

City of Greeley 2008 Stormwater Questionnaire Results

The City of Greeley has prepared the following questionnaire to satisfy one of the components outlined in the City's Stormwater Discharge Permit, which it was required to develop and submit to the Colorado Department of Public Health & Environment.

Thank you to all of you that took the time to complete this year's questionnaire.

Statistics for the two bi-annual surveys completed:

	2006			2008		
	Mailed	Returned – Not Deliverable	Completed & Returned	Mailed	Returned – Not Deliverable	Completed & Returned
Surveys to Citizens	787	15	249	967	9	221
Surveys City Staff **	NA			193	-	76
Surveys to UNC Facility Staff	NA			150	-	23
Response Rate	32.3%			24.6%		
Expected Response Rate	20%			20%		

** City Staff included Public Works Department, W&S Water Resource Division, Stormwater Board and W&S Pollution Control Facility.

1. A watershed is defined as:		
	2008 RESULTS	
	NUMBER	%
A shed filled with water	7	2.2
The region draining into a waterway	273	85.3
A shed that lies within a waterway	13	4.1
Water that is shed from a person, place or thing.	6	1.9
None of the Above.	16	5
Skipped Question	5	1.6
Total # of RESPONSES	320	

Note: A watershed is the area of land that catches rain and snow melt, and drains into a water body such as a stream, river or lake. The highest ground, such as mountains or ridges, forms boundaries between watersheds.

We all live in a watershed, and the way we develop and live on our land affects our water. Water flowing across the surface of land can pick up pollutants such as sediment from construction sites or dirt roads, oil and salts from streets and parking areas, fertilizers and pesticides from lawn runoff, and bacteria and nutrients from animal waste.

Actions that you take around your homes can impact water quality throughout the watershed. What we do on our land affects stormwater quality, and we are responsible for protecting and improving the City of Greeley's water resources.

City of Greeley 2008 Stormwater Questionnaire Results

2. In which watershed is the City of Greeley located?		
	2008	%
The Big Thompson	66	20.6
The Cache La Poudre	200	62.5
The Lake Loveland	17	5.3
Have no idea.	35	10.9
Skipped Question	2	.7
Total # of RESPONSES	320	100%

3. Which of the following is part of the storm drain system?		
	2008	%
Storm drain inlets/catch basins and manholes.	19	5.9
Street, curb and gutter.	18	5.6
Ditches, Swales	2	.7
Lakes, ponds.	3	.9
Detention ponds	8	2.5
All of the above. (Correct Answer)	267	83.5
None of the above		
Skipped Question	3	.9
Total # of RESPONSES	320	100%

Note: The City of Greeley's stormwater drainage system consists of all the components listed above.

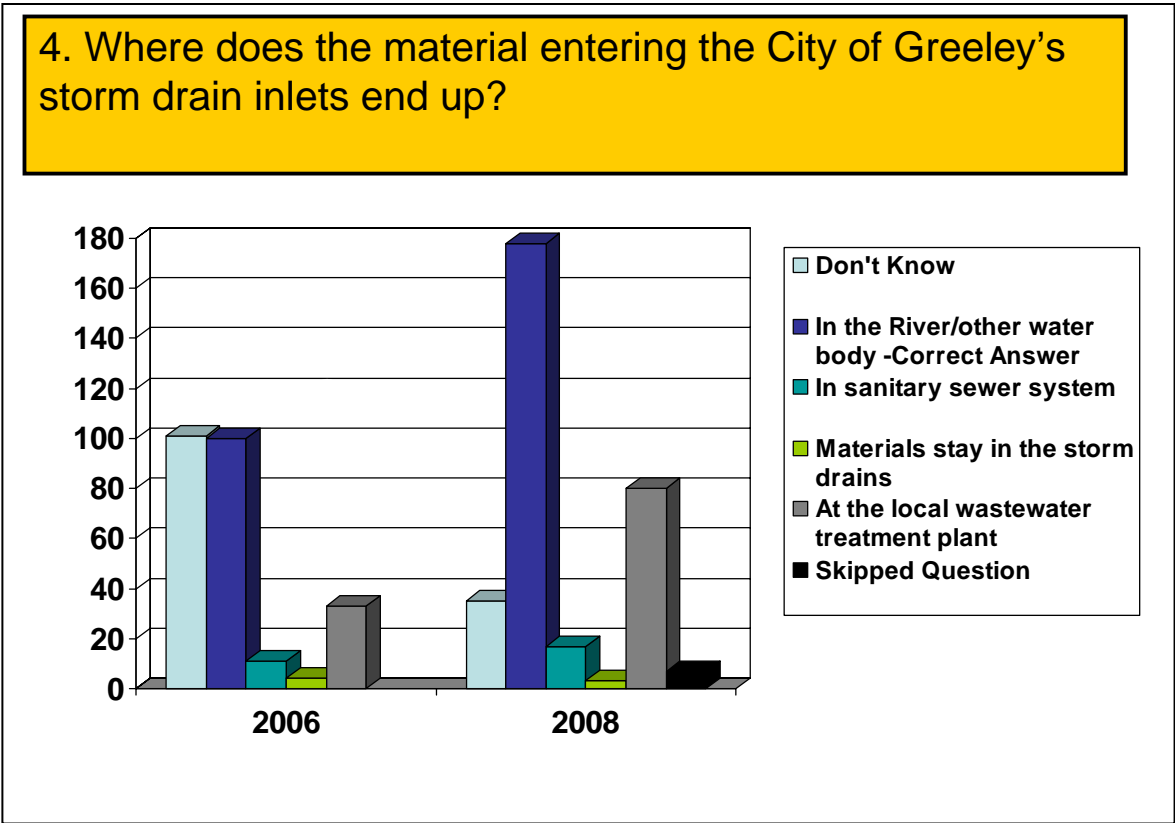
The City's Stormwater Drainage System consists of:

- 822,000 LINEAR FT OF PIPE & OPEN CHANNELS
- 3,517 STORM INLETS
- 6 MILES OF #3 Irrigation Ditch
- 36 City owned Detention ponds
- 2,200 Manholes
- 9 Drainage Basins

City of Greeley 2008 Stormwater Questionnaire Results

4. Where does the material entering the City of Greeley's storm drain inlets end up at?				
	2008 Results		2006 results	
Don't know	35	10.9%	101	40.6%
The river / other waterway.	178	55.6%	100	40.2%
In the sanitary sewer system.	17	5.3%	11	4.4%
The materials stay in the storm drains.	3	0.9%	4	1.6%
At the local wastewater treatment plant.	80	25%	33	13.3%
Skipped Question	7	2.2%		
Total # of RESPONSES	320		249	

Note: Stormwater runoff and the materials picked up by stormwater **does not** go to the City of Greeley's Water Pollution Control Facility for treatment. Instead, untreated, polluted and contaminated stormwater runoff is directed to storm drain inlets/ catch basins and into the storm drains (underground storm pipes) swales, ditches, detention ponds before being discharged into the Cache La Poudre or South Platte Rivers.

