

Second Regular Session  
Sixty-sixth General Assembly  
STATE OF COLORADO

INTRODUCED

LLS NO. 08-0574.01 Thomas Morris

HOUSE BILL 08-1161

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**HOUSE SPONSORSHIP**

**Kefalas and Fischer**, Butcher, Carroll M., Frangas, Gagliardi, Green, Levy, McFadyen, McKinley, Primavera, Riesberg, Solano, Soper, and Weissmann

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**House Committees**

Agriculture, Livestock, & Natural Resources

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**A BILL FOR AN ACT**

101 **CONCERNING AN INCREASE IN THE REGULATORY AUTHORITY OF THE**  
102 **MINED LAND RECLAMATION BOARD OVER MINING, AND, IN**  
103 **CONNECTION THEREWITH, ENSURING THE PROTECTION OF**  
104 **GROUND WATER AND PUBLIC HEALTH.**

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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.)*

Defines "in situ mining" and "in situ leach mining". Requires the reclamation of lands affected by in situ leach mining. Specifies that uranium mining is a type of designated mining operation. Requires all in situ leach mining of uranium to restore all affected ground water to its

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.*

premining quality for all constituents. In the case of in situ leach mining, requires restoration of ground water to begin immediately upon any cessation of extraction or production. Requires all operators to reclaim all affected surface and ground water. Requires applicants for in situ leach mining permits to notify the owners of record of lands within 3 miles of the affected land.

Requires the mined land reclamation board (board) to:

- Require, as a condition of permit issuance, that the applicant for an in situ leach mining operation pay for an initial site characterization and ongoing monitoring of the affected land and affected surface and ground water;
- Deny a permit if the applicant fails to demonstrate that reclamation can and will be accomplished; and
- Deny a permit for in situ leach mining unless the applicant submits competent evidence of at least 5 similar mining operations that did not result in ground water contamination.

Authorizes the board to deny a permit:

- Based on uncertainty about the feasibility of reclamation;
- If the existing or reasonably foreseeable potential future uses of the affected ground water include domestic or agricultural uses;
- If the applicant has previously violated the reclamation laws and any violation remains unabated; or
- If the applicant has demonstrated a pattern of willful violations of environmental protection requirements.

Requires notification to the office of mined land reclamation of any failure or imminent failure of certain listed mining structures within 24 hours after such failure or the discovery of an imminent failure. Expands the list of such mining structures.

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

2 **SECTION 1.** 34-32-103 (3.5) and (8), Colorado Revised Statutes,  
3 are amended, and the said 34-32-103 is further amended BY THE  
4 ADDITION OF THE FOLLOWING NEW SUBSECTIONS, to read:

5 **34-32-103. Definitions.** As used in this article, unless the context  
6 otherwise requires:

7 (3.5) (a) "Designated mining operation" means a mining operation  
8 at which:

1 (I) Toxic or acidic chemicals used in extractive metallurgical  
2 processing are present on site; or

3 (II) Acid- or toxic-forming materials will be exposed or disturbed  
4 as a result of mining operations; OR

5 (III) URANIUM IS PRODUCED OR EXTRACTED, EITHER BY IN SITU  
6 LEACH MINING OR BY CONVENTIONAL UNDERGROUND OR OPEN PIT MINING  
7 TECHNIQUES.

8 (b) The various types of designated mining operations are  
9 identified in section 34-32-112.5. ~~Such mining operations exclude~~  
10 ~~operations which do not use toxic or acidic chemicals in processing for~~  
11 ~~purposes of extractive metallurgy and which will not cause acid mine~~  
12 ~~drainage.~~

13 (5.7) "IN SITU LEACH MINING" MEANS IN SITU MINING THROUGH  
14 THE IN-PLACE DISSOLUTION OF MINERAL COMPONENTS OF AN ORE DEPOSIT  
15 BY CAUSING A CHEMICAL LEACHING SOLUTION, USUALLY AQUEOUS, TO  
16 TRICKLE DOWNWARD OR TO BE PUMPED DOWN WELLS THROUGH THE ORE  
17 BODY AND THEN REMOVING THE MINERAL-CONTAINING SOLUTION FOR  
18 RECOVERY OF THE MINERAL VALUES; EXCEPT THAT IN SITU LEACH MINING  
19 DOES NOT INCLUDE IN SITU MINING FOR SODIUM MINERALS OR OIL SHALE.

20 (5.8) "IN SITU MINING" MEANS THE IN-PLACE RECOVERY OF A  
21 MINERAL BY MEANS OTHER THAN OPEN MINING OR UNDERGROUND MINING.

