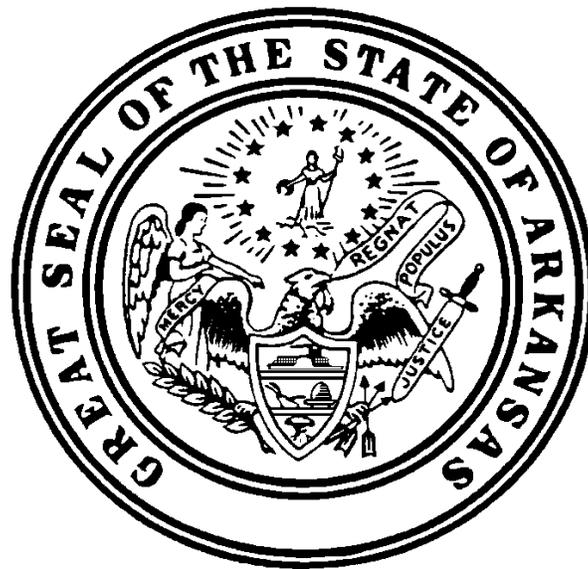


Arkansas Pollution Control and Ecology Commission

Regulation Number 15

The Arkansas Open-Cut Mining
and Land Reclamation Code



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Table of Contents

CHAPTER ONE: TITLE AND PURPOSE.....	1-1
Section 15.101 Title.....	1-1
Section 15.102 Purpose.....	1-1
CHAPTER TWO: DEFINITIONS	2-1
Section 15.201 Definitions.....	2-1
CHAPTER THREE: PERMITTING	3-1
Section 15.301 Who Must Have A Permit.....	3-1
Section 15.302 Permits: In General	3-4
Section 15.303 The Permit Application.....	3-4
Section 15.304 Permit Application Fee	3-6
Section 15.305 Proof of Right To Mine.....	3-6
Section 15.306 Maps.....	3-7
Section 15.307 Mining Plan.....	3-8
Section 15.308 Reclamation Plan	3-9
Section 15.309 Reclamation Bond.....	3-12
Section 15.310 Temporary Variances and Interim Authority.....	3-14
Section 15.311 Permit Renewal and Modification	3-17
Section 15.312 Permit Revocation.....	3-18
CHAPTER FOUR: PERFORMANCE STANDARDS	4-1
Section 15.401 Performance Standards – General.....	4-1
Section 15.402 Open-Cut Mining Standards	4-1
Section 15.403 Stream Bed Mining Standards	4-3
CHAPTER FIVE : ENFORCEMENT	5-1
Section 15.501 Inspections	5-1
Section 15.502 Enforcement.....	5-1
CHAPTER SIX: ADMINISTRATIVE REQUIREMENTS.....	6-1
Section 15.601 Annual Report and Fees.....	6-1
CHAPTER SEVEN: RELEASES.....	7-1
Section 15.701 Land and Bond Releases.....	7-1
CHAPTER EIGHT: ABANDONED MINE LAND.....	8-1
Section 15.801 Inactive or Abandoned Mine Lands.....	8-1

APPENDIX A: LISTING OF EXTRAORDINARY RESOURCE WATERS A-1
 Section 15.A01 Major Extraordinary Resource Streams..... A-2
 Section 15.A02 Minor Extraordinary Resource Streams..... A-4
 Section 15.A03 Extraordinary Resource Lakes..... A-4

APPENDIX B: MAP OF EXTRAORDINARY RESOURCE WATERSB-1

Chapter One -Title and Purpose

Section 15.101 Title

The following rules and regulations of the Arkansas Pollution Control and Ecology Commission, adopted pursuant to the Arkansas Open-Cut Land Reclamation Act (Act 827 of 1991, as amended) and the Arkansas Water and Air Pollution Control Act (Act 472 of 1949, as amended) shall be known as "The Arkansas Open-Cut Mining and Land Reclamation Code" (Code).

Section 15.102 Purpose

It is the purpose of this Code to protect the public health, safety, and the environment during and after completion of open-cut or stream bed mining operations.

Chapter Two - Definitions

Section 15.201 Definitions

- (A) Definitions as used in this Code unless the context otherwise requires:

Act means the Arkansas Open-Cut Land Reclamation Act;

Affected Land means the area of land where open-cut mining has been or is taking place or upon which spoil has been deposited, or any other surface disturbance including haul roads, processing and loading facilities, or appurtenances related to the mining operations on or after July 1, 1977; until the land is reclaimed;

Commercial Purposes means the sale of material from an open-cut mine as either a cash transaction, part of a contractual agreement involving payment for materials provided, or use in another process to create a product with value;

Commission means the Arkansas Pollution Control and Ecology Commission, or such commission or other entity as may lawfully succeed to the powers and duties of the Commission;

Contemporaneous Reclamation means a mining method for a sand and gravel operation where the mining and reclamation of the mine site has been planned such that the reclamation of the mined areas takes place at intervals or stages as prescribed by the Department and defined in the permit. This mining method reduces the amount of land affected by mining at any given point in time and reduces reclamation costs through efficient management of resources;

Department means the Arkansas Department of Environmental Quality or such department or other entity which may lawfully succeed to the powers and duties of the Department;

Director means the executive head and active administrator of the Department;

Final cut means the last pit created in an open-cut mined area;

High wall means that side of the pit adjacent to unmined land;

Open-cut mining means the surface extraction of clay, bauxite, sand, gravel, soil, shale or other materials for commercial purposes;

Operator means any person engaged in or controlling an open-cut mining or stream channel mining operation;

Peak means a projecting point of spoil created in the open-cut mining process;

Permit term means the period of time beginning with the date upon which a permit is granted for open-cut mining of lands under the provisions of this act and ending on the date requested by the operator and specified by the Department, though not to exceed five (5) years;

Person means any individual, partnership, firm, company, public or private corporation, cooperative, association, joint-stock company, trust, estate, political subdivision or any agency, board, department or bureau of the state or any other legal entity whatever which is recognized by law as the subject of rights and duties;

Pit means a tract of land where open-cut mining is taking place;

Reclamation for productive use means conditioning areas affected by open-cut mining to make them suitable for any uses or purposes consistent with those enumerated in the declaration of policy;

Spoil means all waste material and debris connected with open-cut mining and with the mechanical removal, cleaning and preparation of materials at the mine site;

Ridge means a lengthened elevation of spoil created in the open-cut mining process;

Right-of-way means the portion of land over or under which certain facilities, including, but not limited to roadways, pipelines or power lines, are built;

Streambed, or stream channel means that area that lies between the lines delimiting the bed from the bank on each side of a creek, branch, or river. Due to the naturally high turbidity and flow rate of certain streams, the provisions of this Code do not apply to the following streams: Arkansas, Mississippi, Ouachita (State line to Rammel Dam), Red, Little River (not including Lake Millwood), White, North Fork of White (Norfolk Dam to White), Black and St. Francis (mouth to 36E parallel);

Material means any commodity natural deposit mined or treated as spoil by open-cut mining;

Ordinary High Water Mark means that line delimiting the bed from the bank and is found by ascertaining where the presence and actions of water are so usual and long, continuing in ordinary years, as to mark upon the soil of the bed a character distinct from that of the banks, with respect to vegetation and the nature of the soil;

Waterway means the natural channel of any perennial or intermittent river, creek or stream.

