

**Sand and Gravel Workgroup Recommendations to the
Department of Natural Resources' Land Reclamation Commission
January 2003**

All recommendations are in **Bold Print**. Following the recommendation is the indication of which interests supported that recommendation. The workgroup used dots to indicate preference.

Title 10—DEPARTMENT OF NATURAL RESOURCES
Division 40—Land Reclamation Commission
Chapter 10—Permit and Performance Requirements for Industrial Mineral Open Pit and In-Stream Sand and Gravel Operations

10 CSR 40-10.020 Permit Application Requirements

(D) A plan of operation and reclamation which meets the requirements of 444.760--444.790, RSMo.

1. The operation plan for surface mine operators shall include:
 - A. A brief description of topsoil availability, removal and storage as outlined in 10 CSR 40-10.050(6);
 - B. A brief description and location of spoil placement and disposal;
 - C. A brief description of handling of acid materials, if applicable; and
 - D. A brief description of the location and arrangement of the pit if not delineated clearly on the map submitted with the application.
2. All applications shall contain a reclamation and operation plan for the lands and water within the proposed permit area.
3. The reclamation plan shall include, at a minimum:
 - A. A list of species used for reclamation and the seeding/planting rates;
 - B. Methods and timing of seeding/planting;
 - C. If required by the commission, references to support revegetation methods;
 - D. A brief description of the grading, topsoiling and revegetation schedules as outlined in 10 CSR 40-10.050(10); and
 - E. The land use that area is to be reclaimed to and the acreage of each.
4. Commercial In-stream operators must describe what measures will be taken to minimize impacts on the stream environment, that is, **how they will follow the requirements of 10 CSR 40-10.050 (14)**.

Unanimous recommendation to change this sentence

10 CSR 40-10.050 Performance Requirements

(14) In-Stream Gravel Removal Requirements.

(A) Commercial Operations that conduct sand and/or gravel removal within the stream banks must comply with the following requirements.

(B) The following requirements are designed to protect water quality while allowing for the excavation of sand and gravel from riparian environments. Upon request of the applicant, the program may establish site specific guidelines to address conditions that may occur at individual locations.

(B) The following requirements are designed to protect water quality while allowing for the excavation of sand and gravel from riparian environments. Upon request of the applicant, the program may establish site specific variances to address conditions that may occur at individual locations.

12 dots: Public, county commission (3), Smallmouth Bass Alliance, Ozark Fly Fish, American Fisheries Society, landowner (2), Trout Unlimited, Ozark Private Rights Congress, producer)

Or

Drop all of (B)

4 dots: individual, county commission, county planning commission, association

Or

Drop “upon request of the applicant” from above

3 dots: Coalition for the Environment, Sierra Club, Stream Team

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1. Excavation of sand or gravel deposits shall be limited to deposits in unconsolidated areas containing primarily smaller material (at least 85 per cent of the material is less than three inches in diameter) that is loosely packed and contains no woody perennial vegetation greater than one and one-half inches in diameter, measured at breast height (4.5 feet).

If the woody vegetation size is changed in 2., the entire workgroup recommends making the same change in woody vegetation diameter in 1.

2. An undisturbed buffer of 20 feet shall be maintained between the removal area and the water line at the time of excavation, and between the removal area and bank vegetation greater than one and one-half inches in diameter, measured at breast height. Upon request of the applicant, width of buffer areas may be modified after an on-site visit determines that a smaller width buffer area would not significantly impact the biological, physical, or chemical integrity of the water resource.

A buffer zone of adequate width to prevent turbidity and insure the biological, physical and chemical integrity of the water during times of operation shall be left between the excavation area and the water's edge of the flowing stream at the time of excavation. A bugger zone of adequate width to protect bank integrity should be left between the excavation area and the base of the high bank.

