

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

**PREAMENDED**

*This Unofficial Version Includes Committee  
Amendments Not Yet Adopted on Second Reading*

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  
Appropriations

**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 PREEXISTING,  
8 NATURAL VEGETATION CONDITIONS, ACCRUES TO THE NATURAL STREAM  
9 SYSTEM VIA SURFACE 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 THAT ACCOUNT FOR VARIATIONS IN HYDROLOGY AND  
13 PRECIPITATION EVENT INTENSITY, FREQUENCY, AND DURATION,  
14 QUANTIFYING PREEXISTING, NATURAL VEGETATION CONSUMPTION,  
15 MEASURING PRECIPITATION RETURN FLOW AMOUNTS, IDENTIFYING  
16 SURFACE VERSUS GROUND WATER RETURN FLOW SPLITS, AND IDENTIFYING  
17 DELAYED GROUND WATER RETURN FLOW TIMING TO RECEIVING STREAMS;

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

20 (IV) MEASURE PRECIPITATION CAPTURE EFFICIENCIES;

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

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

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

27 (b) AN APPLICANT FOR A DEVELOPMENT PERMIT, AS THAT TERM IS

1 DEFINED IN SECTION 29-20-103, C.R.S., FOR A NEW PLANNED UNIT  
2 DEVELOPMENT OR NEW SUBDIVISION OF RESIDENTIAL HOUSING OR MIXED  
3 USES MAY SUBMIT AN APPLICATION TO THE BOARD TO BECOME A SPONSOR  
4 OF ONE OR MORE OF THE TEN PILOT PROJECTS AUTHORIZED BY THIS  
5 SECTION. THE BOARD SHALL ESTABLISH CRITERIA AND GUIDELINES FOR  
6 APPLICATIONS AND THE SELECTION OF PILOT PROJECTS, INCLUDING THE  
7 FOLLOWING:

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

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

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

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

20 (V) GIVING PRIORITY TO PILOT PROJECTS THAT:

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

23 (B) PROMOTE WATER CONSERVATION.

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

1 (I) DURING THE TERM OF THE PILOT PROJECT, OPERATE ACCORDING  
2 TO A SUBSTITUTE WATER SUPPLY PLAN, IF APPROVED ANNUALLY BY THE  
3 STATE ENGINEER PURSUANT TO SECTION 37-92-308 (4) OR (5). UNTIL THE  
4 PILOT PROJECT SPONSOR APPLIES TO THE WATER COURT FOR A PERMANENT  
5 AUGMENTATION PLAN, THE PILOT PROJECT SHALL BE REQUIRED TO  
6 REPLACE AN AMOUNT OF WATER EQUAL TO THE AMOUNT OF  
7 PRECIPITATION CAPTURED AND MEASURED FROM ROOFTOPS AND  
8 IMPERMEABLE SURFACES FOR NONPOTABLE USES.

9 (II) (A) APPLY TO THE APPROPRIATE WATER COURT FOR A  
10 PERMANENT AUGMENTATION PLAN PRIOR TO COMPLETION OF THE PILOT  
11 PROJECT OR FILE A PLAN WITH THE STATE ENGINEER TO PERMANENTLY  
12 RETIRE THE RAINWATER COLLECTION SYSTEM, WHICH PLAN SHALL BE  
13 REVIEWED AND APPROVED PRIOR TO THE CESSATION OF AUGMENTATION.  
14 ANY SUCH PERMANENT AUGMENTATION PLAN SHALL ENTITLE THE  
15 SPONSOR TO CONSUME WITHOUT REPLACEMENT ONLY THAT PORTION OF  
16 THE PRECIPITATION THAT THE SPONSOR PROVES BY A PREPONDERANCE OF  
17 THE EVIDENCE WOULD NOT HAVE ACCRUED TO A NATURAL STREAM UNDER  
18 PREEXISTING, NATURAL VEGETATION CONDITIONS. THE SPONSOR SHALL  
19 BE REQUIRED TO FULLY AUGMENT ANY PRECIPITATION CAPTURED OUT OF  
20 PRIORITY THAT WOULD OTHERWISE HAVE ACCRUED TO A NATURAL  
21 STREAM.