22 (8) "Mining operation" means the development or extraction of a  
23 mineral from its natural occurrences on affected land. The term "MINING  
24 OPERATION" includes, but is not limited to, open mining, and IN SITU  
25 MINING, IN SITU LEACH MINING, surface ~~operation~~ OPERATIONS, and the  
26 disposal of refuse from underground and in situ mining. The term  
27 "MINING OPERATION" ALSO includes the following operations on affected

1 lands: Transportation; concentrating; milling; evaporation; and other  
2 processing. The term "MINING OPERATION" does not include: The  
3 exploration and extraction of natural petroleum in a liquid or gaseous  
4 state by means of wells or pipe; the development or extraction of coal; the  
5 extraction of geothermal resources; OR smelting, refining, cleaning,  
6 preparation, transportation, and other off-site operations not conducted on  
7 affected land.

8 **SECTION 2.** The introductory portion to 34-32-110 (2) (a),  
9 Colorado Revised Statutes, is amended to read:

10 **34-32-110. Limited impact operations - expedited process.**

11 (2) (a) Any person desiring to conduct mining operations on less than ten  
12 acres, which mining operations will result in the extraction of less than  
13 seventy thousand tons of mineral or overburden per calendar year, prior  
14 to commencement of mining, shall file with the office, on a form  
15 approved by the board, an application for a permit to conduct mining  
16 operations; EXCEPT THAT APPLICATIONS FOR IN SITU LEACH MINING SHALL  
17 BE FILED PURSUANT TO SECTION 34-32-112.5 (3) (d). This application  
18 shall contain the following:

19 **SECTION 3.** The introductory portion to 34-32-112 (3),  
20 34-32-112 (3) (a), the introductory portion to 34-32-112 (3) (e), and  
21 34-32-112 (10) (c), Colorado Revised Statutes, are amended to read:

22 **34-32-112. Application for reclamation permit - changes in**  
23 **permits - fees - notice.** (3) The reclamation plan shall include  
24 provisions for, or satisfactory explanation of, all general requirements for  
25 the type of reclamation proposed to be implemented by the operator.  
26 Reclamation shall be required ~~on~~ FOR all the affected land AND ALL  
27 AFFECTED SURFACE AND GROUND WATER. The reclamation plan shall

1 include:

2 (a) A description of the types of reclamation the operator proposes  
3 to achieve in the reclamation of the affected land, AFFECTED SURFACE  
4 WATER, AND AFFECTED GROUND WATER, why each was chosen, and the  
5 amount of acreage accorded to each;

6 (e) A map of all of the proposed affected land AND AFFECTED  
7 SURFACE AND GROUND WATER by all phases of the total scope of the  
8 mining operation. It shall indicate the following:

9 (10) (c) In addition, the applicant shall mail a copy of such notice  
10 immediately after first publication to all owners of record of the surface  
11 rights of the affected land, to the owners of record of immediately  
12 adjacent lands, TO THE OWNERS OF RECORD OF LANDS WITHIN THREE MILES  
13 OF AFFECTED LAND IN THE CASE OF A PROPOSED IN SITU LEACH MINING  
14 OPERATION, and to any other persons who are owners of record that may  
15 be designated by the board that might be affected by the proposed mining  
16 operation. Proof of such notice and mailing, such as certified mail with  
17 return receipt requested where possible, shall be provided to the board or  
18 the office and become part of the application.

19 **SECTION 4.** 34-32-112.5 (3) (d), Colorado Revised Statutes, is  
20 amended, and the said 34-32-112.5 is further amended BY THE  
21 ADDITION OF A NEW SUBSECTION, to read:

22 **34-32-112.5. Designated mining operation - rules.** (3) When  
23 promulgating rules governing designated mining operations, the board  
24 shall consider the economic reasonableness, the technical feasibility, and  
25 the level or degree of any environmental concerns which may result from:

26 (d) Any other designated mining operation, INCLUDING ANY IN  
27 SITU LEACH MINING AND URANIUM MINING OPERATIONS, which shall be

1 referred to AS "112d-3" permits.

