



U.S. Department of the Interior, Office of Surface Mining Reclamation and Enforcement
Proposed Stream Protection Rule



Introduction and Welcome





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Proposed Stream Protection Rule



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Purpose of the Hearing:

Provide Information on the Proposed Rule



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Purpose of the Hearing:

- Provide Information on the Proposed Rule
- Provide Information on the Draft Environmental Impact Statement



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Purpose of the Hearing:

- Provide Information on the Proposed Rule
- Provide Information on the Draft Environmental Impact Statement
- Get Your Input on both the Proposed Rule and DEIS



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Introduction and Welcome

Purpose of the Hearing:

- Provide Information on the Proposed Rule
- Provide Information on the Draft Environmental Impact Statement
- Get Your Input on both the Proposed Rule and DEIS

We Look Forward to Receiving Your Comments



The Hearing Agenda

Welcome and informal poster session	5:00 p.m. – 9:00 p.m.
PowerPoint Presentation (Continuous)	5:00 p.m. – 9:00 p.m.
Written and Private Verbal Comments	5:00 p.m. – 9:00 p.m.
Registration for Public Comments	5:00 p.m.
PowerPoint Presentation (Hearing Room)	5:30 p.m. – 6:00 p.m.
Public Comments (Hearing Room)	6:00 p.m. – 9:00 p.m.



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The Need for a New Rule

Revisions needed to:



The Need for a New Rule

Revisions needed to:

- modernize thirty year old regulations to reflect current science and technology



The Need for a New Rule

Revisions needed to:

- modernize thirty year old regulations to reflect current science and technology
- provide regulatory certainty to industry



The Need for a New Rule

Revisions needed to:

- modernize thirty year old regulations to reflect current science and technology
- provide regulatory certainty to industry
- more completely implement the Surface Mining Control and Reclamation Act



Addressing the Need: Material Damage to the Hydrologic Balance

Revisions needed to:

- define the point at which mining impacts on water outside the permit area are unacceptable



Addressing the Need: Premining Data Collection

Revisions needed to:

- collect adequate premining data about proposed mining sites and adjacent areas to provide a baseline for determination of the impacts of mining



Addressing the Need: Water Monitoring

Revisions needed to:

- monitor groundwater and surface water during/after mining
- detect any adverse trends in time to take corrective measures



Addressing the Need: Protection of Perennial and Intermittent Streams

Revisions needed to:

- ensure protection or restoration of perennial and intermittent streams and related resources



Addressing the Need: Protection of Perennial and Intermittent Streams

Revisions needed to:

- ensure protection or restoration of perennial and intermittent streams and related resources
- ensure establishment of vegetated riparian corridors along all perennial, intermittent, and ephemeral streams



Addressing the Need: Objective Standards to Make Regulatory and Operational Decisions

Revisions needed to:

- ensure the use of objective standards



Addressing the Need: Objective Standards to Make Regulatory and Operational Decisions

Revisions needed to:

- ensure the use of objective standards
- ensure proper, high quality data is available for permitting decisions



Addressing the Need: Using the Latest Science and Technology Available

Revisions needed to:

- ensure mine operators and regulatory authorities use latest science, technology, and methods



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Elements of the Proposed Rule



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Elements of the Proposed Rule

- protection of the hydrologic balance



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Elements of the Proposed Rule

- protection of the hydrologic balance
- protection of streams and buffer zones for streams



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Elements of the Proposed Rule

- protection of the hydrologic balance
- protection of streams and buffer zones for streams
- postmining land contours



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Elements of the Proposed Rule

- protection of the hydrologic balance
- protection of streams and buffer zones for streams
- postmining land contours
- improved soils and revegetation on mined lands/protection of fish and wildlife and water



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Major Feature of the Rule: Direct Stream Protection Measures



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- prohibit mining in or within 100 feet of streams unless conditions met



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Major Feature of the Rule: Direct Stream Protection Measures

- prohibit mining in or within 100 feet of streams unless conditions met
- restoration of hydrological form/ecological function of streams



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Major Feature of the Rule: Direct Stream Protection Measures

- prohibit mining in or within 100 feet of streams unless conditions met
- restoration of hydrological form/ecological function of streams
- postmining drainage pattern similar to the premining drainage pattern



Major Feature of the Rule: Direct Stream Protection Measures

- prohibit mining in or within 100 feet of streams unless conditions met
- restoration of hydrological form/ecological function of streams
- postmining drainage pattern similar to the premining drainage pattern
- 100-foot riparian corridor along all streams using suitable native species



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Major Feature of the Rule: Handling Excess Spoil



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Major Feature of the Rule: Handling Excess Spoil

- excess spoil fills constructed no larger than necessary to dispose of spoil



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Major Feature of the Rule: Handling Excess Spoil