22 (B) AFTER A MINIMUM OF TWO YEARS OF DATA COLLECTION AND  
23 UPON APPLICATION TO THE APPROPRIATE WATER COURT FOR A PERMANENT  
24 AUGMENTATION PLAN, THE PILOT PROJECT SPONSOR SHALL FILE AN  
25 APPLICATION FOR APPROVAL OF A SUBSTITUTE WATER SUPPLY PLAN  
26 PURSUANT TO SECTION 37-92-308 (4). FOR ANY SUBSTITUTE SUPPLY PLAN  
27 APPLICATION FILED UNDER SECTION 37-92-308 (4), A PILOT PROJECT

1 SPONSOR MAY SEEK APPROVAL FROM THE STATE ENGINEER BASED ON  
2 REPLACING ONLY THE NET DEPLETION CAUSED BY THE CAPTURE OF  
3 PRECIPITATION. THE NET DEPLETION SHALL BE CALCULATED AS THE  
4 AMOUNT OF PRECIPITATION CAPTURE MINUS THE HISTORICAL  
5 CONSUMPTIVE USE FROM PREEXISTING, NATURAL VEGETATION COVER ON  
6 THE IMPERMEABLE AREA AS DEMONSTRATED BY ANALYSIS OF THE DATA  
7 COLLECTED BY THE SPONSOR DURING THE PILOT PROJECT. THE STATE  
8 ENGINEER SHALL HAVE THE AUTHORITY TO REQUIRE THE SPONSOR TO  
9 REPLACE ANY ONGOING DELAYED DEPLETIONS CAUSED BY THE PILOT  
10 PROJECT.

11 (d) EACH SPONSOR SHALL SUBMIT AN ANNUAL PRELIMINARY  
12 REPORT TO THE BOARD AND THE STATE ENGINEER SUMMARIZING THE  
13 INFORMATION SET FORTH IN PARAGRAPH (a) OF THIS SUBSECTION (6). THE  
14 BOARD AND THE STATE ENGINEER SHALL BRIEF THE WATER RESOURCES  
15 REVIEW COMMITTEE CREATED IN SECTION 37-98-102 ON THE REPORTED  
16 RESULTS OF THE PILOT PROJECTS BY JULY 1, 2014. EACH SPONSOR SHALL  
17 SUBMIT A FINAL REPORT TO THE BOARD AND THE STATE ENGINEER BY  
18 JANUARY 15, 2019. THE BOARD AND THE STATE ENGINEER SHALL PROVIDE  
19 A FINAL BRIEFING TO THE WATER RESOURCES REVIEW COMMITTEE BY JULY  
20 1, 2019.

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

24 **SECTION 2.** 37-92-308 (4) (a) (IV) and (4) (b), the introductory  
25 portion to 37-92-308 (5) (a), and 37-92-308 (5) (b), Colorado Revised  
26 Statutes, are amended to read:

27 **37-92-308. Substitute water supply plans - special procedures**

1 **for review - water adjudication cash fund - legislative declaration.**

2 (4) (a) Beginning January 1, 2002, if an application for approval of a plan  
3 for augmentation, rotational crop management contract, or change of  
4 water right has been filed with a water court and the court has not issued  
5 a decree, the state engineer may approve the temporary operation of such  
6 plan, contract, or change of water right as a substitute water supply plan  
7 if the following conditions are met:

8 (IV) The state engineer, after consideration of the comments  
9 received, has determined that the operation and administration of such  
10 plan will replace all out-of-priority depletions in time, location, and  
11 amount and will otherwise prevent injury to other water rights and  
12 decreed conditional water rights, including water quality and continuity  
13 to meet the requirements of use to which the senior appropriation has  
14 normally been put, pursuant to section 37-80-120 (3), and will not impair  
15 compliance with any interstate compacts. NOTWITHSTANDING ANY  
16 LIMITATIONS REGARDING PHREATOPHYTES OR IMPERMEABLE SURFACES  
17 THAT WOULD OTHERWISE APPLY PURSUANT TO SECTION 37-92-103 (9) OR  
18 37-92-501 (4) (b) (III), FOR ANY PRECIPITATION HARVESTING PILOT  
19 PROJECT SELECTED PURSUANT TO SECTION 37-60-115 (6) THAT HAS FILED  
20 AN APPLICATION FOR A PERMANENT AUGMENTATION PLAN IN WATER  
21 COURT, THE OUT-OF-PRIORITY DEPLETIONS SHALL BE THE NET DEPLETION  
22 AS DEFINED IN SECTION 37-60-115 (6) (c) (II) (B). IF NOT OTHERWISE  
23 REQUIRED BY A WATER COURT-APPROVED AUGMENTATION PLAN, THE  
24 STATE ENGINEER SHALL HAVE THE AUTHORITY TO REQUIRE THE PROJECT  
25 SPONSOR TO REPLACE ANY ONGOING DELAYED DEPLETIONS AFTER THE  
26 WATER USE PLAN ASSOCIATED WITH A PRECIPITATION HARVESTING PILOT  
27 PROJECT HAS CEASED. The state engineer shall impose such terms and