14 dots: producer (5), county commission (4), county planning commission, Ozark Private Property Rights Congress, Farm Bureau, (2) association

Or

An undisturbed buffer of 20 feet shall be maintained between the removal area and the water line at the time of excavation, and between the removal area and bank vegetation greater than **one inch in diameter, measured at six inches above ground. In absence of bank vegetation, the buffer will be maintained between the removal area and the based of the high bank.** Upon request of the applicant, width of buffer areas may be modified after an on-site visit determines that a smaller width buffer area would not significantly impact the biological, physical, or chemical integrity of the water resource.

9 dots: Sierra Club, public, Smallmouth Bass Alliance, Trout Unlimited, Stream Team, landowner, Ozark Fly Fishermen, Coalition for the Environment, American Fisheries Society

Or

For bars greater than 100 feet wide at the widest point, a buffer zone of 20 feet shall be maintained between the removal area and the water line at the time of excavation and between the removal area and bank vegetation greater than one and one-half inches in diameter, measured at breast height. For bars less than 100 feet wide at the widest point, a buffer zone of 10 feet shall be maintained between the removal area and the water line at the time of excavation and between the removal area and bank vegetation greater than one and one-half inches in diameter, measured at breast height. Upon request of the applicant, width of buffer areas may be modified after an on-site visit determines that a smaller width buffer area would not significantly impact the biological, physical, or chemical integrity of the water resource.

2 dots: public (2)

2. An undisturbed buffer of 25 feet wide shall be maintained in an undisturbed condition landward of the high bank for the length of the gravel removal site. Disturbed areas in this riparian zone shall be limited to maintained access road(s) for ingress and egress only. No clearing within this riparian area is authorized in association with work authorized by this permit.

No change

14 dots: public (3), county commission (3), Trout Unlimited, Ozark Private Property Rights Congress, producer (4), county planning commission, association

Or

An undisturbed buffer of **100** feet wide shall be maintained in an undisturbed condition landward of the high bank for the length of the gravel removal site. Disturbed areas in this riparian zone shall be limited to maintained access **road** for ingress and egress only. No clearing within this riparian area is authorized in association with work authorized by this permit.

7 dots: Coalition for the Environment, Sierra Club, Stream Team, landowner, Smallmouth Bass Alliance, Ozark Fly Fishermen, American Fisheries Society

3. Sand or gravel shall not be excavated below water elevation at the time of removal. If the stream is dry at the time of excavation, excavation shall not occur deeper than the lowest undisturbed elevation of the stream bottom adjacent to the site.

No change

7 dots: Trout Unlimited, Smallmouth Bass Alliance, public (3), Ozark Fly Fishermen, American Fisheries Society

Or

Sand or gravel shall not be excavated below **one foot above** water elevation at the time of removal. If the stream is dry at the time of excavation, excavation shall not occur deeper than **one foot above** the lowest undisturbed elevation of the stream bottom adjacent to the site.

4 dots: Stream Team, Coalition for the Environment, landowner, Sierra Club

Or

Sand or gravel shall not be excavated below water elevation at the time or removal, except:

- a. **If the stream is dry at the time of excavation, excavation shall not occur deeper than the lowest undisturbed elevation of the stream bottom in the given reach of the stream. Upon request of the applicant, excavation depth restriction may be modified if the staff director determines that a variance would not significantly impact the stream resource.**
- b. **For wet stream reaches, excavation depth restrictions may be modified if it is determined by the staff director that a variance would not significantly impact the stream resource based on the presence of bedrock to prevent head cutting, excessive bedload, gravel rich areas or any other appropriate reason.**

14 dots: county commission (4), county planning commission, producer (5), (2) association (1), Farm Bureau, Ozark Private Rights Congress

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4. Water conveyance areas within the channel shall not be relocated, straightened, cut-off, shortened, widened, or otherwise modified. A “water conveyance area within the channel” is defined as that area between the high banks of the creek where water is flowing, or in the case of a dry stream, where water would flow after a rain event as indicated by a defined stream channel.

Stream channels shall not be relocated, straightened, cut-off, shortened, widened, or otherwise modified. A stream channel is defined as that area between the high banks of the creek where water is flowing, or in the case of a dry stream, where water would flow after a rain event.