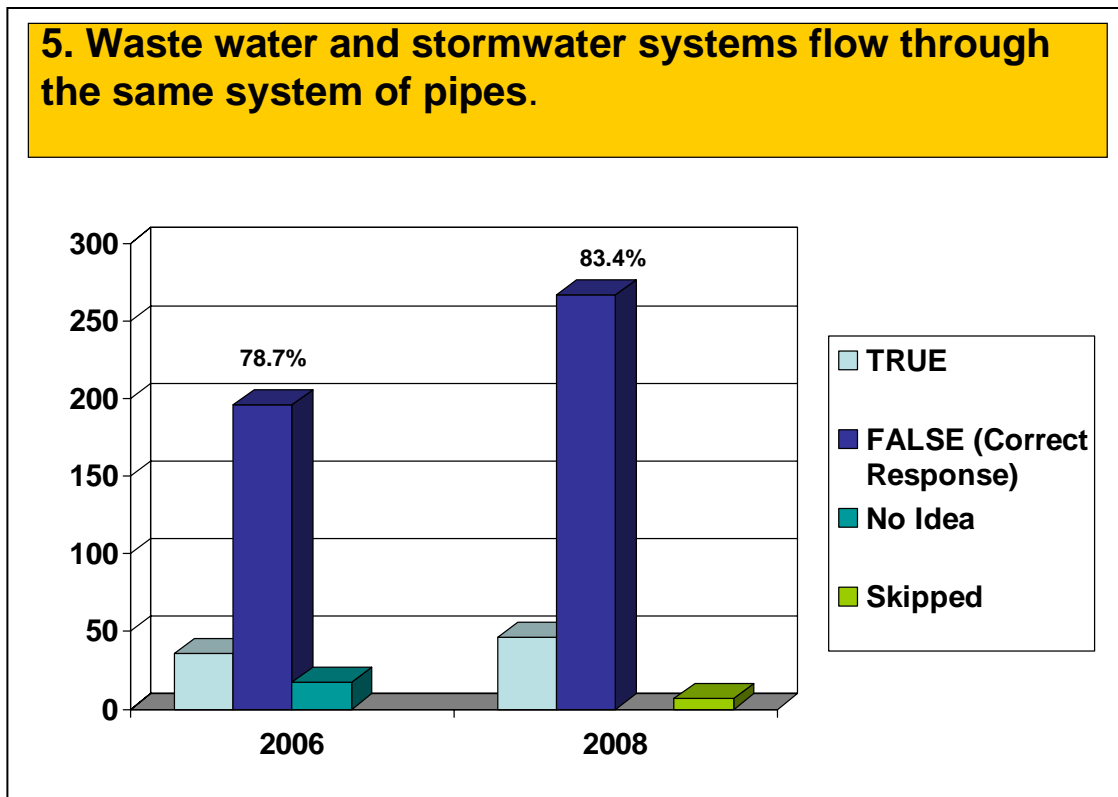


City of Greeley 2008 Stormwater Questionnaire Results

5. Wastewater and stormwater flow through the same system of pipes.		
	2008 Results	2006 results
TRUE	46 14.4%	36 14.5%
FALSE (Correct Response)	267 83.4%	196 78.7%
(No Idea) 2006		17 6.85
Skipped - 2008	7 2.2%	
TOTAL # of RESPONSES	320	249

Note: Wastewater from kitchen and bathroom sinks, bathroom toilets and tubs is directed into the sanitary sewer pipes. The wastewater in these pipes goes to the City's Pollution Control Facility for treatment before it is discharged into the Cache La Poudre River.

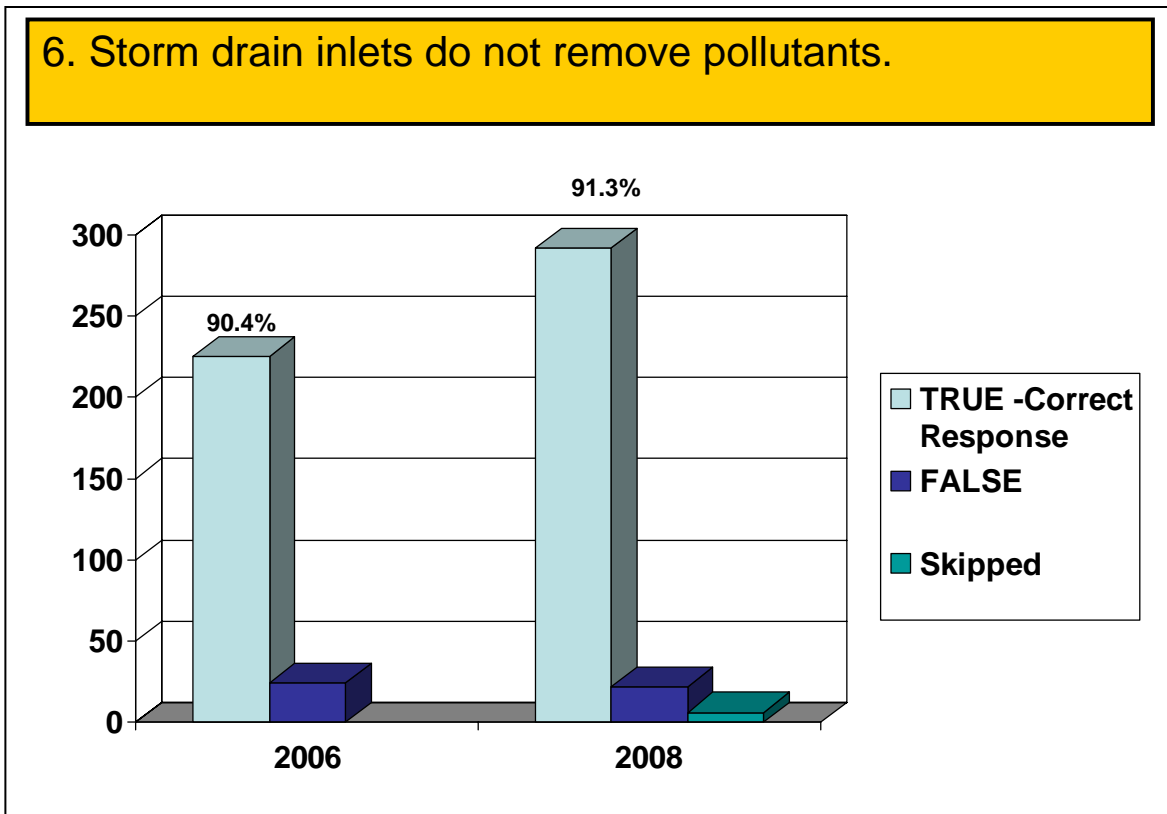
Stormwater runoff and the materials picked up by stormwater **does not** go the Water Pollution Control Facility (wastewater plant) for treatment. Instead, untreated, polluted and contaminated runoff is directed to storm drain inlets/catch basins and into the storm drains (under ground storm pipes), swales, ditches and detention ponds before being discharged into the Cache La Poudre and/or South Platte Rivers.



City of Greeley 2008 Stormwater Questionnaire Results

6. Storm drain inlets do not remove pollutants.		
	2008 Results	2006 results
TRUE (Correct Response)	292 91.3%	225 90.4%
FALSE	22 6.9%	24 9.6%
Skipped Question	6 1.8%	
TOTAL # of RESPONSES	320	249

Note: Storm drains are not designed to remove pollutants. Most storm drains are designed for the sole purpose of removing stormwater runoff from development sites as quickly as possible in order to reduce localized flooding and aren't designed to remove pollutants. Storm drains or catch basins may catch the larger floatable trash and debris like leaves, branches, bottles, etc.

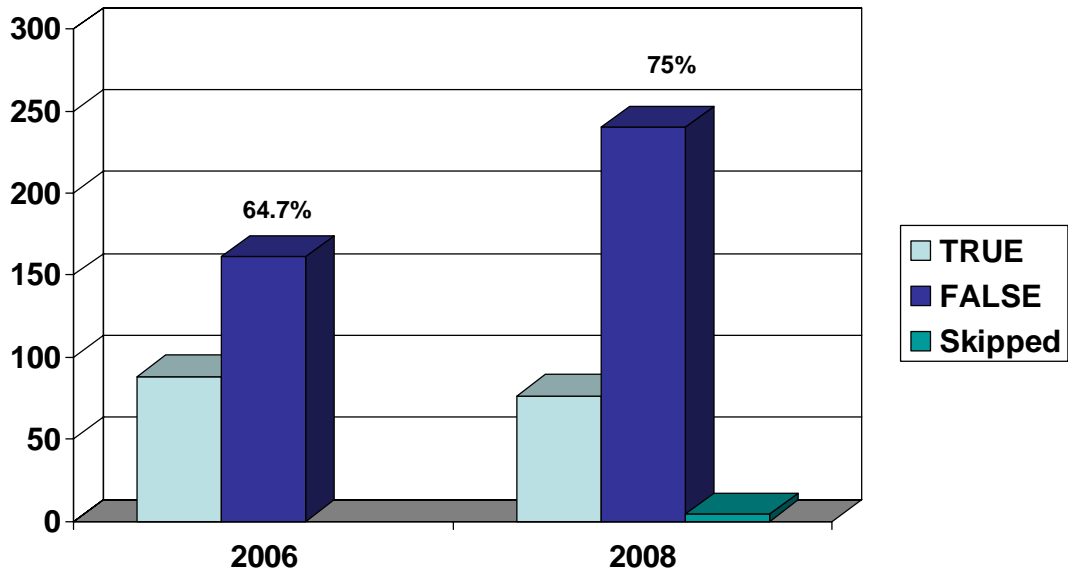


City of Greeley 2008 Stormwater Questionnaire Results

7. Less water is used to wash your car at home than at a commercial car wash.		
	2008 Results	2006 results
TRUE	76 23.8%	88 35.3%
FALSE (Correct Answer)	240 75%	161 64.7%
Skipped Question	4 1.2%	
TOTAL # of RESPONSES	320	249

7. You use less water washing your car at home than you would if you washed your car at a commercial car wash.

Correct Answer: False, Automatic and self-serves use less water than the most conscientious do-it-yourselfer using a garden hose and bucket in the driveway



City of Greeley 2008 Stormwater Questionnaire Results

8. Besides rain and water from snow melt, which of the following is considered an acceptable discharge to a storm drain?		
	2008 Results	%
Runoff from non-commercial car washing.	14	4.4
Lawn watering	42	13.1
Landscape irrigation	26	8.1
Dechlorinated water from swimming pools, spas and hot tubs.	7	2.2
Water from crawl space pumps.	9	2.8
All of the above. (Correct Answer)	163	50.9
None of the above.	54	16.9
Skipped Question	5	1.60
TOTAL # of RESPONSES	320	100%

Note: All of these discharges are allowable by the Colorado Department of Health and the City of Greeley Municipal Code section 14.16 titles "Illicit Discharges".