1 conditions as are necessary to ensure that these standards are met. In  
2 making such determinations, the state engineer shall not be required to  
3 hold any formal hearings or conduct any other formal proceedings, but  
4 may conduct a hearing or formal proceeding if the state engineer finds it  
5 necessary to address the issues.

6 (b) A substitute water supply plan approved pursuant to this  
7 subsection (4) shall not be approved for a period of more than one year;  
8 except that an applicant may request the renewal of a plan by repeating  
9 the application process described in this subsection (4). If an applicant  
10 requests a renewal of a plan that would extend the plan past three years  
11 from the initial date of approval, the applicant shall demonstrate to the  
12 state engineer that the delay in obtaining a water court decree is justifiable  
13 and that not being able to continue operating under a substitute water  
14 supply plan until a decree is entered will cause undue hardship to the  
15 applicant. A PROJECT SPONSOR FOR A PRECIPITATION HARVESTING PILOT  
16 PROJECT SELECTED PURSUANT TO SECTION 37-60-115 (6) SHALL  
17 DEMONSTRATE TO THE STATE ENGINEER THAT AN ADDITIONAL YEAR OF  
18 OPERATION UNDER THE PLAN IS NECESSARY TO OBTAIN SUFFICIENT DATA  
19 TO MEET THE COLORADO WATER CONSERVATION BOARD'S CRITERIA FOR  
20 EVALUATING THE PILOT PROJECT. If an applicant requests renewal of a  
21 plan that would extend the plan past five years from the initial date of  
22 approval, the applicant shall demonstrate to the water judge in the  
23 applicable water division that the delay in obtaining a decree has been  
24 justifiable and that not being able to continue operating under a substitute  
25 water supply plan until a decree is entered will cause undue hardship to  
26 the applicant. Approval of a plan pursuant to subsection (5) of this  
27 section shall be deemed to be approval under this subsection (4) for

1 purposes of calculating the number of years since the initial date of  
2 approval.

3 (5) (a) Beginning January 1, 2002, for new water use plans  
4 involving out-of-priority diversions or a change of water right, if no  
5 application for approval of a plan for augmentation or a change of water  
6 right has been filed with a water court and the water use plan or change  
7 proposed and the depletions associated with such water use plan or  
8 change will be for a limited duration not to exceed five years, EXCEPT AS  
9 OTHERWISE PROVIDED IN SUBPARAGRAPH (II) OF PARAGRAPH (b) OF THIS  
10 SUBSECTION (5), the state engineer may approve such plan or change as  
11 a substitute water supply plan if the following conditions are met:

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

20 (II) A PROJECT SPONSOR FOR A PRECIPITATION HARVESTING PILOT  
21 PROJECT SELECTED PURSUANT TO SECTION 37-60-115 (6) MAY REQUEST  
22 RENEWAL OF A PLAN THAT WOULD EXTEND THE PLAN PAST FIVE YEARS  
23 FROM THE INITIAL DATE OF APPROVAL IF THE PROJECT SPONSOR  
24 DEMONSTRATES TO THE STATE ENGINEER THAT AN ADDITIONAL YEAR OF  
25 OPERATION UNDER THE PLAN IS NECESSARY TO OBTAIN SUFFICIENT DATA  
26 TO MEET THE COLORADO WATER CONSERVATION BOARD'S CRITERIA FOR  
27 EVALUATING THE PILOT PROJECT OR AN APPLICATION FOR A PERMANENT

1 AUGMENTATION PLAN IS PENDING BEFORE THE WATER COURT. IF NOT  
2 OTHERWISE REQUIRED BY A WATER COURT-APPROVED AUGMENTATION  
3 PLAN, THE STATE ENGINEER SHALL HAVE THE AUTHORITY TO REQUIRE THE  
4 PROJECT SPONSOR TO REPLACE ANY ONGOING DELAYED DEPLETIONS AFTER  
5 THE WATER USE PLAN ASSOCIATED WITH A PRECIPITATION HARVESTING  
6 PILOT PROJECT HAS CEASED.

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