Chapter Three - Permitting

Section 15.301 Who Must Have A Permit

- (A) It shall be unlawful for any operator to engage in open-cut mining without first obtaining all appropriate permits from the Department.
- (B) An operator shall be deemed to be engaged in open-cut mining from the time he or she affects any land, until all affected land has been reclaimed and released by the Department.
- (C) Operators desiring to remove gravel or other materials from stream beds must obtain a permit to do so from the Department. There shall be no mining in streams designated as "extraordinary resource waters" of the State as established in water quality standards duly promulgated by the Commission for all surface waters of the State of Arkansas. All stream gravel mining operations on streams designated as "extraordinary resource waters" after January 1, 1995 may continue to operate under a permit issued by the Department for a period of two (2) years from the date of such designation. At the end of said two (2) year period, all mining activities must be terminated and the affected area reclaimed in accordance with the operator's approved reclamation plan.
- (D) Previously mined and un-reclaimed land which is to be mined must be permitted.
- (E) The Arkansas State Highway Department or its contractor shall not be required to obtain a permit for an open-cut mine where the material is used exclusively in the construction, reconstruction, improvement or maintenance of roadways. Reclamation of the area shall conform to the provisions of the standard specifications for highway construction upon discontinuation of use of the pit for the above listed purposes.
 - (1) The occasional sale of material to the Highway Department by an operator does not exempt the operator from complying with the requirements of his or her permit, the Act or this Code.
 - (2) In the event the reclamation requirements of the operator interfere with a contractual agreement with the Highway Department, the operator will be allowed to revise his or her reclamation plan and schedule of completion accordingly. However, any revision must be in compliance with the declaration of policy in the Act.

(F) Governmental Units

- (1) County and municipal governments shall not be required to obtain a permit for open-cut mining operations on lands outside of the channel of a waterway for which said government entity has established rights when the material is used for construction, reconstruction, improvement or maintenance of streets, roads, highways or other public projects.
 - (a) The county or municipal government shall remove topsoil and spoil and store it on site.
 - (b) Upon completion of mining, the site shall be graded such that no slope will be steeper than one (1) foot vertical to three (3) feet horizontal and the topsoil shall be respread and the site revegetated in a manner to prevent pollution of the waters of Arkansas.
- (2) An agent or employee of a county or municipal government may remove gravel or other materials from any stream in order to protect the integrity of bridges or low water crossings of any public roadway without obtaining a permit.
- (3) A governmental unit may remove gravel or other material from any stream in order to protect the integrity of a governmental owned or controlled structure without obtaining a permit. The above exemptions do not preclude the governmental unit from obtaining any necessary U.S. Army Corps of Engineers permits.
- (4) Flood control projects authorized by the U.S. Army Corps of Engineers shall be exempt from the permitting requirement, provided, however, that certification under Section 401 of the Federal Clean Water Act is obtained for said project.
 - (a) In the event that authorization pursuant to Section 404 of the Federal Clean Water Act is determined by the U. S. Corps of Engineers not to be required for a specific flood control or bank stabilization project, the Department will review the proposed plan using the Section 401 water quality certification criteria.
 - (b) The Department shall provide the necessary authorization for the project once it has been established that the activity will not adversely affect water quality.
- (5) Governmental units not conducting one of the above described

activities, must obtain a permit from the Department.

(G) Landowners

- (1) The requirements of the Act, as amended, and the Code shall not apply to the noncommercial removal of clay, bauxite, sand, gravel, soil, shale or other materials from lands by the owner of said lands or by a contractor hired by the owner for the exclusive use by the land owner for construction, improvement or maintenance of roads or other projects on land owned by said owner, or any environmental improvements to previously disturbed lands, or the concurrent or short term, ninety (90) days or less, excavation of materials during the construction of buildings either for residential, commercial or industrial purposes.
- (2) Landowners may sell or barter gravel or other material from stream beds as a part of an approved flood control project without a mining permit from the Department. A landowner may remove sufficient stream bed material from one's own land for road maintenance, construction or other uses on said land without obtaining a mining permit. Except as provided above, material shall not be removed for the purpose of commercial sale without first obtaining a mining permit from the Department.

(H) Exemptions

- (1) Land affected by open cut mining operations prior to July 1, 1971 are exempt from the Act and this Code unless subsequently affected after July 1, 1971.
- (2) Nothing in this Code shall be construed to require any operator to reclaim or revegetate any previously exempted excavation sites such as soil and shale pits that were affected and abandoned prior to January 1, 1999.
- (3) Nothing in this Code shall be construed to apply to the removal of soil, shale, or stone at a quarry operation that is regulated under A.C.A. ' ' 15-57-401 through 15-57-414.
- (4) Nothing in this Code shall be construed to apply to any excavation activity associated with the improvement or maintenance of any agricultural lands or associated irrigation systems.
- (5) The requirements of the Act, as amended, and the Code shall not apply to any area being excavated for soil or shale that is less than three (3) acres where an undisturbed buffer zone of not less than

fifty (50) feet exists between the highwalls of the excavation site and any adjacent property line or to any size area being excavated if the area being excavated is at least one-fourth (1/4) of a mile from any adjacent property line.

Section 15.302 Permits: In General

- (A) Any person desiring to engage in open-cut or stream bed mining shall make written application to the Department. The application must include, but may not be limited to, the following documents:
- (1) Two (2) permit application forms;
 - (2) Permit application fee;
 - (3) Proof of right to mine the land;
 - (4) Maps as described in this Code;
 - (5) A mining plan;
 - (6) A plan of reclamation;
 - (7) Detailed bond determination; and
 - (8) An acceptable bond instrument.

A decision on issuance of the permit will be made by the Department upon submittal of a complete application. A complete application consists of all materials listed in this Section, a disclosure statement and any additional written information or materials the Department determines to be necessary to comply with the Act and this Code. The disclosure statement shall be in accordance with Act 454 of 1991 and any regulations promulgated by the Commission pursuant thereto and on a form provided by the Department.

Section 15.303 The Permit Application

- (A) The permit application must be made on a form(s) furnished by the Department.
- (B) The application form shall be prepared as two (2) originals with an original notarized signature of an owner, corporate officer, or duly authorized agent on each.

- (C) An agent must provide proof of power of attorney.
- (D) The permit term shall not exceed five (5) years. At the Director's discretion and based on information contained in the operator's right to mine and other environmental concerns, including but not limited to, the proximity of the proposed mining operation to any water bodies, the permit term that is approved may be less than the maximum of five (5) years.
- (E) Transfers and minor revisions do not require public notice. An applicant for a new permit, or major modification of an existing permit shall comply with the public notice requirements delineated in the Commission's regulations on administrative procedures.
- (F) Written comments on a new permit application or major modification of an existing permit with respect to the effects of the proposed mining operations on the environment may be submitted to the Department by any person within 30 days after the last publication of the newspaper notice required by the Commission's regulations on administrative procedures. The Department shall, immediately upon receipt of any written objections:
 - (1) Transmit a copy of the letter to the applicant;
 - (2) File a copy for public inspection with the permit application at the Department's Little Rock office;
 - (3) Review and consider the comments prior to permit issuance; and
 - (4) Provide notice of date of permit issuance to all persons who submitted timely written comments.
- (G) An applicant for a new or major modification of an existing stream bed mining permit shall make a reasonable effort to notify all adjacent land owners that a complete application for a stream bed mining permit is on file with the Department. This notice shall also contain the permittee's name, mailing address, type of mine, commodity to be mined, and the location of the mine. The land owners shall be notified at the same time that the permit application is submitted to the Department. The applicant must provide a copy of the letter sent to each adjacent land owner with the application.
- (H) A permit issued under the provisions of the Act and this Code does not convey the right of access to the property.