9. It is acceptable for power washing waste water to discharge into a storm drain.		
	2008 Results	%
TRUE	124	38.8%
FALSE (Correct Answer)	187	58.4%
Skipped Question	9	2.8%
TOTAL # of RESPONSES	320	100%

Note: Waste water from power washing is considered an illicit discharge by the City of Greeley, unless you have a special permit for your discharge from the Colorado Department of Public Health & Environment. If you have not used chemicals in the power washer you can direct or divert the water to landscape. When using chemicals, trap the water and pick up with a shop vac and dispose of in the sanitary sewer.

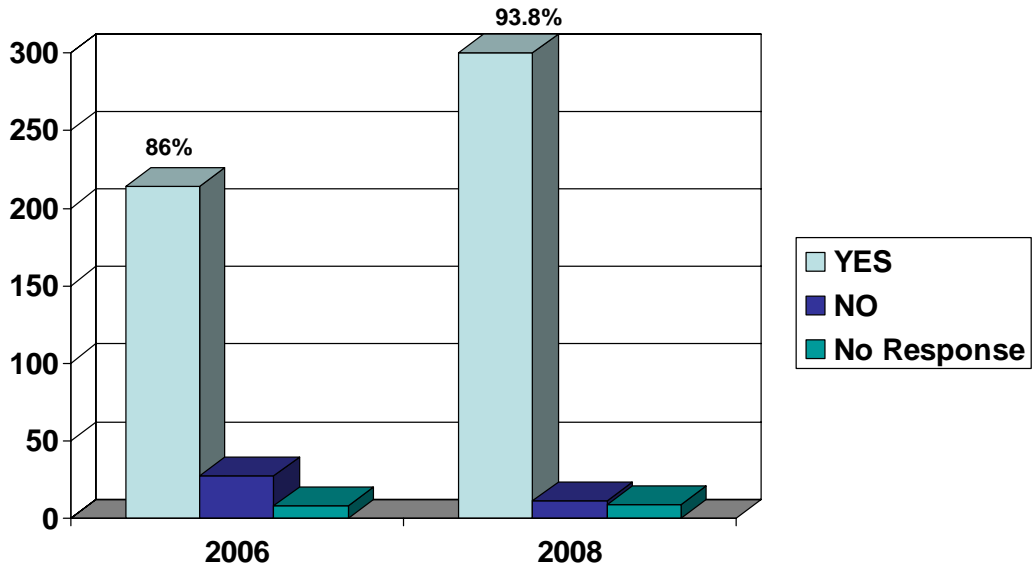
10. Do you think the water quality of our waterways is cleaner today?		
	2008 Results	%
YES	136	42.5
NO	74	23.1
I haven't noticed a change.	70	21.9
I haven't lived here long enough to notice a change.	9	10.9
Skipped Question (If NO go to #12)	5	1.6
TOTAL # of RESPONSES	320	100%

City of Greeley 2008 Stormwater Questionnaire Results

11. If YES to number 10, when do you think the water quality of our waterways began to improve.		
	2008	%
More than 5 years ago.	43	31.6%
Within the last 5 years.	60	44.1%
After the City acquired its' stormwater Discharge Permit in 2003.	33	24.3%
TOTAL # of RESPONSES	136	

12. Would you consider altering some of your daily activities to improve water quality if you were provided the information or equipment to do so?		
	2008 Results	2006 results
YES	300 93.8%	214 86%
NO	11 3.4%	27 11%
No Response	9 2.8%	8 3%
TOTAL # of RESPONSES	320	249

12. Would you consider altering some of your daily activities to improve water quality if provided the information or equipment to do so?



City of Greeley 2008 Stormwater Questionnaire Results

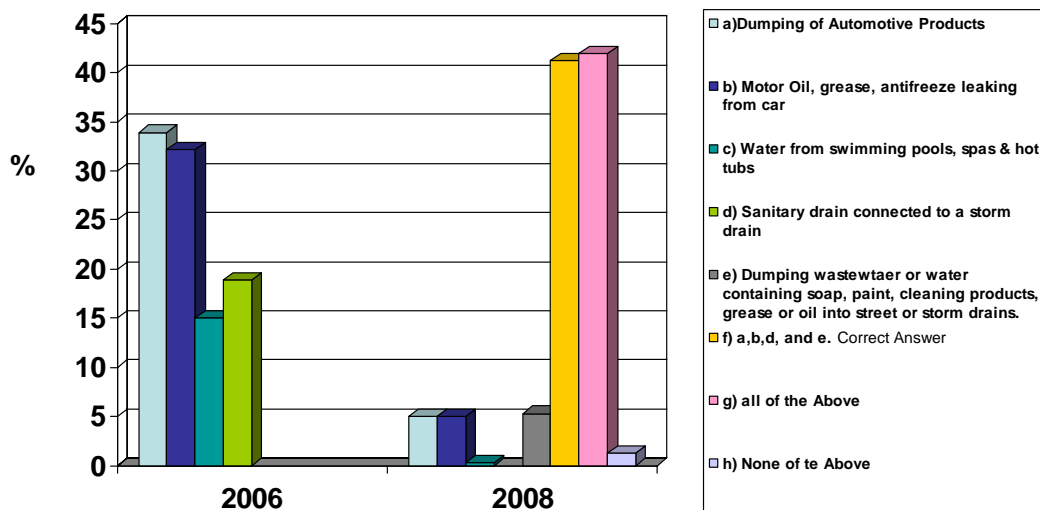
13. Which of the following are considered illicit discharges?

(In 2006 survey, could check all that applied and in 2008 want just one answer checked.)

	2008 Results	2006 results
a) Dumping of automotive products & toxic pollutants	16 5%	208 33.9%
b) Motor oil, grease, antifreeze, etc from leaking vehicles.	16 5%	198 32.2%
c) Water from swimming pools, spas and hot tubs.	1 0.3%	92 15.0%
d) Sanitary sewer connected to a storm drain	0	
e) Dumping wastewater or water containing soap, paint, cleaning products, grease, or oil into the street or storm drain.	17 5.3%	116 18.9%
f) a,b,d and e. (Correct Answer -2008)	132 41.25%	
g) all the above	134 41.9%	
h) None of the above.	4 1.25%	
TOTAL # of RESPONSES	320	249

Note: Water from swimming pools, spas and hot tubs is **not considered** an illicit discharge by the City of Greeley as long **as the water has been adequately dechlorinated prior to being discharged into the storm drain system.**

13. Which of the following are considered illicit discharges?



City of Greeley 2008 Stormwater Questionnaire Results

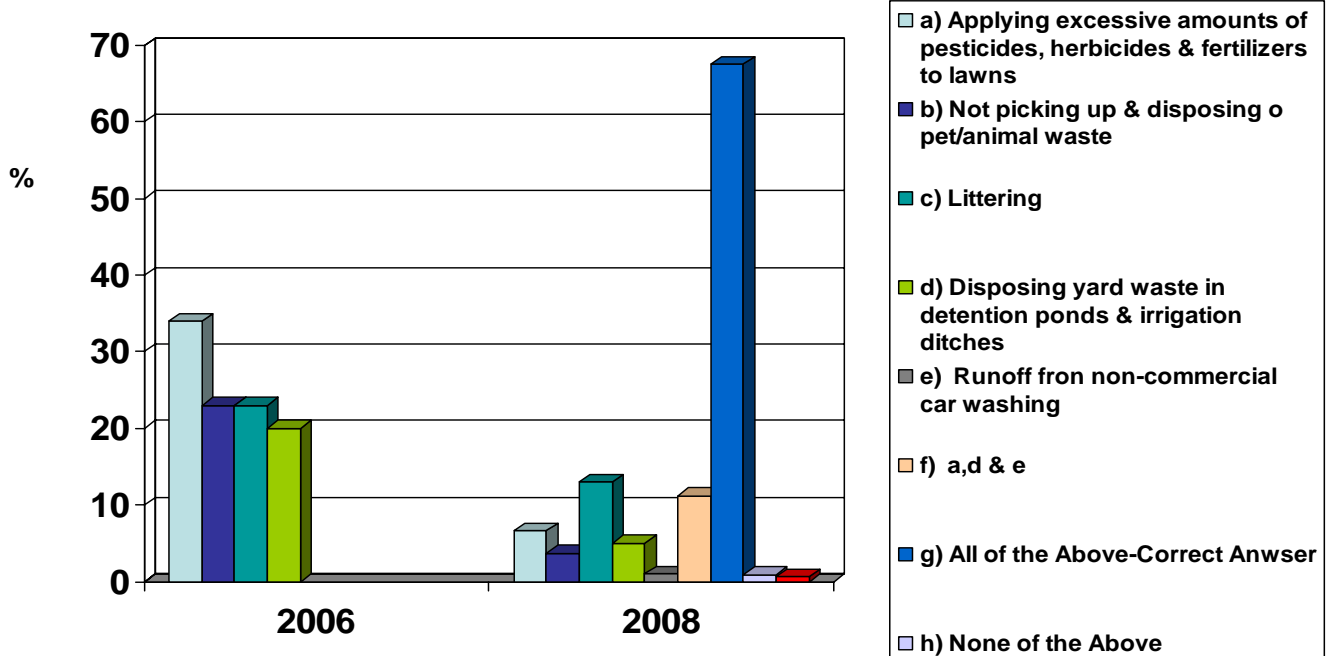
14. Which of the following activities are detrimental to water quality?

