

**First Regular Session  
Sixty-seventh General Assembly  
STATE OF COLORADO**

**INTRODUCED**

LLS NO. 09-0068.01 Thomas Morris

**HOUSE BILL 09-1129**

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**HOUSE SPONSORSHIP**

**Looper,**

**SENATE SPONSORSHIP**

**Romer,** Harvey

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**House Committees**

Agriculture, Livestock, & Natural Resources

**Senate Committees**

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**A BILL FOR AN ACT**

101     **CONCERNING AN AUTHORIZATION OF PILOT PROJECTS FOR THE**  
102             **BENEFICIAL USE OF CAPTURED PRECIPITATION IN NEW REAL**  
103             **ESTATE DEVELOPMENTS.**

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**Bill Summary**

*(Note: This summary applies to this bill as introduced and does not necessarily reflect any amendments that may be subsequently adopted.)*

Directs the Colorado water conservation board (board) to select the sponsors of up to 10 new residential or mixed-use developments that will conduct individual pilot projects to collect precipitation from rooftops and impermeable surfaces for nonpotable uses. Specifies that the purpose of the pilot projects is to:

!       Evaluate the technical ability to reasonably quantify the

Shading denotes HOUSE amendment. Double underlining denotes SENATE amendment.  
*Capital letters indicate new material to be added to existing statute.*  
*Dashes through the words indicate deletions from existing statute.*

site-specific amount of precipitation that, under native conditions, accrues to the natural stream system via surface and ground water return flows;

- ! Create a baseline set of data and sound, transferable methodologies for quantifying native plant consumption and measuring return flow patterns;
- ! Evaluate a variety of precipitation harvesting system designs;
- ! Measure precipitation capture efficiencies;
- ! Quantify the amount of precipitation that must be augmented to prevent injury to decreed water rights;
- ! Compile and analyze the data collected; and
- ! Provide data to allow sponsors to adjudicate permanent augmentation plans.

Directs the board to establish criteria and guidelines for applications and the selection of pilot projects, including selection of pilot projects to represent different geographic and hydrologic areas in the state and giving priority to pilot projects that are located in areas that face renewable water supply challenges and that promote water conservation.

Requires pilot projects to:

- ! During the term of the pilot project, operate according to a substitute water supply plan if approved annually by the state engineer in which the net depletion is calculated as a minimum of 30% of the total captured and measured precipitation;
- ! Upon completion of the pilot project, apply for a permanent augmentation plan or retire the pilot project;
- ! Submit an annual preliminary report to the board and the state engineer summarizing the data collected; and
- ! Submit a final report to the board and the state engineer by January 15, 2019.

Requires the board and the state engineer to brief the water resources review committee on the pilot projects by July 1, 2014, and to provide a final briefing to the water resources review committee by July 1, 2019. Repeals the act, effective July 1, 2020.

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1 *Be it enacted by the General Assembly of the State of Colorado:*

2 **SECTION 1.** 37-60-115, Colorado Revised Statutes, is amended

3 BY THE ADDITION OF A NEW SUBSECTION to read:

4 **37-60-115. Water studies - rules - repeal. (6) Precipitation**  
5 **harvesting pilot projects.** (a) THE BOARD SHALL, IN CONSULTATION

1 WITH THE STATE ENGINEER, SELECT THE SPONSORS OF UP TO TEN NEW  
2 RESIDENTIAL OR MIXED-USE DEVELOPMENTS THAT WILL CONDUCT  
3 INDIVIDUAL PILOT PROJECTS TO COLLECT PRECIPITATION FROM ROOFTOPS  
4 AND IMPERMEABLE SURFACES FOR NONPOTABLE USES. THE PURPOSE OF  
5 THE PILOT PROJECTS SHALL BE TO:

6 (I) EVALUATE THE TECHNICAL ABILITY TO REASONABLY QUANTIFY  
7 THE SITE-SPECIFIC AMOUNT OF PRECIPITATION THAT, UNDER NATIVE  
8 CONDITIONS, ACCRUES TO THE NATURAL STREAM SYSTEM VIA SURFACE  
9 AND GROUND WATER RETURN FLOWS;

