

City of Greeley 2010 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 prior 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.

In 2010, expanded the survey by adding a link to the survey on the August utility bills and sent out an email to City Staff and the results of the 2010 survey were as follows:

	2010		
	Mailed	Returned – Not Deliverable	Completed & Returned
Surveys to Citizens – Random Selection process	1320	71	232
Added Link on Utility Bills for August	27,000	NA	4
Surveys to City Staff via email or hard copy ***	445	NA	113
Totals	28,765		
RESPONSE RATE			

*** Staff included city employees from Public Works and Water & Sewer Departments, UNC Facility Staff.

City of Greeley 2010 Stormwater Questionnaire Results

1. According to the US EPA, what percentage of river pollution is caused by urban stormwater runoff in the nation? (New question in 2010)			
	2010 Citizen Results	2010 Staff Results	Overall 2010 Results
Virtually none, industrial pollution is major source.	11 4.7%	0	11 3.2%
21 percent	88 37.8%	43 38.1%	131 37.8%
99 percent	40 17.2%	25 22.1%	65 18.8%
11 percent (Correct response)	16 6.8%	14 12.4%	30 8.7%
No Idea.	78 33.5%	31 27.4%	109 31.5%

2. How many Americans can correctly identify that stormwater runoff is a common source of pollution of streams, rivers and oceans? (New question in 2010)			
	2010 Citizen Results	2010 Staff Results	Overall 2010 Results
3 percent	114 48.9%	52 46%	166 48%
22 percent - correct response	54 23.2	24 21.4%	78 22.5%
30%	27 11.6%	14 12.4%	41 11.8%
34%	12 5.2%	7 6.2%	19 5.5%
Everyone understands this concept	17 7.3%	2 1.8%	19 5.5%

3. Which of the following is part of the storm drain system?			
	2010 Citizen Results	2010 Staff Results	2008 Results
Storm drain inlets/catch basins and manholes.	30 11.2%	17 12%	19 5.9%
Street, curb and gutter.	30 11.2%	13 9.2%	18 5.6%
Ditches, Swales, Lakes, Ponds	10 3.7%	8 5.7%	13 4.1%
All of the above. (Correct Answer)	188 70.4%	102 72.3%	267 83.4%
None of the above	0	0	0
No Idea	9 3.4%	1 0.7%	3 0.9%

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 2010 Stormwater Questionnaire Results

4. Where does the material entering the City of Greeley's storm drain inlets end up at?						
	2010 Results		2008 Results		2006 results	
Don't know – No idea	36	10.4%	42	13.1%	101	40.6%
The river / other waterway.	237	68.5%	176	55.0%	100	40.2%
In the sanitary sewer system.	66	19%	17	5.3%	11	4.4%
The materials stay in the storm drains.	7	2%	3	0.94%	4	1.6%
At the local wastewater treatment plant.	0		80	25.0%	33	13.3%

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.

5. Wastewater and stormwater flow through the same system of pipes.						
	2010 Results		2008 Results		2006 results	
TRUE	31	9%	46	14.4%	36	14.5%
FALSE (Correct Response)	274	79.2%	267	83.4%	196	78.7%
(No Idea) 2006 & 2010	41	11.8%			17	6.85
Skipped – 2008			7	2/2%		

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.

6. Storm drain inlets do not remove pollutants.						
	2010 Results		2008 Results		2006 results	
TRUE (Correct Response)	303	87.6%	292	91.25%	225	90.4%
FALSE	19	5.5%	22	6.9%	24	9.6%
Don't Know	24	6.9%	6	1.9%		

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 2010 Stormwater Questionnaire Results

7. It is acceptable for power washing waste water to discharge into a storm drain.

	2010 Staff Results	2010 Citizen Results	2008 Results	
TRUE	9 8%	54 23.2%	124	38.75%
FALSE (Correct Answer)	91 80.5%	109 46.8%	187	58.44%
Don't Know	13 11.5%	70 30%	9	2.8%

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. The Colorado Department of Public Health considers water from pressure washing to be process water and therefore it needs to be discharged to sanitary sewer in majority of instances.

