

Second Regular Session  
Seventy-second General Assembly  
STATE OF COLORADO

INTRODUCED

LLS NO. 20-0327.01 Duane Gall x4335

HOUSE BILL 20-1072

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HOUSE SPONSORSHIP

Arndt and Saine, Catlin, Roberts, Titone

SENATE SPONSORSHIP

Sonnenberg and Bridges, Coram, Donovan

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House Committees  
Rural Affairs & Agriculture

Senate Committees

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A BILL FOR AN ACT

101 CONCERNING A REQUIREMENT THAT THE UNIVERSITY OF COLORADO  
102 STUDY POTENTIAL USES OF EMERGING TECHNOLOGIES TO MORE  
103 EFFECTIVELY MANAGE COLORADO'S WATER SUPPLY, AND, IN  
104 CONNECTION THEREWITH, MAKING AN APPROPRIATION,  
105 CONDITIONED ON THE RECEIPT OF MATCHING FUNDS FROM  
106 GIFTS, GRANTS, AND DONATIONS.

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Bill Summary

*(Note: This summary applies to this bill as introduced and does not reflect any amendments that may be subsequently adopted. If this bill passes third reading in the house of introduction, a bill summary that applies to the reengrossed version of this bill will be available at <http://leg.colorado.gov/>.)*

**Water Resources Review Committee.** The bill declares that new

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

technologies, such as blockchain, telemetry, improved sensors, and advanced aerial observation platforms, can improve monitoring, management, conservation, and trading of water and enhance confidence in the reliability of data underlying water rights transactions. To advance the potential use of these new technologies, the bill:

! Authorizes and directs the university of Colorado, in collaboration with the Colorado water institute at Colorado state university, to conduct feasibility studies and pilot deployments of these new technologies to improve water management in Colorado; and

! Appropriates \$40,000 from the general fund, contingent on the university of Colorado's receipt of a matching \$40,000 in gifts, grants, and donations, for the purpose of funding the studies and pilot programs.

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

2 **SECTION 1. Legislative declaration.** (1) The general assembly  
3 finds and determines that emerging new and improved technologies may  
4 offer significant benefits to Colorado water users and managers by:

5 (a) Improving the monitoring, management, conservation, and  
6 trading of both surface water and groundwater;

7 (b) Reducing inefficiency and waste in the process of recycling,  
8 reclaiming, or disposing of produced water and wastewater; and

9 (c) Allowing parties to water rights transactions to have more  
10 confidence in the data on which those transactions are based.

11 (2) Therefore, the general assembly declares that it is in the public  
12 interest to authorize and direct the university of Colorado, in  
13 collaboration with the Colorado water institute, to conduct feasibility  
14 studies and pilot deployments of these technologies and to report to the  
15 general assembly on the potential of these technologies to improve  
16 Colorado water management.

17 **SECTION 2.** In Colorado Revised Statutes, **add** 23-20-141 as

1 follows:

2 **23-20-141. Emerging technologies for water management -**

3 **study - report - repeal.** (1) (a) SUBJECT TO SUBSECTION (2) OF THIS

4 SECTION AND IN COLLABORATION WITH THE COLORADO WATER INSTITUTE

5 CREATED IN SECTION 23-31-801 OR ITS SUCCESSOR, THE UNIVERSITY OF

6 COLORADO SHALL CONDUCT FEASIBILITY STUDIES AND PILOT

7 DEPLOYMENTS OF NEW AND EMERGING TECHNOLOGIES THAT HAVE

8 POTENTIAL TO IMPROVE THE MONITORING, MANAGEMENT, CONSERVATION,

9 AND TRADING OF SURFACE WATER AND GROUNDWATER AND TO REDUCE

10 INEFFICIENCY AND WASTE IN THE PROCESS OF RECYCLING, RECLAIMING, OR

11 DISPOSING OF PRODUCED WATER AND WASTEWATER.

12 (b) THE TECHNOLOGIES TO BE INVESTIGATED BY THE UNIVERSITY

13 PURSUANT TO SUBSECTION (1)(a) OF THIS SECTION MAY INCLUDE:

14 (I) IN-SITU SENSORS TO MONITOR SURFACE AND GROUNDWATER  
15 USE;

16 (II) DIRECT OR REMOTE SENSORS TO MONITOR WATER QUALITY;

17 (III) CELLULAR AND SATELLITE TELEMTRY SYSTEMS ALLOWING  
18 REMOTE ACCESS TO SENSOR DATA;

19 (IV) AERIAL OBSERVATION PLATFORMS, INCLUDING  
20 HIGH-ALTITUDE BALLOONS AND UNMANNED AERIAL VEHICLES;

21 (V) SATELLITE-BASED REMOTE SENSING AND WATER RESOURCE  
22 FORECASTING TECHNOLOGIES; AND

23 (VI) BLOCKCHAIN-BASED DOCUMENTATION, COMMUNICATION,  
24 AND AUTHENTICATION OF DATA REGARDING WATER USE, TRADING, AND  
25 CONSERVATION.

