



URBAN DRAINAGE AND FLOOD CONTROL DISTRICT

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MEMORANDUM

FROM: Ken MacKenzie, P.E.
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SUBJECT: New Colorado Revised Statute §37-92-602 (8) “*Concerning a Determination that Water Detention Facilities Designed to Mitigate the Adverse Effects of Storm Water Runoff Do Not Materially Injure Water Rights.*”

DATE: March 9, 2016 (Original July 7, 2015)

Senate Bill 15-212 was signed into law by Governor Hickenlooper in May 2015 and became effective on August 5, 2015 as Colorado Revised Statute (CRS) §37-92-602 (8).

This statute provides legal protection for any regional or individual site stormwater detention and infiltration facility in Colorado, provided the facility meets the following criteria:

1. It is owned or operated by a governmental entity or is subject to oversight by a governmental entity (e.g., required under an MS4 permit)
2. It continuously releases or infiltrates at least 97% of all of the runoff from a rainfall event that is less than or equal to a 5-year storm within 72 hours after the end of the event
3. It continuously releases or infiltrates as quickly as practicable, but in all cases releases or infiltrates at least 99% of the runoff within 120 hours after the end of events greater than a 5-year storm
4. It operates passively and does not subject the stormwater runoff to any active treatment process (e.g., coagulation, flocculation, disinfection, etc.)
5. If it is in the Fountain Creek (tributary to the Arkansas River) watershed it must be required by or operated in compliance with an MS4 permit

The statute specifies that runoff treated in stormwater detention and infiltration facilities shall not be used for any other purpose by the owner/operator/overseer (or that entity’s assignees), shall not be released for subsequent diversion or storage by the owner/operator/overseer (or that entity’s assignees), and shall not be the basis for a water right or credit.

There are specific notification requirements that apply to all new stormwater detention and infiltration facilities, including individual site facilities built by private parties as a development requirement. For any stormwater detention and infiltration facility constructed after August 5, 2015 and seeking protection under the new statute, the “*entity that owns, operates, or has oversight for*” shall, prior to operation of the facility, provide notice to all parties on the substitute water supply plan notification email list maintained by the State Engineer. This notice must include the following:

1. The location
2. The approximate surface area at design volume
3. Data that demonstrate that the facility has been designed to comply with the release rates described in Items 2 and 3 above

The Colorado Division of Water Resources (DWR) maintains seven email lists, one for each of the seven major watersheds in Colorado (these coincide with the seven DWR Divisions).

UDFCD worked with DWR and the Colorado Stormwater Council to develop a simple data sheet and an online map-based compliance portal website that will allow all municipalities and counties in Colorado to easily upload this required notification information. The website application will then automatically send email notifications to the proper recipients, relieving public works staff of the emailing burden while also minimizing the volume of email going out to the email list recipients.

Please note that the notification requirement applies only to new stormwater facilities (constructed after August 5, 2015), which the statute provides a “rebuttable presumption” of non-injury to water rights. This rebuttable presumption is contestable but only by comparison to the runoff that would have been generated from the undeveloped land condition prior to the development necessitating the stormwater facility.

Stormwater facilities in existence before August 5, 2015 are defined in the statute as materially non-injurious to water rights and do not require notification. Additionally, the State issued a memorandum on February 11, 2016 indicating that construction BMPs and non-retention BMPs do not require notice pursuant to SB-212 and are allowed at the discretion of the Division Engineer, and that green roofs are allowable as long as they intercept only precipitation that falls within the perimeter of the vegetated area and do not intercept or consume concentrated flow nor store water below the root zone.

The DWR Statement can be found here:

<http://water.state.co.us/DWRIPub/Documents/DWR%20Storm%20Water%20Statement.pdf>

The compliance portal can be found here:

<https://maperture.digitaldataservices.com/gvh/?viewer=cswdif>

A tutorial YouTube video can also be accessed from that website or found here:

[UDFCD YouTube Video](#)

We also have a list of frequently asked questions with answers which is attached to this memorandum.

Please email me at kmackenzie@udfcd.org with any questions.

Frequently Asked Questions related to Colorado Revised Statute 37-92-602(8)

Statute Related Questions

Where can I find out more information on the statute?

A memorandum can be found at:
<http://udfcd.org/guidance-documents>

Does this statute apply only to facilities within MS4s or government owned facilities? Would a private facility located in a rural area need to be uploaded?