Section 15.304 Permit Application Fee

- (A) The application for a permit shall be accompanied by a fee of ten dollars (\$10.00) per acre with a two hundred dollar (\$200) minimum.
- (B) This fee must be paid by check or money order and made payable to the Arkansas Department of Environmental Quality.

Section 15.305 Proof of Right To Mine

- (A) The applicant must provide the Department with proof that it has the right to mine the land for which a permit is requested. Acceptable documentation to prove this right is as follows:
 - (1) A copy of the lease agreement with the landowner. The agreement must contain a legal description of the land to be permitted and be signed by the applicant and landowner; or
 - (2) A copy of the deed containing a legal description of the land in the event the applicant owns the land; or
 - (3) A copy of a letter from the land owner expressly giving the operator permission to conduct mining. The letter must contain a legal description of the land and be signed and notarized by the land owner; or
 - (4) In the event mineral rights have been severed from the surface rights, an agreement signed by the mineral rights holder, the surface rights holder, and the applicant must be provided to the Department. The agreement shall contain legal descriptions of the mineral rights and surface rights, identify the conditions of the agreement, and give the applicant permission to conduct mining. The agreement must be provided to the Department along with proof of the surface rights holder's and mineral rights holder's respective ownership; or
 - (5) If the mining operation involves the removal of gravel or other material from within a stream channel where the property boundaries are defined by the centerline of the stream channel, then the site map should clearly identify the boundary of the mining area and the property line.

Section 15.306 Maps

- (A) The applicant must provide the Department with a minimum of one (1) vicinity map, one (1) site map and one (1) reclamation map. Additional maps may be submitted as needed. All maps must be to scale.
 - (1) The vicinity map must be a 7.5 minute topographic quadrangle map as prepared by the U.S. Geological Survey, and contain the following:
 - (a) A clearly-marked permit area;
 - (b) The legal description of the area to be permitted; and
 - (c) A clearly-identifiable site entrance.
 - (2) The site map must be to scale (i.e. 1"= 200') and depict the following features:
 - (a) The permit area must be outlined and labeled on a site map showing dimensions and elevations. Boundaries of the mine site and elevations must be tied to temporary reference points established outside the mine site. If the mine site is greater than 40 acres , an engineer or land surveyor who is registered in Arkansas must prepare the survey. The Department may require sites smaller than 40 acres to submit a survey, if the site map calls for the construction of engineered structures such as dams, impoundments, shows complex ownership, or for other reasons;
 - (b) The location and identification of all affected and unaffected areas. All areas that will not be affected should be marked and labeled. Areas to be affected such as haul roads, offices, maintenance shelter(s), loading and process facilities, ponds, scales, refuse storage, spoil storage area, top soil storage area, and excavation area must be clearly marked;
 - (c) Flow patterns in the event decant ponds or canals are used;
 - (d) The precautions taken to avoid affecting any nearby water body;

- (e) Identification of any diversion ditches used to channel water from sensitive areas, including the flow patterns; and
 - (f) The mining plan.
- (3) The reclamation map should be of similar scale as the site map, and contain the following:
- (a) The permit area must be outlined and labeled;
 - (b) Identification of any roads to remain after reclamation;
 - (c) Identification of any water impoundments to remain after reclamation, including approximate size and location;
 - (d) Areas to be revegetated must be marked;
 - (e) Areas to remain unaffected must be marked; and
 - (f) Appurtenances for which the Department has given prior approval to remain must be identified and labeled.

Section 15.307 Mining Plan

- (A) In order to adequately assess the environmental soundness of the proposed operation and assess the proposed bond amount and its relationship to the proposed reclamation plan a detailed mining plan must be submitted by the applicant. The mining plan must include all provisions of this section. Further, the Department, in its discretion, may require the applicant to address other issues in the mining plan which may impact environmental preservation and the amount of reclamation bond to be posted. Where applicable the mining plan must include:
- (1) Provisions to prevent unpermitted releases of water from the site, which provisions are to be identified on the site map and described in the mine plan narrative;
 - (2) A description of the functions of any ponds used as part of the process (i.e., decant ponds) and depiction on the site map;
 - (3) Methods used to restrict access to and warn the public of the dangers inherent in a mining operation such as fencing, natural or man-made barriers and warning signs;

- (4) A description of plan to preserve topsoil for redistribution during reclamation, unless the Director approves otherwise;
- (5) A detailed description of any incremental mining map(s) depicting the plan;
- (6) Information on the thickness of the topsoil, overburden, and the resource material to be mined; and
- (7) A description of plans for contemporaneous reclamation as required by the Department. For sand and gravel open-cut mining operations, a detailed description of the proposed incremental mining that will be conducted which incorporates contemporaneous reclamation.

Section 15.308

Reclamation Plan

- (A) A reclamation plan to return all affected land at the proposed mine site to a useful purpose must be submitted by the applicant. Stream channel operators must comply with the reclamation requirements of Section 15.401(B) and the applicable requirements of this section. The applicant shall state the intended post mining use of all affected land. The reclamation plan shall include:
 - (1) A detailed description of the plans for contemporaneous reclamation as part of the incremental mining plan set forth under the conditions of Section 15.307(A)(6);
 - (2) A minimum of two (2) cross-sections of the permit area before mining and two (2) cross-sections of the same area as anticipated upon completion of the proposed reclamation. Cross-sections shall be tied to established elevations in the applicant=s survey submitted along with the applicant=s site map;
 - (3) A reclamation map which shows the planned reclamation goal on all of the permit area;
 - (4) A plan for the final contour of all reclaimed land. The following criteria applies to such plan:
 - (a) If the original slope of the affected land was less steep than one (1) vertical to three (3) horizontal (1:3), then no final slope shall be steeper than 1:3. If a pond is to be left, the banks must be graded at 1:3 to a point below the water surface at the annual low water level that will allow safe

ingress and egress. Beyond this point the normal angle of repose for the material being used may be acceptable, provided it will provide adequate lateral support for the 1:3 slope preceding it;

- (b) If the original slope of the affected land was steeper than one (1) vertical to three (3) horizontal (1:3), the Department may approve a final slope steeper than 1:3.
 - (i) If the material in which excavation is occurring is unconsolidated, in that it is lacking sufficient hardness or ability to resist weathering and inhibit erosion or sloughing, the Department may approve a final slope of approximate original contour, provided the operator can assure the integrity of this slope;
- (c) If the material in which excavation is occurring is consolidated, in that it is of sufficient hardness or ability to resist weathering and inhibit erosion or sloughing, the Department may approve a slope deviation involving terracing, as follows:
 - (i) Final slope of a reclaimed highwall must be approved by the Department;
 - (ii) Top of excavation to be fenced;
 - (iii) Top terrace to be no more than 10 feet below top of excavation;
 - (iv) Remainder of a highwall must be terraced with no terrace face greater than 20 feet;
 - (v) Terrace widths are no less than 10 feet; and
 - (vi) Each terrace to be revegetated with trees or other approved vegetative cover.
- (5) Methods used to assure the proper pH of any water impoundments to be left as part of the reclamation. The impoundments must have a pH no less than six (6) or no greater than nine (9). The methods shall include:
 - (a) The procedure for any water treatment;