10 (II) CREATE A BASELINE SET OF DATA AND SOUND, TRANSFERABLE  
11 METHODOLOGIES FOR MEASURING LOCAL WEATHER AND PRECIPITATION  
12 PATTERNS, QUANTIFYING NATIVE PLANT CONSUMPTION, MEASURING  
13 RETURN FLOW PATTERNS, IDENTIFYING SURFACE VERSUS GROUND WATER  
14 RETURN FLOW SPLITS, IDENTIFYING GROUND WATER RETURN FLOW  
15 PATTERNS AND TIMING, AND ACCOUNTING FOR VARIATIONS IN HYDROLOGY  
16 AND PRECIPITATION EVENT INTENSITY;

17 (III) EVALUATE A VARIETY OF PRECIPITATION HARVESTING  
18 SYSTEM DESIGNS;

19 (IV) MEASURE PRECIPITATION CAPTURE EFFICIENCIES;

20 (V) QUANTIFY THE AMOUNT OF PRECIPITATION THAT MUST BE  
21 AUGMENTED TO PREVENT INJURY TO DECREED WATER RIGHTS;

22 (VI) COMPILE AND ANALYZE THE DATA COLLECTED; AND

23 (VII) PROVIDE DATA TO ALLOW SPONSORS TO ADJUDICATE  
24 PERMANENT AUGMENTATION PLANS AS SPECIFIED IN PARAGRAPH (c) OF  
25 THIS SUBSECTION (6).

26 (b) AN APPLICANT FOR A DEVELOPMENT PERMIT, AS THAT TERM IS  
27 DEFINED IN SECTION 29-20-103, C.R.S., FOR A NEW PLANNED UNIT

1 DEVELOPMENT OR NEW SUBDIVISION OF RESIDENTIAL HOUSING OR MIXED  
2 USES MAY SUBMIT AN APPLICATION TO THE BOARD TO BECOME A SPONSOR  
3 OF ONE OR MORE OF THE TEN PILOT PROJECTS AUTHORIZED BY THIS  
4 SECTION. THE BOARD SHALL ESTABLISH CRITERIA AND GUIDELINES FOR  
5 APPLICATIONS AND THE SELECTION OF PILOT PROJECTS, INCLUDING THE  
6 FOLLOWING:

7 (I) AN APPLICATION FEE AND, FOR PILOT PROJECTS THAT ARE  
8 SELECTED, AN ANNUAL REVIEW FEE;

9 (II) THE INFORMATION TO BE INCLUDED IN THE APPLICATION,  
10 INCLUDING A DESCRIPTION OF THE PROPOSED DEVELOPMENT AND THE  
11 PROPOSED PRECIPITATION HARVESTING SYSTEM;

12 (III) SELECTION OF PILOT PROJECTS TO REPRESENT DIFFERENT  
13 GEOGRAPHIC AND HYDROLOGIC AREAS IN THE STATE, WITH NO MORE THAN  
14 THREE PILOT PROJECTS BEING LOCATED WITHIN ANY SINGLE WATER  
15 DIVISION ESTABLISHED IN SECTION 37-92-201;

16 (IV) THE REQUIREMENT THAT THE PROPOSED DEVELOPMENT MEET  
17 ANY APPLICABLE LOCAL GOVERNMENT WATER SUPPLY REQUIREMENT  
18 THROUGH SOURCES OTHER THAN PRECIPITATION HARVESTING;

19 (V) GIVING PRIORITY TO PILOT PROJECTS THAT:

20 (A) ARE LOCATED IN AREAS THAT FACE RENEWABLE WATER  
21 SUPPLY CHALLENGES; AND

22 (B) PROMOTE WATER CONSERVATION.