(In the 2006, you could check all that applied and in the 2008 survey were looking for one answer)

	2008 Results	2006 results
a) Applying excessive amounts of pesticides, herbicides & fertilizers to lawns.	21 6.6%	207 34%
b) Not picking up and disposing of pet / animal waste.	12 3.75%	142 23%
c) Littering	13 4.1%	142 23%
d) Disposing of yard waste in detention ponds and irrigation ditches,	16 5.0%	123 20%
e) Runoff from non-commercial car washing.	1 0.3%	
f) a, d & e.	36 11.25%	
g) All of the above. (Correct Answer)	216 67.5%	
h) None of the above.	3 0.9%	
Skipped Question	2 0.6%	
TOTAL # of RESPONSES	320	249

Note: Although runoff from non-commercial car washing is not considered to be an illicit discharge by the City of Greeley it is detrimental to the water quality of waterways. The City recommends using a commercial car wash facility whenever possible.

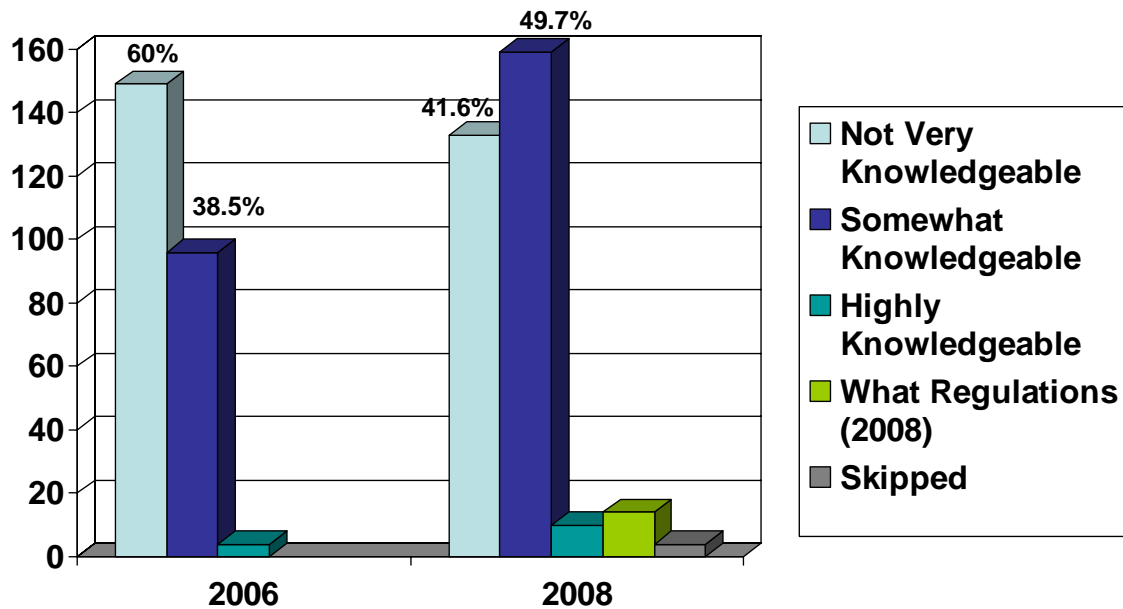
14. Which of the following activities are detrimental to water quality?



City of Greeley 2008 Stormwater Questionnaire Results

15. How knowledgeable are you of the City's current stormwater regulations?		
	2008 Results	2006 results
I'm not very knowledgeable.	133 41.6%	149 60%
I'm somewhat knowledgeable.	159 49.7%	96 38.5%
I'm highly knowledgeable	10 3.1%	4 1.5%
What regulations?	14 4.4%	NA in 2006
Skipped	4 1.25%	
Total # of RESPONSES	320	249

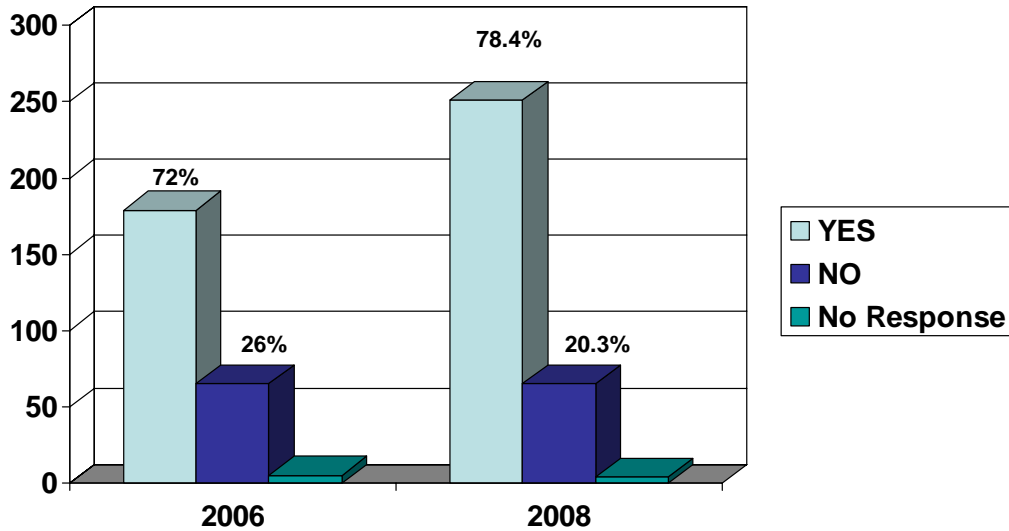
15. How Knowledgeable are you concerning current stormwater regulations?



16. Would you like to learn more about the current stormwater regulations that the City is required to comply with?		
	2008 Results	2006 results
YES	251 78.4%	179 72%
NO	65 20.3%	65 26%
No Response	4 1.3%	5 2%
TOTAL # of RESPONSES	320	249

City of Greeley 2008 Stormwater Questionnaire Results

16. Would you like to learn more about current stormwater regulations that the City is required to comply with?



17. According to the Environmental Protection Agency (EPA), what is the number one pollutant of our waterways?

	2008 Results	%
Pesticides, herbicides & fertilizers.	208	65%
Pet / Animal Waste.	7	2.2%
Litter (Trash)	29	9.1%
Yard waste disposed of in roadways, ditches & waterways.	15	4.7%
Sediment (Correct Answer)	52	16.2%
Skipped	9	2.8%
TOTAL # of RESPONSES	320	100%

Note: Although each of the items listed pollutes our waterways the USEPA says *eroded sediments account for 80% of the pollution of the nations streams*. That's right. Dirt was listed as a leading cause of pollution in our rivers and streams. When rain washes dirt into streams and rivers, it smothers the little critters in the stream and kills any fish eggs clinging to rocks. Dirt can also clog the gills of fish, suffocating them. If the plants that use the sun to make food (photosynthesis) can't get enough sunlight because the water is murky, they die.

