

First Regular Session  
Seventy-third General Assembly  
STATE OF COLORADO

**ENGROSSED**

*This Version Includes All Amendments Adopted  
on Second Reading in the House of Introduction*

LLS NO. 21-0921.01 Duane Gall x4335

**HOUSE BILL 21-1268**

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**HOUSE SPONSORSHIP**

**Titone and Will,**

**SENATE SPONSORSHIP**

**Hansen and Simpson,**

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**House Committees**

Agriculture, Livestock, & Water  
Appropriations

**Senate Committees**

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**A BILL FOR AN ACT**

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

The bill declares that new technologies, such as blockchain,

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.*

HOUSE  
Amended 2nd Reading  
May 11, 2021

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 and Colorado state university, 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 \$20,000 to each university from the general fund, contingent on the universities' receipt of a matching \$40,000 in gifts, grants, and donations, for the purpose of funding the feasibility studies and pilot deployments.

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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 allocation 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 Colorado state university and the Colorado water  
14 institute, to conduct feasibility studies and pilot deployments of these  
15 technologies and to report to the general assembly on the potential of  
16 these technologies to improve 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 - legislative declaration - repeal.** (1) (a) SUBJECT TO

4 SUBSECTION (2) OF THIS SECTION AND IN COLLABORATION WITH  
5 COLORADO STATE UNIVERSITY AND THE COLORADO WATER INSTITUTE  
6 CREATED IN SECTION 23-31-801, THE UNIVERSITY OF COLORADO SHALL  
7 CONDUCT FEASIBILITY STUDIES AND PILOT DEPLOYMENTS OF NEW AND  
8 EMERGING TECHNOLOGIES THAT HAVE POTENTIAL TO IMPROVE THE  
9 MONITORING, MANAGEMENT, CONSERVATION, AND ALLOCATION OF  
10 SURFACE WATER AND GROUNDWATER AND TO REDUCE INEFFICIENCY AND  
11 WASTE IN THE PROCESS OF RECYCLING, RECLAIMING, OR DISPOSING OF  
12 PRODUCED WATER AND WASTEWATER.

13 (b) THE TECHNOLOGIES TO BE INVESTIGATED BY THE UNIVERSITIES  
14 AND THE INSTITUTE PURSUANT TO SUBSECTION (1)(a) OF THIS SECTION  
15 MAY INCLUDE:

16 (I) IN-SITU SENSORS TO MONITOR SURFACE AND GROUNDWATER  
17 USE;

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

19 (III) CELLULAR AND SATELLITE TELEMETRY SYSTEMS ALLOWING  
20 REMOTE ACCESS TO SENSOR DATA;

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

23 (V) SATELLITE-BASED REMOTE SENSING AND WATER RESOURCE  
24 FORECASTING TECHNOLOGIES; AND

25 (VI) BLOCKCHAIN-BASED DOCUMENTATION, COMMUNICATION,  
26 AND AUTHENTICATION OF DATA REGARDING WATER USE; FULFILLMENT OF  
27 OBLIGATIONS UNDER COLORADO'S SYSTEM OF PRIOR APPROPRIATION,

1 INCLUDING AUGMENTATION PLANS; AND WATER CONSERVATION.

2 (c) ON OR BEFORE JULY 15, 2022, AND UPON REQUEST OF THE  
3 WATER RESOURCES REVIEW COMMITTEE OF THE GENERAL ASSEMBLY IN  
4 ANY YEAR THEREAFTER, THE UNIVERSITIES SHALL PROVIDE LIVE  
5 TESTIMONY AND A WRITTEN REPORT ON THE PROGRESS OF THE FEASIBILITY  
6 STUDIES AND PILOT DEPLOYMENTS CONDUCTED PURSUANT TO THIS  
7 SUBSECTION (1), INCLUDING ANY CONCLUSIONS REGARDING THE  
8 POTENTIAL OF THESE TECHNOLOGIES TO IMPROVE COLORADO WATER  
9 MANAGEMENT AND ANY RECOMMENDATIONS FOR ADMINISTRATIVE OR  
10 LEGISLATIVE ACTION TO PROMOTE THEIR USE, TO THE WATER RESOURCES  
11 REVIEW COMMITTEE.