- (b) The design and maintenance of any diversion berms needed to channel water, which are depicted on the site map;
 - (c) In the event other naturally occurring water bodies in the area of the permit possess pH levels outside the six (6) to nine (9) pH range, and which levels are not caused by human influence, then a similar pH level may be accepted by the Department; and
 - (d) The Department may accept a deviation from the six (6) to nine (9) pH range due to water runoff from outside the affected area if the influent cannot be avoided through prior planning or sound engineering practice.
- (6) A plan to cover all acid-forming materials that become exposed with earth or spoil materials to a depth of not less than three feet (3'), or an alternative approved by the Department;
 - (7) The location of any proposed fire lanes must be shown on the reclamation map, in the event reforestation is to be used as part of the reclamation. Fire lanes of not less than 10' in width must be constructed unless otherwise approved by the Department;
 - (8) A list of the varieties and applicable seeding rate that will be used must be included with the reclamation plan. The applicant shall obtain recommendations on plant varieties and seeding rates based on the intended use of the land from state and federal agricultural or forestry agencies;
 - (9) Plans for reuse of salvaged topsoil, including the locations where and depth at which topsoil is to be spread; and
 - (10) A schedule for completion of the reclamation. If the operator fails to meet the completion date, the permit may, in the discretion of the Department, be extended in one (1) year increments from the termination of the permit. In the event that the applicant does not comply with its schedule of reclamation after no more than three (3) extensions being granted, the bond or substituted security posted for such unsatisfactorily reclaimed land shall be forfeited.
- (B) Reclamation using only trees must be in accordance with the planting guidelines of the State Forestry Department and include provisions for erosion control.
 - (C) Successful revegetation will be measured as follows:

- (1) Land reclaimed with grasses, etc. must attain a 70% coverage, such that any randomly selected 24" diameter circle of vegetation must have no less than 70% coverage; or
 - (2) Land reclaimed with trees must have no less than 50% survival rate after two (2) growing seasons.
- (D) All equipment on site must be removed. Permanent structures may remain provided they serve a useful purpose and upon approval by the Department.
- (E) The results of the soil analysis made when the site slope is in condition for vegetating. A soil analysis shall be made as a basis for soil amendments, such as lime, fertilizer, or secondary micronutrients needed to support the growth of the vegetation species to be planted. Laboratory analysis shall be obtained from the University of Arkansas Cooperative Extension Service Office or any other public or private organization or person approved by the Department.

Section 15.309 Reclamation Bond

- (A) The application for a mining permit shall be accompanied by a bond or substituted security for the affected or the proposed affected area in favor of the State of Arkansas through the Department. The bond or substituted security must be effective prior to the date of issuance of the permit by the Department and continue until release by the Department.
- (B) The bond amount must be sufficient to assure performance of the reclamation according to the approved reclamation plan for the permitted area in the event the reclamation must be done by the Department through an independent contractor.
- (C) In the event the Department determines the proposed bond amount to be inadequate, the operator and any surety or indemnifier on the bond will be notified that the value of the required bond or substituted security must be increased as provided in the Act.
- (D) The operator may submit any of the following three (3) types of bonds:
- (1) A Surety Bond;
 - (2) A Collateral Bond with supporting collateral consisting of Irrevocable Letters of Credit or Certificates of Deposit in favor of the Department; or

- (3) A Self Bond with unencumbered right to certain property to be held by the Department.
- (E) Recommended bond forms shall be provided by the Department. A variation of the language in all but the Self Bond form may be acceptable provided the requirements of the Act and this Code are incorporated and the Department approves the language.
- (F) In the event self bonding is used, the following conditions apply:
 - (1) The applicant must use the Self Bond form provided by the Department;
 - (2) The Collateral to be offered must be appraised by a licensed appraiser approved by the Operator and the Department;
 - (3) The Operator must have unencumbered ownership of the Collateral, and provide proof of such ownership to the Department;
 - (4) The value of the Collateral as bond will be 80% of the fair market value of the Collateral as established by the appraiser;
 - (5) Any collateral that decreases in value due to usage (i.e., rolling stock) will not be acceptable;
 - (6) In the event the Collateral consists of real property, an environmental audit of the area must be provided to the Department; and
 - (7) Where applicable, a lien will be filed against the Collateral until the affected area is reclaimed and released by the Department.
- (G) In the event incremental mining and bonding is to be used, the bond amount for each increment must be determined by the operator and approved by the Department. The accepted amount for the first increment must then be posted with the Department prior to issuance of the permit. The approved bond amount for each succeeding increment must be posted before the land can be affected.
- (H) No bond or substituted security shall be canceled by the Surety or Indemnifier for any reason unless it has given no less than 90 days notice of the cancellation to the Department. In no event shall a bond be canceled on a permitted area that at the time of cancellation has become affected land under the provisions of the Act and this Code.

- (I) If the license to do business of any corporate surety upon a bond filed with the Department pursuant to the Act and this Code shall be suspended or revoked, the operator, within 30 days after receiving notice of such suspension or revocation, shall substitute for the surety a licensed corporate surety. In the event the operator fails to substitute the bond or substituted security upon cancellation or loss of value of its existing bond, the Department shall suspend the permit of the operator until the substitution is made.
- (J) No operator shall be eligible to receive a new, renewed, or modified permit who has had a bond forfeited, unless the Department finds, upon review, a demonstrable change of circumstances justifying an exception to these prohibitions.

Section 15.310 Temporary Variances and Interim Authority

- (A) The director may, for compelling reasons and good cause shown, grant:
 - (1) Temporary variances from the requirements of any permit issued by the department; or
 - (2) Interim authority to construct or operate during the review and permit issuance process.
- (B) Such variance or interim authority shall not exceed a period of ninety (90) days, except when a longer period is justified by circumstances beyond the applicant's control. The Department may grant a request for an extension to a variance or interim authority at any time prior to the expiration date.
- (C) The operator/applicant shall submit a processing fee of \$200 with the written request for a variance or interim authority request. This fee shall not be required for requests for extension of any variance or interim authority.
- (D)
 - (1) In considering any request for a variance, the director shall consider:
 - (a) The environmental and public health effects of the temporary variance; and
 - (b) Any economic advantage obtained by the party requesting the variance over other similarly situated facilities operating in accordance with similar permit conditions

which did not request a variance.

- (2) In addition, the director may take into account the following factors:
 - (a) Whether strict compliance with permit terms is inappropriate because of conditions beyond the control of the person requesting the variance;
 - (b) Whether strict compliance would result in substantial curtailment or closing down of a business, plant, or operation;
 - (c) Whether the variance request is prompted by recurrent or avoidable compliance problems;
 - (d) A review of the operational history of the requesting facility; and
 - (e) Whether the public interest will be served by a temporary variance.

- (E) When considering any request for interim authority during the pendency of a public notice period pursuant to this Code, the director may take into account the following factors in addition to the applicable factors of subsection (b) of this section:
 - (1) Whether the applicable permitting applications were timely and completely submitted;
 - (2) Whether there has been a delay in the final permitting action caused by conditions beyond the control of the person requesting the interim authority;
 - (3) Whether contractual or other business obligations will become due before a proper permit can be issued; and
 - (4) Whether the public interest will be served by construction or operation during the application review and permit issuance process.