City of Greeley 2008 Stormwater Questionnaire Results

Most of the dirt washing into lakes and streams comes from activities that remove trees and shrubs and leave the soil exposed. This exposed soil includes;

- fields that have just been plowed
- construction sites that have been bulldozed
- Areas that have been logged or mined.
- Bare spots in lawns or ball fields
- Stream Banks from fast moving water

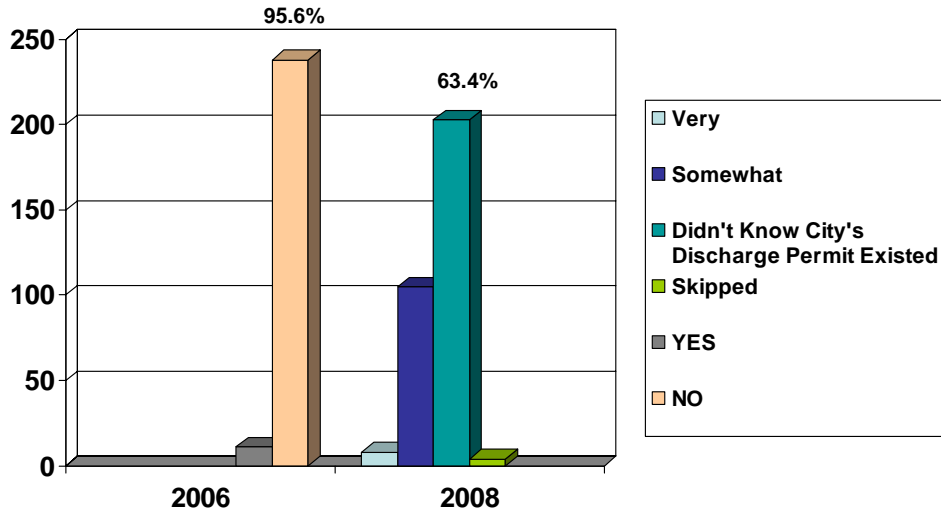
The solution is to stop the dirt from getting into the stream or river in the first place by disturbing land as little as possible.

- Farmers are using different methods to grow their crops so they leave less earth exposed, and they plant grasses in fields that are not being used.
- Construction workers are putting up silt fences and straw bales to trap the dirt and contain it while they build.
- Developers can design new home sites that leave more natural areas and less pavement to reduce the amount of earth they disturb.

18. How familiar are you with the components of the City's Stormwater Discharge Permit?		
Are you familiar with the components of the City's stormwater Discharge Permit? (2006)		
	2008 Results	2006 results
Very familiar	8 2.5%	
Somewhat familiar	105 32.8%	
I didn't know the City's discharge permit existed.	203 63.4%	
Skipped	4 1.3%	
YES (2006)		11 4.4%
No (2006)		238 95.6%
TOTAL # of RESPONSES	320	249

City of Greeley 2008 Stormwater Questionnaire Results

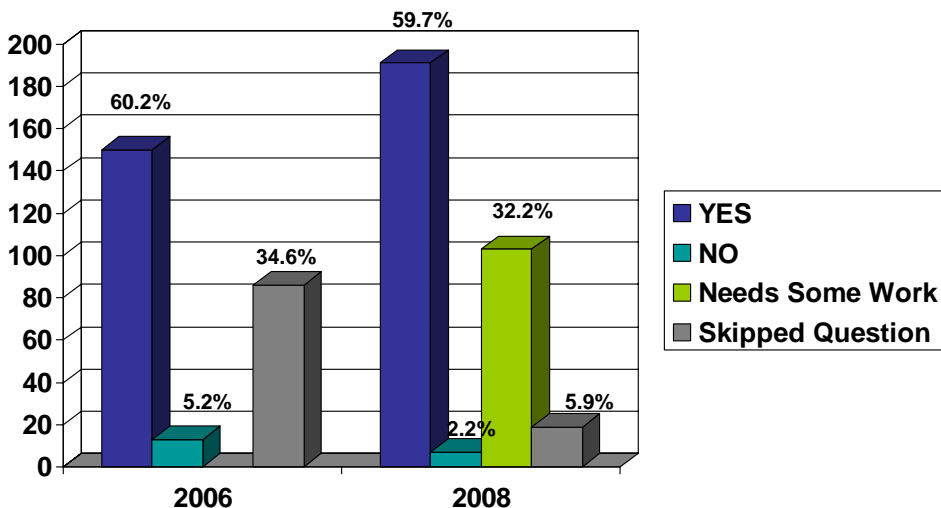
18. How familiar are you with the components of the City's stormwater discharge permit?



19. The City does a good job of managing stormwater including flood control and improving water quality.

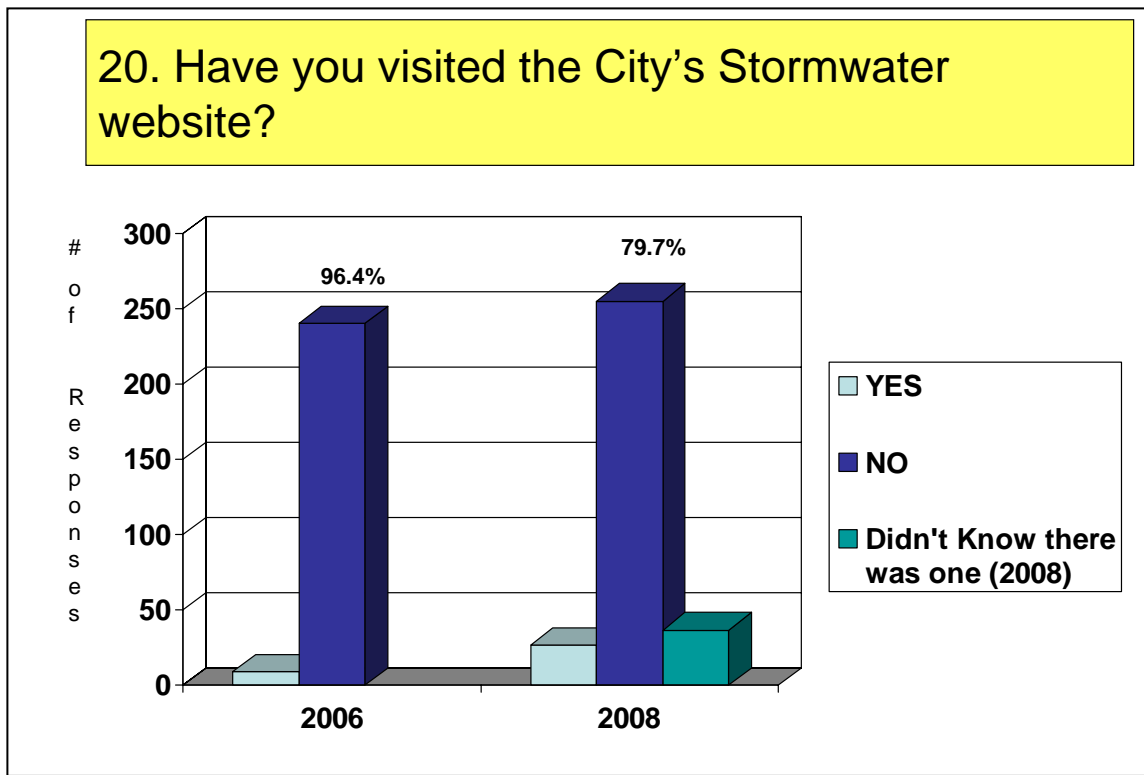
	2008 Results	2006 results
YES	191 59.7%	150 60.2%
NO	7 2.2%	13 5.2%
Needs some work.	103 32.2%	NA
No Response – Did not answer question	19 5.9%	86 34.6%
TOTAL # of RESPONSES	320	249

19. The City does a good job of managing stormwater including flood control and improving water quality.



City of Greeley 2008 Stormwater Questionnaire Results

20. Have you visited the City's Stormwater website?		
	2008 City Staff Results	2006 Results
YES	27 8.4%	9 3.6%
NO	255 79.7%	240 96.4%
I didn't know there was one.	37 11.6%	NA in 2006
(If NO, go to number 22)		
TOTAL # of RESPONSES	320	249



21. If YES to number 20, how often have you visited?		
	2008 Results	%
Once or twice a month	4	14.8%
Once or twice a year.	18	66.7%
Other	3	11.1%
Skipped	2	7.4%
TOTAL # of RESPONSES	27	100%

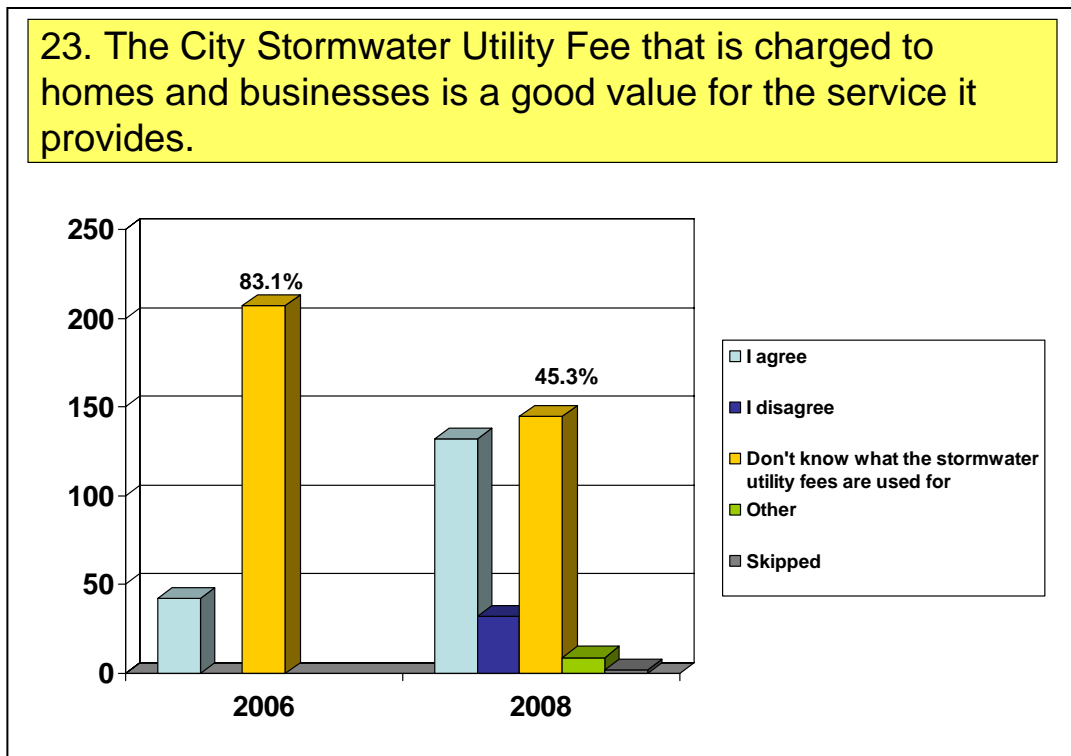
City of Greeley 2008 Stormwater Questionnaire Results