2 (5) (a) THE BOARD SHALL REQUIRE AS A CONDITION OF PERMIT  
3 ISSUANCE THAT THE APPLICANT FOR AN IN SITU LEACH MINING OPERATION  
4 SUBMIT A PLAN FOR AN INITIAL SITE CHARACTERIZATION AND ONGOING  
5 MONITORING OF THE AFFECTED LAND AND AFFECTED SURFACE AND  
6 GROUND WATER. THE BOARD OR THE OFFICE SHALL SELECT THE  
7 CONTRACTOR TO CONDUCT THE CHARACTERIZATION AND ONGOING  
8 MONITORING, AND THE APPLICANT SHALL PAY FOR THE COSTS  
9 REASONABLY INCURRED BY THE CONTRACTOR IN CONDUCTING THE  
10 CHARACTERIZATION AND ONGOING MONITORING. THE CONTRACTOR  
11 SHALL BE SELECTED THROUGH A QUALIFICATIONS-BASED SELECTION  
12 PROCESS DESIGNED TO ENSURE A LACK OF ANY BIAS AND TO ENSURE  
13 SUBSTANTIAL EXPERIENCE IN THE DESIGN AND IMPLEMENTATION OF  
14 SCIENTIFICALLY DEFENSIBLE GROUND WATER, SURFACE WATER, AND  
15 ENVIRONMENTAL MONITORING PROJECTS. THE CONTRACTOR SHALL  
16 EXERCISE ITS PROFESSIONAL JUDGMENT INDEPENDENTLY OF THE BOARD  
17 AND THE OFFICE. THE BOARD'S AND THE OFFICE'S EXERCISING OF THEIR  
18 DUTIES UNDER THIS SUBSECTION (5) SHALL NOT BE CONSTRUED TO:

19 (I) SUBJECT A CONTRACTOR TO THE CONTROL OF THE BOARD OR  
20 OFFICE;

21 (II) CREATE ANY PARTNERSHIP, JOINT VENTURE, OR OTHER  
22 AGENCY RELATIONSHIP BETWEEN A CONTRACTOR AND THE BOARD OR  
23 OFFICE; OR

24 (III) GIVE OR ALLOW ANY CLAIM OR RIGHT OF ACTION  
25 WHATSOEVER BY ANY THIRD PERSON.

26 (b) THE CONTRACTOR SHALL DESIGN AND CONDUCT A  
27 SCIENTIFICALLY DEFENSIBLE GROUND WATER, SURFACE WATER, AND

1 ENVIRONMENTAL BASELINE CHARACTERIZATION AND MONITORING PLAN  
2 FOR THE PROPOSED MINING OPERATION. THIS PLAN SHALL BE DESIGNED IN  
3 SUCH A MANNER AS TO:

4 (I) THOROUGHLY AND COMPLETELY CHARACTERIZE PREMINING  
5 SITE CONDITIONS;

6 (II) DETECT ANY SUBSURFACE EXCURSIONS OF CHEMICALS USED  
7 IN OR MOBILIZED BY IN SITU LEACH MINING DURING THE MINING  
8 OPERATIONS; AND

9 (III) EVALUATE THE EFFECTIVENESS OF POSTMINING RECLAMATION  
10 AND GROUND WATER RESTORATION PLANS.

11 (c) THE DESIGN AND OPERATION OF THE BASELINE  
12 CHARACTERIZATION AND MONITORING PLAN, TOGETHER WITH ALL  
13 INFORMATION COLLECTED IN ACCORDANCE WITH THE PLAN, SHALL BE A  
14 MATTER OF PUBLIC RECORD.

15 (d) IN THE CASE OF IN SITU LEACH MINING, RESTORATION OF  
16 GROUND WATER SHALL BEGIN IMMEDIATELY UPON CESSATION, WHETHER  
17 TEMPORARY OR PERMANENT, OF EXTRACTION OR PRODUCTION.

18 **SECTION 5.** 34-32-115, Colorado Revised Statutes, is amended  
19 BY THE ADDITION OF A NEW SUBSECTION to read:

20 **34-32-115. Action by board - appeals.** (5) (a) THE BOARD OR  
21 THE OFFICE MAY DENY A PERMIT BASED ON UNCERTAINTY ABOUT THE  
22 FEASIBILITY OF RECLAMATION AND SHALL DENY A PERMIT IF THE  
23 APPLICANT FAILS TO DEMONSTRATE THAT RECLAMATION CAN AND WILL  
24 BE ACCOMPLISHED IN COMPLIANCE WITH THIS ARTICLE, INCLUDING THE  
25 PROTECTION OF GROUND WATER AND OTHER ENVIRONMENTAL RESOURCES  
26 AND HUMAN HEALTH.

