



Inlet Guard
City of Garland Pilot Program
July 2nd – August 4th 2014

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Pilot Program Report

1. Purpose

Our goals with the installation and maintenance of inlet guards are the prevention of debris accumulation and loss of life.

2. Debris Accumulation

Below are photographs of debris from sewer run-offs that have accumulated in city creeks and along with polluting the environment, can also pollute a city's drinking water.



Miller Road Bridge
Garland, Texas
July 16, 2014



Runoff Creek at
Tripp & Beltline
Mesquite, Texas
July 16, 2014



3. Loss of Life

Along with preventing wildlife and domesticated pets from falling victim to the city's inlets, the installed inlet guards seek to prevent small children from playing in or falling into the city's sewer system through the inlets on every street throughout the suburban area.



July 1, 2014

Body of Iowa Teen Logan Blake, Swept Into Storm Drain, Is Found

The frantic search for an Iowa teen missing after he was sucked into a storm drain came to a sad end Tuesday when the body of the 17-year-old was found, officials said.



4. City of Garland Pilot Program

The locations provided to Inlet Guard by the City of Garland, Texas were:

- 4136 Broadway Blvd
- 525 Centerville Rd
- 1837 N Glenbrook Dr

Data was collected several times throughout this testing period. The weather was clear of precipitation except for July 16, 2014, July 30, 2014, and the early morning hours of July 31, 2014. The rainfall on July 16th was low to moderate in severity with variations in wind speed and downpour with a total accumulation of approximately 2". The rainfall on July 30th was very low in severity with a negligible amount of rain water accumulation. The rainfall on July 31st was moderate to high severity with a total accumulation of approximately 2".

5. Data Measurements

Inlet Guards were placed on street inlets to determine various aspects:

- Water flow during rain storms
- Debris stoppage at the street level
- Collection of debris in basket

Not only were we able to determine the effectiveness of using Inlet Guard as a Non-Point Source Pollution control, it also provided safety to the residents surrounding these inlets.

6. 4136 Broadway Boulevard

(Note: Due to this being an older inlet, on-site modification was conducted to fit the pre-made screen onto the curb side inlet. The spacers were removed. This also allowed us to see the importance of the spacers.)

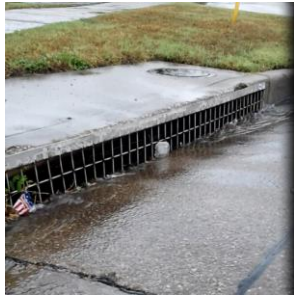
July 7th



July 14th



July 16th



July 21st



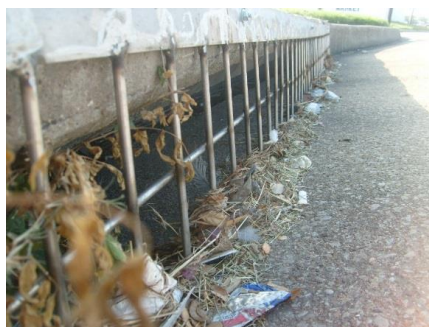
July 24th



July 30th



August 4th
(Before &
After take down)



Notes:

This inlet shows the importance of having spacers to allow for grass clippings and small debris to get from the street into the basket.

7. 525 Centerville Road

July 7th



July 14th



July 16th



July 21st



July 24th



July 30th





August 4th

(Before &
After take down)



Notes:

The entire time, the street was clean. All debris was deposited into the basket, including large pieces as shown in the picture on 8-4-14.

8. 1837 North Glenbrook Drive

(Note: This is the only inlet that a filter was inserted in the basket. The filter is a hair mat, provided by 'Matter Of Trust'. Hair mats are natural absorbents of oil and are biodegradable.)

July 7th



July 14th



July 16th



July 21st



July 24th



July 30th



August 4th

(Before &
After take
down)



Notes:

In this inlet with the hair mat, it was easy to see the trash collected as well as grass clippings and twigs. No oil seemed to be in the mat, however, if there had been oil in this inlet, we would have been prepared. (*Special Thanks to 'MatterOfTrust.org'*)

9. Conclusion

From the visual analysis shown in the photographs above, Inlet Guard has proven to be an effective tool in keeping debris from entering the city waterways.

The sewer areas inside and underneath the inlet guard baskets remained clear of debris, just as they were after our company installed them, proving the effectiveness of the Inlet Guards. By gathering the debris inside the baskets, this has allowed us to see and understand the type of trash that impacts each area.

- The location at 4136 Broadway Blvd was believed to be the area most impacted by pollution; this location had the least debris, but the most grass clippings/twigs.
- 525 Centerville Rd showed to have the largest pieces of debris.
- 1837 N. Glenbrook Dr had the most debris, with the majority of it being smaller pieces.

During rainfall, neither the screen, nor the hair mat impeded the flow of water into the city sewer system. We would recommend the hair mat filter in all baskets, as a way to catch oil and small debris such as grass clippings.

The screens exceeded our expectations during this pilot, by allowing debris of all sizes to be deposited into the basket inside the basin and did not block the screens.

Therefore, the evidence advocates that Inlet Guard products would be an effective tool in reducing/minimizing debris that flow into our waterways via storm drains, as well as offer the residents a layer of protection for themselves, pets and wild life.

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