The statute protects only those stormwater detention and infiltration facilities that are operated solely for stormwater management and are owned or operated by a governmental entity or are subject to oversight by a governmental entity (e.g., required under other statutes for flood protection or water quality). Additionally, to be covered, these facilities must meet the drain time limitations and other criteria specified in the statute and UDFCD memorandum. If a hypothetical private facility located in a rural area was voluntarily built (not as an imposed development requirement), it is not protected under the statute and no notification is required, but it may be considered a water diversion out of priority by the State.

How do these new regulations apply to micropool designs since they typically will exceed the 120 hour release time period?

The volume of the micropool is typically 0.0006 times the 5-year inflow volume (0.06%) and 0.0002 times the 100-year inflow volume (0.02%), which is well within the allowable criteria.

The statute says “no other beneficial use” is allowed. Define "beneficial." As a municipal corporation, detention is beneficial to reduce pipe sizes.

Beneficial use refers to uses for which you would otherwise need a water right, like replacement water or irrigation water.

Why is Fountain Creek excluded from legislation and what are the requirements to build a detention basin in the Fountain Creek watershed?

Facilities in Fountain Creek that meet the other criteria specified in the statute are protected only if they are required by **or** operated in compliance with a Colorado-issued MS4 permit. Those facilities in the Fountain Creek watershed that do not meet this criterion are more susceptible to a claim of water right injury, but they do not otherwise require a water right. The exclusion of the Fountain Creek watershed was a necessary concession in order to get the backing of the Colorado Farm Bureau.

Will existing facilities need to be retrofitted to meet the 72/120 hour drain time requirement?

If your existing facility meets the drain time criteria specified in the statute, then the facility meets the compliance criteria. If your existing facility is a retention pond and you don't have a water right, then yes, you should retrofit (or get a water right).

How should retention facilities be handled?	Neither retention facilities nor constructed wetlands are protected under 37-92-602(8) CRS. These facilities expressly require a water right.
Does the bill require that operation and maintenance demonstrate on-going compliance? What happens if a facility does not function as designed (e.g., lack of maintenance, poor infiltration)?	The statute protects only those facilities that meet the drain time criteria. If a facility does not operate as designed, or if the design proves to be flawed, not only is it not protected under 37-92-602(8) CRS, it also likely violates a CDPS-issued permit and corrective measures are responsibly warranted.
What about regional facilities that are designed for a future condition but operate in an interim mode that does not comply with the statute?	Those constructed after August 5, 2015 should be designed to comply with the statute in their interim condition as well as in the final configuration. If they do not comply, they will not be protected under the statute, and no notification is required. Those already in operation on August 5, 2015 do not require notification, but are not protected unless they comply with the drain time criteria.
Are facilities designed to protect areas less than one acre subject to this legislation?	Yes. There is no size threshold for the notification requirement. All stormwater detention and infiltration facilities that meet the definition in the statute and are made operable after August 5, 2015 are subject to the statute.
Could a water rights holder contest a facility even without any real basis just to tie up a development or make it more difficult to develop a property? What ability do irrigation companies, farmers, etc. have to impact a project when these notices go out?	The water rights holder must show that the facility <u>has</u> caused injury (not <u>will</u> cause injury). The injury must be further with respect to the water the complainant would have received in the watershed condition that existed as of the water right's priority date, absent the urbanization necessitating the facility.
In the case of redevelopment, is the calculation from the existing developed condition to the proposed developed condition or from the assumed "predeveloped condition"	Any challenge must be with respect to the water the plaintiff would have received in the watershed condition that existed as of the water right's priority date, absent the urbanization necessitating the facility.

What liability and/or responsibility does a contractor have while working on a stormwater detention facility that the responsible party (government entity, operator, design engineer, etc.) failed to comply with the notification requirements?

If the facility is designed to drain in the time specified in the statute and proper notification is made, a claim of injury is not likely, since the claim must be in comparison to the water available before any of the land development that necessitated the detention in the first place.

Statute does not apply to the following:

- Flow through devices (e.g., media filter drains, hydrodynamic separators, baffle vaults without storage)
- Process water holding ponds for the oil and gas industry
- Stock ponds and irrigation ponds
- Construction BMPs (e.g., sediment traps, etc.)
- Any facility not meeting the following criteria:
 - is owned or operated by a governmental entity or is subject to oversight by a governmental entity;
 - continuously releases or infiltrates at least 97% of the 5-year storm within 72-hours;
 - continuously releases or infiltrates at least 99% of the 100-year storm within 120-hours;
 - operates passively and does not subject the stormwater runoff to any active treatment process.