- excess spoil fills constructed no larger than necessary to dispose of spoil
- fills covering streams must meet additional criteria for approval



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Major Feature of the Rule: Handling Excess Spoil

- excess spoil fills constructed no larger than necessary to dispose of spoil
- fills covering streams must meet additional criteria for approval
- end-dumping prohibited consistent with the law



Major Feature of the Rule: Handling Excess Spoil

- excess spoil fills constructed no larger than necessary to dispose of spoil
- fills covering streams must meet additional criteria for approval
- end-dumping prohibited consistent with the law
- new criteria and standards for stability/durability of underdrains in fills



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Major Feature of the Rule: Defining Material Damage to the Hydrologic Balance



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- currently undefined in existing law and regulations



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- currently undefined in existing law and regulations
- the definition would create a standard on allowable impacts on water



Major Feature of the Rule: Defining Material Damage to the Hydrologic Balance

- currently undefined in existing law and regulations
- the definition would create a standard on allowable impacts on water
- proposed rule would provide for numerical standards incorporated into permit



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Major Feature of the Rule: Complete Baseline Data



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- more complete water sampling to better document premining conditions and establish a baseline for comparison



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- more complete water sampling to better document premining conditions and establish a baseline for comparison
- parameters include selenium and an assortment of parameters relating to conductivity



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- more complete water sampling to better document premining conditions and establish a baseline for comparison
- parameters include selenium and an assortment of parameters relating to conductivity
- each location would be sampled once every month for one year



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Major Feature of the Rule: Monitoring During Mining and Reclamation



Major Feature of the Rule: Monitoring During Mining and Reclamation

- improved water monitoring that must continue until final bond release
- biological condition of the streams is to be monitored each year
- monitoring data every five years and order any permit revisions necessary to remedy any adverse trends
- evaluation of monitoring data is part of applications for bond release



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Major Feature of the Rule: Backfilling and Grading



Major Feature of the Rule: Backfilling and Grading

- coal companies are to minimize the generation of excess spoil
- final mine pit cannot be retained as a pond if doing so would create excess spoil or violate approximate original contour
- use backfilling techniques to minimize increases in conductivity and other parameters



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Major Feature of the Rule: Soils



Major Feature of the Rule: Soils

- salvage/redistribute topsoil and subsoil to improve growing conditions for trees and other vegetation
- salvage and use organic matter to improve plant growth and soil ecology
- minimize grading to avoid excessive compaction of the root zone



Major Feature of the Rule: Revegetation

- mine operators are to use native species to replant mine sites



Major Feature of the Rule: Revegetation

- mine operators are to use native species to replant mine sites
- use of professional forester or ecologist to develop planting plan for site revegetation with trees and shrubs



Major Feature of the Rule: Revegetation

- mine operators are to use native species to replant mine sites
- use of professional forester or ecologist to develop planting plan for site revegetation with trees and shrubs
- revegetation success standards must demonstrate restoration of premining capability



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Major Feature of the Rule: Fish and Wildlife

- update/strengthen protection of threatened/endangered species
- protect species proposed for listing as threatened/endangered
- enhancement measures mandatory when mining causes long-term environmental harm



The No-Action Alternative

- NEPA requires federal agencies to consider a 'no action' alternative
- in this case, the no action alternative would mean mining would continue under the 1983 Stream Buffer Zone Rule
- thirty-plus years have passed since that rule was implemented; shortcomings identified



The No-Action Alternative

- OSMRE may select the no action alternative
- considering the impacts of the no action alternative provides a baseline to compare the current rule with what is proposed



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Considering Reasonable Alternatives



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Considering Reasonable Alternatives

- the no action alternative



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Considering Reasonable Alternatives

- the no action alternative
- the preferred alternative (the proposed rule)



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Considering Reasonable Alternatives

- the no action alternative
- the preferred alternative (the proposed rule)
- an alternative that would be more protective of the environment



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Considering Reasonable Alternatives

- the no action alternative
- the preferred alternative (the proposed rule)
- an alternative that would be more protective of the environment
- an alternative that restores the 2008 Stream Buffer Zone Rule



Considering Reasonable Alternatives

- the no action alternative
- the preferred alternative (the proposed rule)
- an alternative that would be more protective of the environment
- an alternative that restores the 2008 Stream Buffer Zone Rule
- alternatives that would apply in special circumstances such as steep slopes



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Considering Reasonable Alternatives

- the no action alternative
- the preferred alternative (the proposed rule)
- an alternative that would be more protective of the environment
- an alternative that restores the 2008 Stream Buffer Zone Rule
- alternatives that would apply in special circumstances such as steep slopes
- variations of the previous alternatives



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Comparing Alternatives to Protect Streams



Comparing Alternatives to Protect Streams

- stream miles not filled under the proposed regulations and each alternative



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Comparing Alternatives to Protect Streams

