



Rainwater Harvesting in Colorado

HB09-1129 and SB09-80

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Water Resources in Colorado

Division of Water Resources Functions

Department of Natural Resources Agencies



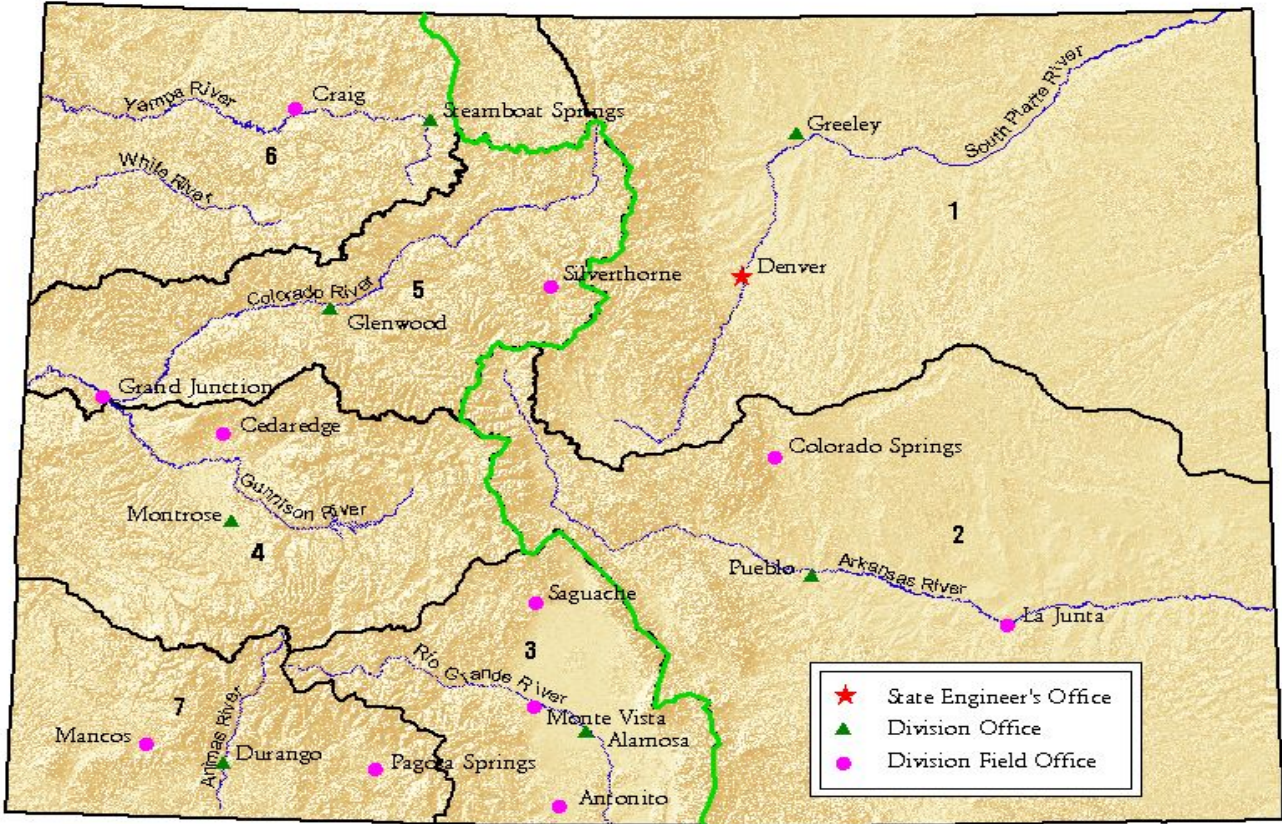
- Water Resources
- Wildlife
- Oil and Gas Conservation Commission
- Geological Survey
- Forestry
- Water Conservation Board
- State Parks
- Reclamation, Mining, and Safety
- State Land Board



Division of Water Resources Progressive Responsibilities

- Water Administration
- Public Safety
- Ground Water Permitting
- Interstate Compacts
- Hydrographic Program
- Public Information Services
- Additional Program Activities

**OFFICE OF THE STATE ENGINEER
DIVISION and FIELD OFFICES**





Rain Water Harvesting in Colorado

- What is the history and the law?
- What are the new laws?
 - HB09-1129 ("Pilot Project Bill")
 - SB09-80 ("Rooftop Precipitation Collection")



Rain Water Harvesting in Colorado – The History and the Law

- Colorado water law historically has restricted the collection of precipitation.
 - Section 36-20-103, C.R.S.; right to precipitation is claimed by the state as public resource.
 - Water may be diverted for a beneficial use when “in priority.”
 - But many of Colorado’s river basins are over-appropriated, it may be infrequent that a water user would be “in priority.”



