

**First Regular Session
Seventy-third General Assembly
STATE OF COLORADO**

PREAMENDED

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

LLS NO. 21-0921.01 Duane Gall x4335

HOUSE BILL 21-1268

HOUSE SPONSORSHIP

Titone and Will,

SENATE SPONSORSHIP

(None),

House Committees

Agriculture, Livestock, & Water
Appropriations

Senate Committees

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.**

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.

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.

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 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 - repeal.** (1) (a) SUBJECT TO SUBSECTION (2) OF THIS
4 SECTION AND IN COLLABORATION WITH COLORADO STATE UNIVERSITY
5 AND THE COLORADO WATER INSTITUTE CREATED IN SECTION 23-31-801,
6 THE UNIVERSITY OF COLORADO SHALL CONDUCT FEASIBILITY STUDIES AND
7 PILOT 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 UNIVERSITIES
13 AND THE INSTITUTE PURSUANT TO SUBSECTION (1)(a) OF THIS SECTION
14 MAY INCLUDE:

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

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

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

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

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

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

27 (c) ON OR BEFORE JULY 15, 2022, AND UPON REQUEST OF THE

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

10 (d) ANY FEASIBILITY STUDIES OR PILOT DEPLOYMENTS MADE
11 PURSUANT TO THIS SECTION, AND ANY RECOMMENDATIONS FOR
12 ADMINISTRATIVE OR LEGISLATIVE ACTION TO PROMOTE THE USE OF THE
13 TECHNOLOGIES CONSIDERED, MUST TAKE ACCOUNT OF THE EXISTING
14 SYSTEM OF PRIOR APPROPRIATION UNDER ARTICLE XVI OF THE STATE
15 CONSTITUTION AND COLORADO WATER LAW.

16 (2) THE UNIVERSITY OF COLORADO AND COLORADO STATE
17 UNIVERSITY MAY SEEK, ACCEPT, AND EXPEND GIFTS, GRANTS, OR
18 DONATIONS FROM PRIVATE OR PUBLIC SOURCES FOR THE PURPOSES OF THIS
19 SECTION. THE UNIVERSITIES SHALL NOT CONDUCT THE FEASIBILITY
20 STUDIES OR PILOT DEPLOYMENTS DESCRIBED IN SUBSECTION (1) OF THIS
21 SECTION UNLESS THEY HAVE RECEIVED AT LEAST FORTY THOUSAND
22 DOLLARS PURSUANT TO THIS SUBSECTION (2) ON OR BEFORE JUNE 1, 2022.
23 THE GENERAL ASSEMBLY SHALL APPROPRIATE FORTY THOUSAND DOLLARS
24 FROM THE GENERAL FUND TO THE DEPARTMENT OF HIGHER EDUCATION,
25 WITH TWENTY THOUSAND DOLLARS ALLOCATED TO EACH UNIVERSITY, FOR
26 THE PURPOSES OF THIS SECTION; EXCEPT THAT THE APPROPRIATION IS
27 CONTINGENT ON THE UNIVERSITIES RECEIVING FORTY THOUSAND DOLLARS

1 IN GIFTS, GRANTS, AND DONATIONS ON OR BEFORE JUNE 1, 2022, AND
2 CERTIFYING IN WRITING TO THE STATE CONTROLLER THAT SAID AMOUNT
3 HAS BEEN RECEIVED ON OR BEFORE JUNE 1, 2022.

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

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

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

18 (4) EACH OF THE UNIVERSITIES SHALL:

19 (a) REPORT AND REGULARLY UPDATE ON ITS WEBSITE THE AMOUNT
20 AND SOURCE OF MONEY RECEIVED PURSUANT TO SUBSECTION (2) OF THIS
21 SECTION AND, IF THE MONEY IS A GIFT, GRANT, OR DONATION, THE
22 IDENTITY OF THE DONOR AND THE PURPOSE AND PERIOD OF TIME FOR
23 WHICH THE MONEY IS AVAILABLE;

24 (b) REPORT ANNUALLY THE AMOUNT AND SOURCE OF MONEY
25 RECEIVED PURSUANT TO SUBSECTION (2) OF THIS SECTION IN THE PRIOR
26 STATE FISCAL YEAR AT THE HEARING REQUIRED BY THE "STATE
27 MEASUREMENT FOR ACCOUNTABLE, RESPONSIVE, AND TRANSPARENT

1 (SMART) GOVERNMENT ACT", PART 2 OF ARTICLE 7 OF TITLE 2, AND, IF
2 THE MONEY IS A GIFT, GRANT, OR DONATION, THE NAME OF THE SOURCE OF
3 THE MONEY AND THE GRANTEE; AND

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

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

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

11 **23-31-801. Colorado water institute - creation.** (4) It is the duty
12 of the institute to:

13 (e) Facilitate and stimulate scientific research and policy analysis
14 that:

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

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

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

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

26 **23-3.3-103. Annual appropriations - repeal.** (9) (a) THE
27 PROVISIONS OF SUBSECTION (1) OF THIS SECTION CONCERNING

1 APPROPRIATIONS FOR STUDENT FINANCIAL ASSISTANCE UNDER THIS
2 ARTICLE 3.3 DO NOT APPLY TO APPROPRIATIONS MADE FOR THE PURPOSE
3 OF CONDUCTING FEASIBILITY STUDIES AND PILOT DEPLOYMENTS TO
4 INVESTIGATE EMERGING TECHNOLOGIES FOR WATER MANAGEMENT
5 PURSUANT TO SECTION 23-20-141.

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

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

9 **23-18-308. Fee-for-service contracts - limited purpose - repeal.**

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

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

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

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

22 (2) For the 2021-22 state fiscal year, \$40,000 is appropriated to
23 the department of higher education. This appropriation is from
24 reappropriated funds received from the limited purpose fee-for-service
25 contracts with state institutions under subsection (1) of this section. To
26 implement this act, the department may use this appropriation for the
27 regents of the university of Colorado and the board of governors of

1 Colorado state university.

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

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

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