23 (c) NOTWITHSTANDING ANY LIMITATIONS REGARDING  
24 PHREATOPHYTES OR IMPERMEABLE SURFACES THAT WOULD OTHERWISE  
25 APPLY PURSUANT TO SECTION 37-92-103 (9) OR 37-92-501 (4) (b) (III),  
26 EACH OF THE TEN PILOT PROJECTS SHALL:

27 (I) DURING THE TERM OF THE PILOT PROJECT, OPERATE ACCORDING

1 TO A SUBSTITUTE WATER SUPPLY PLAN, IF APPROVED ANNUALLY BY THE  
2 STATE ENGINEER PURSUANT TO SECTION 37-92-308 (5). THE PILOT  
3 PROJECT SHALL BE REQUIRED TO REPLACE THE NET DEPLETION CAUSED BY  
4 THE CAPTURE OF PRECIPITATION FROM ROOFTOPS AND IMPERMEABLE  
5 SURFACES FOR NONPOTABLE USES. THE STATE ENGINEER SHALL HAVE THE  
6 AUTHORITY TO REQUIRE THE SPONSOR TO REPLACE ANY ONGOING  
7 DELAYED DEPLETIONS CAUSED BY THE PILOT PROJECT. FOR PURPOSES OF  
8 THE PILOT PROJECT PERIOD, THE NET DEPLETION SHALL BE CALCULATED  
9 AS THE GREATER OF:

10 (A) THIRTY PERCENT OF THE TOTAL CAPTURED AND MEASURED  
11 PRECIPITATION THAT IS REPLACED PURSUANT TO THE "GENERAL  
12 GUIDELINES FOR SUBSTITUTE WATER SUPPLY PLANS FOR SAND AND  
13 GRAVEL PITS SUBMITTED TO THE STATE ENGINEER PURSUANT TO SB  
14 89-120 & SB 93-260" ISSUED BY THE STATE ENGINEER AND AVAILABLE  
15 FROM THE DIVISION OF WATER RESOURCES; OR

16 (B) THE ACTUAL NET DEPLETION CALCULATED AS THE AMOUNT OF  
17 PRECIPITATION CAPTURE MINUS THE HISTORICAL CONSUMPTIVE USE FROM  
18 PREEXISTING NATURAL VEGETATION COVER ON THE IMPERMEABLE AREA  
19 AS DEMONSTRATED BY THE DATA COLLECTED BY THE SPONSOR.

20 (II) APPLY TO THE APPROPRIATE WATER COURT FOR A PERMANENT  
21 AUGMENTATION PLAN UPON COMPLETION OF THE PILOT PROJECT OR FILE  
22 A PLAN WITH THE STATE ENGINEER TO PERMANENTLY RETIRE THE  
23 RAINWATER COLLECTION SYSTEM, WHICH PLAN SHALL BE REVIEWED AND  
24 APPROVED PRIOR TO THE CESSATION OF AUGMENTATION. ANY SUCH  
25 PERMANENT AUGMENTATION PLAN SHALL ENTITLE THE SPONSOR TO  
26 CONSUME WITHOUT REPLACEMENT ONLY THAT PORTION OF THE  
27 PRECIPITATION THAT THE SPONSOR PROVES BY A PREPONDERANCE OF THE

1 EVIDENCE WOULD NOT HAVE ACCRUED TO A NATURAL STREAM UNDER  
2 NATIVE CONDITIONS. THE SPONSOR SHALL BE REQUIRED TO FULLY  
3 AUGMENT ANY PRECIPITATION CAPTURED OUT OF PRIORITY THAT WOULD  
4 OTHERWISE HAVE ACCRUED TO A NATURAL STREAM. THE AMOUNT OF NET  
5 GAIN SHALL NOT BE USED AS A CREDIT TO THE APPLICANT OR OTHERWISE  
6 BE USED, LEASED, OR SOLD AS AN AUGMENTATION SOURCE OR FOR ANY  
7 OTHER PURPOSE.