Rain Water Harvesting in Colorado – The History and the Law

- Effect of treating the diversion of rain water as a surface water diversion.
 - Diversion when not “in priority” could cause injury to a senior water right.
 - Therefore, the law and rules require replacement water.
 - Must replace water to the stream system in an amount equal to that which was diverted.



Rain Water Harvesting in Colorado – The History and the Law

- Replacing Water, Issues
 - Approaches
 - Substitute Water Supply Plan
 - Augmentation Plan
 - Significant effort
 - Does not lend itself to small-scale efforts (private homeowner)
 - Requires administrative effort
 - Does not take into account “effective precipitation”

Rain Water Harvesting in Colorado – New Laws, 2009 Session

Effective Precipitation





Rain Water Harvesting in Colorado – New Laws, 2009 Session

HB09-1129 (Pilot Project Bill)

- Recognizes value in a development-wide effort to harvest rain water
- Impervious surfaces for nonpotable uses.



Rain Water Harvesting in Colorado – New Laws, 2009 Session

HB09-1129 (Pilot Project Bill)

- CWCB evaluates and approves pilot projects
- Pilot projects must meet certain objectives.



Rain Water Harvesting in Colorado – New Laws, 2009 Session

HB09-1129 (Pilot Project Bill)

■ Objectives:

- Create baseline data
- Methodologies to understand precipitation effect on stream flow
- Evaluate precipitation harvesting system processes and designs
- Compile and analyze data from the project



Rain Water Harvesting in Colorado – New Laws, 2009 Session

HB09-1129 (Pilot Project Bill)

- Objectives:

- Also, “evaluate the technical ability to reasonably quantify the site-specific amount of precipitation that, under preexisting, natural vegetation conditions, accrues to the surface and ground water return flows.”



Rain Water Harvesting in Colorado – New Laws, 2009 Session

HB09-1129 (Pilot Project Bill)

- CWCB and State Engineer's Office have developed, guidelines and criteria for applications
- Plan will be approved and administered through SWSPs



Rain Water Harvesting in Colorado – New Laws, 2009 Session

SB09-080 (Rooftop Precipitation Collection)

Rain Water Harvesting in Colorado – New Laws, 2009 Session



Woman Drawing Water from Cistern at Orabi Pueblo (circa 1880-1900)

source: www.ancestral.com/cultures/northamerica/hopi.html

Rain Water Harvesting in Colorado – New Laws, 2009 Session





Rain Water Harvesting in Colorado – New Laws, 2009 Session

SB09-080 (Rooftop Precipitation Collection)

- Remember, Colorado water law declares:
 - Colorado claims the right to all moisture in the atmosphere that falls within its borders
 - “said moisture is declared to be the property of the people of this state, dedicated to their use pursuant” to the Colorado constitution.



Rain Water Harvesting in Colorado – New Laws, 2009 Session

SB09-080 (Rooftop Precipitation Collection)

- Constitution: water must be appropriated according to priority of appropriation.
- As we discussed before, it is illegal to divert rain water falling on your property expressly for a certain use, except
 - old water right or
 - during occasional periods when there is a surplus of water in the river system.



Rain Water Harvesting in Colorado – New Laws, 2009 Session

SB09-080 (Rooftop Precipitation Collection)

- This system of water allocation plays an important role in protecting the owners of senior water rights that are entitled to appropriate the full amount of their decreed water right, particularly when there is not enough to satisfy them and parties whose water right is junior to them.



Rain Water Harvesting in Colorado – New Laws, 2009 Session

Effect of SB09-080

- Allows limited collection and use of precipitation for landowners, only if:
 1. Property on which the collection takes place is residential property, and
 2. Landowner uses a legally allowed well, or is legally entitled to a well, for the water supply, and
 3. The well is permitted for domestic uses according to Section 37-92-602, C.R.S., (generally, this means the permit number will be five or six digits with no “-F” suffix at the end), and



Rain Water Harvesting in Colorado – New Laws, 2009 Session

Effect of SB09-080 (cont.)

- Allows limited collection and use of precipitation for landowners, only if:
 4. There is no water supply available in the area from a municipality or water district, and
 5. The rainwater is collected only from the roof, and
 6. The water is used only for those uses that are allowed by, and identified on, the well permit.



Rain Water Harvesting in Colorado – New Laws, 2009 Session

SB09-080 Four Scenarios

1. Existing permitted well

- Complete Form No. GWS-78
- Form gives notice of your intent to collect
- There is no filing fee for Form No. GWS-78 in this situation.