- (F) After a review of the applicable factors, the director may:
 - (1) Grant an unconditional variance or interim authority to the requesting party;

- (2) Grant a conditional variance or interim authority to the requesting party. Such conditions shall be designed to be protective of human health and the environment and must be clearly stated or referenced in the variance or interim authority document; or
 - (3) Deny the request for variance or interim authority. If a denial is issued, the director shall clearly state the reason(s) for the denial in a written response to the applicant.
- (G) Every director's decision to grant or deny a variance or interim authority to construct or operate shall be publicly noticed within ten (10) business days of the director's decision.
- (1) The applicant shall be responsible for the expense of publication of any decision to grant a variance or interim authority.
 - (2) The department shall be responsible for the expense of publication of any decision to deny a variance or interim authority.
 - (3) Any member of the public may object to the director's decision within ten (10) business days of the notice.
 - (4) Any variance or interim authority granted by the director is contingent upon the right of the public to object.
- (H) Any actions of the applicant in reliance upon the grant of a variance or interim authority during the application review and permit issuance process are strictly at the applicant's own risk, and no actions or expenditures by the applicant during this period shall be construed as accruing equities in the applicant's favor.
- (I) The ten (10) day public notice requirement shall not apply to a director's decision to grant an extension to a variance or interim authority.
- (J) The director may also for compelling reasons or good cause shown, revoke or modify the conditions of any variance or interim authority previously granted.
- (K)
- (1) An applicant who has been denied a variance or interim authority or had a variance or interim authority revoked, or a third party who submitted timely objections during the comment period provided for in subsection (e) of this section, may appeal the director's final decision.

- (2) Such an action shall be processed as a permit appeal under the Commission=s regulations on administrative procedures.
- (3) Provided, however, that:
 - (a) The decision of the director shall remain in effect during the appeal;
 - (b) The adjudicatory review shall be completed as expeditiously as possible;
 - (c) A final decision shall be issued by the commission within sixty (60) days unless all parties agree to extend the review time; and
 - (d) Any party aggrieved by a commission decision on a request for variance or interim authority may appeal as provided by applicable law.

Section 15.311 Permit Renewal and Modification

- (A) In the event any area for which a permit applies is not mined or where mining operations have not been completed during the permit term, the permit as to such area may be extended by the Department upon application by the permittee.
- (B) Prior to application for renewal or modification, the permittee should review the current mining plan, reclamation plan, and bond amount. In the event the permittee desires to renew or modify the mining or reclamation plan, the permittee must make application to do so and update the documentation. The permittee must review the bond amount taking into account inflation and any changes to the mining and reclamation plan.
- (C) The permittee must mark any application for renewal or modification that does not include adding additional new acreage with "To Amend" and submit a review fee of one hundred dollars (\$100).
- (D) In the event the permittee seeks to add additional acreage to the permit area, he or she must submit the following documents for modification:
 - (1) The permit application filed in duplicate and marked "TO AMEND" on the designated blank;

- (2) A permit application fee for the new acreage based on the fee schedule listed in Section 15.304 of this Code in addition to the permit modification review fee;
- (3) Proof of right to mine the new area as set out in Section 15.305 of this Code;
- (4) A new site map with the new area clearly delineated from the current permit area;
- (5) A mining plan for the new area as set out in Section 15.307 of this Code;
- (6) A reclamation plan for the new area that is compatible with that of the current reclamation plan as set out in Section 15.308 of this Code;
- (7) A detailed bond determination for the new area; and
- (8) An acceptable bond instrument for the new area as set out in Section 15.309 of this Code.

Section 15.312 Permit Revocation

- (A) The Department may revoke, modify, or suspend, in whole or in part, for cause any permit issued under the Act and this Code, including without limitation:
 - (1) Violation of any condition of the permit or the bond; or
 - (2) Obtaining a permit by misrepresentation or failure to disclose fully all relevant facts.
- (B) No operator shall be eligible to receive a new, renewed, or modified permit who has had a permit revoked, unless the Department finds, upon review, a demonstrable change of circumstances justifying an exception to these prohibitions.

Chapter Four – Performance Standards

Section 15.401 Performance Standards - General

- (A) Every operator to whom a permit is issued pursuant to the provisions of the Act and this Code may engage in open-cut mining during the permit term on the area described in the permit upon the performance of and subject to the listed requirements in Section 15.402 with respect to the permitted area.
- (B) Removal of alluvial materials below the ordinary high water mark of a stream or other waterway shall be permitted only if an operator demonstrates to the satisfaction of the Department that activities associated with the removal, processing, or transport of said materials will not cause a violation of the State's water quality standards and will provide for preservation of bank stability and stream channel integrity, and maintain localized in-stream fish cover. Throughout the performance of any permitted mining activities, the operator must implement measures approved in the operator's mining and reclamation plans to insure that the affected area does not contribute sediment to the stream and restrict access to the site to enhance stream recovery. In addition to compliance with the applicable requirements of the Act and other provisions of this Code, compliance with the performance standards listed in Section 15.403 is required.

Section 15.402 Open-Cut Mining Standards

- (A) The perimeter of the permit area must be clearly marked on the ground at all times using metal posts or stakes projecting 36 inches above ground and painted Hunter Orange or like color. These markers must remain in place until the operator has reclaimed the site and obtained release from reclamation liability from the Department.
- (B) The operator shall protect the public from the dangers inherent in an open-cut mining operation by restricting access to the mine site and posting adequate warning signs.
- (C) The operator shall preserve any topsoil for redistribution during reclamation unless otherwise approved by the Director.

- (D) All affected land shall be graded to a rolling or terraced topography. No final slope shall be steeper than one (1) vertical to three (3) horizontal unless otherwise approved by the Department.
- (E) The operator may construct earth dams, where lakes or other impoundments may be formed, provided they are constructed and maintained in accordance with sound engineering practices and the provisions of this Code.
- (F) If a lake is to be left as a part of the reclamation plan, provisions must be made by the operator to assure that a pH factor of six (6) to nine (9) is maintained unless otherwise authorized by the Department.
- (G) If the permit area is near or includes a waterway , an undisturbed buffer zone must be maintained between the permit boundary and the ordinary high water mark. The ordinary high water mark elevation at the upstream and downstream limits of the permit area shall be determined numerically by the Department and included as a permit condition. If the applicant proposes a buffer zone of less than 100 feet, reasonable scientific and technical data based on the site specific conditions such as the geology, soil type, slope, or waterway use designation that shows the proposed buffer zone will protect stream channel integrity must be presented to and approved by the Director. If after review of the data submitted by the applicant, the Director determines that the proposed buffer zone is not adequate, then the buffer zone shall be established by the Department not to exceed 100 feet measured horizontally from the ordinary high water mark.
- (H) Unless waived by the Department, all affected land that is reforested shall have reasonable fire lanes or access roads of at least 10 feet in width constructed through the land.
- (I) When the site slope is in condition for vegetation, a soil analysis shall be made as a basis for soil amendments.
- (J) The operator shall furnish copies of the soil sample report and recommendations to the Department.
- (K) In the event the permit area adjoins another land owner's property line or a right-of-way, open-cut mining operations must maintain an undisturbed buffer zone of fifty (50) feet from any adjacent property line or right-of-way until reclamation begins. For the department to approve a variance on the fifty-foot buffer zone, there must be an agreement between the affected property owner or right-of-way holder, and the operator. The agreement must identify the land to be affected, describe what is to be done, how close the excavation will encroach on the property line or right-

of-way, the plan and schedule of reclamation and be signed by all parties. This agreement must be submitted with the permit application. The operator may begin creating the final slope during reclamation at ten (10) feet from the adjacent property line or right-of-way.