22. Did you know that the Stormwater Illicit Discharge Hotline Number phone number is (970) 336-4074?		
	2008 Results	%
YES	23	7.2%
NO	295	92.2%
Skipped	2	0.6%
TOTAL # of RESPONSES	320	

Note: The hotline number is listed in every article, news paper, radio ad, brochure, sign etc that the stormwater division distributes.

23. The City Stormwater Utility Fee that is charged to homes and businesses is a good value for the service it provides.		
	2008 Results	2006 results
I agree	132 41.25%	42 16.9%
I disagree	32 10.0%	
I don't know what the stormwater utility fees are used for.	145 45.3%	207 83.1%
Other	9 2.8%	
Skipped Question	2 0.7%	
TOTAL # of RESPONSES	320	249

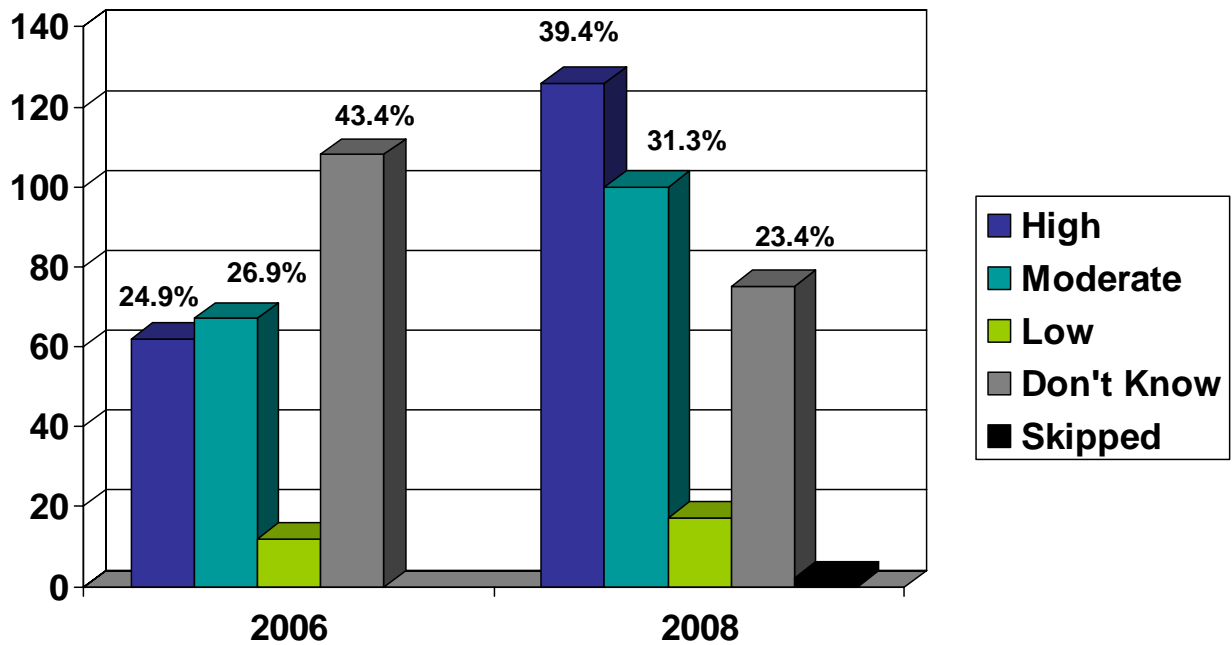
Note: In 2007, the Stormwater Division developed and distributed a Stormwater Utility brochure to explain how and where the utility fees were used in response to the 2006 survey results. These were sent to all utility customers in the monthly bills and approximately 25,000 were mailed.



City of Greeley 2008 Stormwater Questionnaire Results

24. What is the impact of urban stormwater runoff on the water quality of our water ways? (Please pick one)		
	2008 Results	2006 results
High Impact	126 39.4%	62 24.9%
Moderate Impact	100 31.3%	67 26.9%
Low impact	17 5.3%	12 4.8%
I don't know.	75 23.4%	108 43.4%
Skipped	2 0.6%	
TOTAL # of RESPONSES	320	249

24. What is the impact of urban stormwater runoff on water quality within our waterways?

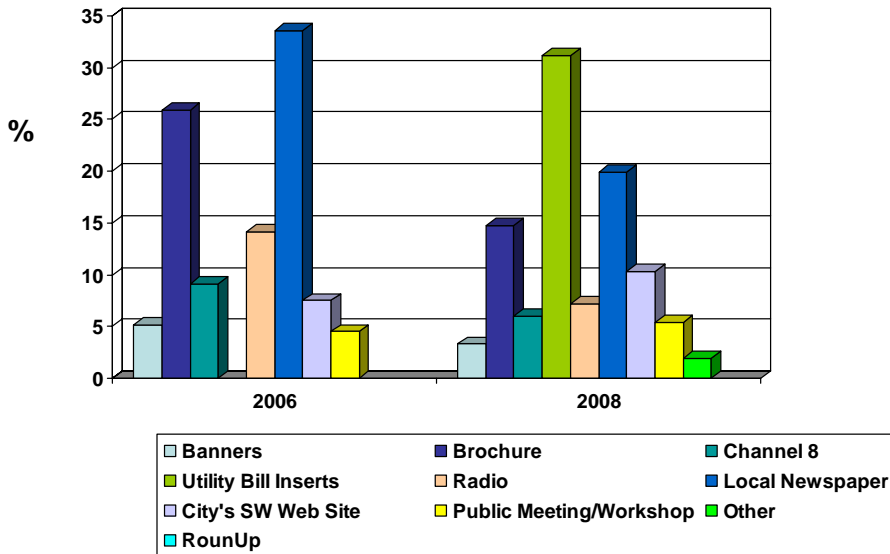


City of Greeley 2008 Stormwater Questionnaire Results

**25. What is/are the most effective way(s) for the City of Greeley to inform you about stormwater issues?
(Select all that apply)**

	2008 City Staff Results	2006 results
Banners	24 3.3%	23 5.2%
Brochures	107 14.72%	114 25.9%
GTV Channel 8	44 6.05%	40 9.1%
Utility Bill Inserts	227 31.2%	NA
Local Newspaper	145 19.94%	148 33.6%
Public Meetings/ workshops	39 5.36%	20 4.5%
Public Radio	52 7.15%	62 14.1%
The City's website.	75 10.32%	33 7.5%
Other:	14 1.93%	
TOTAL	727	440

25. What is/are the most effective way for the City of Greeley to inform you about stormwater issues? (Select all that apply)

