



Gravel Mining in Arkansas

A History and Current Regulations

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Unregulated gravel mining in the late 1980s and early 1990s influenced the creation of legislation, rules, and regulations.





Sportfish

AGFC participated and provided recommendations for several important reasons:



Non-sport fish and other aquatic organisms



Recreational floating and other activities that provide economic, tourism, and social benefits to Arkansas and multiple counties where these activities occur



Impacts of Uncontrolled Gravel Mining:

- Removal of streamside vegetation
- Bank instability resulting in upstream and downstream erosion
- Siltation and sedimentation
- Warming of the water
- Alteration of channel morphology ie. wider and shallower streams
- Large “waves” of gravel moving downstream during large rain events
- Disruption of fish reproduction
- Slowing of fish growth
- Species composition

Some of these impacts take decades to become apparent, and, subsequently, the reduction of impacts through streambank stabilization is also long term



Buffalo River

National River Designation in 1972

This designation prohibited activities like gravel mining
and land use patterns were altered
50+ years later we still signs of instability resulting from
those activities



History of Gravel Mining Legislation and Rules

- **Act 827 of 1991** – The Arkansas Open-Cut Land Reclamation Act – Rule 15
- **Act 1345 of 1995** – To Prohibit Commercial Mining in Extraordinary Resource Streams – Rule 2
- **Act 1110 of 1995** – To Create a Task Force to Study Issues Surrounding Mining in the Streams of the State – Updated Rule 15 in August of 1996
- **1997** – ADEQ began issuing permits for instream gravel mining
- Current **Rule 15** was approved in **2014**
- Current **Rule 2** was adopted in **2022**

Gravel mining in Arkansas is allowed or regulated under Rule 15 of the Arkansas Department of Environmental Quality (ADEQ), but there is no legislation that actually authorizes it



Rule 15 – Relevant Definitions

- **Commercial purposes** -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
- **Open-Cut Mining** – The surface extraction of clay, bauxite, sand, gravel, soil, shale or other materials for commercial purposes
- **Ordinary High Water Mark** – The 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
- **Streambed or Stream Channel** - The area that lies between the lines delimiting the bed from the bank on each side of a creek, branch, or river
- **Waterway** - means the natural channel of any perennial or intermittent river, creek or stream.

Gravel Mining Definition – Stream gravel mining is the removal of alluvial gravel and sand/silt from stream channels, stream point bars, and/or streambanks immediately adjacent to the stream.



Rule 15 - Stream Bed Mining Standards

- Gravel removal below the ordinary high water mark (OHW) cannot violate the State's water quality standards
- Trucks, loaders, or dozers cannot operate in the water
- Gravel removed must be at least 1 foot above the current water level
- Gravel removal cannot cause the stream to change course, alter the location of the deepest part of the stream channel, or cause bank or channel instability
- Gravel removal below the OHW must leave an undisturbed slope next to the bank to prevent erosion
- An undisturbed buffer zone must be maintained from the OHW landward for the length of the material removal site – up to 100 feet
- If available, large oversized material shall be salvaged and placed back on the excavated area to provide stability to the area

These standards were influenced by AGFC and other conservation organizations



AGFC had concerns about the adopted mining standards including:

- Allowing gravel mining within 1 foot of the current water level
- Only requiring that one streambank be left as undisturbed as possible
- A set buffer width for all streams
- Allowing stream crossings for haul trucks
- A rehabilitation plan should be on record before the mining begins
- Original contours should be revegetated as part of the plan
- Landowners should not be allowed to sell or barter gravel
- Mining should not be allowed below the bankfull height or OHW



Rule 15 – Landowners

- The requirements of the Act, as amended, and this Rule 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. **This exemption does not alleviate any obligation to obtain appropriate permits from the Division, including but not limited to short-term authorizations or water quality permits.**



Rule 15 – Landowners

- **Landowners may sell or barter gravel or other material from stream beds as a part of an approved flood control or bank stabilization project designed or approved by the U.S. Army Corp of Engineers, the Natural Resources Conservation Service, or the Arkansas Game and Fish Stream Team program without a mining permit from the Division. 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 Division.** This exemption does not alleviate any obligation to obtain appropriate permits from the Division, including but not limited to short-term authorizations or water quality permits.



