swirl® can appear black and similar to oil due to the dark body of g structure. Oil may appear darker than water in the system and is usually by oil stained debris (e.g. Styrofoam, etc.). The depth of oil can be an oil/water interface probe, a stadia rod with water finding paste, a ollect a representative sample with a jar attached to a rod.
II.	Sediment Acc	umulation
2. 3.	provided (Figu Record distance Record distance Calculate distance Schedule clear	ring device (e.g. stadia rod) into swirl chamber through service access re 1). From a reference point at the top of the service access:  the to top of sediment pile (Figure 2):  the to top of water surface:  the totop of water surface inches  the totop of water surface inches  the totop of water surface inches  the totop of sediment pile (Figure 2):  the totop of water surface inches  the totop of sediment pile (Figure 2):  the totop of water surface inches  the totop of water water water inches  the totop of water water water water water inches  the totop of water wa

and maintenance should be performed immediately.



Figure 1. Measuring sediment in swirl chamber using stadia rod. Inspections are performed from the surface through the manhole access cover.

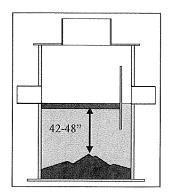


Figure 2. Maintain system when sediment is 42 to 48 inches below water surface to ensure proper system operation and performance. Maximum sediment storage capacity is reached when sediment is 30 inches below water surface.

#### III. Diversion Structures (External Bypass Features)

If a diversion (external bypass) configuration is present, it should be inspected as follows:

- 1. Inspect weir or other bypass feature for structural decay or damage. Weirs are more susceptible to damage than off-set piping and should be checked to confirm that they are not crumbling (concrete or brick) or decaying (steel).
- 2. Inspect diversion structure and bypass piping for signs of structural damage or blockage from debris or sediment accumulation.
- 3. When feasible, measure elevations on diversion weir or piping to ensure it is consistent with site plan designs.
- 4. Inspect downstream (convergence) structure(s) for sign of blockage or structural failure as noted above.

#### **CLEANING**

Schedule cleaning with local vactor company or AquaShield<sup>TM</sup> to remove sediment, oil and other floatable pollutants. The captured material generally does not require special treatment or handling for disposal. Site-specific conditions or the presence of known contaminants may necessitate that appropriate actions be taken to clean and dispose of materials captured and retained by the Aqua-Swirl<sup>®</sup>. All cleaning activities should be performed in accordance with property health and safety procedures.

AquaShield<sup>TM</sup> always recommends that all materials removed from the Aqua-Swirl<sup>®</sup> during the maintenance process be handled and disposed in accordance with local and state environmental or other regulatory requirements.

#### MAINTENANCE SCHEDULE

#### I. During Construction

Inspect the Aqua-Swirl® every three (3) months and clean the system as needed. The Aqua-Swirl® should be inspected and cleaned at the end of construction regardless of whether it has reached its maintenance trigger (42 to 48 inches below water surface), sediment storage capacity (30 inches below water surface).

#### II. First Year Post-Construction

Inspect the Aqua-Swirl® every three (3) months and clean the system as needed.

Inspect and clean the system once annually regardless of whether it has reached its sediment or floatable pollutant storage capacity.

#### III. Second and Subsequent Years Post-Construction

If the Aqua-Swirl® did not reach full sediment or floatable pollutant capacity in the First Year Post-Construction period, the system can be inspected and cleaned once annually.

If the Aqua-Swirl® reached full sediment or floatable pollutant capacity in less than 12 months in the First Year Post-Construction period, the system should be inspected once every six (6) months and cleaned as needed. The Aqua-Swirl® should be cleaned annually regardless of whether it reaches its sediment or floatable pollutant capacity.

#### IV. Bypass Structures

Bypass structures should be inspected whenever the Aqua-Swirl® is inspected. Maintenance should be performed on bypass structures as needed.

# 

MAINTENANCE COMPANY INFORMATION

### **ACTIVITY LOG** \_\_\_\_\_ (Next inspection should be 3 months from Date of Cleaning: this data for first year). Start: \_\_\_\_\_ End: \_\_\_\_\_ Time of Cleaning: Date of Next Inspection: Floatable debris present: Yes No Notes: Oil present: Yes No Oil depth (inches): Measurement method and notes: STRUCTURAL CONDITIONS and OBSERVATIONS Structural damage: Yes No Where: \_\_\_\_\_ Structural wear: Yes No Odors present: Yes No Describe: Clogging: Yes No Describe: \_\_\_\_\_ Other Observations:

#### **NOTES**

Additional Comments and/or Actions To Be Taken	Time Frame

#### **ATTACHMENTS**

- Attach site plan showing Aqua-Swirl® location.
- Attach detail drawing showing Aqua-Swirl® dimensions and model number.
- If a diversion configuration is used, attach details showing basic design and elevations (where feasible).

#### Aqua-Swirl®

#### TABULAR MAINTENANCE SCHEDULE

Date Construction Started:	
Date Construction Ended:	

#### **During Construction**

	Month												
Activity	1	2	3	4	5	6	7	8	9	10	11	12	
Inspect and Clean as needed			X			X			X	1 Mallace		X	
Inspect Bypass and maintain as needed			X			X			X			X	
Clean System*												X*	

<sup>\*</sup> The Aqua-Swirl® should be cleaned <u>once a year</u> regardless of whether it has reached full pollutant storage capacity. In addition, the system should be cleaned at the <u>end of construction</u> regardless of whether it has reach full pollutant storage capacity.

#### First Year Post-Construction

	Month												
Activity	1	2	3	4	5	6	7	8	9	10	11	12	
Inspect and Clean as needed			X			X			X			X	
Inspect Bypass and maintain as needed			X			X			X		77701	X	
Clean System*												X*	

<sup>\*</sup> The Aqua-Swirl® should be cleaned <u>once a year</u> regardless of whether it has reached full pollutant storage capacity.

#### Second and Subsequent Years Post-Construction

	Month											
Activity	1	2	3	4	5	6	7	8	9	10	11	12
Inspect and Clean as needed										*	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	X*
Inspect Bypass, maintain as needed									***************************************			X*
Clean System*									**			X*

<sup>\*</sup> If the Aqua-Swirl® did <u>not</u> reach full sediment or floatable pollutant capacity in the First Year Post-Construction period, the system can be inspected and cleaned once annually.

If the Aqua-Swirl® <u>reached</u> full sediment or floatable pollutant capacity in less than 12 months in the First Year Post-Construction period, the system should be inspected once every six (6) months or more frequently if past history warrants, and cleaned as needed. The Aqua-Swirl® should be cleaned annually regardless of whether it reaches its full sediment or floatable pollutant capacity.