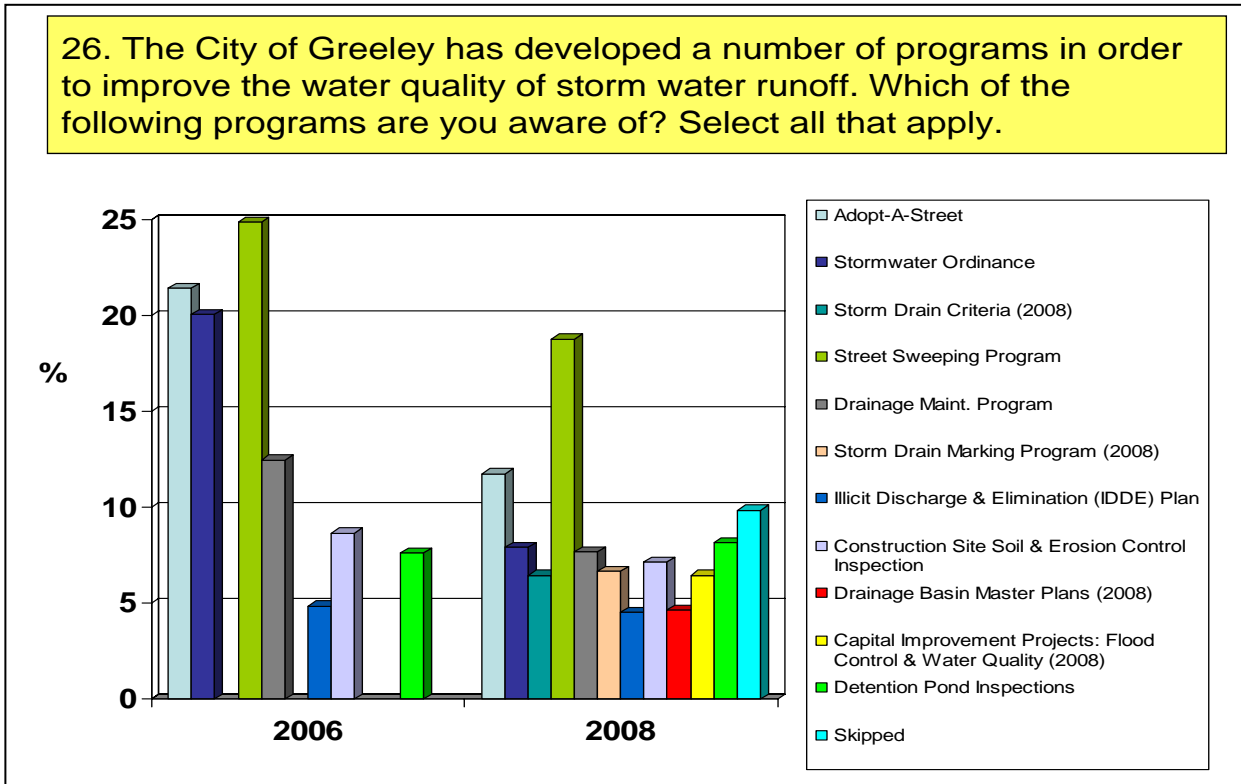


In 2006, the most effective way to inform citizens was the local newspaper and brochures while in 2008 the results indicate the inserts in utility bills is more effective.

City of Greeley 2008 Stormwater Questionnaire Results

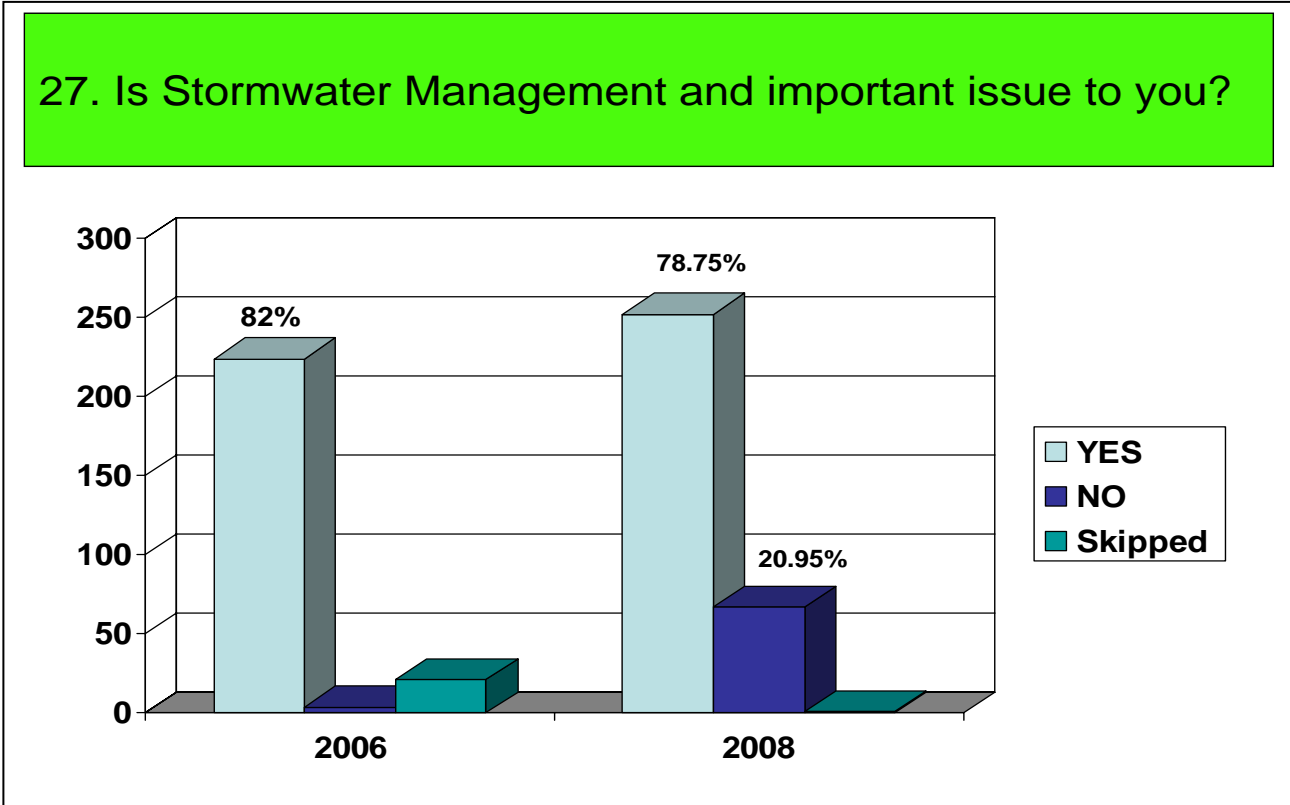
26. Which of the following stormwater programs are you aware of? (Select all that apply)		
	2008 City Staff Results	2006 results
Adopt -A - Street	104 11.76%	62 21.45%
Stormwater Ordinance	70 7.92%	58 20.07%
Storm Drainage Criteria	57 6.45%	
Street Sweeping Program	166 18.78%	72 24.91%
Drainage Maintenance Program	68 7.69%	36 12.46%
Storm Drain Marking Program	59 6.67%	
Detention Pond Inspection Program	72 8.14%	22 7.6%
Illicit Discharge Detection & Elimination (IDDE) Plan	40 4.52%	14 4.84%
Construction Site Soil & Erosion Control Inspection Program	63 7.13%	25 8.67
Drainage Basin Master Plans	41 4.64%	
Capital Improvement Projects for both Flood Control & Water Quality Improvements.	57 6.45%	
Skipped	87 9.84%	
TOTAL	884	289

Note: All of the programs listed above are active programs in the Stormwater Division.



City of Greeley 2008 Stormwater Questionnaire Results

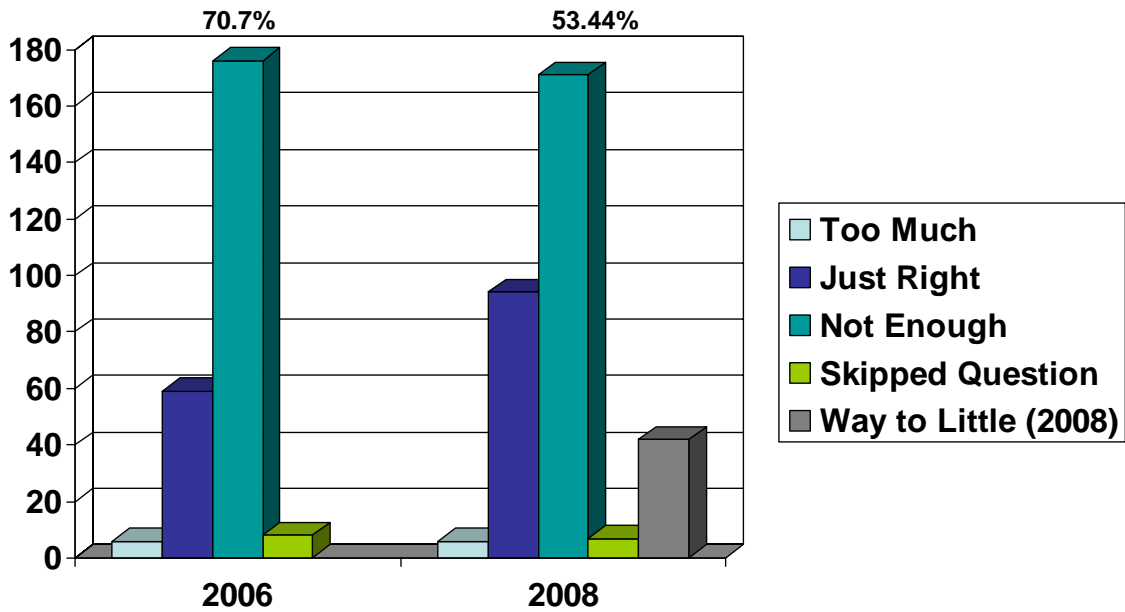
27. Is Stormwater Management an important issue to you?		
	2008 Results	2006 results
YES	252 78.75%	204 82%
NO	67 20.95%	24 9.6%
Did not Answer	1 0.3%	21 8.4%
TOTAL # of RESPONSES	320	249