Rule 15 – Extraordinary Resource Waters

- 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 (APC&EC Rule No. 2). Refer to APC&EC Rule 2 to determine what streams and waterbodies are considered to be “extraordinary resource waters.”
- No material removal shall be conducted in streams designated as extraordinary resource waters except as provided in Rule 15.301(F) and (G).
- Where a stream that is not designated as an extraordinary resource water converges with a stream that is designated as an extraordinary resource water, no mining shall be permitted in the non- extraordinary resource water from the point of confluence upstream for a distance equal to two times the stream channel width of the extraordinary resource water at the confluence or some other distance as agreed to by the Division and the applicant.



Rule 2 – Definitions

- **Outstanding Resource Waters** - Where high quality waters constitute an outstanding state or national resource, such as those waters designated as Extraordinary Resource Waters, Ecologically Sensitive Waterbodies or Natural and Scenic Waterways, those uses and water quality for which the outstanding waterbody was designated shall be protected by (1) water quality controls, (2) maintenance of natural flow regime, (3) protection of instream habitat, and (4) encouragement of land management practices protective of the watershed.
- **Extraordinary Resource Waters (ERW)** - This beneficial use is a combination of the chemical, physical and biological characteristics of a waterbody and its watershed that is characterized by scenic beauty, aesthetics, scientific values, broad scope recreation potential and intangible social values.



Rule 2 – Extraordinary Resource Waters

57 rivers, creeks, and reservoirs are classified as Extraordinary Resource Waters
35 of these are located in the Boston Mountains or Ozark Highlands and include the Buffalo River, the Kings River, and the Mulberry River



The Kings River, although protected by Rule 2, shows signs of instability and a lack of sediment transport capability from previous gravel mining and land use practices.



Other Permit Requirements

Rule 15 – ADEQ Mining Division

Rule 2 – Arkansas Pollution Control and Ecology Commission

In addition to a mining permit, other permits are required from ADEQ while working in the water:

ADEQ Water Quality Division

Short Term Activity Authorization (STAA)

Anyone planning to conduct any activity in waters of the State, which cause a violation of the Arkansas water quality standards, must obtain authorization from DEQ prior to entering waters of the State

Section 401 Water Quality Certification

Clean Water Act (C.W.A.) Section 401 requires state Water Quality Certifications prior to the issuance of federal permits and licenses to ensure that proposed projects will not violate state water quality standards



Other Permit Requirements

U.S. Army Corps of Engineers (USACE) Regulatory Division

Section 404 Permit

Section 404 of the Clean Water Act requires authorization from the Secretary of the Army, acting through the Corps of Engineers, for the **discharge** of dredged or fill material into all waters of the United States, including wetlands.

- A 404 permit **is not** required to mine gravel if conducted “bucket to truck”
- A 404 permit **is** required to mine gravel if the material is staged in the stream bed
- A 404 permit **is** required to move gravel and place it on the streambank below the Ordinary High Water Mark
- A 404 permit **is not** required to remove dead trees or debris from the streambed unless the stream bed will be altered
- A STAA and 401 Water Quality Certification are required if removal of dead trees or debris results in violation of water quality standards



Summary

- Uncontrolled gravel mining can have long term environmental consequences
- Mining Regulations are contained in Rule 15
- Landowners do not need a mining permit for non-commercial mining activities
- Mining is not allowed in Extraordinary Resource Waters defined in Rule 2
- Other permits may be required when mining alters the streambed or violates water quality standards
- Dead trees can be removed from the streambed if the streambed will not be altered and water quality standards will not be violated



Questions?

It's probably inevitable that your work will be defined by the use it's put to, while the real standard is what Susan-Ewing once called "the long-wearing excellence of getting things right". – John Gierach