8. Besides rain and water from snow melt, which of the following is considered an acceptable discharge to a storm drain?

	2010 Staff Results	2010 Citizen Results	2008 Results	
Runoff from non-commercial car washing.	13 9%	30 11.3%	14	4.4%
Lawn & Landscape Irrigation	29 20.3%	56 21.1%	68	21.25%
Dechlorinated water from swimming pools, spas and hot tubs.	18 12.6%	12 4.5%	16	5.0%
All of the above. (Correct Answer)	59 41.3%	107 40.4%	163	51.0%
None of the above.	20 14%	41 15.5%	54	16.9%
Don't Know	4 2.8%	19 7.2%	5	1.6%

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

9. A single quart of motor oil dumped down a storm drain creates an oil slick of what size? (New in 2010)

	2010 Staff Results	2010 Citizen Results	2010 Overall Results
No slick, sinks to bottom	0	0	0
NO slick, oil travels from storm drain to sanitary sewer treatment plant	1 0.9%	7 3%	8 2.3%
160 square feet.	17 15%	90 38.6%	107 30.9%
2 acres	49 40.7%	61 26.2%	110 31.8%
No idea	46 40.7%	75 32.2%	121 35%

City of Greeley 2010 Stormwater Questionnaire Results

10. Do you remember seeing or hearing any of the following Stormwater outreach efforts? (Check all that apply)			
	2010 Staff Results	2010 Citizen Results	2010 Overall Results
Dasher board at Ice Haus	1 0.8%	9 3.6%	10 2.7%
Bus Benches with Water Jo & Flo	37 28.9%	27 10.9%	64 17.1%
Posters at Ice Haus, Fun Plex or UNC	8 6.3%	9 3.6%	17 4.5%
Radio Ads on KFKA	12 9.4%	17 6.9%	29 7.7%
Have not seen or heard anything	70 54.5%	185 74.9%	255 68%

NOTE:

Since 2007, the Stormwater Division has funded **display posters** at following locations: Fun Plex (4); Ice Haus (4) UNC (6) and in 2009 two more city locations were added: Downtown Rec. Center (2) and UCCC(2).

Since 2007, the SW division has funded a **dasher board** ad at the Northern Colorado Ice Center and in 2009 added another dasher board ad at the Northern Colorado Arena Sports Complex. Since May 2008, the division has also funded a dasher board ad at the Ice Haus.

Since 2008, the SW division has funded a full page ad in the Greeley Garden Tour Books.

Since 2009, the SW division has funded **radio ads** on KFKA from March thru October each year with a 120 commercials/ads each month. The topics include: Car Wash & Fluids; Fertilizers/Leaves & Grass Clippings; and mosquito infomercial.

Have not funded **bus bench ads** since 2008, though there are still a few of the ads around town.

11. The amount of information you receive about stormwater in Greeley is:			
	2010 Results	2008 Results	2006 results
Too much	8 2.3%	6 1.9%	6 2.4%
Just Right	75 21.7%	94 29.38%	59 23.7%
Not Enough	236 68.2%	213 66.6%	176 70.7%
Skipped Question		7 2.2%	8 3.2%
Don't care to know or learn more. (2010)	27 7.8%		

12. The section of the Cache La Poudre River thru Greeley to the confluence with the South Platte is on the State's 303 (d) list of impaired rivers because of high levels of what:			
	2010 Staff Results	2010 Citizen Results	2010 Overall Results
Selenium	5 4.4%	5 2.1%	10 2.9%
Phosphorous	8 7.1%	26 11.2%	34 9.8%
Sediment	18 16%	28 12%	46 13.3%
Fecal Coli form Bacteria/ e coli	25 22%	28 12%	53 15.3%
No Idea	57 50.5%	146 62.7%	203 58.7%

City of Greeley 2010 Stormwater Questionnaire Results

Poudre River Impairment:

In 2002, segment 12 (Boxelder Creek to the confluence with the South Platte, east of Greeley) of the Cache La Poudre River was placed on the State's list of water quality limited streams (the 303(d) list).

This designation as impaired for fecal coliform contamination resulted, in part, part from a change in the beneficial use classification for this segment of the Poudre River. The use classification went from secondary recreation to a classification of primary contact recreation which dropped the in stream standard from 2,000 units to 200 units.

