

**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

HOUSE SPONSORSHIP

Looper,

SENATE SPONSORSHIP

Romer, Harvey

House Committees

Agriculture, Livestock, & Natural Resources
Appropriations

Senate Committees

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, AND MAKING AN APPROPRIATION IN**
104 **CONNECTION THEREWITH.**

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

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.

the pilot projects is to:

- ! Evaluate the technical ability to reasonably quantify the 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.

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**

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

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

11 (II) CREATE A BASELINE SET OF DATA AND SOUND, TRANSFERABLE
12 METHODOLOGIES FOR MEASURING LOCAL WEATHER AND PRECIPITATION
13 PATTERNS THAT ACCOUNT FOR VARIATIONS IN HYDROLOGY AND
14 PRECIPITATION EVENT INTENSITY, FREQUENCY, AND DURATION,
15 QUANTIFYING PREEXISTING, NATURAL VEGETATION CONSUMPTION,
16 MEASURING PRECIPITATION RETURN FLOW AMOUNTS, IDENTIFYING
17 SURFACE VERSUS GROUND WATER RETURN FLOW SPLITS, AND IDENTIFYING
18 DELAYED GROUND WATER RETURN FLOW TIMING TO RECEIVING STREAMS;

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

21 (IV) MEASURE PRECIPITATION CAPTURE EFFICIENCIES;

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

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

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

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

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

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

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

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

21 (V) GIVING PRIORITY TO PILOT PROJECTS THAT:

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

24 (B) PROMOTE WATER CONSERVATION.

25 (c) NOTWITHSTANDING ANY LIMITATIONS REGARDING
26 PHREATOPHYTES OR IMPERMEABLE SURFACES THAT WOULD OTHERWISE
27 APPLY PURSUANT TO SECTION 37-92-103 (9) OR 37-92-501 (4) (b) (III),

1 EACH OF THE TEN PILOT PROJECTS SHALL:

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

10 (II) (A) APPLY TO THE APPROPRIATE WATER COURT FOR A
11 PERMANENT AUGMENTATION PLAN PRIOR TO COMPLETION OF THE PILOT
12 PROJECT OR FILE A PLAN WITH THE STATE ENGINEER TO PERMANENTLY
13 RETIRE THE RAINWATER COLLECTION SYSTEM, WHICH PLAN SHALL BE
14 REVIEWED AND APPROVED PRIOR TO THE CESSATION OF AUGMENTATION.
15 AS A CONDITION OF APPROVING THE RETIREMENT OF A PILOT PROJECT, THE
16 STATE ENGINEER SHALL HAVE THE AUTHORITY TO REQUIRE THE PROJECT
17 SPONSOR TO REPLACE ANY ONGOING DELAYED DEPLETIONS CAUSED BY
18 THE PILOT PROJECT AFTER THE PROJECT HAS CEASED. ANY SUCH
19 PERMANENT AUGMENTATION PLAN SHALL ENTITLE THE SPONSOR TO
20 CONSUME WITHOUT REPLACEMENT ONLY THAT PORTION OF THE
21 PRECIPITATION THAT THE SPONSOR PROVES BY A PREPONDERANCE OF THE
22 EVIDENCE WOULD NOT HAVE ACCRUED TO A NATURAL STREAM UNDER
23 PREEXISTING, NATURAL VEGETATION CONDITIONS. THE SPONSOR SHALL
24 BE REQUIRED TO FULLY AUGMENT ANY PRECIPITATION CAPTURED OUT OF
25 PRIORITY THAT WOULD OTHERWISE HAVE ACCRUED TO A NATURAL
26 STREAM. [REDACTED]

27 (B) AFTER A MINIMUM OF TWO YEARS OF DATA COLLECTION AND

1 UPON APPLICATION TO THE APPROPRIATE WATER COURT FOR A PERMANENT
2 AUGMENTATION PLAN, THE PILOT PROJECT SPONSOR SHALL FILE AN
3 APPLICATION FOR APPROVAL OF A SUBSTITUTE WATER SUPPLY PLAN
4 PURSUANT TO SECTION 37-92-308 (4). FOR ANY SUBSTITUTE SUPPLY PLAN
5 APPLICATION FILED UNDER SECTION 37-92-308 (4), A PILOT PROJECT
6 SPONSOR MAY SEEK APPROVAL FROM THE STATE ENGINEER BASED ON
7 REPLACING ONLY THE NET DEPLETION CAUSED BY THE CAPTURE OF
8 PRECIPITATION. THE NET DEPLETION SHALL BE CALCULATED AS THE
9 AMOUNT OF PRECIPITATION CAPTURE MINUS THE HISTORICAL
10 CONSUMPTIVE USE FROM PREEXISTING, NATURAL VEGETATION COVER ON
11 THE IMPERMEABLE AREA AS DEMONSTRATED BY ANALYSIS OF THE DATA
12 COLLECTED BY THE SPONSOR DURING THE PILOT PROJECT.