- stream miles not filled under the proposed regulations and each alternative
- miles of mined-through streams restored under the proposed regulations and under each alternative



Comparing Alternatives to Protect Streams

- stream miles not filled under the proposed regulations and each alternative
- miles of mined-through streams restored under the proposed regulations and under each alternative
- miles of stream downstream from the permit area in better condition after mining under the proposed regulations than if mining occurred under the existing regulations



Comparing Alternatives to Protect Streams

- stream miles not filled under the proposed regulations and each alternative
- miles of mined-through streams restored under the proposed regulations and under each alternative
- miles of stream downstream from the permit area in better condition after mining under the proposed regulations than if mining occurred under the existing regulations
- miles of stream that would be preserved indirectly



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Projected Benefits to Streams Under the Preferred Alternative

Results projected for a 21 year period – 2020 to 2040



Projected Benefits to Streams Under the Preferred Alternative

Results projected for a 21 year period – 2020 to 2040

- 6,153 miles of stream improved
- 21 miles of stream preserved
- 84 miles of stream not filled
- 609 miles of streams restored after mining through them



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Comparing Alternatives to Protect Forests

Results projected for a 21 year period – 2020 to 2040

- “Improved Acres,” land with improved forest cover under the proposed rule



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Comparing Alternatives to Protect Forests

Results projected for a 21 year period – 2020 to 2040

- “Improved Acres,” land with improved forest cover under the proposed rule
- “Preserved Acres,” forest left uncut under the proposed rule, compared to what would occur under existing regulations



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Comparing Alternatives to Protect Forests

Results projected under the preferred alternative, 2020-2040

- 59,010 acres of forest land would be improved under the proposed rule
- 420 acres of forest land would be preserved



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Comparing Alternatives: Impact on Coal Production

Results projected under existing regulations, 2020-2040

- forecast coal production will continue to decline under existing regulations



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Comparing Alternatives: Impact on Coal Production

Results projected under existing regulations, 2020-2040

- forecast coal production will continue to decline under existing regulations
- this decline is driven by numerous market conditions such as the price of competing alternative fuel sources



Comparing Alternatives: Impact on Coal Production

Results projected under existing regulations, 2020-2040

- forecast coal production will continue to decline under existing regulations
- this decline is driven by numerous market conditions such as the price of competing alternative fuel sources
- declines of approximately 15% (162 million tons) are projected in annual total surface and underground production without any changes to the existing regulations



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Comparing Alternatives: the RIA

Draft Regulatory Impact Analysis of the Alternatives

- Federal agencies are required to consider the costs and benefits of major regulatory revisions
- OSMRE has developed a draft Regulatory Impact Analysis to provide this information



RIA: Industry Impacts

- proposed regulations are estimated to impact the coal industry
 - compliance costs
 - coal production
 - employment
- impacts would vary by region



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RIA: Compliance Costs

COAL REGION	ANNUALIZED COSTS		
	Surface	Underground	Total
Appalachia	\$17,000,000	\$6,700,000	\$24,000,000
Colorado Plateau	\$2,500,000	\$200,000	\$2,700,000
Gulf Coast	\$6,200,000	N/A	\$6,200,000
Illinois Basin	\$14,000,000	\$270,000	\$14,000,000
Northern Rocky Mountains	\$4,800,000	N/A	\$4,800,000
Northwest	\$98,000	N/A	\$98,000
Western Interior	\$550,000	\$530	\$550,000
Total U.S. Compliance Cost Impacts - All Mines	\$45,000,000	\$7,100,000	\$52,000,000



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RIA: Coal Production

	BASELINE (MILLION TONS)	PROPOSED RULE (MILLION TONS)	CHANGE (MILLION TONS)	CHANGE (PERCENT)
Appalachian Basin	236	235	(0.9)	-0.36%
Colorado Plateau	56	56	0	0%
Gulf Coast	54	54	0	0%
Illinois Basin	171	170	(0.3)	-0.18%
North Rocky Mountains/ Great Plains	533	532	(0.7)	-0.13%
Northwest	2	2	0	0%
Western Interior	1	1	0	0%
TOTAL	1,053	1,051	(1.9)	-0.18%



RIA: Employment Impacts

- production-related employment impacts estimated at 590 to 41 jobs annually, with an average projected annual reduction of 260 jobs.
- compliance-related annual impacts estimated to increase by 210 to 270 jobs annually, with an average annual increase in demand of 250 jobs.
- ***production related job losses are largely offset by increases in compliance related jobs.***



Your Role In the Rulemaking Process

- OSMRE is seeking your input on the proposed rule, the DEIS, and the RIA
- examine the information provided, submit your comments in a timely manner
- comments due no later than October 26, 2015



Next Steps

- OSMRE will consider all comments while developing the final rule and EIS



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