22 dots: county commission (4), county planning commission, producer (5), (2) association, Farm Bureau, Ozark Private Rights Congress, landowner, Trout Unlimited, Smallmouth Bass Alliance, public (3), Ozark Fly Fishermen, American Fisheries Society

Or

No change

3 dots: Coalition for the Environment, Sierra Club, Stream Team

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5. Within 30 days of the removal of excavation equipment from the site, streambank areas disturbed by the removal operation or support features shall be revegetated or otherwise protected from erosion. For long-term operations (longer than 30 days) or for sites that will be periodically revisited as gravel is deposited, access points shall be appropriately constructed and maintained such that stream banks and access roads are protected from erosion.

Within 30 days of the removal of excavation equipment from the site, streambank areas disturbed by the removal operation or support features shall be revegetated or otherwise protected from erosion. For long-term operations (longer than 30 days) or for sites that will be periodically revisited as gravel is deposited, access points shall be appropriately constructed and maintained such that stream banks and access roads are **designed and constructed to minimize erosion.**

16 dots: public, county commission (4), producer (5), county planning commission, Farm Bureau (2), (2) association, Ozark Private Property Rights Congress

Or

No change

7 dots: public (2), Smallmouth Bass Alliance, Trout Unlimited, landowner, Ozark Fly Fishermen, American Fisheries Society

Or

For long-term operations (longer than 30 days) or for sites that will be periodically revisited as gravel is deposited, access points shall be appropriately constructed and maintained such that stream banks and access roads are protected from erosion. Within 30 days of permanently removing excavation equipment from the site, as determined by the operator, the landowner, or the Land Reclamation Program, streambank areas disturbed by the removal operation or support features shall be stabilized or protected from erosion.

2 dots: Stream Team, Sierra Club

7. Any aggregate, fines, or oversized material removed from the site shall be placed in an upland, non-wetland site that has been approved by the landowner. No material, including oversized material, that results from excavation activity may be stockpiled or otherwise placed into flowing water or placed against streambanks as bank stabilization.

Any aggregate, fines, or oversized material removed from the site shall be placed **beyond the high bank**, on a non-wetland site that has been approved by the landowner. No material, including oversized material, that results from excavation activity may be stockpiled or otherwise placed into flowing water or placed against streambanks as bank stabilization **unless specifically authorized by a state or federal permit.**

Unanimous recommendation of above changes

8. All sand or gravel washing, gravel crushing, and gravel sorting shall be conducted above the high bank, in a non-wetland area and away from areas that flood, such that gravel, silt, and wash water that is warm, stagnant, or contains silty material cannot enter the stream or any wetland. All fines resulting from the sorting operation shall be captured in a transport truck or other suitable container and removed from the sorting location to a suitable disposal site the same day that the sorting occurs.

All sand or gravel washing, gravel crushing, and gravel sorting shall be conducted **beyond** the high bank, in a non-wetland area and away from areas that **frequently** flood, such that gravel, silt, and wash water that is warm, stagnant, or contains silty material cannot enter the stream or any wetland. **[DELETE All fines resulting from the sorting operation shall be captured in a transport truck or other suitable container and removed from the sorting location to a suitable disposal site the same day that the sorting occurs.]**

24 dots: county commission (4), county planning commission, producer (5), (2) association, Farm Bureau (2), Ozark Private Rights Congress, landowner, Trout Unlimited, Smallmouth Bass Alliance, public (3), Ozark Fly Fishermen, Stream Team, American Fisheries Society

Or

No change

2 dots: Sierra Club, Coalition for the Environment

9. Spawning season restrictions shall be followed.

Drop

22 dots: county commission (4), county planning commission, producer (5), (2) association, Farm Bureau (2), Ozark Private Rights Congress, landowner, Trout Unlimited, Smallmouth Bass Alliance, public (3), Ozark Fly Fishermen

Or

No change

4 dots: Sierra Club, Coalition for the Environment, Stream Team, American Fisheries Society

10. Vehicles and other equipment shall be limited to removal sites and existing crossings. Streams shall be crossed perpendicular to the direction of the stream.