13 (d) EACH SPONSOR SHALL SUBMIT AN ANNUAL PRELIMINARY
14 REPORT TO THE BOARD AND THE STATE ENGINEER SUMMARIZING THE
15 INFORMATION SET FORTH IN PARAGRAPH (a) OF THIS SUBSECTION (6). THE
16 BOARD AND THE STATE ENGINEER SHALL BRIEF THE WATER RESOURCES
17 REVIEW COMMITTEE CREATED IN SECTION 37-98-102 ON THE REPORTED
18 RESULTS OF THE PILOT PROJECTS BY JULY 1, 2014. EACH SPONSOR SHALL
19 SUBMIT A FINAL REPORT TO THE BOARD AND THE STATE ENGINEER BY
20 JANUARY 15, 2019. THE BOARD AND THE STATE ENGINEER SHALL PROVIDE
21 A FINAL BRIEFING TO THE WATER RESOURCES REVIEW COMMITTEE BY JULY
22 1, 2019.

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

26 **SECTION 2.** 37-92-308 (4) (a) (IV) and (4) (b), the introductory
27 portion to 37-92-308 (5) (a), and 37-92-308 (5) (b), Colorado Revised

1 Statutes, are amended to read:

2 **37-92-308. Substitute water supply plans - special procedures**
3 **for review - water adjudication cash fund - legislative declaration.**

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

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

1 ONGOING DELAYED DEPLETIONS AFTER THE WATER USE PLAN ASSOCIATED
2 WITH A PRECIPITATION HARVESTING PILOT PROJECT HAS CEASED. The
3 state engineer shall impose such terms and conditions as are necessary to
4 ensure that these standards are met. In making such determinations, the
5 state engineer shall not be required to hold any formal hearings or
6 conduct any other formal proceedings, but may conduct a hearing or
7 formal proceeding if the state engineer finds it necessary to address the
8 issues.

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

1 water supply plan until a decree is entered will cause undue hardship to
2 the applicant. Approval of a plan pursuant to subsection (5) of this
3 section shall be deemed to be approval under this subsection (4) for
4 purposes of calculating the number of years since the initial date of
5 approval.

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

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

23 (II) A PROJECT SPONSOR FOR A PRECIPITATION HARVESTING PILOT
24 PROJECT SELECTED PURSUANT TO SECTION 37-60-115 (6) MAY REQUEST
25 RENEWAL OF A PLAN THAT WOULD EXTEND THE PLAN PAST FIVE YEARS
26 FROM THE INITIAL DATE OF APPROVAL IF THE PROJECT SPONSOR
27 DEMONSTRATES TO THE STATE ENGINEER THAT AN ADDITIONAL YEAR OF

1 OPERATION UNDER THE PLAN IS NECESSARY TO OBTAIN SUFFICIENT DATA
2 TO MEET THE COLORADO WATER CONSERVATION BOARD'S CRITERIA FOR
3 EVALUATING THE PILOT PROJECT OR AN APPLICATION FOR A PERMANENT
4 AUGMENTATION PLAN IS PENDING BEFORE THE WATER COURT. [REDACTED] [REDACTED]
5 AS A CONDITION OF APPROVING A SUBSTITUTE WATER SUPPLY PLAN FOR
6 A PILOT PROJECT PURSUANT TO THIS SUBSECTION (5), THE STATE ENGINEER
7 SHALL HAVE THE AUTHORITY TO REQUIRE THE PROJECT SPONSOR TO
8 REPLACE ANY ONGOING DELAYED DEPLETIONS AFTER THE WATER USE
9 PLAN ASSOCIATED WITH A PRECIPITATION HARVESTING PILOT PROJECT HAS
10 CEASED.

11 **SECTION 3. Appropriation.** In addition to any other
12 appropriation, there is hereby appropriated, out of any moneys in the
13 Colorado water conservation board construction fund created in section
14 37-60-121 (1) (a), Colorado Revised Statutes, not otherwise appropriated,
15 to the department of natural resources, Colorado water conservation
16 board, special purpose, for the water conservation program, for the fiscal
17 year beginning July 1, 2009, the sum of three thousand six hundred
18 dollars (\$3,600), or so much thereof as may be necessary, for the
19 implementation of this act.

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