8 (d) EACH SPONSOR SHALL SUBMIT AN ANNUAL PRELIMINARY  
9 REPORT TO THE BOARD AND THE STATE ENGINEER SUMMARIZING THE  
10 INFORMATION SET FORTH IN PARAGRAPH (a) OF THIS SUBSECTION (6). THE  
11 BOARD AND THE STATE ENGINEER SHALL BRIEF THE WATER RESOURCES  
12 REVIEW COMMITTEE CREATED IN SECTION 37-98-102 ON THE REPORTED  
13 RESULTS OF THE PILOT PROJECTS BY JULY 1, 2014. EACH SPONSOR SHALL  
14 SUBMIT A FINAL REPORT TO THE BOARD AND THE STATE ENGINEER BY  
15 JANUARY 15, 2019. THE BOARD AND THE STATE ENGINEER SHALL PROVIDE  
16 A FINAL BRIEFING TO THE WATER RESOURCES REVIEW COMMITTEE BY JULY  
17 1, 2019.

18 (e) THIS PARAGRAPH (e), PARAGRAPHS (a), (b), AND (d), AND  
19 SUBPARAGRAPH (I) OF PARAGRAPH (c) OF THIS SUBSECTION (6) ARE  
20 REPEALED, EFFECTIVE JULY 1, 2020.

21 **SECTION 2.** The introductory portion to 37-92-308 (5) (a) and  
22 37-92-308 (5) (b), Colorado Revised Statutes, are amended to read:

23 **37-92-308. Substitute water supply plans - special procedures**  
24 **for review - water adjudication cash fund - legislative declaration.**

25 (5) (a) Beginning January 1, 2002, for new water use plans involving  
26 out-of-priority diversions or a change of water right, if no application for  
27 approval of a plan for augmentation or a change of water right has been

1 filed with a water court and the water use plan or change proposed and  
2 the depletions associated with such water use plan or change will be for  
3 a limited duration not to exceed five years, EXCEPT AS OTHERWISE  
4 PROVIDED IN SUBPARAGRAPH (II) OF PARAGRAPH (b) OF THIS SUBSECTION  
5 (5), the state engineer may approve such plan or change as a substitute  
6 water supply plan if the following conditions are met:

7 (b) (I) EXCEPT AS OTHERWISE PROVIDED IN SUBPARAGRAPH (II) OF  
8 THIS PARAGRAPH (b), a substitute water supply plan approved pursuant to  
9 this subsection (5) shall not be approved for a period of more than one  
10 year; except that an applicant may request the renewal of a plan by  
11 repeating the application process described in this subsection (5).  
12 However, in no event shall any plan approved pursuant to this subsection  
13 (5) or any water use included in such plan be approved or renewed for  
14 more than five years.

15 (II) A PROJECT SPONSOR FOR A PRECIPITATION HARVESTING PILOT  
16 PROJECT SELECTED PURSUANT TO SECTION 37-60-115 (6) MAY REQUEST  
17 RENEWAL OF A PLAN THAT WOULD EXTEND THE PLAN PAST FIVE YEARS  
18 FROM THE INITIAL DATE OF APPROVAL IF THE PROJECT SPONSOR  
19 DEMONSTRATES TO THE STATE ENGINEER THAT AN ADDITIONAL YEAR OF  
20 OPERATION UNDER THE PLAN IS NECESSARY TO OBTAIN SUFFICIENT DATA  
21 TO MEET THE COLORADO WATER CONSERVATION BOARD'S CRITERIA FOR  
22 EVALUATING THE PILOT PROJECT OR AN APPLICATION FOR A PERMANENT  
23 AUGMENTATION PLAN IS PENDING BEFORE THE WATER COURT. IF NOT  
24 OTHERWISE REQUIRED BY A WATER COURT-APPROVED AUGMENTATION  
25 PLAN, THE STATE ENGINEER SHALL HAVE THE AUTHORITY TO REQUIRE THE  
26 PROJECT SPONSOR TO REPLACE ANY ONGOING DELAYED DEPLETIONS AFTER  
27 THE WATER USE PLAN ASSOCIATED WITH A PRECIPITATION HARVESTING

1 PILOT PROJECT HAS CEASED.

2 **SECTION 3. Safety clause.** The general assembly hereby finds,  
3 determines, and declares that this act is necessary for the immediate  
4 preservation of the public peace, health, and safety.