- (L) Whenever the exposed face of mined seams that contain acid-forming materials is not covered by water or by permanent water impoundment, the operator shall cover the exposed face of the seams with earth or spoil material to a depth of not less than three feet (3') upon approval of the Department.
- (M) No later than June 1 of each year of the permit term, the operator shall submit to the Department, an annual report, in the form described in Chapter Six of this Code.
- (N) All mine spoil generated by the operator shall be disposed of in a manner approved by the Department.
- (O) For sand and gravel operations, the operator shall perform contemporaneous reclamation of the mine site in accordance with the operator's incremental mining plan approved by the Department.
- (P) Upon approval from the department, stockpiles of processed materials may be left without being reclaimed if there is a likelihood that there will be a market for the material in the future and that there will be no form of pollution from the stockpiles remaining on or leaving the property.
- (Q) Mine and permit identification sign:
 - (1) Identification signs shall be displayed at each point of access to the permit area from public roads;
 - (2) Signs shall show the current permit number and the name, business address, and telephone number of the operator; and
 - (3) Signs shall be retained and maintained until after the final release of the bond for the permit area.

Section 15.403 Stream Bed Mining Standards

- (A) Material removal below the ordinary high water mark must not create a violation of any of the State's water quality standards established by the Commission. At no time shall equipment such as trucks, loaders or dozers be allowed to operate in the water except as otherwise provided by the Act and this Code.

- (B) Material removal must not be conducted below an elevation of one (1) foot above the elevation of the surface of the water at the time of removal. If the stream is dry, material removal may proceed to a depth equivalent to one (1) foot above the lowest point of a cross section of the stream at that location. At no time shall any material removal create a condition(s) that will cause the stream to change course or alter the location of the deepest part of the stream channel or cause bank or channel instability.
- (C) Any removal of material below the ordinary high water mark must be conducted in a manner that leaves an undisturbed slope next to the bank to prevent erosion.
- (D) An undisturbed buffer zone must be maintained from the ordinary high water mark landward for the length of the material removal site. If the applicant proposes a buffer zone of less than 100 feet, reasonable scientific and technical data based on the site specific conditions such as geology, soil type, slope, or waterway use designation that shows the proposed buffer zone will protect the water quality of the waterway must be presented to and approved by the Director. If after review of the data submitted by the applicant, the director determines that the proposed buffer zone is not adequate, then the buffer zone shall be established by the Department not to exceed 100 feet measured horizontally from the ordinary high water mark. Disturbance in this buffer zone shall be limited to well maintained access roads for ingress and egress only and when no other reasonable access is available. Upon temporary or permanent cessation of material removal at a site, steps shall be taken to minimize the amount of surface water and sediment that may enter the stream via an unvegetated access road.
- (E) If available, large oversized material shall be salvaged and placed back on the excavated area upon cessation of material removal to provide stability to the area. A description of such material must be included in the mining plan and replacement detailed in the reclamation plan.
- (F) No mechanical material processing or storage shall occur below the ordinary high water mark. All such activity must occur at a higher elevation than the ordinary high water mark and be outside the buffer zone. An incidental pile of material used to facilitate loading below the ordinary high water mark will not be deemed as material storage providing that the pile is of a reasonable size that could practicably be removed that day.
- (G) Where conditions exist at specific sites that pose unique environmental threats to a stream, the Department may require additional steps to be taken to protect water quality and aquatic habitat.

- (H) If no other access to the material to be mined is available other than to cross a stream, thereby creating turbidity, the Department may approve a temporary crossing structure, provided the structure is designed to reduce or eliminate turbidity, is placed perpendicular to the stream, does not block or dam the stream and be removed immediately upon cessation of mining.
- (I) The mining plan must include, but may not be limited to, a map or maps that depict the permit area, access to the site (from a state, county or municipal road), identification of all land to be affected (ie process facility, product storage, location of material to be mined with respect to the stream, and etc.), provisions for storm water and process water containment, a cross section of the stream channel to be mined and any other site specific information the Department determines to be necessary to provide adequate information to determine if the goals of the Act and this Code will be achieved.
- (J) There will be no reclamation requirements within the stream channel other than what is necessary to provide bank stability and prevent erosion as listed in paragraphs (C) and (E) above; and/or all affected area outside the stream channel must be reclaimed in accordance with the grading and revegetation requirements of the open-cut provisions of the Act and this Code.
- (K) No material removal shall be conducted in streams designated as extraordinary resource waters (ERW) except as provided in Section 15.301(F) and (G) of this Code.
- (L) Where a stream that is not designated as an ERW converges with a stream that is designated as an ERW, no mining shall be permitted in the non-ERW from the point of confluence upstream for a distance equal to two times the stream channel width of the ERW at the confluence or some other distance as agreed to by the Department and the applicant.
- (M) A permit obtained under the Act and this Code does not exempt the operator from the necessity of obtaining other state or federal permits or licenses nor does it authorize site activities to begin that require other permits or licenses.
- (N) Storage of such fluids as fuel, oil or hydraulic fluid and the respective wastes thereof must be such that they can not enter the stream channel. However, should extraordinary events occur that results in waste water or one or more of these fluids entering the stream, the Department should be notified at once.

- (O) Landowners may sell or barter gravel or other material from stream beds as a part of an approved flood control project without obtaining a mining permit from the Department. A landowner may remove sufficient stream material from ones own land for road maintenance, construction or other uses on said land without obtaining a mining permit. Except as provided above, material shall not be removed for the purpose of commercial sale without first obtaining a mining permit from the Department.
- (P) The Department may allow deviations from the provisions of paragraphs (B), (D), (E) and (H) above where in the Department's opinion proposed alternatives will achieve the same level of stream protection or rehabilitation.
- (Q) No later than June 1 of each year of the permit term, the operator shall submit to the Department, an annual report, in the form described in Chapter Six of this Code.

Chapter Five - Enforcement

Section 15.501 Inspections

- (A) The Department or its designated representative may enter upon the lands affected by open-cut mining at all reasonable times for the purpose of determining compliance with the provisions of the Act or this Code.
- (B) The Department shall file all reports concerning any site visits with the operator's permit.

Section 15.502 Enforcement

- (A) The Department shall seek compliance with the Act and this Code through the cooperation of all regulated parties and will afford suspected violators a reasonable opportunity to resolve violations through informal procedures prior to the initiation of administrative enforcement proceedings unless the circumstances warrant otherwise.
- (B) It shall be unlawful for any person to :
 - (1) Violate any provision of the Act, this Code or order of the Commission or the Department issued pursuant to the Act or this Code;
 - (2) Engage in open-cut or stream bed mining without a permit issued pursuant to the Act or this Code;
 - (3) Violate any conditions of a permit or reclamation plan issued pursuant to the Act or this Code;
 - (4) Knowingly make any false statement, representation or certification or knowingly fail to make a statement, representation or certification in any application, plan, record, report or other document filed or required to be maintained under the Act or this Code; or
 - (5) Willfully resist, prevent, impede or interfere with the Director or any of his authorized representatives in the performance of duties pursuant to the Act or this Code.
- (C) Any person who engages in open-cut or stream bed mining without first securing a permit as required by the Act and this Code or who fails to

reclaim affected lands in accordance with the Act or this Code or who violates any provision of the Act or this Code or any order, regulations, rule, permit or reclamation plan issued pursuant thereto, may be issued a Notice of Violation and assessed an administrative civil penalty by the Department not to exceed:

- (1) One thousand dollars (\$1,000) for the first violation;
 - (2) Two thousand dollars (\$2,000) for a second separate violation of the same offense within two (2) years; and
 - (3) Five thousand dollars (\$5,000) for a third separate or subsequent violation of the same offense within two (2) years.
- (D) No administrative civil penalty may be assessed until the person charged with the violation has been given the opportunity for a hearing and has exhausted all administrative appellate remedies.
- (E) The amount of the administrative civil penalty assessed by the Department shall be determined pursuant to the Commission's administrative regulations and procedures.
- (F) The Department is authorized to institute a civil action in any court of competent jurisdiction to accomplish any or all of the following:
- (1) Restrain any violation of, or compel compliance with, the Act, this Code, the permit, the reclamation plan, or any order, rule, or regulation issued pursuant thereto;
 - (2) Accomplish remedial measures as may be necessary or appropriate to implement or effectuate the purpose and intent of the Act and this Code, including the reclamation of affected land;
 - (3) Recover all costs, expenses and damages to the Department or any other agency of the State in enforcing the provisions of the Act and this Code and reclaiming affected land;
 - (4) Assess civil penalties for violations of the Act or of any order, rule, regulation, permit, or reclamation plan issued pursuant thereto, in an amount not to exceed:
 - (a) One thousand dollars (\$1,000) for the first violation;
 - (b) Two thousand five hundred dollars (\$2,500) for a second separate violation of the same offense within two (2) years; and

- (c) Five thousand dollars (\$5,000) for a third separate or subsequent violation of the same offense within two (2) years;
- (5) Recover civil penalties assessed by the Department; or
- (6) Forfeit reclamation bond.
- (G) For the purposes of fines only, each day or part of a day during which the violation is continued or repeated shall constitute a separate offense.
- (H) All hearings and appeals arising under the Act and this Code shall be conducted in accordance with the procedures described in Arkansas Code Annotated ' ' 8-4-218 et al and in accordance with regulations adopted by the Commission, including, but not limited to, the Commission=s regulations on administrative procedures.
- (I) The Department may institute proceedings to have the bond or substituted security of the operator forfeited for any of the following reasons including but not limited to:
 - (1) Failure to abate any violation of the Act or this Code;
 - (2) Failure to comply with the terms and conditions of the open-cut mining permit or the bond;
 - (3) Failure to comply with any order of the Department;
 - (4) Failure to reclaim the affected land in accordance with the approved reclamation plan, the Act or this Code; or
 - (5) Insolvency, bankruptcy or receivership of the permittee.
- (J) The Department shall notify the operator in writing of the bond forfeiture and the operator shall be given an opportunity for a hearing as provided in this Code.

Chapter Six – Administrative Requirements

Section 15.601 Annual Report and Fees

(A) No later than June 1 of each year of the permit term, the operator shall submit to the Department an annual report that contains the following information:

(1) A site map showing the current status of the permit area with the following features clearly marked:

- (a) Permit boundary;
- (b) Equipment installation;
- (c) All roadways including entrance road;
- (d) Water impoundments and water circulation system if applicable;
- (e) Areas mined but unreclaimed;
- (f) Areas currently being mined;
- (g) Areas being reclaimed;
- (h) Area not yet affected; and
- (i) The section, range, township and county.

(2) A narrative providing the following:

- (a) The total number of affected acres that have not yet been released by the Department; and
- (b) The amount of material mined during the period from May 1 of the previous year through April 30 of the current year.

(B) As authorized in Arkansas Code Annotated '15-57-319(c), the Commission prescribes the following annual permit fee on affected land:

First 100 acres.....	\$10.00 per acre
101 to 200 acres.....	\$7.50 per acre
201 and up.....	\$5.00 per acre

Chapter Seven - Releases

Section 15.701 Land and Bond Releases

- (A) Release from reclamation liability and a proportionate amount of bond may be obtained for permitted land not yet affected and for affected land upon approved reclamation.
- (B) To obtain release from reclamation liability on reclaimed or unaffected land and, if desired, a proportionate bond release for land on which bond has been posted:
 - (1) The operator must make a formal written request to the Department for the release;
 - (2) The Department will make a preliminary review of the release area to assure compliance with the Act, this Code, the permit or any conditions thereto, and the approved reclamation plan;
 - (3) In the event the preliminary inspection finds the site a viable candidate for release, a Mined Land Review Committee (MLRC), comprised of representatives of various state agencies having experience in foresting and reclaiming open-cut mined lands with forest or agronomic or horticultural species, will tour the site;
 - (4) The Director will determine release based on the advice and technical assistance provided by the MLRC and the recommendation of Department staff; and
 - (5) The amount of bond released will be based solely on the cost of reclamation of the release area. In no event shall the amount of bond remaining be less than the cost of reclaiming the remainder of the affected land in accordance with the Act, this Code, the permit and the conditions thereto, and the approved reclamation plan.

Chapter Eight – Abandoned Mine Land

Section 15.801 Inactive or Abandoned Mine Lands

- (A) The Department shall locate and document inactive or abandoned mine lands.
- (B) The Department shall conduct investigations to ascertain whether any sites were mined post 1971 and make every reasonable effort to locate and notify the operator of the site to comply with the Act and this Code.

Appendix A

Listing of
Extraordinary Resource Waters

Section 15.A01 MAJOR EXTRAORDINARY RESOURCE STREAMS

1. Kings River - Located in the northwest corner of the state. ERS designation is from its origin near Boston, AR north to the Missouri border.
2. South Fork -
Spring River Located in the northeastern part of the state. ERS designation is from the Missouri border south to its confluence with the Spring River near Hardy, AR.
3. Spring River - Located in the northeastern part of the state. ERS designation is from the Missouri border south to its confluence with the Black River near Black Rock, AR. Including its tributaries Field Creek, Big Creek, English Creek, Cut Creek and Myatt Creek.
4. Eleven Point - Located in the northeastern part of the state. ERS designation is from the Missouri border south to its confluence with the Spring River north of Black Rock, AR.
5. Current River - Located in the northeastern part of the state. ERS designation is from the Missouri border south to its confluence with the Black River east of Pocahontas, AR.
6. Buffalo River - Located in the north-central part of the state. ERS designation is from its origin in Newton County to its confluence with the White River near Buffalo City, AR. The Buffalo River has also been designated as a National Scenic River.
7. Richland Creek - Located in the north-central part of the state. ERS designation is from its origin to its confluence with the Buffalo River northwest of Snowball, AR, includes tributary Falling Water Creek.
8. North Sylamore -
Creek Located in the north-central part of the state. ERS designation is from its origin to its confluence with the White River north of Mountain View, AR.
9. Strawberry River- Located in the northeastern part of the state. ERS designation is from its origin to its confluence with Reeds Creek near Jesup in Lawrence County.
10. Lee Creek - Located in the northwestern part of the state. ERS designation is from its origin to the Oklahoma border north of Fort Smith, AR.