27 (b) THE BOARD OR THE OFFICE SHALL DENY A PERMIT FOR IN SITU

1 LEACH MINING:

2 (I) UNLESS THE APPLICANT SUBMITS SUBSTANTIAL EVIDENCE OF  
3 AT LEAST FIVE IN SITU LEACH MINING OPERATIONS THAT HAVE OPERATED  
4 FOR AT LEAST FIVE YEARS, THAT HAVE CEASED OPERATIONS FOR AT LEAST  
5 FIVE YEARS, AND THAT DID NOT RESULT IN ANY LEAKAGE, VERTICAL OR  
6 LATERAL MIGRATION, OR EXCURSION OF ANY LEACHING SOLUTIONS OR  
7 GROUND-WATER-CONTAINING MINERALS, RADIONUCLIDES, OR OTHER  
8 CONSTITUENTS MOBILIZED, LIBERATED, OR INTRODUCED BY THE IN SITU  
9 LEACH MINING PROCESS INTO ANY GROUND WATER OUTSIDE OF THE  
10 INTENDED IN SITU LEACH MINING AREA; OR

11 (II) IF THE APPLICANT FAILS TO DEMONSTRATE BY SUBSTANTIAL  
12 EVIDENCE THAT IT WILL RESTORE ALL AFFECTED GROUND WATER TO ITS  
13 PREMINING QUALITY FOR ALL CONSTITUENTS.

14 (c) THE BOARD OR THE OFFICE MAY DENY OR REVOKE A PERMIT IF:

15 (I) THE APPLICANT, AN AFFILIATE, OFFICER, OR DIRECTOR OF THE  
16 APPLICANT, THE OPERATOR, OR CLAIM HOLDER HAS DEMONSTRATED A  
17 PATTERN OF WILLFUL VIOLATIONS OF THE ENVIRONMENTAL PROTECTION  
18 REQUIREMENTS OF THIS ARTICLE, RULES PROMULGATED PURSUANT TO THIS  
19 ARTICLE, A PERMIT ISSUED PURSUANT TO THIS ARTICLE, OR AN ANALOGOUS  
20 LAW, RULE, OR PERMIT ISSUED BY ANOTHER STATE, THE UNITED STATES,  
21 OR A FOREIGN JURISDICTION;

22 (II) THE EXISTING OR REASONABLY FORESEEABLE POTENTIAL  
23 FUTURE USES FOR ANY POTENTIALLY AFFECTED GROUND WATER,  
24 WHETHER CLASSIFIED OR UNCLASSIFIED PURSUANT TO SECTION 25-8-203,  
25 C.R.S., INCLUDES DOMESTIC OR AGRICULTURAL USES; OR

26 (III) (A) EXCEPT AS SPECIFIED IN SUB-SUBPARAGRAPH (B) OF THIS  
27 SUBPARAGRAPH (III), THE APPLICANT OR ANY AFFILIATE, OFFICER, OR

1 DIRECTOR OF THE APPLICANT HAS PREVIOUSLY VIOLATED THIS ARTICLE,  
2 RULES PROMULGATED PURSUANT TO THIS ARTICLE, A PERMIT ISSUED  
3 PURSUANT TO THIS ARTICLE, OR AN ANALOGOUS LAW, RULE, OR PERMIT  
4 ISSUED BY ANOTHER STATE, THE UNITED STATES, OR A FOREIGN  
5 JURISDICTION.

6 (B) THE BOARD OR OFFICE MAY CONDITIONALLY ISSUE OR  
7 REINSTATE A PERMIT IF THE APPLICANT SUBMITS PROOF THAT THE  
8 VIOLATION REFERRED TO IN SUB-SUBPARAGRAPH (A) OF THIS  
9 SUBPARAGRAPH (III) HAS BEEN CORRECTED OR IS IN THE PROCESS OF  
10 BEING CORRECTED TO THE SATISFACTION OF THE BOARD OR IF THE  
11 APPLICANT SUBMITS PROOF THAT THE APPLICANT HAS FILED AND IS  
12 PRESENTLY PURSUING A DIRECT ADMINISTRATIVE OR JUDICIAL APPEAL TO  
13 CONTEST THE VALIDITY OF THE ALLEGED VIOLATION. FOR PURPOSES OF  
14 THIS SUB-SUBPARAGRAPH (B), A DIRECT ADMINISTRATIVE OR JUDICIAL  
15 APPEAL TO CONTEST THE VALIDITY OF THE ALLEGED VIOLATION SHALL  
16 NOT INCLUDE AN APPEAL OF AN APPLICANT'S RELATIONSHIP TO AN  
17 AFFILIATE. IF THE VIOLATION IS NOT SUCCESSFULLY ABATED OR IF THE  
18 VIOLATION IS UPHELD ON APPEAL, THE BOARD OR OFFICE SHALL REVOKE  
19 OR DENY THE CONDITIONAL PERMIT ISSUED OR REINSTATED PURSUANT TO  
20 THIS SUB-SUBPARAGRAPH (B).