12 (d) ANY FEASIBILITY STUDIES OR PILOT DEPLOYMENTS MADE  
13 PURSUANT TO THIS SECTION, AND ANY RECOMMENDATIONS FOR  
14 ADMINISTRATIVE OR LEGISLATIVE ACTION TO PROMOTE THE USE OF THE  
15 TECHNOLOGIES CONSIDERED, MUST TAKE ACCOUNT OF THE EXISTING  
16 SYSTEM OF PRIOR APPROPRIATION UNDER ARTICLE XVI OF THE STATE  
17 CONSTITUTION AND COLORADO WATER LAW. THE GENERAL ASSEMBLY  
18 FINDS, DETERMINES, AND DECLARES THAT NOTHING IN THIS SECTION  
19 SHALL BE CONSTRUED TO ENCOURAGE OR ENABLE SPECULATION IN WATER  
20 OR WATER RIGHTS.

21 (2) THE UNIVERSITY OF COLORADO AND COLORADO STATE  
22 UNIVERSITY MAY SEEK, ACCEPT, AND EXPEND GIFTS, GRANTS, OR  
23 DONATIONS FROM PRIVATE OR PUBLIC SOURCES FOR THE PURPOSES OF THIS  
24 SECTION. THE UNIVERSITIES SHALL NOT CONDUCT THE FEASIBILITY  
25 STUDIES OR PILOT DEPLOYMENTS DESCRIBED IN SUBSECTION (1) OF THIS  
26 SECTION UNLESS THEY HAVE RECEIVED AT LEAST FORTY THOUSAND  
27 DOLLARS PURSUANT TO THIS SUBSECTION (2) ON OR BEFORE JUNE 1, 2022.

1 THE GENERAL ASSEMBLY SHALL APPROPRIATE FORTY THOUSAND DOLLARS  
2 FROM THE GENERAL FUND TO THE DEPARTMENT OF HIGHER EDUCATION,  
3 WITH TWENTY THOUSAND DOLLARS ALLOCATED TO EACH UNIVERSITY, FOR  
4 THE PURPOSES OF THIS SECTION; EXCEPT THAT THE APPROPRIATION IS  
5 CONTINGENT ON THE UNIVERSITIES RECEIVING FORTY THOUSAND DOLLARS  
6 IN GIFTS, GRANTS, AND DONATIONS ON OR BEFORE JUNE 1, 2022, AND  
7 CERTIFYING IN WRITING TO THE STATE CONTROLLER THAT SAID AMOUNT  
8 HAS BEEN RECEIVED ON OR BEFORE JUNE 1, 2022.

9 (3) (a) THE UNIVERSITIES SHALL NOTIFY THE REVISOR OF STATUTES  
10 IN WRITING, BY E-MAIL SENT TO REVISOROFSTATUTES.GA@STATE.CO.US,  
11 WHETHER THE UNIVERSITIES RECEIVED, BY JUNE 1, 2022, THE AMOUNT OF  
12 MONEY SPECIFIED IN SUBSECTION (2) OF THIS SECTION.

13 (b) (I) IF THE NOTICE FROM THE UNIVERSITIES STATES THAT, AS OF  
14 JUNE 1, 2022, THE UNIVERSITIES DID NOT RECEIVE THE AMOUNT OF MONEY  
15 SPECIFIED IN SUBSECTION (2) OF THIS SECTION, THIS SECTION IS REPEALED,  
16 EFFECTIVE SEPTEMBER 1, 2022.

17 (II) IF THE NOTICE FROM THE UNIVERSITIES STATES THAT, AS OF  
18 JUNE 1, 2022, THE UNIVERSITIES DID RECEIVE THE AMOUNT OF MONEY  
19 SPECIFIED IN SUBSECTION (2) OF THIS SECTION, THIS SUBSECTION (3) IS  
20 REPEALED, EFFECTIVE UPON THE DATE IDENTIFIED IN THE NOTICE THAT  
21 THE MONEY WAS RECEIVED OR, IF THE NOTICE DOES NOT SPECIFY THAT  
22 DATE, UPON THE DATE OF THE NOTICE TO THE REVISOR OF STATUTES.

23 (4) EACH OF THE UNIVERSITIES SHALL:

24 (a) REPORT AND REGULARLY UPDATE ON ITS WEBSITE THE AMOUNT  
25 AND SOURCE OF MONEY RECEIVED PURSUANT TO SUBSECTION (2) OF THIS  
26 SECTION AND, IF THE MONEY IS A GIFT, GRANT, OR DONATION, THE  
27 IDENTITY OF THE DONOR AND THE PURPOSE AND PERIOD OF TIME FOR