The primary sources for the e coli contamination are as follows:

- Contaminated irrigation return flows from agriculture
- Direct access to river of cattle, horses, etc.
- Cross connections of sanitary sewer into storm
- Illegal dumping of RV sewage tanks into storm system
- Leaking septic systems
- Pet waste left on the ground
- Illegal dumping of pet waste (dog, horse, sheep, goat, etc) into storm drainage system

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

	2010 Results		2008 Results		2006 results	
YES	155	44.8%	191	59.7%	150	60.2%
NO	12	3.5%	7	2.2%	13	5.2%
Needs some work.	102	29.5%	103	32.2%	NA	
Don't Know	77	22.2%	19	5.9%	86	34.6%

14. Which of the following IS NOT an illicit discharge to the City's stormwater drainage system??

(Changed the structure of this question in 2010)

	2010 Staff Results		2010 Citizen Results		2010 Overall Results	
Dumping of automotive products in catch basin or street	2	1.8%	12	5.2%	14	4/1%
Dechlorinated water from swimming pools, spas and hot tubs.	62	54.9%	68	29.2%	130	37.8%
Sanitary sewer connected to a storm drain	10	8.8%	23	9.9%	33	9.6%
Dumping wastewater or water containing soap, paint, cleaning products, grease, or oil into the street or storm drain.	3	2.7%	6	2.6%	9	2.6%
None of the above.	15	13.3%	73	31.3%	88	25.6%
Don't know	21	18.5%	49	21%	70	20.3%

City of Greeley 2010 Stormwater Questionnaire Results

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.**

15. Which of the following activities IS NOT detrimental to water quality?			
(Changed the structure of the question in 2010)			
	2010 Staff Results	2010 Citizen Results	2010 Overall Results
Applying excessive amounts of pesticides, herbicides & fertilizers to lawns.	0	0	0
Not picking up and disposing of pet / animal waste.	4 3.5%	10 4.3%	14 4%
Disposing of yard waste in roadways, detention ponds and irrigation ditches,	1 0.9%	3 1.3%	4 1.2%
All of the above.	13 11.5%	35 15%	48 13.9%
None of these. (Correct response)	83 73.5%	156 67%	239 69.1%
No Idea	12 10.6%	29 12.4%	41 11.8%

Note: All of the activities listed are detrimental to water quality and most are considered to be illegal dumping and there for a violation of Code 14.16.170

16. Would you like to learn more about stormwater?			
	2010 Results	2008 Results	2006 results
YES	186 53.8%	251 78.4%	179 72%
NO	160 46.2%	65 20.3%	65 26%
No Response	0	4 1.3%	5 2%

16.a What would you like to learn more about? And what is the best way to get the information to you?

Of the 53.8% (186) that responded YES, only 41.9% (78) provide an answer.

Topics generally covered the following:

- Answers to survey
- General information on stormwater
- Information on actual system & lay out
- Flow destination
- Quality of water
- Impact people have on stormwater pollution
- What is the city doing to improve water quality?
- Utility fees and how money is spent

- A complete list of topics and/or questions and responses can be found at <http://www.greeleygov.com/stormwater/swsurvey.aspx>

City of Greeley 2010 Stormwater Questionnaire Results

17. If you saw someone pouring motor oil, antifreeze, paint, or anything else down a storm drain or catch basin what would you do?

	2010 Staff Results	2010 Citizen Results	2010 Overall Results
Call Code Enforcement	30 26.5%	66 28.3%	96 27.7%
Call Stormwater @ 336-4074	74 65.5%	120 51.5%	194 56.1%
Would not call anyone	2 1.8%	34 14.6%	36 10.4%
Call Fire Department	7 6.2%	13 5.6%	20 5.8%

Note:

The stormwater hotline number (970-336-4074) is printed on every piece of information or advertising that is sent out or posted.

Code Enforcement does relay all dumping activities to the Stormwater Division.

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

	2010 Results	2008 Results	2006 results
YES	71 20.5%	88 27.5%	17 6.8%
NO	272 78.6%	226 70.1%	232 93.2%
Did Not Answer	3 0.9%	6 1.9%	

Meet H2O Jo and Flo



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

**City of Greeley 2010 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 'Keep it Clean' campaign is designed to be used locally as well as in conjunction with a statewide water quality campaign. The coordinated program will reinforce common messages that inform the public on ways to protect our water resources.

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.

The City of Greeley has been using H2OJo and Flo and the Keep It Clean... Message since 2005. They appear on bus benches, dasher boards, bill boards, utility bill inserts, newspaper ads, etc.

19. H2o Jo and Flo's message is?						
	2010 Staff Results		2008 Results		2006 results	
Keep our waterways clean.	9	2.6%	29	9.1%	12	4.8%
Only you can prevent pollution.	0		9	2.8%	9	3.6%
Only rain down the drain.	24	6.9%	21	6.6%	16	6.4%
Keep it clean 'cause we're all downstream.	107	30.9%	122	38%	32	12.9%
Other (2006)					30	12.0%
No Idea	206	59.5%	139	43.4%	180	72.3%