Procedure and Compliance Workbook Related Questions

Is the SDI workbook required or can a different PDF documenting drain times be uploaded? (e.g., UD-Detention)	The user can upload any PDF that provides data that demonstrates compliance (i.e., drain times). UD-Detention would be adequate as it also calculates drain times for various events.
In the design data spreadsheet do we use the 60-minute 1-year storm value (at basin location) for the WQCV design storm? Is the water quality capture volume drainage time a maximum or minimum of 40 hours?	The Urban Storm Drainage Criteria Manual Vol. 3, Chap. 3 (http://www.udfcd.org/index.html) gives detailed information on sizing the water quality capture volume anywhere in Colorado and guidance on recommended drain times (e.g., 40 hours for extended detention, 12 hours for rain gardens).
Can we route our own inflow hydrographs through the spreadsheet to show compliance?	Yes, there is a table to the right of the printable area that allows you to input your own storm hydrographs. In fact, this will be necessary for unusually large watersheds as the largest embedded inflow storm hydrograph in the workbook is 675.56 acre-feet in volume (the smallest is 0.001 acre-feet). The workbook has been tested successfully for watersheds as small as 0.1 acres in area.
Define an “operational” detention facility	A detention facility is operational when stormwater is flowing into it and flowing out of it (either on the surface or infiltrating into the soil below it), while experiencing a change in the detained volume over time (first increasing in volume and then decreasing).
Does the design engineer upload the notification or does the government entity with jurisdiction (MS4) upload it? Would it be the City or the property owner?	Anyone can upload a site. Local jurisdictions have administrative privileges to create, modify, accept, or delete any record within their jurisdiction. This is to allow those jurisdictions to monitor for errant activity. Those with administrative privileges will also receive an email immediately whenever a record is created or modified within their jurisdiction.
What is the recourse or plan of action against the detention facility owner if they do not comply with the notification compliance?	If the facility is designed to drain in the time specified in the statute and proper notification is made, a claim of injury is not likely, since the claim must be in comparison to the water available before any of the land development that necessitated the detention in the first place.
After notification, if a downstream water right user objects, what then?	The downstream user can't object to a facility before it is operable but they can rebut the presumption of non-injury if they can prove they <u>have been</u> (not <u>will be</u>) injured after the facility is in place (and only then in respect to water they would have received at their priority date).

What type of feedback do you expect to get from the people receiving a notification?	Each record created will have two email addresses, one for the record creator and one for the community having jurisdiction over the site. You may anticipate inquiries as to the need for the facility and details about how it operates.
Would it be acceptable to notify at the time of plan approval and prior to construction?	Yes, as long as notification occurs before the facility becomes operable, you are in compliance with the statute.
We often use future detention basins as temporary sedimentation basins during construction. When do we provide notification?	Construction sedimentation basins should not be uploaded the portal. If you are using the facility in a modified and temporary form during construction, wait until the final detention configuration is complete before entering the record.

Portal & Notification (Notes)

The compliance portal is located at:

<https://maperture.digitaldataservices.com/gvh/?viewer=cswdif>

The compliance portal was developed to streamline the notification requirement of the new statute. Anyone can place a pin on the map to create a new stormwater detention/infiltration facility.

The portal recognizes counties, cities, and towns as “jurisdictions” and has assigned to each jurisdiction administrative privileges. Jurisdictions can create, modify, or delete any record within their own jurisdiction, and must accept into the database a record created by anyone else within their jurisdiction. When a jurisdiction creates a new record it is automatically accepted into the database and its information is put into the queue for the email notification. The icon on the map interface will be blue.

When anyone who is not a jurisdiction creates a new record in the portal database, the icon will remain green and no notification will go out until the jurisdiction accepts the record into the database which will turn the icon blue and place it in the queue for notification. The entity creating a record will be able to later edit that record using the edit password emailed to them by the portal. The password is specific to the record.

Note that the jurisdiction accepting the record does not indicate approval of the facility; it is simply a necessary database quality assurance measure to prevent vandalism and errant records. If the jurisdiction believes the record to be in this class, they may delete the record or contact the creator of the record to verify it.

If a record is not accepted or deleted by the jurisdiction with 30 days of its creation, it will automatically be accepted by the system, turn blue, and notifications will go out within a week of that event.

Records are perpetually viewable by those with administrative privileges but are removed from the map 30 days after being accepted into the database.