- If the well was in use prior to May 8, 1972, it is possible that it has not been issued a permit.
Therefore,



Rain Water Harvesting in Colorado – New Laws, 2009 Session

SB09-080 Four Scenarios

2. Existing unpermitted well that was in use prior to May 8, 1972,
 - Complete this Form No. GWS-78 and Form No. GWS-12, Registration of Existing Well.
 - The filing fee for Form No. GWS-12 is \$100. There is no filing fee for Form No. GWS-78 in this situation.



Rain Water Harvesting in Colorado – New Laws, 2009 Session

SB09-080 Four Scenarios

3. Applying for a permit to construct a well to be used for domestic uses, and you intend to use a system of rooftop precipitation capture,
 - Complete Form No. GWS-44, Residential Water Well Permit Application, and Form No. GWS-78.
 - The filing fee for Form No. GWS-44 is \$100. There is no filing fee for Form No. GWS-78 in this situation.



Rain Water Harvesting in Colorado – New Laws, 2009 Session

SB09-080 Four Scenarios

4. You do not intend to construct a well, but want to install a rooftop precipitation capture system
 - Complete Form No. GWS-78 and Form No. GWS-44, Residential Water Well Permit Application
 - The Division of Water Resources will determine whether your property is entitled to the issuance of a well permit.
 - The filing fee for this form is \$60. There is no filing fee for Form No. GWS-44 in this case since a permit to construct a well will not be issued.



Rain Water Harvesting in Colorado – SB09-80 FAQ's

- I have checked my valid well permit and it states that the use of my well is limited to household uses. Can I collect rainwater and snowmelt from my roof and use it to water a very small vegetable garden in the backyard or in a greenhouse? How about for my hot tub?



Rain Water Harvesting in Colorado – SB09-80 FAQ's

- No, a vegetable garden outside the home or in the greenhouse is not an ordinary household use. It consumes the water in a way that is inconsistent with the permitting statutes. Use is limited to drinking and sanitary uses inside the home. This same answer applies to using the water for a hot tub, it is not allowed in this permitting situation.



Rain Water Harvesting in Colorado – SB09-80 FAQ's

- Since I'm trying to conserve and cut back on the use from my water supplier, am I allowed to collect precipitation for watering my landscaping and to fill a decorative pond?



Rain Water Harvesting in Colorado – SB09-80 FAQ's

- No.
 - First, because you receive your water supply through a tap from a water supplier, you may not collect precipitation at all.
 - Second, you will not be able to use the precipitation you've collected to fill a pond since that use would not be allowed on the appropriate well permits.



Rain Water Harvesting in Colorado – SB09-80 FAQ's

- What if I meet the six criteria above and, although legally entitled to a well permit, I have a remote property where a well cannot be drilled, or I just want to live without a well, relying on precipitation collection. Can I still take advantage of the new law?



Rain Water Harvesting in Colorado – SB09-80 FAQ's

- Yes. If you are legally entitled to a well permit, you may submit an application and receive a permit upon evaluation.
- The Division of Water Resources will issue a permit that entitles you to collect rooftop precipitation collection for limited uses without actually constructing a well.
- If you live in an area where service is provided by a water supplier, this statute does not apply.



Rain Water Harvesting in Colorado – SB09-80 FAQ's

- I have checked my valid well permit and it identifies the allowed uses for my well. I would like to collect precipitation from my roof for those uses only. Do I need to take any other action?



Rain Water Harvesting in Colorado – SB09-80 FAQ's

- Yes, you must complete the GWS-78 form that will provide notice to the Division of Water Resources that you intend to collect the precipitation and describe how you intend to do it.



Rain Water Harvesting in Colorado – SB09-80 FAQ's

- I will be applying for a permit for a new well for a home I'm building. I have researched and found that with my anticipated permit type, I will be able to collect precipitation from my rooftop. What do I need to do?



Rain Water Harvesting in Colorado – SB09-80 FAQ's

- The well permit application form for new wells (GWS-44) includes a checkbox that allows you to indicate that you plan to collect the precipitation.



Rain Water Harvesting in Colorado – SB09-80 FAQ's

- I am a developer and would like to develop a subdivision with large scale collection of precipitation from impervious surfaces even though the subdivision will have a central water supply system. How does this new law help me?



Rain Water Harvesting in Colorado – SB09-80 FAQ's

- SB09-80 does not apply to your situation at all. Your situation would benefit from HB09-1129
- As we discussed, these projects must operate according to an engineered plan, submitted to the State Engineer for approval and eventually, to the Water Court. HB-1129 does not apply at all to individual homeowners.



Information Resources

- DWR Web Page
(www.water.state.co.us)
- Ground Water Information
(Denver)
- Records (Denver)
- Division Offices
- Water Commissioners



Water Information Desk
303-866-3587

- Technical information regarding groundwater, water administration, and aquifers
- Well Permitting and Permitting Status
- Rules, Regulations, and Policies regarding Water Rights, Water Use and Groundwater Wells