1 WHICH THE MONEY IS AVAILABLE;

2 (b) REPORT ANNUALLY THE AMOUNT AND SOURCE OF MONEY  
3 RECEIVED PURSUANT TO SUBSECTION (2) OF THIS SECTION IN THE PRIOR  
4 STATE FISCAL YEAR AT THE HEARING REQUIRED BY THE "STATE  
5 MEASUREMENT FOR ACCOUNTABLE, RESPONSIVE, AND TRANSPARENT  
6 (SMART) GOVERNMENT ACT", PART 2 OF ARTICLE 7 OF TITLE 2, AND, IF  
7 THE MONEY IS A GIFT, GRANT, OR DONATION, THE NAME OF THE SOURCE OF  
8 THE MONEY AND THE GRANTEE; AND

9 (c) INCLUDE THE INFORMATION SPECIFIED IN SUBSECTION (4)(a) OF  
10 THIS SECTION IN ANY PUBLISHED REPORT ON THE OUTCOME OF ANY  
11 FEASIBILITY STUDY OR PILOT DEPLOYMENT AND ANY PUBLISHED  
12 RECOMMENDATIONS BASED ON THAT OUTCOME.

13 (5) THIS SECTION IS REPEALED, EFFECTIVE JULY 1, 2023.

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

16 **23-31-801. Colorado water institute - creation.** (4) It is the duty  
17 of the institute to:

18 (e) Facilitate and stimulate scientific research and policy analysis  
19 that:

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

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

25 (g) COLLABORATE WITH THE UNIVERSITY OF COLORADO AND  
26 COLORADO STATE UNIVERSITY IN STUDYING THE FEASIBILITY OF NEW AND  
27 IMPROVED WATER-RELATED TECHNOLOGIES IN ACCORDANCE WITH

1 SECTION 23-20-141.

2 **SECTION 4.** In Colorado Revised Statutes, 23-3.3-103, **add** (9)  
3 as follows:

4 **23-3.3-103. Annual appropriations - repeal.** (9) (a) THE  
5 PROVISIONS OF SUBSECTION (1) OF THIS SECTION CONCERNING  
6 APPROPRIATIONS FOR STUDENT FINANCIAL ASSISTANCE UNDER THIS  
7 ARTICLE 3.3 DO NOT APPLY TO APPROPRIATIONS MADE FOR THE PURPOSE  
8 OF CONDUCTING FEASIBILITY STUDIES AND PILOT DEPLOYMENTS TO  
9 INVESTIGATE EMERGING TECHNOLOGIES FOR WATER MANAGEMENT  
10 PURSUANT TO SECTION 23-20-141.

11 (b) THIS SUBSECTION (9) IS REPEALED, EFFECTIVE JULY 1, 2023.

12 **SECTION 5.** In Colorado Revised Statutes, 23-18-308, **add**  
13 (1)(h) as follows:

14 **23-18-308. Fee-for-service contracts - limited purpose - repeal.**

15 (1) Subject to available appropriations, the department shall enter into  
16 fee-for-service contracts for the following purposes:

17 (h) (I) THE CONDUCT OF FEASIBILITY STUDIES AND PILOT  
18 DEPLOYMENTS TO INVESTIGATE EMERGING TECHNOLOGIES FOR WATER  
19 MANAGEMENT PURSUANT TO SECTION 23-20-141.

20 (II) THIS SUBSECTION (1)(h) IS REPEALED, EFFECTIVE JULY 1, 2023.

21 **SECTION 6. Appropriation.** (1) For the 2021-22 state fiscal  
22 year, \$40,000 is appropriated to the department of higher education. This  
23 appropriation is from the general fund. To implement this act, the  
24 department may use this appropriation for the college opportunity fund  
25 program created in section 23-18-201, C.R.S., to be used for limited  
26 purpose fee-for-service contracts with state institutions.

27 (2) For the 2021-22 state fiscal year, \$40,000 is appropriated to

1 the department of higher education. This appropriation is from  
2 reappropriated funds received from the limited purpose fee-for-service  
3 contracts with state institutions under subsection (1) of this section. To  
4 implement this act, the department may use this appropriation as  
5 follows:

6 (a) \$20,000 for the board of governors of the Colorado state  
7 university system; and

8 (b) \$20,000 for the regents of the university of Colorado.

9 **SECTION 7. Effective date.** (1) Except as otherwise provided  
10 in subsection (2) of this section, this act takes effect upon passage.

11 (2) Section 6 of this act takes effect only if the university of  
12 Colorado, Colorado state university, or both, certify in writing to the state  
13 controller that a total of at least \$40,000 in gifts, grants, and donations has  
14 been received for the purposes of this act. After receiving this  
15 certification, the state controller shall notify the joint budget committee  
16 in writing that the state controller has received the certification.

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