21 **SECTION 6.** The introductory portion to 34-32-116 (7) (q) and  
22 34-32-116 (7) (q) (III), Colorado Revised Statutes, are amended, and the  
23 said 34-32-116 is further amended BY THE ADDITION OF A NEW  
24 SUBSECTION, to read:

25 **34-32-116. Duties of operators - reclamation plans.**  
26 (7) Reclamation plans and the implementation thereof shall conform to  
27 the following general requirements:

1 (q) All reclamation provided for in this section shall be carried to  
2 completion by the operator with all reasonable diligence and shall be  
3 conducted concurrently with mining operations to the extent practicable,  
4 taking into consideration the mine plan, mine safety, economics, the  
5 availability of equipment and material, and other site-specific conditions  
6 relevant and unique to the affected land and to the postmining land use.  
7 Upon termination of the entire mining operation and in accordance with  
8 the reclamation plan, each phase of final reclamation shall be completed  
9 ~~prior to the expiration of~~ WITHIN five years after the date on which the  
10 operator advises the board that such phase has commenced, unless such  
11 period is extended by the board pursuant to section 34-32-112 (7); except  
12 that:

13 (III) (A) With the approval of the board and the owner of the land  
14 to be reclaimed, the operator may substitute land previously mined and  
15 owned by the operator not otherwise subject to reclamation under this  
16 article or, in the alternative, with the approval of the board and the owner  
17 of the land, reclamation of an equal number of acres of any lands  
18 previously mined but not owned by the operator if the operator has not  
19 previously abandoned unreclaimed mining lands. The board also has  
20 authority to grant, in the alternative, the reclamation of lesser or greater  
21 acreage so long as the cost of reclaiming such acreage is at least  
22 equivalent to the cost of reclaiming the original permit lands. If any area  
23 is so substituted, the operator shall submit a map of the substituted area,  
24 which map shall conform to all of the requirements with respect to other  
25 maps required by this article. Upon completion of reclamation of the  
26 substituted land, the operator shall be relieved of all obligations under this  
27 article with respect to the land for which substitution has been permitted.

1 (B) SUB-SUBPARAGRAPH (A) OF THIS SUBPARAGRAPH (III) SHALL  
2 NOT APPLY TO IN SITU LEACH MINING.

3 (8) ALL URANIUM EXTRACTION OPERATIONS USING IN SITU LEACH  
4 MINING OR RECOVERY METHODS, INCLUDING ANY INJECTION OF ANY  
5 CHEMICALS DESIGNED TO MOBILIZE URANIUM RESOURCES, SHALL RESTORE  
6 ALL AFFECTED GROUND WATER TO ITS PREMINING QUALITY FOR ALL  
7 CONSTITUENTS. IN ESTABLISHING, DESIGNING, AND IMPLEMENTING A  
8 GROUND WATER RESTORATION PLAN, THE MINE OPERATOR SHALL USE BEST  
9 AVAILABLE TECHNOLOGY.

10 **SECTION 7.** 34-32-121.5, Colorado Revised Statutes, is  
11 amended to read:

12 **34-32-121.5. Reporting certain conditions.** Any person engaged  
13 in ~~any~~ A mining operation shall notify the office of any failure or  
14 imminent failure as soon as reasonably practicable after such person has  
15 knowledge of such condition, BUT IN NO EVENT MORE THAN  
16 TWENTY-FOUR HOURS AFTER SUCH FAILURE OR THE DISCOVERY OF AN  
17 IMMINENT FAILURE, of: Any impoundment, embankment, or slope that  
18 poses a reasonable potential for danger to any persons or property or to  
19 the environment; ANY STRUCTURE DESIGNED TO DETECT, PREVENT,  
20 MINIMIZE, OR MITIGATE ADVERSE IMPACTS ON GROUND WATER; ANY  
21 STRUCTURE USED IN CONNECTION WITH IN SITU LEACH MINING DESIGNED  
22 TO DETECT, PREVENT, MINIMIZE, OR MITIGATE ADVERSE IMPACTS ON  
23 HUMAN HEALTH, WILDLIFE, OR THE ENVIRONMENT; or any environmental  
24 protection facility designed to contain or control chemicals or waste  
25 ~~which~~ THAT are acid- or toxic-forming, as identified in the permit.

26 **SECTION 8. Applicability.** This act shall apply to mining  
27 applications filed and mining operations occurring on or after the

1 effective date of this act.

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