28. The amount of information you receive about stormwater in Greeley is:		
	2008 Results	2006 results
Way too much	4 1.25%	6 2.4%
Too much	2 0.63%	59 23.7%
Just right	94 29.38%	176 70.7%
Not enough	42 13.13%	7 2.19%
Way too little	7 2.19%	8 3.2%
Did not Answer	1 0.3%	21 8.4%
TOTAL # of RESPONSES	320	249

City of Greeley 2008 Stormwater Questionnaire Results

28. The amount of information I receive about stormwater in Greeley is:

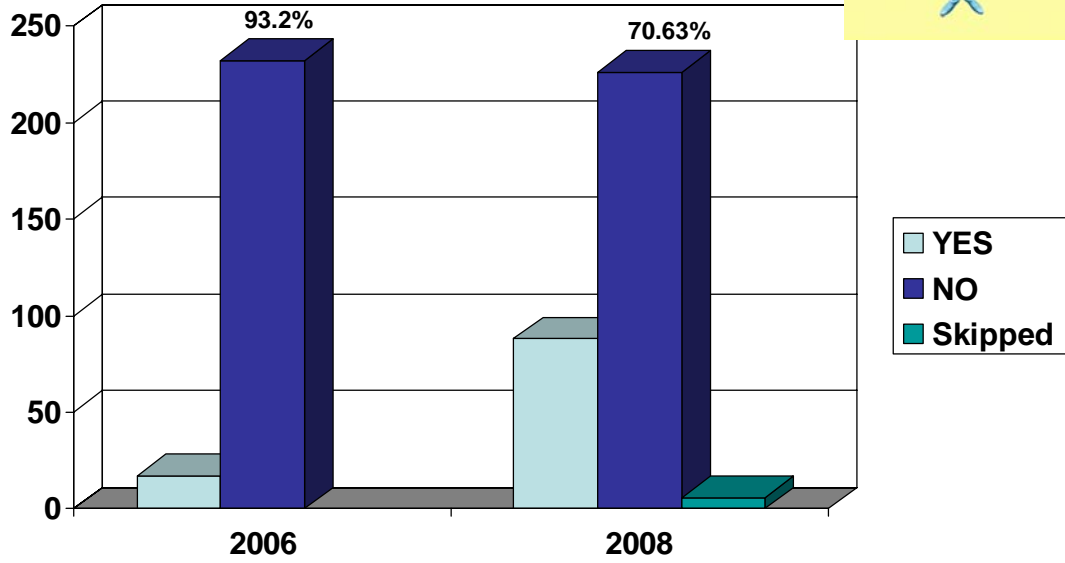


29. Do you know who H2O Jo and Flo are?		
	2008 City Staff Results	2006 results
YES	88 53.95%	17 6.8%
NO	226 70.63%	232 93.2%
Did Not Answer	6 1.87%	
TOTAL # of RESPONSES	320	249

Note: H2O Jo and Flo and the Keep It Clean message has been used on Stormwater brochures, Bus Bench Ads, Dasher Board Ads, any printed piece that the city uses since 2005.

City of Greeley 2008 Stormwater Questionnaire Results

29. Do you know who H2O Jo and Flo are?



Meet H2O Jo and Flo



Keep it clean, 'cause we're all downstream!

City of Greeley 2008 Stormwater Questionnaire Results

Meet Water’s New Ambassadors: H2O Jo and Flo

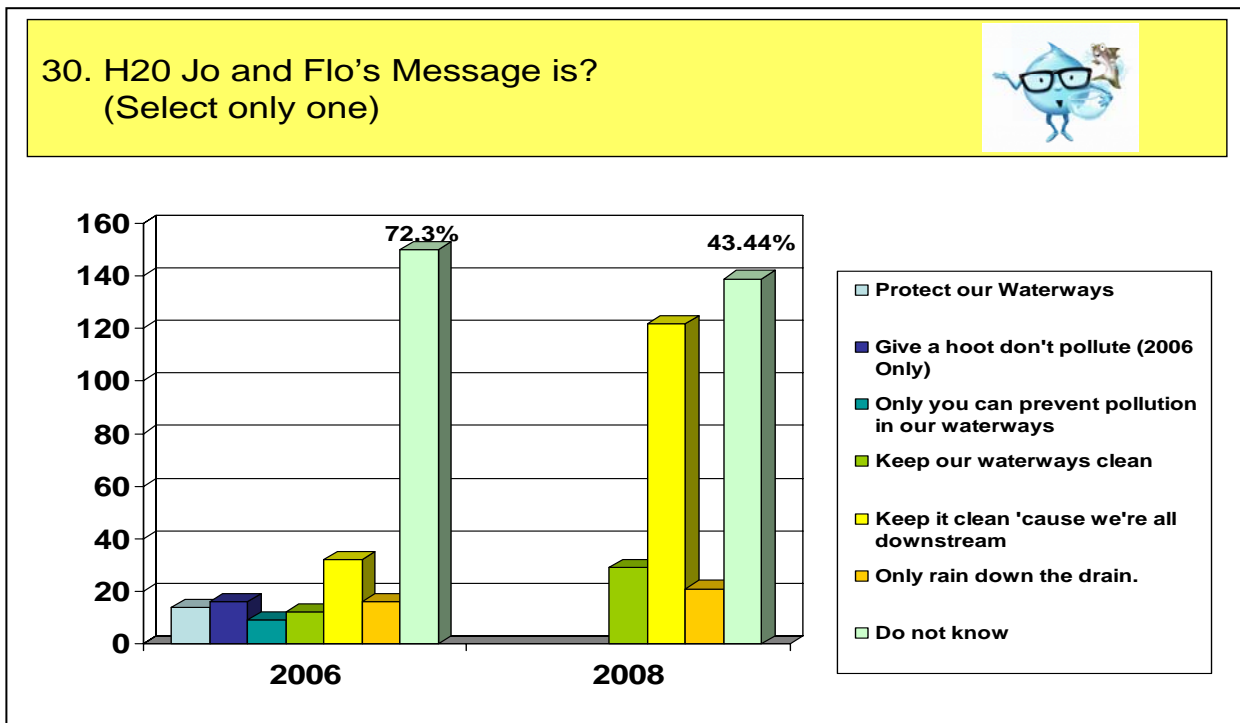
We drink it, flush it, bathe in it, swim in it and more. **Water** – a precious resource most of us take for granted. Now water has a voice to remind us that we have a role in keeping water clean.

Common sources of contaminants such as pet waste, lawn and garden products, paint, and vehicle maintenance products, if not handled properly, can threaten our waters every day. Watch for H2O Jo’s and Flo’s resounding message, “Keep it clean, ‘cause we’re all downstream!” and learn how you can help keep our waters clean.

H2O Jo and Flo are part of a water quality communications campaign developed by the city of Boulder with funding provided by the Colorado Department of Public Health and Environment through grants from the U.S. Environmental Protection Agency.

The city of Boulder in partnership with the League of Women Voters, Watershed Approach to Stream Health (WASH) group, and the Boulder Area Sustainability Information Network (BASIN), received a nonpoint source (NPS) grant to develop a water quality communications campaign. The project was funded in part by the Colorado Department of Public Health and Environment through a grant from the US Environmental Protection Agency.

30. H2o Jo and Flo’s message is?				
	2008 Results		2006 results	
Keep our waterways clean.	29	9.06%	12	4.8%
Only you can prevent pollution.	9	2.81%	9	3.6%
Only rain down the drain.	21	6.56%	16	6.4%
Keep it clean ‘cause we’re all downstream.	122	38.13%	32	12.9%
Other (2006)			30	12.0%
Did not Answer	139	43.44%	180	72.3%
TOTAL # of RESPONSES	320		249	



City of Greeley 2008 Stormwater Questionnaire Results

COMMENTS RE: STORMWATER QUESTIONNARE SURVEY

1. My husband, a retired structural engineer, and I agree, this questionnaire was a waste of time and paper, some questions bordering on the silly.
2. Please pass along to our parks buddies that we do not want dogs in the park.
3. Think there is confusion as to what state is responsible for and what the city governs. As a real estate developer, we should be smarter.
4. Get my attention... tell me why I need to know this info. This questionnaire may be short fact statements on my water bill, such as: did you know that our watershed is located at...
5. This survey is good; need to catch our attention.
6. Not too sure I know a whole lot about this, but common sense should help in doing the right thing.