26 (c) ON OR BEFORE JULY 15, 2021, AND UPON REQUEST OF THE  
27 WATER RESOURCES REVIEW COMMITTEE IN ANY YEAR THEREAFTER,

1 NOTWITHSTANDING SECTION 24-1-136 (11), THE UNIVERSITY SHALL  
2 PROVIDE LIVE TESTIMONY AND A WRITTEN REPORT ON THE PROGRESS OF  
3 THE STUDIES AND PILOT DEPLOYMENTS CONDUCTED PURSUANT TO THIS  
4 SUBSECTION (1), INCLUDING ANY CONCLUSIONS REGARDING THE  
5 POTENTIAL OF THESE TECHNOLOGIES TO IMPROVE COLORADO WATER  
6 MANAGEMENT AND ANY RECOMMENDATIONS FOR ADMINISTRATIVE OR  
7 LEGISLATIVE ACTION TO PROMOTE THEIR USE, TO THE WATER RESOURCES  
8 REVIEW COMMITTEE OF THE GENERAL ASSEMBLY.

9 (2) (a) THE UNIVERSITY OF COLORADO MAY SEEK, ACCEPT, AND  
10 EXPEND GIFTS, GRANTS, OR DONATIONS FROM PRIVATE OR PUBLIC SOURCES  
11 FOR THE PURPOSES OF THIS SECTION. THE UNIVERSITY SHALL NOT  
12 CONDUCT THE STUDIES OR PILOT DEPLOYMENTS DESCRIBED IN SUBSECTION  
13 (1) OF THIS SECTION UNTIL IT HAS RECEIVED AT LEAST FORTY THOUSAND  
14 DOLLARS PURSUANT TO THIS SUBSECTION (2). AFTER THE UNIVERSITY HAS  
15 CERTIFIED TO THE STATE CONTROLLER THAT THE UNIVERSITY HAS  
16 RECEIVED AT LEAST FORTY THOUSAND DOLLARS FROM GIFTS, GRANTS,  
17 AND DONATIONS FOR THE PURPOSES OF CARRYING OUT THIS SECTION, THE  
18 GENERAL ASSEMBLY SHALL APPROPRIATE AN ADDITIONAL FORTY  
19 THOUSAND DOLLARS FROM THE GENERAL FUND TO THE UNIVERSITY.

20 (b) THIS SUBSECTION (2) WILL BE REPEALED IF THE UNIVERSITY  
21 DETERMINES THAT INSUFFICIENT MONEY HAS BEEN RECEIVED TO SATISFY  
22 THE CONDITION STATED IN SUBSECTION (2)(a) OF THIS SECTION. THE  
23 UNIVERSITY SHALL NOTIFY THE REVISOR OF STATUTES IN WRITING OF THE  
24 DATE ON WHICH A CONDITION SPECIFIED IN THIS SUBSECTION (2) HAS  
25 OCCURRED BY E-MAILING THE NOTICE TO  
26 REVISOROFSTATUTES.GA@STATE.CO.US. THIS SUBSECTION (2) IS  
27 REPEALED, EFFECTIVE THE SEPTEMBER 1 FOLLOWING THE DATE IDENTIFIED

1 IN THE NOTICE THAT THE CONDITION SPECIFIED IN THIS SUBSECTION (2)  
2 HAS OCCURRED OR, IF THE NOTICE DOES NOT SPECIFY THAT DATE,  
3 FOLLOWING THE DATE OF THE NOTICE TO THE REVISOR OF STATUTES.

4 (3) THIS SECTION IS REPEALED, EFFECTIVE JULY 1, 2022.

5 **SECTION 3.** In Colorado Revised Statutes, 23-31-801, **amend**  
6 (4)(e)(V) and (4)(f); and **add** (4)(g) as follows:

7 **23-31-801. Colorado water institute - creation.** (4) It is the duty  
8 of the institute to:

9 (e) Facilitate and stimulate scientific research and policy analysis  
10 that:

11 (V) Examines the interconnections between climate change, water  
12 supply, and water quality and provides tools water managers and  
13 policymakers need to adapt to global climate change; ~~and~~

14 (f) Establish and maintain a clearinghouse and archive of water  
15 research, water quality, and climate projection data; AND

16 (g) COLLABORATE WITH THE UNIVERSITY OF COLORADO IN  
17 STUDYING THE FEASIBILITY OF NEW AND IMPROVED WATER-RELATED  
18 TECHNOLOGIES IN ACCORDANCE WITH SECTION 23-20-141.

19 **SECTION 4. Appropriation.** In addition to any other  
20 appropriation, there is hereby appropriated, out of any money in the  
21 general fund not otherwise appropriated, to the university of Colorado, for  
22 the fiscal year beginning July 1, 2020, the sum of forty thousand dollars  
23 (\$40,000), or so much thereof as may be necessary, for the  
24 implementation of this act.

25 **SECTION 5. Act subject to petition - effective date.** (1) Except  
26 as otherwise provided in subsection (2) of this section, this act takes  
27 effect at 12:01 a.m. on the day following the expiration of the ninety-day

1 period after final adjournment of the general assembly (August 5, 2020,  
2 if adjournment sine die is on May 6, 2020); except that, if a referendum  
3 petition is filed pursuant to section 1 (3) of article V of the state  
4 constitution against this act or an item, section, or part of this act within  
5 such period, then the act, item, section, or part will not take effect unless  
6 approved by the people at the general election to be held in November  
7 2020 and, in such case, will take effect on the date of the official  
8 declaration of the vote thereon by the governor.

9 (2) Section 4 of this act shall only take effect if the university of  
10 Colorado certifies in writing to the state controller that the university has  
11 received at least forty thousand dollars (\$40,000) in gifts, grants, and  
12 donations for the purposes of this act. After receiving this certification,  
13 the state controller shall notify the joint budget committee in writing that  
14 the state controller has received the certification from the university.