Vehicles and other equipment shall be limited to removal sites and existing crossings. **Water** shall be crossed as perpendicular to the direction of the stream **flow as possible**.

22 dots: county commission (4), county planning commission, producer (5), (2) association, Farm Bureau (2), Ozark Private Rights Congress, landowner, Trout Unlimited, Smallmouth Bass Alliance, public (3), Ozark Fly Fishermen

Or

No change

4 dots: Sierra Club, Coalition for the Environment, Stream Team, American Fisheries Society

11. Fuel, oil and other wastes and equipment containing such wastes shall not be stored or released at any location between the high banks or in a manner that would enter the stream channel. Such materials shall be disposed of at authorized locations.

Unanimous recommendation for existing language

12. Sand and gravel operators that require a permit for storm water runoff and/or gravel washing shall secure such permit from the appropriate Department of Natural Resources, Regional Office prior to initiating operations.

Unanimous recommendation to drop this item

13. Instream sand and gravel operations are prohibited from those waters listed as “Outstanding State Resource Waters” or “Outstanding National Resource Waters” (10 CSR 20-7.031).

**Drop as section (14) number 13. and add as section (15)
In stream sand and gravel operations making application for waters listed as “Outstanding State Resource Waters” or “Outstanding National resource Water” (10 CSR 20-7.031) may be reviewed individually for specific consideration that must be met to preserve these stream reaches during the mining activity. When necessary, these individual reviews would assist the applicant in focusing on issues of specific concern.**

15 dots: producer (5), Farm Bureau (2), county commission (4), Ozark Private Property Rights Congress, (2) association, county planning commission

Or

No change

9 dots: Stream Team, Sierra Club, landowner, Coalition for the Environment, Ozark Fly Fishermen, Trout Unlimited, public, Smallmouth Bass Alliance, American Fisheries Society

Or

**Drop as section (14) number 13. and add as section (15)
In stream sand and gravel operations making application for waters listed as “Outstanding State Resource Waters” or “Outstanding National resource Water” (10 CSR 20-7.031) shall be reviewed individually for specific consideration that must be met to preserve these stream reaches during the mining activity. When necessary, these individual reviews would assist the applicant in focusing on issues of specific concern.**

2 dots: public (2)

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14. If any part of the authorized work is performed by a contractor or other party, these conditions shall be discussed with the contractor or party. A copy of these conditions shall be given to the contractor or other party involved in the excavation activities.

Drop

20 dots: county commission (4), county planning commission, producer (5), (2) association, Farm Bureau (2), Ozark Private Rights Congress, Smallmouth Bass Alliance, public (3), Ozark Fly Fishermen

Or

If any part of the authorized work is performed by a contractor or other party, these conditions shall be discussed with the contractor or party. A copy of these conditions shall be given to the contractor or other party involved in the excavation activities. **The permittee remains responsible for the conditions of the permit.**

6 dots: Coalition for the Environment, Stream Team, Trout Unlimited, landowner, Sierra Club, American Fisheries Society

15. Operators shall consult with the Missouri Department of Conservation and the U.S. Fish and Wildlife Service as to the presence of State and Federal Threatened and/or Endangered Species in the stream reach where mining occurs or will occur in order to avoid jeopardizing the species' continued existence or destroying or adversely modifying the habitat of such species.

Drop

16 dots: county commission (4), county planning commission, producer (4), (2) association, Farm Bureau (2), Ozark Private Rights Congress, public, landowner

Or

The Land Reclamation Program shall coordinate with the Missouri Department of Conservation and the U.S. Fish and Wildlife Service as to the presence of State and Federal Threatened and/or Endangered Species in the stream reach where mining occurs or will occur in order to avoid jeopardizing the species' continued existence or destroying or adversely modifying the habitat of such species **in the permitting process.**

12 dots: public (2), landowner, producer, Trout Unlimited, Stream Team, Smallmouth Bass Alliance, Coalition for the Environment, Sierra Club, Ozark Fly Fishermen, American Fisheries Society