Portal & Notification Related Questions

If you have multiple facilities in series, is it appropriate to upload each separately? For example, four water quality rain gardens in a parking lot drain to a downstream flood control facility. How

If the facilities are intended for water quality only, they do not require notification (with the exception of extended detention basins). An extended detention basin designed to treat only the water quality capture volume followed by a flood control facility can be entered as two separate facilities or one facility accommodating for the effective stage/storage and drain times of the two facilities. In the stated example, only the downstream flood control facility need be uploaded. If there are multiple flood control facilities in series, appropriate drain

many facilities should be uploaded to the site? times should be demonstrated. UDFCD recommends documentation outside of the compliance portal workbook for this purpose, (e.g., attach SWMM output).

Does notification need to take place for modifications to existing detention facilities already in the portal?	If the facility is already operable on August 5, 2015, it is defined in the statute as non-injurious to water rights, provided it meets the other drain time criteria specified in the statute. If your modifications are going to make the downstream water rights holders condition better (e.g., smaller stored volume or faster drain time), then no notification is required. If the opposite is true, handle it as a new facility and provide notification of the new configuration.
Are State agencies and RTD to be given usernames and passwords?	Those agencies will be treated in the same manner as jurisdictions, and will have editorial privileges necessary to create, modify, and delete only their own records. The cities, towns, and counties of Colorado will have administrative privileges to create, modify or delete any record within their jurisdiction.
Who will be auditing the statewide notification compliance portal for correct data?	There is no statutory enforcement mechanism. Those communities having administrative privileges will receive an email notice every time a record is created, edited, or deleted within their jurisdiction and should review these records for accuracy. The DWR does react to complaints.
If the community uploads the data for the developers, does it appear that the community is the owner?	Each record will have two contact email addresses as part of the public record, one for the engineer of record and one for the community having jurisdiction over the facility.
Why do I have to print a pdf to upload, and not just upload my spreadsheet? Can't this feature be built into the portal?	For reasons of consistency and storage limitations, the design data sheet can only be in pdf format. This also minimizes the risk of document altering by others.
Where is the compliance portal?	https://maperture.digitaldataservices.com/gvh/?viewer=cswdif
What resources are available to help navigate the compliance portal?	A webinar recording is available at: UDFCD YouTube Video
Do existing facilities need to be entered?	No, if the facility was operable on August 5, 2015, notification is not required. These facilities are defined in the statute as non-injurious to water rights, provided they meet the other criteria specified in the statute.
How will interested parties be notified of newly uploaded facilities?	A weekly digest email will be sent out to the recipients in each of the DWR's seven divisions. Each division will receive an email on a different day of the week to minimize traffic loading on the compliance portal. Only those posted since the previous email will be included.

	Additionally, those facilities in existence for more than 90 days will no longer be visible to the general audience, only to those with editorial or administrative privileges. This is to reduce clutter on the portal and ease navigation for the end user.
Is there a backup of the site's data somewhere?	The site has robust security features and automatic backups are produced and stored offsite at regular frequent time intervals.
If a detention facility is below grade, is that apparent to users of the portal? Is water surface area needed?	The statute applies to facilities above and below grade, and there is no requirement to distinguish which type the facility is. The water surface at design volume is one of three pieces of information mandated under the statute's notification requirement. Do not enter zero for this value; instead enter the area of the vault.
Do we need to input an address, a latitude and longitude, what are the criteria to place a facility in the portal correctly?	The map feature offers a number of ways to zoom to the correct location, including "zoom to address" and "zoom to map." Any of these methods should enable you to place a marker within 100 feet of the exact location. This meets the intent of the notification requirement. Once you place the pin, the latitude, longitude, DWR division, and local jurisdiction will all be automatically populated in the database.
How do you prevent duplicate entries? What if two separate entities report compliance for the same facility.	The map interface feature should eliminate this problem. When placing a marker icon, if there is already a marker icon at your location, click on that icon to retrieve the specific data for comparison. The local government will receive an email notice immediately when a new record is created within their jurisdiction.

What types of facilities require notification per SB-212?

		Water Quality Only	Flood Control Included
BMPS	Grass Buffers	Not Required	Not Required
	Grass Swales	Not Required	Not Required
	Bioretention (with or without an underdrain)	Not Required	Required
	Green Roof	Not Required	N/A
	Extended Detention Basin	Required	Required
	Sand Filter	Not Required	Required
	Permeable Pavement Systems	Not Required	Required
	Media Filter Drain	Not Required	Not Required
	Underground Detention Vaults	Required	Required
	Constructed Wetland Pond	N/A, SUBJECT TO WATER RIGHTS	
	Constructed Wetland Channel	N/A, SUBJECT TO WATER RIGHTS	

	Retention Pond	N/A, SUBJECT TO WATER RIGHTS
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