11. Mulberry River - Located in the northwestern part of the state. ERS designation is from its origin to its confluence with the Arkansas River south of Mulberry, AR.
12. Piney Creek - Located in the northwestern part of the state. ERS designation is from its origin to its confluence with Lake Dardanelle east of Lamar, AR. Includes the tributary Hurricane Creek.
13. Illinois Bayou - Located in the northwestern part of the state. ERS designation includes North Fork, Middle Fork and East Fork to its confluence with Lake Dardanelle north of Russellville, AR.
14. Archey Fork - Located in the north-central part of the state. ERS designation is from its origin to its confluence with the South Fork of the Little Red River at Clinton, AR.
15. Middle Fork of the Little Red River - Located in the north-central part of the state. ERS designation is from its origin to its confluence with Greers Ferry Lake.
16. Devils Fork - Located in the north-central part of the state. ERS designation includes Beech Creek, Tomahawk Creek, Turkey Creek, Lick Creek and Raccoon Creek to its confluence with Greers Ferry Lake.
17. Salado Creek - Located in the north-central part of the state. ERS designation is from its origin to its confluence with the White River southeast of Batesville, AR.
18. Second Creek - Located in the northeastern part of the state. ERS designation is from its origin to its confluence with the L'Anguille River west of Forrest City, AR.
19. Cadron Creek - Located in the central part of the state. ERS designation includes the North Fork and East Fork to its confluence with the Arkansas River west of Conway, AR.
20. Mountain Fork - Located in the southwestern part of the state. ERS River designation is from its origin to the Oklahoma border west of Hatfield, AR.
21. Cossatot River - Located in the southwestern part of the state. ERS designation is from its origin to its confluence with Gillham Reservoir in Howard County. Includes tributary Caney Creek.

- 22. Caddo River - Located in the southwestern part of the state. ERS designation is from its origin including the South Fork to its confluence with DeGray Reservoir northeast of Arkadelphia, AR.
- 23. Little Missouri - River Located in the southwestern part of the state. ERS designation is from its origin to its confluence with Lake Greeson east of Newhope in Pike County.
- 24. Saline River - Located in the south-central part of the state. ERS designation includes North, Alum, Middle and South Forks to its confluence with the Ouachita River west of Crossett, AR.

Section 15.A02 MINOR EXTRAORDINARY RESOURCE STREAMS

There are several other small segments of streams located near preserved wildlife and natural areas in the state. The following is a list of those streams containing a small segment of ERS designation.

- 1. Big Creek in Cleburne County
- 2. Big Fork Creek in Polk County
- 3. Cache River in Woodruff County
- 4. Two Prairie Bayou between Lonoke and Prairie Counties
- 5. Moro Creek between Dallas and Cleveland Counties
- 6. Arkansas River below Dam No. 2

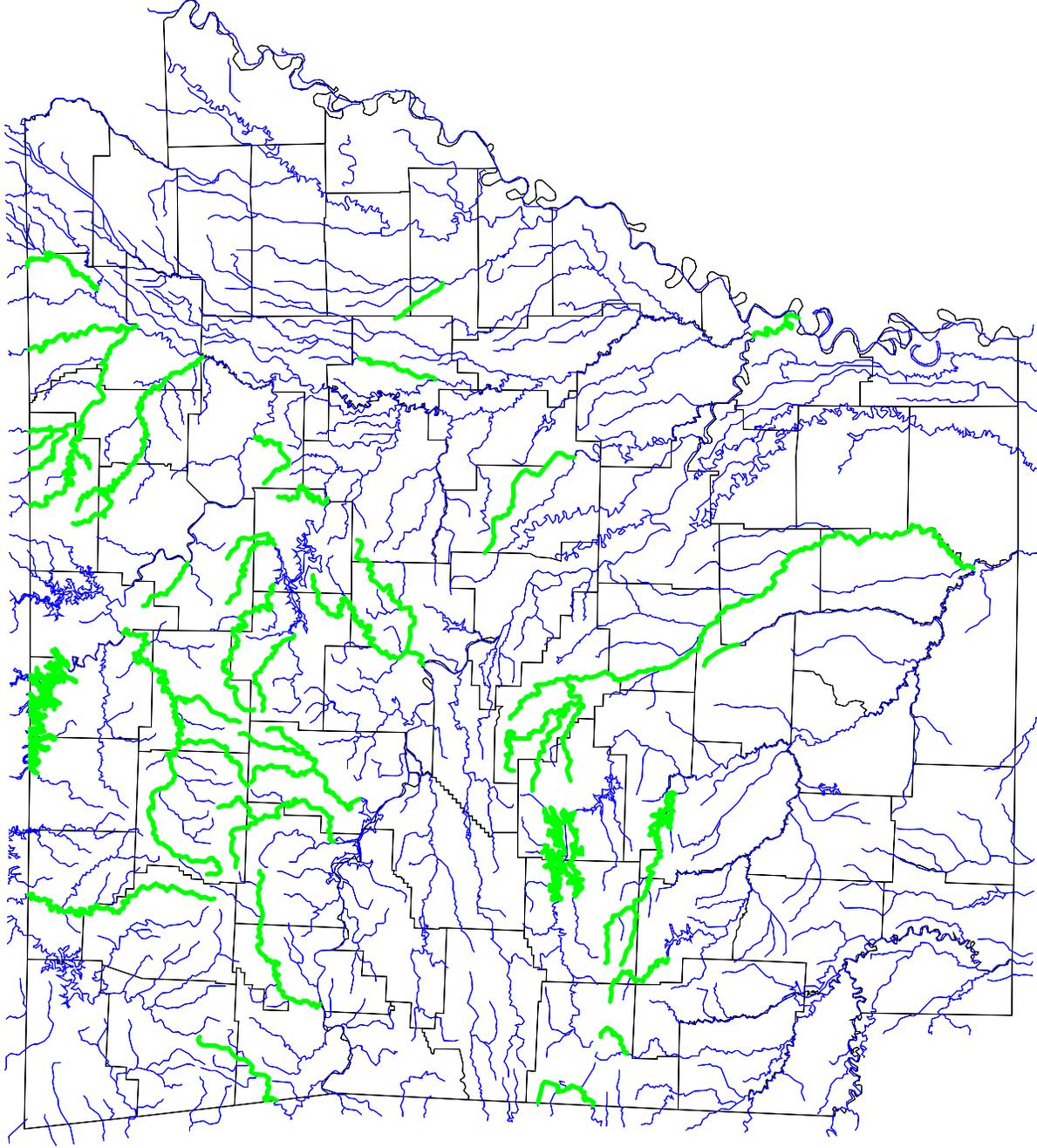
Section 15.A03 EXTRAORDINARY RESOURCE LAKES

- 1. Lake Ouachita
- 2. DeGray Reservoir
- 3. Bull Shoals Reservoir

Appendix B

Map of Extraordinary Resource Waters

Extraordinary Resource Waters



- Lake Ouachita
- DeGray Reservoir
- Saline River
- North Fork Saline River
- Alum Fork Saline River
- Middle Fork Saline River
- South Fork Saline River
- Moro Creek
- Caddo River
- South Fork Caddo River
- Cossatot River
- *Caney Creek
- Little Missouri River
- Mountain Fork River
- *Big Fork Creek
- Cadron Creek
- Mulberry River
- Big Creek
- Devils Fork Little Red River
- Beech Creek
- *Tomahawk Creek
- *Turkey Creek
- *Lick Creek
- North Sylamore Creek
- Kings River
- Bull Shoals Reservoir
- Middle Fork Little Red River
- Archey Creek
- Illinois Bayou
- North Fork Illinois Bayou
- Middle Fork Illinois Bayou
- East Fork Illinois Bayou
- Piney Creek
- Hurricane Creek
- Lee Creek
- Salado Creek
- Richland Creek
- *Falling Water Creek
- Buffalo River
- Current River
- Eleven Point River
- Strawberry River
- Spring River
- *Field Creek
- *Big Creek
- *Cut Creek
- Raccoon Creek
- Myatt Creek
- South Fork Spring River
- Two Prairie Bayou
- Second Creek
- Cache River
- Arkansas River (below Dam #2)
- *not illustrated
- Lake Ouachita